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VAULT GUIDE TO

ALLIED HEALTH CARE CAREERS

LAURA CHUNG AND THE STAFF OF VAULT
Acknowledgments

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Introduction

“Allied health” is a term with varying definitions, and different people have different opinions of what “counts” as part of this general career area. The term stems from the idea that physicians (i.e., medical doctors and dentists) are the primary source of health care in our society. Then there are a variety of professionals who “ally” with them to deliver comprehensive health care to patients. The MDs (and DOs, DMDs and DDSs) can’t do it alone, by any means.

Which fields do we consider to be part of the “allied health care” world?

Regulated. First of all, we’ve included only roles that are regulated (i.e., licensed), at least in most U.S. states. Therefore, we haven’t included, for example, personal trainers or coaches who work for weight-loss product companies (even though these people are providing a form of health care, too).

Complementary to the MD. We’ve excluded “primary” medical fields where the practitioner can carry out independent diagnoses and treatment. That means medical doctors (MD, DO), dentists (DMD, DDS), and podiatrists (DPM). (Note that in the United States, podiatry involves surgical procedures, and is virtually indistinguishable from MD medicine. In other countries, limitation in scope of services by the podiatrist makes it more of a true “allied” profession.) That said, optometrists would argue that they are licensed to perform independent diagnoses, as are the naturopaths and chiropractors in many states. But they are not the center-point of health care in most cases, and work in alliance with MDs—so we cover them here.

Physical ailments. We’ve included only fields that involve treating physical ailments, and doing so in humans. That means we’ve left out the whole world of mental health care providers (psychologists, social workers, occupational therapists, art therapists, etc.). This is a rich and rewarding field to consider, but truly a whole field unto itself that we cover in a separate volume. We’ve also excluded veterinary medicine.

Patient-facing. Finally, this book aims to cover fields where you work directly with patients. There are millions and millions of jobs in the health care sector, broadly speaking. You can involve yourself in the health care sector by working in insurance, regulation, community education and public advocacy, professional and advisory services to the industry, scientific research, academics, drug or device development, journalism … and the list goes on. But those jobs don’t involve dealing with patients and treating physical ailments, and are not part of the allied health care system. However, we do give you a brief introduction to this vast set of opportunities in the last chapter.

Nursing is the most populated allied health care profession, and often the first one that people think about (although some people define allied health care to specifically exclude both doctors and nurses). There are so many types of nurses, educational pathways, types of practice and subspecialties, that Vault covers this important field in its own stand-alone book: The Vault Guide to Careers in Nursing.
Note that for some of the allied health care professions, there are two “tiers” of job. We’ve covered the job that requires the most education, commands the most salary and has the most responsibility. But we’ve also provided more brief overviews of the other career option in sidebars in the relevant chapters (e.g., dental assistant is covered briefly in the dental hygienist chapter, medical lab technician is covered in the medical technologist chapter). There’s nothing “lesser” about these jobs—indeed, they are crucial to the smooth functioning of our health care system. Furthermore, it’s often a good option for someone who, for whatever reason, wants to spend less time or money in school, doesn’t have the impressive grades to get into graduate school or is looking for a temporary and lower-stress job within the health care world.
THE SCOOP
Vault Guide to Allied Health Care Careers

Your Place in the Health Care System
Career Selection Considerations
Your Place in the Health Care System

Chapter 1

WHAT’S THE DRAW?

A myth abounds that people go into “allied health care” careers because they couldn’t get into medical school. Let’s be very clear that this is merely a myth, and an uncommon profile of practicing allied health care workers. Now, for some of the professions covered in this guide (e.g., in particular naturopathy, chiropractic, optometry), practitioners frequently recall considering medical school as an option that they ultimately rejected. The reality is that a medical doctor of any type is an entirely different role than a naturopath, chiropractor, optometrist or any other allied health professional.

All patient-facing health care jobs are fundamentally service jobs. People who thrive in these “helping professions” often have strong feelings about the sacrificial nature of service and a commitment to quality patient care. In fact, school interviews and job interviews for many of these professions will involve specific, probing questions about your interest in service, in helping others and being part of a system that aims to promote a healthier, more fulfilling human life. It can get very personal—on a philosophical, emotional and spiritual level—both as you apply for training programs and as you seek out a suitable niche for a first job after training.

Personal experience with a profession?

Many satisfied allied health care professionals have a specific, personal experience that led them into their present career. Often, they didn’t go through a process of weighing one career path against another, evaluating pros and cons, or almost deciding to follow one path and then doing another instead. They speak of having a transformative personal experience, where they realized the value of a certain caretaking profession, and determined to become that type of caretaker themselves to be part of the solution. There’s the physical therapist who recovered his own post-accident mobility via physical therapy sessions, the midwife who bore her own child in an unsupportive and depersonalized environment and didn’t want to see that happen to others, the optometrist who grasped the importance of maintaining good eyesight by watching a parent develop cataracts, and the EMT who was moved by the difference that a first responder made at a crisis point in her life.

However, don’t fret if you haven’t had an epiphany about your life’s destiny in health care. Not everyone comes to a career choice that way. If you’re a helpful, open-minded, inquisitive and compassionate person, chances are there are a number of health care professions that could make sense for you. Career counselors widely agree that choosing a career should be about finding a job profile that is closely aligned with your natural personality. The most satisfied professionals are those who work in jobs where displaying and using their particular natural inclinations are key parts of performing the job well. Career dissatisfaction and dropout happens when
people try to do jobs that require them to be someone they aren’t. (For example, the guy unable to multitask who tries to succeed as a medical technologist, or someone who can’t be bothered with details and decimal points attempting life as a pharmacist, or a spotlight-seeker in a physician assistant role.)

WHERE YOU FIT

Deciding what type of health care provider you want to become isn’t just about picking a role where the content of the care suits you. You also need to think about where you sit within the complex health care system. Do you want to be a professional to whom patients come as their first course of action when illness strikes? Or do you want to be brought in as a specialized professional by other health care providers once a patient is “in the system?” Do you want to assist another health care professional who has more authority? Do you see yourself as someone’s associate, or as an independent practitioner? As the first line of defense or as a specialist seen on down the line?

Gateway providers

Some of the allied health care professions covered in this book are what we call “gateway providers,” or primary health care providers. These are professionals that a patient typically goes to see as a first step in seeking preventative or curative medical care: optometrists, paramedics (in an emergency), naturopaths (in the states where they are licensed), and nurse practitioners (who are licensed in most states to work almost the same as doctors). Add to that, of course, all the doctors, dentists and mental health providers (not “allied health care” and, thus, not covered in this particular book).

Specialty providers

Another set of allied health care professionals what we call “specialty” providers—someone a patient sees for a particular problem when it arises, and usually after having consulted with a gateway provider. These professionals rely on gateway providers recommending that their patients seek them out, or sometimes on insurers requiring an official referral to see them. Occupational therapists and physical therapists are typically called in for patient care by a physician, surgeon or mental health provider. Midwives are sought out by pregnant patients after seeing their primary care gynecologist for years. Chiropractors and Oriental medicine practitioners are sought after a patient figures out that their pain is neither a surgical case nor an indicator of some treatable illness. Dietitians address the nutritional needs of patients who are already being cared for by other health care professionals.
Now, this delineation of gateway versus specialty providers is not a black-and-white issue. Both chiropractors and Oriental medicine practitioners perform diagnostics, and, in fact, are licensed in a few states to be primary health care providers, above and beyond treating pain. The physical therapist role has been evolving over the years; in many states, a patient can call a PT and make an appointment for diagnosis and treatment without having identified a medical problem through his or her doctor first (and the PT licensure will be changing to require a three-year doctorate in the coming years to reflect this independent diagnostician role).

**Auxiliary positions**

Finally, there are “auxiliary” allied health care positions, where you work in close collaboration with or in an assistant role for another health care professional, usually under someone else’s supervision and insurance. These are crucial roles in the health care world, enabling physicians to treat more patients with better-quality care by virtue of outsourcing certain components of health care delivery away from the physician. Medical technologists run the labs that allow physicians to make diagnoses. Long ago, physicians used to diagnose, treat and dispense drugs, but, thankfully, there are professional pharmacists whose entire focus is on accurately dispensing medications. Dental hygienists take care of routine tooth cleanings so the dentist can use her valuable time to address tooth pathologies. Hospitals and clinics would grind to a halt if not for registered nurses and physician assistants.

<table>
<thead>
<tr>
<th>Gateway/primary Health care providers</th>
<th>Auxiliary Health care providers</th>
<th>Specialty Health care providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naturopath</td>
<td>Dental Hygienist</td>
<td>Chiropractor</td>
</tr>
<tr>
<td>Nurse (Practitioner)</td>
<td>Medical Technologist</td>
<td>Dietitian</td>
</tr>
<tr>
<td>Optometrist</td>
<td>Nurse (Registered)</td>
<td>Massage Therapist</td>
</tr>
<tr>
<td>Paramedic</td>
<td>Pharmacist</td>
<td>Midwife</td>
</tr>
<tr>
<td></td>
<td>Physician Assistant</td>
<td>Occupational Therapist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oriental Medicine Practitioner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Therapist</td>
</tr>
</tbody>
</table>
ALTERNATIVE MEDICINE

Alternative medicine is a tricky term that causes all sorts of problems in its usage. The collection of health care professions commonly grouped into the category of “complementary and alternative medicine” (CAM) are ones that have been less accepted by MDs. They offer a very different approach to healing than traditional medicine (i.e., an alternative to it), and often incorporate metaphysical concepts into their practice. Because CAM approaches don’t offer as much scientific substantiation of their efficacy, labeling them as “alternative” is often a form of criticism. For CAM advocates, “alternative” is a positive description, suggestive of a welcome substitute for Western medicine’s limited and unpalatable solutions to disease. Thoughtful CAM practitioners see a future where they are not sitting on one side of a this-versus-that debate, but instead part of one big collaborative stew of all the health care modalities, each “complementary” to the other.

Something to remember about CAM professions is that there is a spectrum of just how “alternative” they are, and how much “woo-woo” a particular provider brings to his or her practice. You can become a massage therapist who believes in the principles of life energy, taking it as far as to practice Reiki on your patients by phone … or you can become a massage therapist who believes strictly in the virtues of using concentrated touch and a knowledge of physical anatomy to relax painfully constricted muscles.

Ideology

The question arises as to whether alternative medicine is more or less conservative than traditional medicine. Ideologically, alternative medicine tends to be seen as unusual, progressive or leftist. But it’s important to remember that, strictly speaking, alternative medicine—being noninvasive—is more conservative than traditional medicine, whose doctors are, by many accounts, “quick to cut.” For chiropractors and Oriental medicine practitioners, their medical conservatism is fundamental to their professional self-identity. However, there are, of course, fields within “traditional” medicine that are also quite conservative from this perspective. Being a midwife, for example, may seem to some like a new age-y profession. But it hardly qualifies to be included in the list of CAM specialties. After all, a certified nurse midwife does more or less exactly what an obstetrician does, except she refers out any deliveries that end up needing surgery—it’s quite a mainstream and traditional practice, if not a ubiquitous one in this country.

Conventional medicine is known by many names—including allopathic, traditional, Western, modern, orthodox and scientific medicine—each of which brings a particular shade of meaning, and implications about origins and legitimacy. As part of what are inevitably frustrating attempts to classify and categorize fields of health care, conventional medicine has been described as the converse of “integrative” or
“holistic” medicine. However, this turns out to be an entirely unfair supposition. Good-quality conventional medicine providers can and do take a holistic approach to their patients’ health, and at the same time, CAM providers can, of course, be rigidly narrow-minded.

### Allied health care providers by relationship to traditional medicine

<table>
<thead>
<tr>
<th>Conventional/orthodox/allopathic medicine professions</th>
<th>Complementary/alternative medicine professions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygienist</td>
<td>Chiropractor</td>
</tr>
<tr>
<td>Dietitian</td>
<td>Massage Therapist</td>
</tr>
<tr>
<td>Medical Technologist</td>
<td>Naturopath</td>
</tr>
<tr>
<td>Midwife</td>
<td>Oriental Medicine Practitioner</td>
</tr>
<tr>
<td>Nurse</td>
<td></td>
</tr>
<tr>
<td>Occupational Therapist</td>
<td></td>
</tr>
<tr>
<td>Optometrist</td>
<td></td>
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<tr>
<td>Paramedic</td>
<td></td>
</tr>
<tr>
<td>Pharmacist</td>
<td></td>
</tr>
<tr>
<td>Physical Therapist</td>
<td></td>
</tr>
<tr>
<td>Physician Assistant</td>
<td></td>
</tr>
</tbody>
</table>
Career Selection Considerations

Chapter 2

In this chapter, we’ll explain how certification works within the regulated professions discussed in this guide, as well as discuss paying for school and other things you’ll want to consider as you think about allied health careers.

REGULATION

People are often confused about licensure and certification in regulated professions. Getting clarity on the difference will help you navigate the career selection, education and job search processes.

Certification vs. licensing

Being “certified” means that you’ve completed training at an educational institution. Your certification provides your clients with information about your level of training. Certification is awarded by private nonprofit entities like a national board overseeing the profession, which usually also involves passing a standardized test. Sometimes there are competing entities offering certification for a profession, and you can choose to get one or both certifications, depending on what is most recognized in your niche or geographic area. A certification is effectively optional—it’s something you get to be competitive for jobs and clients, but is not actually required to practice the profession. Being “registered” is similar to being “certified.” (For example, most medical technologist positions specify that the applicant be certified through either the ASCP or AMT. Thus, the employer knows that you have a standard knowledge base and are qualified to do the job. Most states do not license this profession, so you usually see the term “certified MT,” and rarely do even licensed MTs find it useful to self-identify as a “licensed MT.”)

Being “licensed” means that a government entity (like a state) has issued you a business license to do what you do. Your license provides your clients with information about whether your taxes, insurance coverage and administrative fees are up to date with the authorities. In addition, because the government usually requires evidence of requisite training (e.g., a certification) to issue the license, licensure implies certification, and being licensed is a stronger statement than being merely certified. (For example, almost all states require a license to practice massage therapy, so massage therapists refer to themselves as “licensed massage therapists” or “LMTs.” Since obtaining the state license always requires passing a certification exam—usually but not always administered the NCBTMB—there’s no point in calling someone a “certified massage therapist.”)
Geographic variations

Licensing terms can vary greatly from one state to the next for a given profession, both in terms of what is required to obtain a license to practice, and what health care activities you are legally allowed to engage in as a practitioner. (For example, in some states, dental hygienists can administer anesthesia, place fillings, and even open their own practices and operate independently of dentists for preventative dental care. Meanwhile, in other states, the dental hygienist role is strictly one of cleaning and imaging the teeth.) It’s very important that you check the licensing laws in the state where you intend to practice, lest you be surprised that you need more classroom hours than you have, or that your job description is severely curtailed from what you thought it would be.

Changes over time

The scope of practice for a licensed health care profession is not static, either. As the pressure inexorably increases to keep health care costs in check while delivering quality care to the whole population, the system looks for ways to give the physician (and dentist) leverage—to allow the physician to outsource the more basic tasks to assistants, thereby spending less time with each patient, but none of it spent on anything that someone with less training (and lower pay) could credibly do. That means that there are more and more jobs for “physician extenders” (physician assistants, nurses, dental hygienists) and the laws keep changing, over time allowing them to do more and more advanced tasks. The same is happening with physical therapists (soon requiring a doctorate instead of a master’s degree because patients are skipping seeing an MD), optometrists (who have gained a lot of what used to be ophthalmologists’ exclusive practice scope) and pharmacists (now consulting more with patients on health care questions, and maybe one day prescribing meds).

The corollary to seeing expanded clinical responsibilities for many of these allied health professions is that they, in turn, can benefit from leverage. While the physical therapist is endowed with diagnostic responsibility previously in the hands of a physician, it also makes sense for the PT to take on a more supervisory role, with the physical therapist assistants doing most of the rehabilitation exercise work with patients. Dietitians are increasingly working with more dietetic assistants, medical technologists supervising more medical lab technicians, paramedics partnering with EMT-Basics, and occupational therapists covering more ground by working with occupational therapist assistants. This trend has two potential upshots from a career perspective: arguably (and this is a tenuous argument not voiced universally), one could see fewer positions available over time, but those positions are more supervisory in nature and therefore more rewarding and lucrative.
“I can’t afford to go to school” is an all-too-frequent, and unfortunate, reason why people don’t pursue a field that would otherwise be a great match for them. But, in most cases, it’s a false argument based on not-so-careful thinking.

Think about this: when you buy a house, you pay for maybe 5 to 10 percent of it up front, and take usually 20 years to slowly but surely pay for the rest, via a mortgage that is hopefully fully paid down by the time you retire. If people only bought houses when they could write a check for the entire amount, few people would be homeowners before retirement age. The same process applies to purchasing a graduate education—precious few people can just put down the cash to pay for it now. Almost everyone gets a big fat loan that they spend decades repaying slowly. School loans are usually relatively cheap debt, and something that you purposefully will carry for their full 20-year term, rather than pay off early. Debt-averse people don’t like this philosophy, but that’s an irrationality that can inhibit a lot of the common pursuits of a fulfilling life.

How to plan

Now, home loans happen to be a bit easier to find than education loans, because there is a bigger infrastructure of lenders and loan brokers out there to help you through the process. Figuring out how to lever up to pay for graduate school may very well take some creative thinking, diligent research and pavement-pounding. Usually, you’ll end up with some salad bowl combination of federal student loans, private bank loans, credit card debt, informal loans or gifts from family, part-time work, and, if you’re lucky, some scholarship money, too.
The real question you should be asking is not whether you can pay the entire tuition amount tomorrow. Instead, ask yourself whether the lifestyle implied by your anticipated salary in the profession, less the monthly student loan payments, is a lifestyle that is sufficient to meet your desires.

Here's a rough idea of what the monthly payment could look like for a range of graduate school costs:

Sample costs of tuition over time

<table>
<thead>
<tr>
<th>Amount borrowed*</th>
<th>Monthly payment**</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10,000</td>
<td>$73 to $98</td>
</tr>
<tr>
<td>$30,000</td>
<td>$218 to $294</td>
</tr>
<tr>
<td>$60,000</td>
<td>$436 to $587</td>
</tr>
<tr>
<td>$100,000</td>
<td>$727 to $979</td>
</tr>
</tbody>
</table>

* Note that you often won’t borrow the entire amount of tuition, room and board. You’ll pay for a little bit with some cash, a scholarship and a whole lot of part-time work income.

** Paid over 20 years, with a 6 to 10% interest rate.

Here's an example: Let's imagine that you're earning $50,000 today, but when you start practicing medicine after the degree you’re contemplating, you’ll be earning $75,000 per year (~$36 per hour). After, let’s say that, with a 30 percent tax rate, your take-home pay is about $55,000. You are holding a $60,000 student loan that you got a 6 percent interest rate on; that means you’re paying $436 per month or

Hypothetical household budget, before and after schooling

<table>
<thead>
<tr>
<th>Budget</th>
<th>Before attending school</th>
<th>After completing school and entering new career*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross income</td>
<td>$50,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>After-tax take-home pay</td>
<td>$35,000</td>
<td>$55,000</td>
</tr>
<tr>
<td>Student loan payments (6% interest rate)</td>
<td></td>
<td>$5,200</td>
</tr>
<tr>
<td>Adjusted take-home pay</td>
<td>$35,000</td>
<td>$48,800</td>
</tr>
</tbody>
</table>

* (Total cost of school = $100K, $60K financed with loans)
$5,200 per year on the loan. So, your take-home pay is cut from $55,000 down to about $50,000 due to your student loan payments (and is still nearly $15,000 higher than if you hadn’t gone off to school). It’s more doable than you might think, so think about it carefully!

THE FAMILY-FRIENDLY FACTOR

Most of the professions covered in this volume are populated disproportionately by women, and the women populating these professions often emphasize the importance of their chosen career’s flexibility: the ability to choose to work part time, the predictability of hours, and the ability to leave and come back in a few years and still find oneself employable. These are appealing features of a job for anyone, regardless of gender or family status. All else equal (though it never is), who would purposefully choose a job with no flexibility, erratic and long hours, and a tendency to treat re-entrants as obsolete?

The most important parameter to bear in mind in your career search is personal fulfillment. What type of job will make you happy, leverage your abilities and keep you engaged over the long term? The societal pressure for women to seek out “family-friendly” professions remains an unrelenting one. Consequently, too many women self-censor in their career search, feeling that they “must” pick something that they expect will give them flexibility to be a stay-at-home parent. Choosing a career based primarily on the work schedule is a recipe for dissatisfaction. There’s no guarantee that, years down the road, you can ultimately enjoy the flexibility you might currently expect in a certain career. More importantly, dissatisfaction on a personal and intellectual level is extremely costly—it costs you emotionally in terms of happiness and self-worth, and it costs you financially in terms of dropping out of a profession and retraining for a second career in something else.

As you consider which career to pursue, consider the following questions carefully:

What type of job is family-friendly?

Plenty of people raise happy children while choosing to work full time, and even while working in jobs with long hours and erratic schedules. According to the U.S. Department of Health and Human Services, about 40 percent of two-parent households with children have both parents working full time. (The remainder has one parent working full time and one parent working part time or not at all.) HHS further finds a positive correlation between parental employment and child well-being indicators like health and academic performance—in other words, work generates money, which helps make good kids, and work generates personal fulfillment, which helps make good parents.

As long as your net salary is greater than the cost of outsourced child care, there is no economic reason to choose part-time work to raise a family. With day care averaging
about $10,000 per year, that means that any salary you make above about $12,000 (reflecting that you’ll pay for part of child care on a pre-tax and part on a post-tax basis) is all money that you can use to create a fulfilling life for you and your family, provide for your child’s needs and enrichment, fund your child’s future education, etc.

The reality is that in most professions, you can find many types of jobs in a variety of work settings. Even careers that “typically” involve crazy, erratic hours usually offer specific employment opportunities where the work schedule is atypically manageable. It’s very hard to generalize about which professions are best bets for allowing future flexibility. In reality, almost any career can be turned into a flexible one if you want. We encourage you to choose the one that’s right for your personality, your talents and your academic appetite.

Who needs a family-friendly job?

If your household has a philosophy of having a parent at home with the children during the day, rather than a paid caretaker (not everyone believes this, or can afford to believe it!), remember that this can equally be a man or a woman. Choosing a career you love that happens to come with long hours doesn’t mean you need paid child care; you can choose to structure your life in such a way that your spouse has flexible or part-time hours, rather than you.

Young women have long felt forced to choose a career based on future family obligations, rather than on the principle of finding work that imparts meaning to their life and a sense of personal fulfillment. If you know for sure that you want and intend to stay at home part time or full time with your future kids, then definitely consider “family-friendliness” as one of the parameters of your choice of a career and eventually your choice of a specific job. Either way, remember that there are many important and intertwined considerations to bear in mind during your career-shopping process: suitability for your personality, suitability for your skills, financial reward, emotional reward, job stability over the long term and intellectual satisfaction.

BLOOD AND GUTS

One of the major issues to figure out for yourself as you think about health care career options is which types of human body “grossness” you can handle. Some people want to help patients with their health, but don’t want to touch them. Other people might find they’re OK dealing with smelly, imperfect human bodies on the outside, but can’t fathom doing anything invasive or involving blood. You might be OK with saliva and mouths, but recoil at the idea of looking at eyes. The body is something that people tend to have a very individual relationship with—and, while that relationship might evolve through the course of getting a health care education, it’s not a good idea to enter a field that makes you in any way queasy at the outset.
### Potentially uncomfortable physical aspects of patient interaction, by profession

<table>
<thead>
<tr>
<th>Less potentially objectionable</th>
<th>More potentially objectionable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiropractor (touching through clothing, the cracking sound from spinal manipulation)</td>
<td>Dental Hygienist (saliva, some blood from scraping procedures, injections in the mouth)</td>
</tr>
<tr>
<td>Dietitian (minimal bodily contact)</td>
<td>Midwife (childbirth)</td>
</tr>
<tr>
<td>Massage Therapist (touching skin directly)</td>
<td>Naturopath (injections, full physical exams)</td>
</tr>
<tr>
<td>Medical Technologist (handling body fluid specimens)</td>
<td>Nurse (almost anything you can imagine …)</td>
</tr>
<tr>
<td>Occupational Therapist (touching through clothing)</td>
<td>Optometrist (looking inside eyeballs, occasional blood)</td>
</tr>
<tr>
<td>Oriental Medicine Practitioner (acupuncture needles)</td>
<td>Paramedic (gruesome accidents, injections)</td>
</tr>
<tr>
<td>Pharmacist (no bodily contact at all)</td>
<td>Physician Assistant (surgery, injections, full physical exams)</td>
</tr>
<tr>
<td>Physical Therapist (touching through clothing)</td>
<td></td>
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Getting HIRED
Vault Guide to Allied Health Care Careers

Education
Preparing for Your Job Search
Determining which undergraduate and/or graduate programs to which to apply can be an overwhelming process. For a given allied health care profession, there are dozens or even hundreds of compelling schools to choose from. How could you possibly choose which programs to apply to?

Identifying the right school for you is a daunting task that can be made tractable by (1) identifying what dimensions of the educational experience are most important to you, and (2) comparing specific details of schools along those dimensions.

First, you’ll need to come up with a list of prospective schools to evaluate. Cast a wide net—you don’t want to rule out any potential schools at this point. In terms of resources, there are some tried and tested practices that should help you conduct your school search.

**Guide books**

Get away from the internet! Look in the library or browse your favorite bookstore for school guidebooks from leading academic publishers. Your high school or college career center should also have some directories for you to browse for free.

**Industry websites**

Industry associations can tell you which schools are accredited (avoid any that aren’t).

**State licensure board**

Make sure you understand the specifics of your intended career’s licensing laws in your state. Knowing what your scope of practice will be, and what is required for licensure will help you ensure that your chosen educational program gives you what you need.

**Internet**

There’s no shame in using Google to find schools with specialties you like. Just make sure that you go through a lot of pages and not settle for the first couple of programs you see. Try making multiple searches, e.g., some with locations or some with particular degree types.
Alumni

Where did alums of your current school go who where interested in this field? See if you can track them down to ask them how they enjoyed their program and understand what other programs they considered in their school search.

Next, you need to determine what features of an educational program you really care most about. There is no perfect school, and there are always trade-offs to be made between factors that are important to you. Here are some starting thoughts for questions you might want to ask about schools that you research:

<table>
<thead>
<tr>
<th>Issues</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program basics</td>
<td>What degree can you earn? How long will you be in the program? Does the program run year-round, or do you take summers off? Can you earn a combined degree?</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Does the program have a particular philosophical or ideological bent? What are the prerequisites, and how likely are you to get credit for your existing course work? Will the school link you with a mentor in your field? What kind of clinical experiences are provided for students?</td>
</tr>
<tr>
<td>Faculty</td>
<td>How experienced are the faculty members? Do their areas of specialization match what you might want to do in your field after graduation?</td>
</tr>
<tr>
<td>Success rate</td>
<td>How many of the program’s graduates pass the licensure exam on the first try? What percentage of graduates have a job upon graduation? Where does the school rank in published ranking lists?</td>
</tr>
<tr>
<td>Logistics</td>
<td>Bonds issued by local and state governments, a.k.a. municipalities. Municipal bond income is tax-free for the investor, which means investors in “muni’s” earn interest payments without having to pay federal taxes. Sometimes investors are exempt from state and local taxes too. Consequently, municipalities can pay lower interest rates on muni bonds than other bonds of similar risk.</td>
</tr>
<tr>
<td>Funding</td>
<td>How much does it cost? How much financial aid is available through the school (e.g., work study programs)?</td>
</tr>
</tbody>
</table>
Now that you have a list of relevant schools and you know what features you are looking for, it’s time to really investigate the specific programs. This is the tough part, because all schools quickly start to sound the same, and each of their PR departments do a good job making you think their particular school is the best possible choice. Here are some ways to get at the real answers you are seeking:

**Current students and alumni**

Visiting schools is a must to really get a feel for whether you like the feel of the environment and the student body. While you’re there, talk to current students about their school selection process, their satisfaction with the program and their experiences thus far in job hunting. It's even more valuable if you can identify school alumni who are out in the world practicing medicine, and hear from them how well they were able to leverage their degree to get a job to start life as a health care professional. The admissions office ought to help you with this.

**Admissions interviews**

Admissions interviews are a great opportunity to really dig for information on how the program differs from other schools’ programs. Asking thoughtful, probing questions just makes you look committed, and in possession of an inquisitive and analytical mind.

**Informationals with employers**

Informational interviews are the best kept secret in networking. See if you can talk with a few practicing providers in your field and/or potential employers, and ask them directly what they think of each school’s reputation, and how much it would in theory influence their perception of a job applicant’s resume.

**More school is better than less**

For most allied health professions, you can choose from programs of different length, all leading to the same professional designation. For example, there are both two-year and three-year physician assistant programs. Similarly, to become a dietitian, you can earn a BA in dietetics, or earn a dietetics degree in a year after completing a more general BA program.
Finding the best school for you is a painstaking process, but it has to be. You are making an important career decision that will impact the rest of your life—why shouldn’t it take months of your time?

School is expensive, but don’t let that tempt you into jumping at the program that requires the fewest number of months or years to complete. We strongly recommend that you go for as much schooling as is practical, given your time and funding constraints, and appetite/aptitude for academia. More education means more options for you upon graduation and down the road; and, prospective employers will almost always respect that you opted for more schooling than less.
Preparing for Your Job Search

Chapter 4

WHAT EMPLOYERS LOOK FOR

As a general rule of thumb, when employers interview candidates, they seek to answer three questions:

1. Do you have a solid reason for wanting to go into this field?
2. Are you clear on why you want to work for this organization?
3. Why are you the best candidate for the job?

If you can answer these three questions well for yourself, you will have no problem answering them for a prospective employer. Following, we provide some seed thoughts about how you might answer these questions in an interview:

Why do you want to go into this field?

“I like helping people” is NOT a good enough answer. Search your heart and determine why that is, and in what specific capacity you feel most fulfilled. There are many ways to have a “helping profession”—why this particular one? Dig deep into the details of the profession.

Do NOT bluntly say that you think the pay is good and the hours short, or lament that you’ve gotten rejected from medical school. Hopefully you have a far better reason for wanting this particular career—so explain it. Perhaps you think this type of health care is important and undervalued, and you want to be part of the solution. Perhaps you have a personal experience where someone you know was greatly helped by this type of care. If it’s really about the pay/hours or other ancillary features of the job, then be euphemistic. Can’t afford medical school? “I don’t want to burden my family with an expensive education, and this feels like a way to make a difference more quickly and with less of a financial investment.” Don’t want to work a full-time schedule? “I’m really interested in leading a balanced life with plenty of time for my current and future family. I really admire practitioners in this field who I see doing that successfully.”

Why do you want to work for this organization?

Even if it’s true that they are the only ones hiring, don’t blurt that one out. Discuss their reputation for providing quality patient care. Show your understanding of how the organization is set up in terms of departments and personnel. Talk about how you’ve spoken with some of the employees and that they seem to be a good cultural fit. Speak to your impressions of their technology infrastructure and other resources. Are they committed to community health or minority outreach, for example? The
more homework you do on the organization, the better. See if you can, in fact, speak with a couple of current employees prior to the interview; best if they work in a similar capacity to the one for which you are interviewing.

**Why you?**

Here’s where you want to demonstrate that you have something unique to offer: a longstanding interest in the field, particular clinical rotations that are relevant to this employer, practical internships that put you one step ahead of other candidates who may only have classroom experience. If you are looking at a pharmacist position, you might mention your passion for following the drug industry and keeping up with the various products on the market and their indications. For a physical therapy position, you could discuss how you were fascinated by the human anatomy as a biology student, but also have a knack for the practitioner side of things, which you explored while volunteering at a PT aide. And an organization hiring occupational therapists might be impressed with your patience and creativity as evidenced by examples of practical workarounds you’ve created for yourself and others to get through the challenges of daily life more smoothly.

Don’t be afraid to show your personality. In the health care world, many hires are made almost entirely on a “fit” basis—everyone has the same training, so they pick the candidate who will mesh best with their prospective colleagues and the staff. If your personality suits the job, you want them to know that; if it doesn’t, and you don’t get the position, then you are better off not having worked in a potentially friction-filled environment.

**What YOU are looking for!**

Most of the allied health care fields are enjoying steady expansion, as rising health care costs dictate more and more spreading out of responsibility for patients away from the primary physician. This means that most allied health care fields are a job seeker’s market: you have choices as to where you work, and you have leverage.

When you get through your training and start looking for a job, it’s crucial that you keep in mind what you want from a work environment, rather than just focus on collecting job offers. The same career path takes very different shape depending on which particular hospital or clinic you work in, under which particular physician you work or with which colleagues you partner. Physicians (and dentists) can have quite different patient care philosophies, and that can greatly affect what tasks you are saddled with and how much you enjoy your work. Unless you are setting up your own practice, make sure you interview your prospective boss carefully, and find a place where the team dynamic and health care philosophy works for you.
In short, the more specific you can get as to your interests in the particular field, your understanding of a particular hiring organization and your unique positioning, the better your chances will be as to landing that much sought-after job you've been looking for. Be honest and detailed in your thinking, and you'll no doubt ace the interview!

WORK HOURS

For many people choosing a career in health care, lifestyle is a very important consideration. Do your due diligence on what the hours will look like for a particular job. Make sure you ask very specific questions, and try to get a few prospective colleagues to tell you exactly what their schedule was like for the past week.

Unlike jobs in the business world, many jobs in health care have known, fixed hours. You are either paid hourly for each hour you work plus overtime if applicable, or paid by the procedure. Contrast that with your friends who work, say, as an accountant in a corporation, or a general manager at a manufacturer—they get some set annual salary and are expected to work as many hours as it takes to “get the job done,” with often only a vague hope of being shown some love with a one-time bonus at the end of the year. This can mean 80 to 100 hours per week. For the most part, if a health care provider ever works that many hours, it’s only during their training years (e.g., physician residency). So, it’s important to remember that, even for the most demanding of the jobs we cover in this volume, the demands are relatively less than a lot of other potential careers!

9-to-5, shifts or “on call”

Each career has its typical profile of how the work week is structured. One of the appealing things about these allied health care careers (as well as primary health care careers) is that they are often “9-to-5” jobs. You show up for work, take care of patients and go home.

For jobs where there’s a 24-hour, patient-care requirement, that means you work set shifts, trading off with your colleagues as to who covers the unappealing late-night and weekend shifts. This type of setup creates a more hectic life than 9-to-5 work, for sure, but it’s still a situation where you know in advance when you are working and when you aren’t, and are in control of your leisure time.

The most demanding type of job is an “on call” position, where you can be called into the office/hospital to care for patients at any time and without much notice. It takes a special kind of person to sign up for that life and to stick with it for the long haul.
STARTING YOUR OWN PRACTICE

If you work for someone else, you are usually either working or not working, you are generally not bringing your work home, or staying up late in a home office to the dismay of your family. You still spend time outside of working reading health care journals, attending continuing education classes, but, all in all, your life is your own.

It’s a really different story if you own your own practice. Starting a health care service practice is similar to starting other types of small businesses. That means it’s a massive undertaking. Ironically, few health care education programs offer training in starting and running a business (though some are starting to beef up their programs in this department). Yet, many healthcare careers are fundamentally entrepreneurial ventures. If you get trained as a massage therapist, you don’t have to start your own massage therapy clinic by any means, but it is quite common, and probably something you’ll end up entertaining at some point in your career.
You will need to carefully consider all aspects of how your business is going to function:

- Patient scheduling process (online, phone, computerized calendar, paper calendar, appointment reminders)
- Reception area setup and office space utilization (tenant improvements and interior design, meeting codes, creating comfortable and functional environment, expansion capacity, equipment and supplies storage)
- Telephone, fax, email systems (number of lines, answering service and message retrieval, professional look and feel from patients’ perspective)
- Back office/clerical (forms and documents required, paperwork flow setup, document storage and backup, accounting and tax filing responsibilities, information security and patient privacy)
- Coding for insurance reimbursement (what is reimbursable and at what rate, which insurers to deal with directly vs. which to bill patient in full, keeping abreast of changes in insurance coverage)
- Billing policies (submission to insurance on behalf of patients, type of payment accepted, collecting unpaid bills, appointment cancellation policy)
- Marketing and business development approach (print advertising, online ads, flyers, word-of-mouth, viral advertising, referral networks, signage, niche target marketing)
- Patient relations and satisfaction (newsletter, patient feedback, appointment prompts)
Community relations (community education, sliding scale policies, business owner associations, neighborhood associations, community fair/festival participation, permitting authorities, police)

Referral relationships with other health care providers (physicians, counselors)

Investment capital source (personal savings, personal credit cards, small business loan, home equity or car loan, personal unsecured loan, friends and family, outside investors)

Budgeting (business plan with detailed financials for first several years, anticipated time to break even, required number of patients to cover costs)

Staffing approach and compensation (what to outsource and what to do yourself, need for assistants, employee legal structure)

The smaller your practice, the simpler many of the above become. However, solo practitioners spend a very large portion of their time dealing with these administrative, clerical and marketing issues, compared to the amount of time they spend actually practicing on patients.

Analyzing startups

People may argue that healthcare practice startups have a much lower failure rate than regular business startups like stores, restaurants and professional services businesses. The jury's out on this one, though. Statistics are misleading, given that it's hard to tell why a practitioner shuts her or his doors—Did their business fail? Did they move to another community? Did they decide they'd rather work in a hospital? Did they retire early and switch careers? Did personal problems bleed into their practice's finances?

Surely it's a little easier to keep the doors of a chiropractor's office open than those of a trendy restaurant that can end up on the outs the next year. Demand for health care services is stable and increasing—not volatile, like demand for luxury clothing, for example. But you can't just open the doors and take the “build it and they will come” approach. It's a long, hard slog to establish yourself in the community, become well known and well regarded, and develop repeat clients.

Possible approaches

So, how to figure this all out if you're not already a seasoned small business owner? There are lots of resources to help you. First of all, consider teaming up with a few other providers. Economies of scale rule the business world, and your field is no exception. There are more headaches with more voices in the room, but they also defray risk and help cover overhead and lead to higher profitability. Secondly, there
exist a lot of consultants who specialize in helping private practitioners get up and going, and optimize their operations once underway. For the most part, they advertise themselves as being advisors to physicians, but they are more than willing to help allied health care providers. An MD’s private practice is very similar to any other health care practitioner’s private practice (with the exception that you may be working in a field where insurance is not such a relevant issue because your service is generally not covered).
ON THE JOB

Vault Guide to Allied Health Care Careers

Chiropractor
Dental Hygienist
Dietitian
Massage Therapist
Medical Technologist
Midwife
Naturopath
Optometrist
Oriental Medicine Practitioner
Paramedic
Pharmacist
Physical Therapist
Physician Assistant
Other Careers of Interest
Chiropract is surely the most controversial of allied health professions—and the only way to understand the controversy is to understand that there are two very different types of chiropractors, with very different medical philosophies, scopes of practice, training programs and degrees of acceptance by mainstream medicine. Arguably, the two types of chiropractors should be licensed, certified, or given specialist designations as distinct professions. But they aren’t—they are both DCs (doctor of chiropractic)—and therefore there’s no way to tell who’s who unless you interrogate them about their training and philosophy of medicine.

Background

Chiropractic was invented in the late 19th century by an American autodidact named DD Palmer, who theorized about the metaphysical effects of spinal manipulation, and professed that all disease stems from pinched nerves near the spine. “Straight” chiropractors follow this quasi-religious philosophy, and speak of activating the “universal intelligence” in the world as “innate intelligence” in the body. Their belief that all disease states are mechanical in origin has the troubling corollary that medical diagnosis is unnecessary. “Align the spine, feel fine,” goes the mantra. Straight chiropractors train in schools dedicated to straight chiropractic practice, and their service offering is more properly characterized as energy medicine, rather than physical medicine. It’s the straight DCs who are called quacks, criticized for claiming to see minor vertebral deviations on X-ray that expert radiologists cannot confirm, featured in scandalous headlines for “treating” deadly cancers with spinal manipulation, and known for the pushy sales tactic of having vulnerable patients pre-commit to long-term treatment packages (see Quackwatch.org or Chirobase.org for further information).

The technique of spinal manipulation to correct musculoskeletal problems actually dates back to ancient Greece. Spinal manipulation is practiced not only by chiropractors, but by MDs in physical medicine, MDs in orthopedics, physical therapists, and osteopathic doctors. It’s a scientifically supported, widely practiced method of treating muscle spasms, strains, sprains, strength and flexibility problems, and irritated nerves in the back. DCs confining their practice to diagnosing and treating such musculoskeletal problems are known as “evidence-based” or “reform” chiropractors. They take detailed medical histories from patients, use conventional diagnostics like blood tests to ensure they know what the problem really is, and make sure to refer patients out to medical doctors for anything other than musculoskeletal problems in the back. When these DCs are criticized, it’s because they seem like overpaid physical therapists (since both do spinal manipulation, but DCs charge more), or because much of their treatment success might be attributable to the placebo effect (most low back pain is known to resolve if untreated)—but not because people question the scientific validity of what they do to their patients.
THE JOB

Chiropractors have an array of approaches at their disposal to treat patients. Most commonly, they use manual adjustment, aka mechanical manipulation, on the back. But they also employ craniosacral/sacral-occipital therapy (a type of massage on the skull), TENS (transcutaneous electrical nerve stimulation), and devices like the Activator that deliver more force per square inch than a human hand can. Straight chiropractors often use energy medicine practices (i.e., their hands don’t touch the patient) like network therapy, magnetic therapy or Reiki.

Chiropractors don’t prescribe medications (and often have a militant anti-pharmaceutical mentality), and generally don’t do anything invasive; for this reason, they self-describe as the most conservative of medical modalities: conservative in terms of the intensity of their treatments, though not necessarily conservative in terms of the philosophy behind their practice. In some states, DCs are licensed to do obstetrics and gynecology, to perform minor in-office surgeries, to do acupuncture and to act as a “gateway provider” for the patient, i.e., the patient’s primary care doctor.

It takes a thick skin to be a happy and successful chiropractor. Even if you are an evidence-based practitioner, many of the people you meet in the course of daily life will pigeonhole you as a quack, given the field’s reputation (routinely popping up as one of the professions considered most unethical by the public, alongside used car salespeople). If you believe in what you do, you will find yourself defending it a lot and having people question whether you are a “real doctor.” If you don’t believe in it, you could join the ranks of DCs who drop out of the profession to become physical therapists, go back to medical school to become an MD, or abandon medicine altogether.

**Chiropractic assistant**

Chiropractic assistants are crucial to the functioning of large DC offices. They assist with administration, patient management and potentially perform basic parts of the chiropractic exam, take patient histories, work the X-ray machine, or provide physical assistance during the manipulations.

Just a few U.S. states license this profession. Training programs resulting in a CA certificate are only three to four months long.
PATIENT INTERACTION

Chiropractic patients are among the most satisfied in the health care system. Typically, patients who seek them out already believe in the type of therapy DCs provide, so they are not skeptics in need of conversion. Back pain is extremely debilitating in daily life (something those who have never suffered from it can’t adequately appreciate), so anyone who ameliorates it will be hailed as a hero. That means that, far more often than not, your patient interactions are positive, pleasant ones.

It has been widely suggested that there is a substantial placebo effect to chiropractic work; in other words, the patients feel better mostly because they are receiving attention for a pain that may have been dismissed or downplayed by other health care providers. This may be wholly the case for straight DCs, but also a phenomenon in evidence-based chiropractic practice. However, even if much of your impact as a DC is via the placebo effect, that’s still a real effect on the patient—you’ve still made a difference. After all, we know that conventional medicine and pharmaceutical treatment involves a significant amount of placebo effects, too. Whether you are practicing as a straight or as an evidence-based DC, your success is surely higher with patients if you have a high level of sensitivity, an “energetic awareness,” over and above just acting as a technician. The more attuned you are to your patients, the better your ability to diagnose, the better your rapport and the stronger the placebo effect and overall satisfaction of the patient with the interaction.

To be a good DC, you need to be inquisitive (and we’re speaking here about evidence-based DCs). A well-known rule of thumb in medicine is that history is 80 percent of a diagnosis—it’s crucial to understand the patient’s whole health situation, personal history and family history in order to make appropriate judgments about what testing to do, what conclusions to draw and what treatments to recommend. There are many medical conditions that involve symptoms of back and neck pain; when someone comes in complaining of back or neck pain, you actually have no idea if they have a musculoskeletal problem (treatable by spinal manipulation) or something else entirely (treatable only by an MD). In fact, its been proposed that the positive correlation between chiropractic adjustments and subsequent stroke is likely a function of the fact that pre-stroke patients often experience neck/back pain and, therefore, choose to go see their chiropractor, not realizing that their pain is a symptom of an impending stroke.
WORK SETTING

Almost all chiropractors end up in private practice, so you should be aware that becoming a chiropractor almost necessarily means simultaneously becoming a small business owner. The most critical success factor for DCs is how and whether they are able to build their practice. It is important to build a referral network among MDs who trust and believe in your ability to ethically treat patients, but only a minority of MDs would even consider recommending a DC to their patients. Referrals also come from physical therapists who don’t feel comfortable doing spinal manipulations themselves (they are trained to do them but, without constant practice, they are likely to be less skilled than a DC who does only that). Some chiropractors rely more on advertising (e.g., the unsavory “ambulance chasers” who set up practices derided as “personal injury mills” and invite you to call them if you’ve been in a car accident), or try to get on insurers’ lists of in-network providers (though much of their treatments are not covered by insurance). At the end of the day, it’s a practice that gets built by cobbling together a number of strategies, and requires a lot of creative attention to business development, networking and marketing.

TRAINING

There are only a small handful of chiropractic schools in the country, and they are each clearly in either the straight or evidence-based camp. Choose your path early and choose a school that reflects the type of chiropractic you wish to practice. There are relatively high drop-out rates from straight schools (and, later, from straight
practice), compared to evidence-based training programs—much of that arises from the lack of clarity on how very different the two types of chiropractic practice are.

Sub-specialization within chiropractic is a good way to advance your practice further down the path of mainstream, evidence-based, accepted medicine. You can obtain a certificate or diploma in sports medicine, radiology or neurology, for example, in one to two years after finishing DC school. Often, these specialties involve hospital-based residency training, which is invaluable for exposing you to a wide variety of medical conditions so that you are prepared to diagnose them and responsibly refer patients out for treatment.

INCOME AND LIFESTYLE

There are a plethora of chiropractic industry consultants who advertise all sorts of get-rich-quick schemes and training in high-pressure sales tactics, which, as a rule, depend on cajoling patients to commit to (and prepay for) long series of treatments. This type of practice-building approach is targeted explicitly at straight DCs, whose practices are based on a concept that requires persuasive selling (the notion that issues invisible on an X-ray are causing metaphysical problems in the patient), whose patients can be mined for high revenue (getting them to sign up for 50+ visits to cure their problem), and whose treatments can be farmed out to low-paid assistants as a means of increasing daily patient throughput. Alarmingly, straight DCs who embrace such an approach can take home literally hundreds of thousands of dollars in annual income … compared to the modest salary of a more ethical practice. Evidence-based DCs generally aren't offering a service that can be translated into riches (if they are treating real problems, they don't need more than a few sessions per patient to correct them), and are more scientifically minded personalities who shy away from such schemes.

The vast majority of chiropractors are in private solo or group practice (the only alternative is to work for an MD as a non-partner employee). Interestingly, while, for MDs, one of the biggest expense issues with having a private practice is malpractice insurance, such insurance is not that expensive for chiropractors. Theoretically, if chiropractors were such quacks, lawsuits would be frequent, and malpractice insurance very costly. The counterargument to this is that chiropractic treatments are not rigidly standardized, and it's, therefore, difficult to prove what a DC should have been doing instead to avoid a given poor patient outcome. Lawsuits that do occur are usually for very obvious, concrete mistakes, such as breaking a bone, causing paralysis or failing to diagnose something like cancer that quickly kills a patient under your care.
Creating your own niche

“I’ve been lucky to carve out a unique niche for myself where I’ve partnered with a dentist to treat TMJ [tempromandibular joint] disorder. With my advanced training in radiology, I’m offering an effective, testable solution to a painful condition that has otherwise fallen through the cracks of the health care system. Unfortunately, insurance doesn’t yet cover TMJ treatment, so patients have to pay out of pocket, but that will certainly change in time. This job just didn’t exist – I had to invent it. Surely there are other opportunities out there to leverage our valuable chiropractic training into specialized health care treatment offerings that really make a difference, and get away from the back-pain stereotype.”

– Chiropractor in group practice

THE BOTTOM LINE

Chiropractic is one of the few allied health care professions actually in decline—the percentage of the U.S. population that avails itself of chiropractic care has clearly declined over time. DCs worry that physical therapists will take more of the “pie,” especially if they confine themselves to the evidence-based practice of spinal manipulation. Unless you embrace high-pressure, used-car-sales-style tactics with your patients, income is not that high. For these reasons, chiropractic can be an overrated profession. But it’s still a large profession in absolute terms, with plenty of available niches for those whom it interests. If you love the idea of manual manipulation, being a doctor without having to deal with invasive procedures, and have the sensitivity and personality to be a hit with patients, then consider this field (and physical therapy) carefully.

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<tr>
<th>Education</th>
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<tbody>
<tr>
<td>Professional designation</td>
<td>DC (Doctor of Chiropractic)</td>
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<tr>
<td>Full-time annual income</td>
<td>$60,000 (for an evidence-based practice)</td>
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<td>Typical work setting</td>
<td>Private practice</td>
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Dental Hygienist

Chapter 6

The dental hygienist is the person you spend the most time with when you visit the dentist’s office. These people are absolutely crucial to the ability of dentists to earn a living. Hygienists do the health assessment, cleaning and imaging in routine visits, and the dentist only makes an appearance at the very end to confirm the hygienist’s diagnosis or lack thereof. It can feel like a fairly independent role, because the hygienist has the primary interaction with the patient, and usually takes on the responsibility for educating the patient about oral care. And now that we understand the direct link between periodontal plaque and atherosclerosis (plaque in the arteries, leading to heart attacks), there’s no mistaking the crucial role that dental hygiene plays in health of the whole body, not just the mouth.

Just like optometrists find that some diseases are detectable early on through indicators in the eye, dentists and dental hygienists are in the same position to be the first health care provider to notice big problems. The hygienist, perhaps unbeknownst to the patient, is trained to do a thorough assessment for suspicious, potentially precancerous growths in and around the mouth and throat. They also look for gum inflammation, gum recession and detachment areas, abnormalities on the tongue, areas of temperature and touch sensitivity, evidence of tooth grinding and jaw function problems.

THE JOB

In addition to routine cleansings, hygienists do more difficult tasks like scaling and root planing. These can involve giving anesthetic injections, and dealing with quite a bit of blood. Like many other allied health care roles, hygienists are seeing their scope of responsibilities expand. Some states recently legislated that hygienists can do “restorative” treatment, i.e., fill cavities (after the dentist preps the tooth first).

In a dentist’s office, there is often one dentist and several dental hygienists (plus a few dental assistants, and a front office and/or billing person). The dentist relies on the hygienist doing the vast majority of the work on each patient, so he or she can swoop in at the end for a quick check. If the patient’s mouth is healthy, and there are no significant issues to discuss or procedures to explain or conduct, then the hygienist has just saved the dentist an enormous amount of time, and enabled him or her to have several patients in the office in parallel. In short, the hygienist provides the dentist with valuable leverage. And that’s the only way that a dentist can make any money in the industry. It’s a highly symbiotic relationship between hygienist and dentist, and, therefore, a key part of the job search process is to make sure that you can envision having a successful, close working relationship with the dentist in charge.
PATIENT INTERACTION

The dental hygienist is to the dentist what a nurse is to the medical doctor: this is a commonly stated and apt analogy. Many people who end up in dental hygiene school considered nursing. Many also considered other helping careers like teaching. It’s a job that requires patience, kindness and an interest in advising often noncommittal patients about the importance of better care of their teeth.

Hygienists care for patients from all walks of life, and all states of health. Indeed, while from the outside it may seem like there’s a potential to get bored in this profession, practicing hygienists, for the most part, express satisfaction at the variety they see across their workweek. Even in a high-end, urban practice frequented by business professionals, you’ll still see plenty of people who simply don’t take good care of their teeth and, thus, have a wide range of dental health problems for which they need your help.

Hygienists who like their career choice talk about the satisfaction that comes from making recommendations to patients, and then seeing improvement at subsequent visits. The body, including the mouth, can be impressive in its ability to heal itself when given proper supportive care, such as brushing, flossing and fluoride rinses. Some people in the field really relish the process of taking a dirty, unflossed, coffee-stained mouth and giving it a thorough, transformative cleaning in the space of one visit—kind of like the satisfaction that some derive from tackling a mountain of dirty dishes, or organizing a pile of unruly office papers.

An important role in health care

“The other day, I noticed some strange moles near a patient’s mouth. Rather than ignoring it, it’s my responsibility to tell the patient it looks abnormal to me and suggest she might want to consult a dermatologist. In another patient, I saw a suspicious growth in the throat and recommended that he go see an ENT (ear, nose and throat specialist). It turned out it was, in fact, throat cancer that we probably caught far earlier than would otherwise have happened.”

— Dental hygienist in a small, urban family practice office
A teaching and helping mentality

“One day I had a new patient with scleroderma, meaning her skin was progressively hardening. She had terrible teeth, but I realized it was because she could no longer grip a toothbrush, and had been reduced to merely using mouthwash as her oral care routine. Together with the dentist, we came up with the idea of fitting a large foam cylinder around her toothbrush, so she could grip it and start brushing again.”

— Dental hygienist in a large, suburban dental clinic

WORK SETTING

As a dental hygienist, you always work in a dentist’s office. But there is a lot of variety in types of dental practices out there, and you can choose an environment that suits you. Some dental practices focus on pediatric care, for example. There are also periodontal offices, where dentists conduct more invasive procedures, and your job as the hygienist is, consequently, more specialized.

Anywhere you work, you are sure to avoid the frenetic and emotionally charged hospital environment that medical nurses often work in, as well as late-night shifts. Most dentists’ offices are pretty pleasant places to work. And “full time” for a hygienist is considered just three days of work per week!

TRAINING

Most of the nearly 300 dental hygiene programs in the United States are two years in length, though there are four-year BA programs available. You don’t need a previous college or associate’s degree to get into dental hygiene school, as it’s an associate degree unto itself. However, as school admissions become more competitive, it doesn’t hurt to come in with at least some college-level course work under your belt, or even a degree. School admissions often involve looking for some moderate aptitude in the sciences, plus some sort of dexterity test, and a major emphasis on personality and sincere interest in the profession.

You get licensed at the state level as a Registered Dental Hygienist (RDH) after graduating from a two- to four-year dental hygiene program, and taking both the National Board Dental Hygiene Examination and your state’s board exam.
Some dental hygienists end up going back to school for dentistry once they realize how much they like the field, and start wishing for increased responsibility or the ability to perform more interventional procedures. Unlike dental hygiene, however, dentistry is almost always an entrepreneurial venture. Most dentists work in private practice and, thus, spend a significant portion of their time on business planning and management, as opposed to the intensive patient interaction that the hygienist has all day long.

**Dental assistant**

Most dental offices have both hygienists and assistants working to help the dentist in seeing the most patients possible with the best quality care. While the hygienist is cleaning teeth, the assistant is readying exam stations and equipment, taking X-rays, and often also spending a great deal of time with administrative tasks for the office. Getting certified for this job is a matter of a yearlong training program (or gaining on-the-job experience) and passing a standardized test.

**Denturist**

If you want to live in Maine, Arizona, Washington, Oregon or Colorado, you have the additional option of becoming a licensed denturist who treats patients directly. In other U.S. states, denturism is an unlicensed role performed in a laboratory that fabricates dentures ordered by dentists (in such cases, it is also known as a denture technician). Patient-facing denturists make impressions and fit dentures to patients, working in a dentist’s office as an auxiliary specialist. The specialized training (a two-year associate program) provides far more skill in denture fitting than any dentist is exposed to in dental school.

**INCOME AND LIFESTYLE**

Dental hygienists are paid either hourly, or on a commission (i.e., per-patient) basis. Hourly rates range around $30 to $35, which adds up to as much as $70,000 annually for a 40-hour workweek, or close to $45,000 for the three-day “full-time” workweek common among hygienists.

The commission plan is sometimes preferred by dentists, because they don’t have to pay you when a patient doesn’t show up and you have downtime. They can also expect that you’ll lends a hand in making appointment reminder calls, and feel incentivized to provide a good bedside manner so that patients keep coming back.
This profession has traditionally been almost exclusively female, but is definitely becoming more appealing to men. It’s an appealing work setup for anyone, with limited hours, good pay and a serious level of responsibility to keep you challenged and fulfilled. Most dentists are amenable to setting up their staff schedules to allow hygienists (and assistants) to work anywhere from one to five days per week. It’s a flexible career in terms of work hours, and also in terms of popping in and out of the profession. It’s not uncommon for a hygienist to work for a few years, then take a few years off to pursue other interests (e.g., full-time parenting) while maintaining their license with continuing education, and then come back into it later.

The physical toll

Physical exhaustion is a significant concern for dental hygienists, and one of the reasons why most don’t work a full 40-hour weekly schedule. There are lots of cases of carpal tunnel syndrome and back strain problems from the repetitive tool usage and spending a lot of time in a tensed, leaning position. In fact, dental hygiene schools are usually sure to offer a class in ergonomics, teaching future hygienists how to take care of themselves and prolong their ability to work comfortably in the profession. That said, as a patient, you may have noticed that it’s pretty rare to see a dental hygienist with gray hair—it’s just not a profession that most people can or will stick with for the very long haul. This is a function both of the physical toll it takes and the self-selection of people who are looking for a part-time or temporary career.

THE BOTTOM LINE

A dental hygienist’s role is very similar to that of a registered nurse, though with generally easier hours and better pay. Not for the faint of heart, it involves close dealings with blood and the various unpleasantries of dirty and unhealthy mouths. Hours tend to be very flexible, and part-time schedules are easy to come by.

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<td>Professional designation</td>
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<tr>
<td>Full-time annual income</td>
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<td>Typical work setting</td>
<td>Employee in dentist office</td>
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Dietician

Chapter 7

Dietitians can sometimes look like they have a pretty routine job—walking into a patient's room, jotting a few things on a chart, and just as quickly leaving. But there is a lot going on mentally behind what might appear to be routine paperwork. Indeed, one of the biggest complaints dietitians have about their careers is that they can be perceived as rather “entry level,” relative to the amount of education they actually have. They don’t always get a lot of respect among health care colleagues or patients for the crucial nature of their work.

In fact, the dietitian is a vital member of the health care team, particularly with respect to patients who can’t speak, are being fed with a tube or don’t have the knowledge to optimize their dietary intake for their complex medical condition. Food is, after all, at the very base of the hierarchy of human needs, and food delivered adequately and nutritionally is essential to life.

THE JOB

Dietitians are tasked with ensuring that medical patients receive appropriate nutrition, given their health status. This can mean many different things, depending on where you work as a dietitian. You are constantly consulting with physicians, nurses, the patient and the patient’s family members to optimize the patient’s diet, and this means you spend a lot of time in a mediator-type role. Feedback on whether the diet is working comes from the patient, the doctor and from your own assessments of blood work (e.g., checking the serum albumen level).

In a long-term care facility, dietitians are particularly attuned to weight loss, which is an indicator (and often an early one) that something’s wrong medically—advanced dementia causing the patient to forget to eat, jaw pain making chewing difficult, undiagnosed illness that affects appetite. It’s the dietitian’s role to talk to the patient to identify what they feel like eating, to create a diet that the patient will actually eat and therefore consume adequate protein and total calories. Texture modification of the diet may be important in some patients—for example, stroke patients who risk aspirating their food. It’s up to the dietitian to observe and take notice that a patient is having trouble with certain foods, and take initiative to have the kitchen make necessary changes.

PATIENT INTERACTION

The dietitian’s role is primarily that of a mediator and facilitator. It takes a great deal of patience and excellent communication skills to determine what a patient can eat and wants to eat, and then to translate that into a diet, make sure the doctor signs off on the order, and work with the kitchen to execute on the order with enough variety to keep the patient happy and healthy. The most crucial skill in your day-to-day life
on the job is undoubtedly counseling and facilitation—something not covered in degree course work and not tested for in the RD exam.

People can be quite obstinate when it comes to food. As a dietitian, you must have the ability to be authoritative without seeming condescending—that’s the only way you’ll have a positive impact on your patients’ health. It’s of no use for you to give a long lecture on sugar intake regulation to a diabetic if he doesn’t believe what you are saying enough to make the hard choices to execute on it.

WORK SETTING

Dietitians can work in an extremely wide range of settings: hospital in-patient care, hospital out-patient care, long-term care facilities, physician’s private practice office, correctional facilities, schools, food service companies, in private practice for themselves, and in many other specific settings where you have the creativity and drive to forge a position for yourself. One recent dietetics graduate works for a destination spa, another for an organic grocery store’s wellness program—the possibilities are numerous. There is also an academic track for dietitians, where you can go on to get a PhD and focus on nutrition research and teaching.

In-patient hospital settings involve the highest-risk, most hardcore work for a dietitian. Patients on feeding tubes are entirely reliant on the dietitian to set the rate of feeding and the formula, taking into account things like the patient’s anxiety level, which translates into a higher caloric requirement. This is tricky work, where an error can mean great suffering. When there are malpractice suits against dietitians, it’s usually for feeding tube situations, though more often than not the error lies in the execution of the order (accidentally starving the patient), not in the diet order itself.

Physicians in private practice who focus on patients with diabetes or high cholesterol may have a single dietitian on staff full time or part time, and have their patients all receive nutritional counseling right in the office. They also might refer these patients out for nutritional counseling to an independent dietitian.

TRAINING

Dietetics is a confusingly regulated profession, which contributes to public uncertainty about nutritionists versus dietitians and the level of training behind each title. Furthermore, many dieticians casually refer to themselves as “nutritionists” because the term is better understood, creating more confusion because “nutritionist” is almost nowhere a licensed profession.
Licensing

Many states do require dietitians to be licensed, and working in this capacity without a license is a crime. However, some states only require “statutory certification,” which means you can choose to get certified and therefore use the title of “dietitian,” but you can also choose to work in that role without certification and refer to yourself as something other than a “dietitian,” such as a “nutrition counselor” or “nutritionist,” for example. Your best bet is always to get the most robust designation you can—in this case, that means to acquire national certification as a registered dietitian through the American Dietetic Association, by passing an exam after having taken an internship and requisite schooling.

Specialization

Dietitians can informally specialize in all sorts of disease states and patient populations, such as dialysis, corrections, diabetes, stroke and high blood pressure. Informal specialization is achieved by choosing electives during school, and then accumulating on-the-job experience in your target field. Formally certified specialties are available in gerontology, pediatrics, sports, renal and oncology dietetics, via on-the-job experience and passing a standardized exam.

Education

Training for a career as a dietitian involves either a four-year undergraduate degree with requisite course work in nutrition, food science and microbiology, or a master’s degree. After school, you continue your education through a paid, supervised clinical internship that lasts from six months to a year, and is set up through a “matching” program, similar to who physicians match to medical residencies. Finally, you sit for the national exam to earn your RD designation. There are some 500 accredited programs to choose from across the United States.

Dietetic technician

You can become a “Dietetic Technician, Registered” (DTR) with just a two-year associate’s degree, three-month supervised internship, and passage of a national DTR exam. This route is considerably shorter than the RD pathway, and sets you up to be eligible for similar jobs as RDs, sometimes working as an assistant alongside an RD, and sometimes working on your own in place of an RD (and at a lower pay rate, reflecting the lesser schooling).
INCOME AND LIFESTYLE

Dieticians don’t usually make the big bucks, but then again the job isn’t usually as outrageously demanding as many other, more highly paid health care roles. Salary varies widely across the broad spectrum of work settings you get to choose from, with private practice and industry positions unsurprisingly at the top end of the scale (up to $90,000 for some particularly plumb corporate jobs), and chronically underfunded long-term care facilities at the low end.

It must be mentioned that, just because dietitians are nutrition professionals doesn’t mean they are all lithe supermodels. Despite the possible stereotype that comes to mind when one thinks of what type of people become nutrition professionals, there is room for anyone in this career, as long as you can master the knowledge and have the communication style necessary to persuade patients of the correct course. Medicine has come to understand that chronic excess weight, for example, can result from intestinal bacteria inducing metabolic changes. All to say that dietetics is about health not about appearance, though appearance can indeed often be an indicator of health.

THE BOTTOM LINE

Dietitians need to have great sensitivity in order to work with patients on something as personal as diet. This job requires a lot of facilitation, and interfacing among and between a number of stakeholders in a patient’s care, not all of whom understand or appropriately value what you do. Dietetics does not deliver an extremely high standard of living, but it’s a good, solid job for someone interested in food science and patient counseling.

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<td>Professional designation</td>
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<tr>
<td>Full-time annual income</td>
<td>$40,000 to $60,000</td>
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<tr>
<td>Typical work setting</td>
<td>Hospital, long-term care, many others</td>
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DAY IN THE LIFE: DIETICIAN

You are a dietitian just out of your master’s program, working in the 24-person nutrition department at a large city hospital. You are currently assigned to work with obstetrics patients in an out-patient (office) setting. More than half of your colleagues do in-patient work (admitted patients being fed through tubes), and are, thus, located in other parts of the hospital where you rarely see them. Here in the out-patient nutrition offices, other colleagues focus on cancer patients and general nutrition patients.

8:00 a.m.: You arrive at work, dressed in a nice business casual outfit and wearing your hospital ID around your neck. On the way in, you spot one of your fellow dietitians—the only guy in your 24-person department—heading off to intensive care in his lab coat. Tomorrow is the monthly Grand Rounds, with what is sure to be an exciting presentation on vitamin D deficiency, and you’ll see him then and have a chance to catch up on what each of you is working on.

Time for a cup of coffee while you review your list of patient appointments for the day. For each patient, you do a quick perusal of their records to get a sense of what to expect, including doing a BMI calculation. Unlike many of your friends out in the work world, you are actually looking forward to your day. Working in obstetrics, your patient population is generally a happy, motivated one. Pregnant women tend to be excited and inquisitive, and that makes for positive interactions and interesting conversations through your day.

8:30 a.m.: Your first patient arrives: a teen with an unplanned pregnancy. It’s her first time talking to a dietitian, so she’s scheduled for an hour-long visit with you. After chatting with her for a little bit, you discover that, like many prospective teen mothers, she’s fixated on not getting fat during her pregnancy, and therefore hasn’t been eating well. You have a long, encouraging discussion with her about proper nutrition, and its impacts on her baby, and she responds well.

9:30 a.m.: Next you meet with a 41-year-old pregnant woman for a follow-up appointment. You met with her several weeks ago, and remember her well. Like many women who get pregnant when they are a little older, she had tried for years to get pregnant, and is determined to make sure everything about her somewhat high-risk pregnancy goes perfectly well. She has brought a list of questions for you: acceptable caffeine intake, which seafood is safe, how to avoid the risk of gestational diabetes, whether cold cuts pose a risk of salmonella. You answer those with ease,
and, after checking the lab work results on her chart and seeing that everything looks OK, you give her some comforting words of encouragement and send her off.

11:00 a.m.: Your fourth appointment of the day turns out to be a woman whose midwife told her to make an appointment, but who doesn’t really know why she’s seeing you. She doesn’t actually have any health problems related to her pregnancy or otherwise, so you give her your general spiel on good nutrition. You quiz her on what she ate yesterday to get a sense of her diet. For this, you have some nifty props available in your office—models of different types of steaks, empty bottles to show portion size, and other food models. She seems to be doing fine and eating well, so you see no need for a follow-up appointment.

11:45 a.m.: Time for your lunch break, and you head down to the hospital cafeteria. Your nutrition department advises the cafeteria on its menu from time to time, but it’s not exactly 100 percent healthy nonetheless. Setting a good example in case any of your patients are around, you opt for a plate of grilled vegetables and some yogurt. Once a week your department tries to get everyone together for lunch to discuss departmental issues, patient cases and the latest nutrition research; but that’s not today, and you end up eating alone, leafing through an issue of the American Dietetic Association journal. There’s also time to make personal calls on a few issues.

12:30 p.m.: Next up is an appointment with a pregnant woman who is relatively healthy, but a bit under the ideal weight gain. You give her some tips like adding nuts to her diet, and using larger quantities of oil in her cooking. And you make sure she understands the medical reasons for attaining the recommended weight at each milestone. You ask her to set up a follow-up appointment for a few weeks, at which point if she hasn’t gained enough weight, you’ll recommend more significant diet changes, including supplements.

1:00 p.m.: A cancellation means you have the welcome windfall of a whole hour to write up medical notes for all your patients thus far today. Each one takes a good 15 minutes, and when you have back-to-back appointments like today, you don’t have time to write them up after each appointment. You open up the electronic template on your office computer and enter: age, trimester, height, weight, ideal weight, medical problem, your assessment of the reasons for and severity of the problem, your nutrition plan as presented to the patient. This will serve as a reference for yourself on follow-up appointments, and for the patient’s primary care doctor. Presumably, the file gets submitted to the patient’s insurance company as well, but, thankfully, you don’t have to deal with anything related to billing or insurance, so that part is more or less a mystery to you.

2:00 p.m.: Your next appointment is a woman who, upon interview, turns out to need some economic assistance. It’s awkward for her to reveal this, but, like most expectant mothers, she desperately wants a healthy baby. You expertly complete the referral paperwork for the USDA’s WIC (Women, Infants and Children) program. Even on this assistance, it will be difficult to afford a healthy, full diet, so you talk with her extensively about tips and tricks to make the money go farther without resorting to
junk food. You also tell her to ask her obstetrician to make sure to run lab tests to check for anemia, vitamin D levels and blood sugar levels.

2:45 p.m.: Next up is a woman in the early stages of her pregnancy who has tons of questions for you. She’s evidently been doing a good job doing research on what to eat, and has a lot of media-based ideas of what to avoid. Oftentimes, your function ends up becoming a filter for media information for the real science—a lot of what gets talked about publicly with respect to pregnancy nutrition hasn’t yet been accepted as part of dietitians’ official recommendations. This client has specific questions about the glycemic index, which just happens to have been the topic of the last Grand Rounds, so you have all the latest and most accurate information on the tip of your tongue.

3:30 p.m.: Another pregnant teen comes in to see you. She’s accompanied by both her mother and grandmother, who seem to be pelting her with all kinds of old-wives’-tale advice. While they have very good intentions, they are really just scaring the girl with all of their fantastical diet rules. One of your important roles as a dietitian is myth-busting, and you proceed to do a lot of that with this family. The ability to be firm yet gentle with your advice is crucial here—you want to avoid being patronizing, but it’s very important that the girl listen to current medical advice about what to eat during her pregnancy.

4:00 p.m.: Your last patient for the day is another gestational diabetes sufferer. She’s well into her third trimester, so she’s been dealing with this for a while and you’ve seen her several times before. Her blood sugar is still spiking, but her diet seems to be in line, so there isn’t much more you can recommend for her. Later you find out that she ended up being admitted to the hospital as a patient, where doctors could monitor her more closely. Once she’s an in-patient, she’s on the diabetic meal plan through the hospital cafeteria, so you don’t need to see her anymore.

You take a few minutes to write up chart notes for the last few patients you saw, so you can arrive the next morning without any undone work on your desk.

4:30 p.m.: Done for the day. You only saw nine patients today, which is a little bit light (sometimes there are last-minute add-ons and you end up seeing 12). Now it’s off to the grocery store to follow your own advice and make yourself a nutritious dinner!
Practicing massage therapists like to explain how going to massage school changed their perspective on the human body, and on the world. Massage school is a surprisingly intense experience, with lots of technical memorization requirements, and the necessity for really engaging with other people in an intimate way. It’s not quite the easy job that some might imagine, and with a high dropout rate from the profession, it’s worth very careful consideration as to whether it’s for you.

THE JOB

Massage therapists can be grouped into two camps. On the one hand, there are practitioners who think of massage as strictly physical tissue manipulation, with a view of their role as somewhat in the vein of a physical therapist. Students finding themselves in this camp may focus on medical massage, sports massage or deep tissue work. On the other hand, there are practitioners who are intensely interested in the metaphysical, emotional and spiritual aspects of massage. They see themselves as healers, and may end up getting very involved in energy work modalities (e.g., Reiki, polarity, qigong). One can see this as a difference in outlook, between “believers” and “nonbelievers” in the aspects of bodywork that go beyond the concretely physical. Of course, nobody who’s a believer would see it as a matter of belief that there are important overtones to their work and their relationship to patients.

There are over 200 variants of bodywork, so there is plenty of opportunity to find a technique that makes sense to you, is demanded in your market area, and works with your body type to allow you to practice it without exhausting yourself. Schools certify students in Swedish massage, but also introduce you to many other styles. While in massage school or anytime in your career, you are free to attend workshops and private training camps to really gain expertise in other styles of bodywork: Thai massage, shiatsu, acupressure, reflexology, deep tissue massage, and movement modalities like Feldenkrais and Alexander methods, to name a few.

The talent factor

It’s important to consider that there is a substantial talent component to success in the massage field. Good massage therapists get repeat clients, and can charge somewhat higher rates as a result. Practitioners maintain that much of what looks like “talent” is really a willingness and ability to focus on a patient, to be really present with them during the session. They say that listening ability is partly wired into your personality, and partly something that develops with age. Very young massage school graduates with little life experience don’t always have the sophistication and interpersonal responsiveness required to be a really top-notch massage therapist.
Energy medicine

Many massage therapy schools expose students at least briefly to the fascinating arena of energy medicine (Reiki, polarity therapy and qigong, among others). And some LMTs go on to become energy medicine practitioners almost exclusively, seeking training in workshops and certificate programs on the side.

Energy medicine is generally not a regulated practice—anyone can set up shop as a Reiki provider, for example (though their clients may want to know what Reiki level you have achieved and who you studied with). There is some buzz in legislative bodies about turning it into a licensed profession, or requiring that practitioners have LMT licenses. But many practitioners claim it’s more of a philosophy or religion than a medical practice, and regardless, it’s so physically harmless that there isn’t much need for legislation to protect the public.

Scientists and doctors of conventional medicine believe that energy work is modern-day snake oil. It involves limited or no touching, and a belief that one person can manipulate another’s energy and affect their health. Even if one human being could manipulate the weak electromagnetic field of another, one has to believe that it can happen in a controlled and purposeful way, and that it can have noticeable therapeutic effects in the body.

While such skepticism surrounds many alternative medicine practices, some practitioners take the approach of admitting that we might, in fact, be talking almost entirely of a placebo effect (the patient feels better because she feels she’s getting help), but that there’s absolutely nothing wrong with this if it does no harm and does good things for the patient.

PATIENT INTERACTION

Many practicing massage therapists have a story of how receiving massage changed them, and made them want to go into the profession. For example, a man in a car accident, prescribed massage as part of rehabilitation, is startled to realize the palpable feel-better benefits of it. He realizes he could become a healing professional with relatively little investment in schooling, and share the benefits of massage with others. Similarly, a female massage patient is moved by the nurturing dynamic and intense energy connection achieved with a good massage therapist. She enters the profession to experience that connection with other people on a daily basis.
One of the most satisfying aspects of a career in massage therapy is the fact that you are almost always dealing with a satisfied patient. Your client may be stressed when he arrives, but you’ve inevitably improved his outlook by the time he leaves your office. And, while it is actually possible to hurt a patient (e.g., overaggressive manipulation of a delicate geriatric or prenatal client), malpractice is so rare in the industry that insurance is simply built into your modest annual AMTA membership.

In any health care profession, you commit to being able to provide equal quality service to all types of people, even ones whose personality or body you might find objectionable in some way. This is especially important to consider for those choosing to pursue massage therapy as a career. The connection between therapist and patient can be quite intimate (when massage is done well, that is), and it takes a special type of open-minded person with great generosity of spirit who can successfully provide a pleasant experience to all clients who walk through the door. You should feel confident that you are accepting enough to deal with clients who may be obese, anorexic, very hairy, have strong body odor or have a visible skin condition without judgment—it’s your responsibility as the therapist to make everyone feel equally comfortable and respected.

The gender issue

It bears mention that gender is a curious issue in massage therapy. On balance, male massage therapists have more trouble attracting clients than do female practitioners. To some extent this is a function of the feeling in our society that women are more nurturing and caring, and it, therefore, feels more natural to some people to have a woman in the role of massage therapist. Additionally, there is the very real issue that some heterosexual men don’t want to be massaged by a male therapist, and some women feel uncomfortable being so exposed in front of a male therapist. That said, male massage therapists earn a fine living—this is just an issue to be aware of as you set up your practice and determine how and where to advertise.

Massage therapy is entirely nonsexual, and it’s important to create and keep very clear boundaries with patients, given how intimate the setting is. The therapist typically covers the patient entirely, and exposes one limb at a time. From the patient’s perspective, it’s usually more comfortable this way, not to mention warm and cozy. (That said, in some states, breast massage is legal and integrated into the nonsexual practice of massage. In Europe, breast massage is fairly commonly included in a traditional massage; important lymph nodes are concentrated in this area and it’s considered a good health practice to manipulate them as part of a full-body massage.)
Practice niches

There is an immensely long list of ways you can find your own niche in the world of massage therapy. You can specialize in a certain patient category (e.g., geriatric patients, prenatal patients, medical patients) and/or specialize in a particular style of massage (e.g., sports massage, shiatsu, Swedish massage). In most employment settings, the massage therapist is asked to do a variety of types of treatments to meet patient demands, so it's unlikely you'd practice only on one specific type of patient with one modality of bodywork. But you can nonetheless find your own focus in training and continuing education, and be known as a go-to person for that specialized service.

WORK SETTING

Licensed massage therapists can be self-employed, working in their own practice office, or partnering with another massage therapist or other allied health care professionals in a group clinic. However, the majority of massage therapists work in a spa or wellness clinic. For most people, this is much simpler life than starting and running a private massage practice. You get paid hourly, and possibly even get some benefits. You spend all of your time at work doing massage on clients, and next to none of it dealing with marketing, bookkeeping, laundry or facilities management. If you work in a luxury day spa or destination spa, you get to live your work life in a perpetual vacation environment. There are massage therapy job openings in all sorts of wonderful environments, such as cruise ships, high-end hotels, and remote retreats emphasizing yoga, wellness or outdoors activities.

Spas are an increasingly good source of jobs for graduating massage therapy students. These positions get curtailed during recessionary economic times, but over the long haul are steadily growing in number. Therefore, many schools are increasingly emphasizing spa treatments in their curricula; they teach treatments like hydrotherapy, mud and seaweed wraps as part of the massage therapy training.

Whether you go the entrepreneurial route or work for a spa or other type of clinic, you need to be aware that massage therapy is not the sinecure it may appear to be at first. In fact, the average career tenure for massage therapy school graduates is just two years! What that means is that, while many massage therapists do make a long career out of it, there are enough massage school grads who never start practicing or quit after a few months to bring the mathematical average way, way down. The question for you is whether this field is aligned enough with your interests and skills such that you can be one of those who go on to make a long career out of it.
**Territory wars**

Legally, any tissue manipulation service at a spa ought to be performed by a licensed massage therapist. If you get a pedicure and it comes with a leg massage, technically the nail artist is practicing as an unlicensed massage therapist. Salt scrubs, facials, mud wraps, etc., all fall into this category. The theory behind regulation of who practices massage—just like the theory of any regulation—is consumer protection. Massage is contra-indicated when either the patient or the practitioner is ill, and there are actually ways to do damage with a botched massage.

In reality, it's rare for anyone to make a real stink about this issue. But the point is that there is a gray area as to what constitutes massage and what constitutes a treatment that is not massage. The real upshot is that there are good, expanding practice opportunities for LMTs in the world of spa treatments, as regulation inexorably tightens over time and as spas increasingly respond to it in their staffing practices.

**TRAINING**

In almost all states, you need a license to legally practice massage therapy. Specific requirements for licensure do vary widely by state, though. The most common requirement is completion of a 500-hour educational program, plus passing the NCETMB exam. You can easily get into massage school right out of high school, but it's also pretty common for people to discover and pursue this career a little later in life, after having tried some other professional avenues.

**Career changers**

Massage schools have a higher average age of matriculating students compared to those of most other health care-related professions. It's a popular career to switch into after having spent some years getting burned out of something else. Massage practitioners tell tales of how, in school, it was evident who was there for the wrong reasons: the women who have issues with touch (due perhaps to childhood abuse) who try to learn massage as a means of confronting and overcoming their trauma; the younger, naive students who mistakenly see massage therapy as a lucrative and "easy" job.
What to expect in school

In school, you’ll spend about half your time learning anatomy and physiology, and about half learning massage techniques. Schools also weave in education on legal, ethical, business management, and insurance issues. Most massage schools have a mix of instructors in terms of specialty, so you can be exposed to a breadth of practice philosophies and techniques, and find your own path in the field. It’s a good idea to check out the overall “orientation” of any school you are interested in, however. Some have a distinct tilt toward energy work and Eastern medicine thinking, while others are more traditional and Western in orientation.

INCOME AND LIFESTYLE

Massage therapists working in spas can make somewhere in the $15 – $30 per hour range, plus tips. That would equate to about $30,000 to $60,000 per year for a 40-hour workweek … but massage therapists can’t possibly work that many hours on a sustained basis, due to the physical demands of the work. More commonly, a therapist might do five massages per day, maybe four days per week.

Those who run their own practice are collecting $50 to $90 per hour from their clients. After covering their overhead, many take home about $40,000 – $50,000 annually ($60 per hour times five patients per day times four days per week times 50 weeks per year minus 30 percent operating expenses). Income for the self-employed is almost solely a function of how many hours you want to work. What hourly rate you can command also factors into things, and is a function of your market area (urban areas see higher rates), your facilities (luxury environments can charge more), the type of massage you offer (more obscure types command higher rates), and whether you take on insurance claim patients (insurance often pays out at a higher rate than the normal retail massage rate). Operating expenses do vary, mostly as a function of how close to a hip, high-rent downtown area you are located, and also as a function of how expensive the lotions and other supplies are that you use. Many self-employed massage therapists choose to take advantage of the possibility of a highly flexible lifestyle, and work only part time.

Lifestyle for a massage therapist does involve the real issue of physical exhaustion. You work on your feet all day in a very physical job. Moreover, you are always in a “giving” role. It can really feel depleting. Therefore, many practicing LMTs do massage trades amongst one another so they can reap the same benefits as do their own clients.
The short-term approach

It’s important to consider that, while this profession does see a high dropout rate, not everyone who leaves it has experienced “failure.” Some people are interested in working in a new field for a few years, with every intention of moving on to some other profession after a while. The episodic, multi-career life is increasingly common across our society. So, you may be interested in pursuing massage as a short-term career, knowing that you’ll eventually get physically exhausted, tired of running your own show, or captivated by some other career opportunity. As long as the financial aspect works out for you, there’s nothing wrong with that approach!

THE BOTTOM LINE

Massage therapy is one of the easiest-entry allied health care careers, requiring relatively limited schooling and no college degree. However, it can be an exhausting profession, and most people actually drop out of it pretty quickly. Before pursuing this career, make sure you have the open-minded, accepting attitude toward people and the human body that is necessary for job satisfaction and success.

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<th>Education</th>
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<tr>
<td>Professional designation</td>
<td>LMT (Licensed Massage Therapist)</td>
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<tr>
<td>Full-time annual income</td>
<td>$20,000 to $40,000 (paid per patient session)</td>
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<td>Typical work setting</td>
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Medical Technologist

Chapter 9

Medical technologists are probably the most misunderstood members of the allied health care community. Known as “med techs,” “MTs” or “clinical laboratory scientists,” they are easily confused with their medical lab technician (“MLT”) colleagues … if they ever get any recognition at all. Doctors, nurses and lay people all equally get confused as to what type of training is behind the various lab-based positions, and are often ignorant of the value these professionals bring to the health care delivery system.

The med tech is invisible to the patient, who sometimes even thinks that the nurse who delivers the test results is the one who conducted the test. In job interviews, prospective med techs are often overtly asked, “Do you need a lot of praise?” Hospitals want their techs to stay on staff, and not to get burned out with the frustration of being innocently, but chronically, asked things like, “Hey, do you need a college degree to do what you do?” (The answer is a definitive “yes,” plus additional specific technical training—MTs can run circles around physicians with their specialized knowledge of lab tests!)

THE JOB

There is a hierarchical structure to medical testing laboratories, with med techs having the most responsibility (and training requirements, and pay), followed by MLTs, and followed in turn by lab phlebotomists with the least responsibility. Often, there is also an MD pathologist on call to the lab who functions as the “muscle” behind the team in the event a complex situation arises.

Med techs perform a wide variety of laboratory tests:

- Body fluids analysis (e.g., lung fluid, cyst aspirate, urine)
- Chemistry (e.g., metabolic tests like glucose or electrolytes)
- Hematology (e.g., CBC tests, coagulation tests)—These are the most complicated types of tests.
- Immunology/Serology (e.g., testing for virus antibodies, identifying aberrant features of the blood that suggest diseases like MS)
- Blood banking (e.g., blood typing, cross-matching)—This is most intense aspect of the job, as making mistakes here can actually kill a patient.
- Microbiology (e.g., gram stains, setting up cultures and possibly sending them out)

Work for a med tech on a given shift is rarely boring. You are generally very busy and constantly rotating across different types of tests. Over the years, there is new science to continually learn, and new equipment to master.
For the most part, laboratory testing involves black-and-white thinking—the test is positive or negative, or the reading is a specific number. At times, however, there is some ambiguity, where the med tech needs to have good judgment, the humility to ask for a second set of eyes on a particular slide, and the ability to deal cognitively with shades of gray.

Medical lab technician (MLT)

Medical lab technicians (known as “MLTs” or “clinical lab technicians”) have an associate degree in medical laboratory technology and have passed a standardized exam. Like the MT, this role is licensed in only a handful of states.

Some MLTs look at their field more as a “job” than a “career,” and may do lab work for a while then switch into an entirely different field. At the same time, some MLTs choose to make it a long-term career. In fact, an MLT can test into being a MT after a certain amount of time on the job and if he or she simultaneously earns a bachelor’s degree on the side.

The scope of work that an MLT is entrusted with varies according to hospital size. MLTs earn about $5 per hour less than med techs, and therefore financially constrained hospitals find it appealing to add more MLTs and thin their ranks of MTs, or move the MTs into a more supervisory role.

Phlebotomist

A phlebotomist (also known as a PBT or phlebotomy technician) is often the “face” of the laboratory, the person that the patient sees. The job is primarily to draw blood, and also can involve separating and pouring off samples and dealing with placing orders for tests and supplies. Phlebotomy schools offer programs from a few weeks to a year long, and are open to people with a high school diploma. After training, you take a standardized exam administered by the American Society for Clinical Pathologists (ASCP) to receive your certification. In a handful of states, you also need to apply for a state license.
PATIENT INTERACTION

The thing about being a med tech is that there is no patient interaction. You analyze someone’s body fluids, discover that they have an awful disease, and never put a face to the misfortune. Med techs who like their job are able to see that anonymity as a good thing—only certain types of people can dissociate to handle the emotional toll of a patient-facing medical role.

The nurse relationship

The featured interaction in your job as a med tech is with the nurses, and sometimes the physicians. Usually, a doctor orders a lab from a nurse, who passes on the order to your lab. There can be a lot of friction in this relationship—the nurse is sandwiched between you and the doctor, who may need the test done urgently, and the nurse may be frazzled on her end with a patient situation. In any event, you frequently end up getting yelled at by the nurses (which gives many med techs a special perspective on the stereotype of the compassionate, self-sacrificing nurse!).

Teamwork

The flip side of not having patient interaction or getting praise from your “customers” (the physicians, nurses and patients), is that the hospital lab has a strong sense of teamwork. Praise for a job well done comes from your colleagues, and you enjoy a collegial “in it together” feeling that can be very rewarding.

Nursing vs. med tech

Many med techs also considered a career in nursing—the two careers have similar training requirements, similar pay and a similar level of responsibility within the health care delivery system. However, the patient interaction component is a major point of difference between the two professions. Longevity in a nursing career is all about having the personality to interact compassionately and constructively with patients, whereas longevity in medical technology is all about being detail-oriented and comfortable with your invisibility to patients and the general public. Think about it this way: a spinal tap on an infant reveals that he probably has lethal bacterial meningitis—would you rather be in the position of having done the analysis and handed it off, or of being handed the analysis results and informing the infant’s parents? More than likely, it’s clear to you now which role is more suitable for your emotional constitution.

Once in a while, things get busy and tasks get temporarily switched around in the lab, and a med tech does some specimen processing (normally the MLT’s job) or some blood draws on patients (normally the phlebotomist’s job). That kind of rare patient contact can be a refreshing break.
**Additional responsibility**

Med techs sometimes get involved in helping a doctor figure out what test to order. Depending on how proactive you are, and the specific dynamic in your hospital, you could have more or less of this type of interaction. For example, a general practitioner might place a written order for two different coagulation tests—one that tests for bleeding and one for clotting. The order itself reflects confusion, so you can take it upon yourself to call the doctor back and help her figure out what the true need is.

**WORK SETTING**

You can choose to work in a stat lab (handling tests that need to be done urgently, named with an abbreviation of the Latin word for fast: “statim”) or a reference lab (handling tests for which results can wait a few days). Both are part of the hospital, but are often located separately. There are also off-site reference labs that specialize in obscure tests.

More infrequently, there are med tech positions available in private practice physician’s offices that choose to have some of their laboratory testing done on site. This setup offers a much less hectic work environment for the technologist (and no late shifts), but likely means that you are conducting a more limited set of test types. The trade-off you make in choosing this work setting is that you are gaining lower stress/better hours in exchange for less pay/less challenge.

Wherever you work, multitasking and teamwork are central features of the med tech job. In one shift, you hop around the lab and switch up tasks with your colleagues, doing cultures for a while, then looking at smears, then running a metabolic test. If you’re in a stat lab, you’ll likely experience a hurried, fast-paced environment driven by urgent requests. Work in a reference lab usually has an entirely different dynamic, with a more methodical, measured atmosphere.

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**Part of the team**

“One of the most exciting situations is, say, a patient is bleeding out in the OR. The nurse is on the phone with our lab, and we’re trying to figure out if the patient needs more plasma, or more red cells, or what. The patient could die, and our lab is the linchpin in preventing that.”

— Med tech working the blood bank in a stat lab
TRAINING

Interestingly, not all MTs report having loved their lab work in college. There’s enough of a theory component to clinical lab work that it’s appealing to both students who loved their lab science classes, as well as to students who loved their science lectures. The MT training program itself spends a lot of time giving you a solid theoretical background for all of the tests you’ll be performing—theoretical knowledge that turns out to be important in the real world on the job, enabling you to appropriately interpret results, reason through complex situations or aberrant test outcomes, and be a resource for physicians and nurses to lean on.

Med techs (also known as “clinical lab scientists,” depending on geography) have a four-year college degree in either medical technology or a biological science, and also have undergone a one-year post-graduate program in medical technology. There are some 200 of these one-year programs in existence around the United States, wherein you learn about all the different laboratory tests you might need to perform. To then become certified as an MT—the American Society for Clinical Pathology (ASCP) is the most prominent certifying entity—there is a standardized exam. It’s only in a handful of states where you need to also apply for and maintain a state license. Therefore, regulation of this field is accomplished more informally, by virtue of individual employers setting standards for what certifications, experience, and training they require for a given job.

Specialization

Over and above MT certification, you can become certified as a specialist in any of the particular testing areas that an MT deals with. There are many routes to get this type of additional certification, from going back for a master’s degree, to taking a specialized MT specialist training program, to getting the training on the job:

- Specialist in blood banking (SBB)
- Specialist in chemistry (SC)
- Specialist in cytotechnology (SCT)
- Specialist in hematology (SH)
- Specialist in laboratory safety (SLS)
- Specialist in microbiology (SM)
- Pathologists’ assistant (PA)

Positions open to experienced and/or additionally certified MTs are known as “MT IIs.” You can test into this more supervisory role, and then spend more of your time managing regulatory compliance issues and writing procedures for testing. There are even “MT III” roles, requiring even more experience, and offering more responsibility and pay.
INCOME AND LIFESTYLE

Because hospitals are 24/7 operations, the hospital lab is too. That means the med tech job is staffed in shifts, ensuring that someone is available to conduct lab tests at all times. Like any shift-based job, your schedule can be erratic, but you do know well in advance what shifts you’ve been assigned to. Horse-trading of shifts is common—you trade good and bad shifts with your colleagues to make sure you aren’t working during your sister’s wedding or your friend’s birthday party.

Med techs earn somewhere in the range of $20-30 per hour, depending on hospital size and geography. Working in a private practice clinic means less money, but then again you never have to work nights or weekends.

THE BOTTOM LINE

Becoming a med tech is a good option for a detail-oriented, scientifically minded multitasker who is immune to the need public recognition and patient interaction. Burnout definitely happens because of those two issues, but for the right personality type, it can be a satisfying career—and a position that is in steady demand.

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Midwife

Chapter 10

Midwives often speak of having a “calling” into their profession. They are alarmed that close to one-third of U.S. births happen by cesarean section, and attribute that to the depersonalization of birth and the removal of choice from the mother. Obstetricians are trained surgeons, and thus (arguably) have a propensity to cut, to advocate invasive procedures sooner in the process. A midwife is, like an obstetrician, a birthing professional—but one whose training focuses on avoiding surgery (in low-risk pregnancies) and empowering the mother. In fact, many practicing midwives thought about medical school and becoming an OB/GYN, before they found the field of midwifery.

THE JOB

A midwife replaces an obstetrician for low-risk births. She provides prenatal care, birthing and postpartum care. But, there are two entirely different types of midwives:

• **Certified nurse midwife (CNM):** CNMs are registered nurses who have gone on for additional specialty training in midwifery. They are a type of advanced practice nurse, licensed to prescribe medications and similar to a nurse practitioner in level of training and responsibility within the health care system.

CNMs attend to births in a hospital setting, where they have ready access to additional medical and surgical staff, should the need arise. (In fact, in most states, a CNM can’t attend homebirths, due to liability issues. Unlike a CPM who does not market herself as a registered nurse, the CNM’s advanced training creates an expectation of care by the patient that can only be met in a hospital setting, and with physician backup.)

• **Certified professional midwife (CPM):** CPMs are also known as “direct-entry midwives” (DEMs), because they don’t necessarily have any formal training. With just self-study, they can take a certification exam and become licensed by their state to attend to homebirths. Licensure for DEMs/CPMs is only possible in about half of the U.S. states; in the remaining states, it is a felony for anyone other than a CNM to provide midwifery services. There are far fewer CPMs than CNMs in the country.

Ideologically, CPMs say that what they do is not “medicine.” They do have the tools to administer oxygen, insert an IV, draw blood, do a pap smear and give a laboring mother Pitocin (the drug of choice to induce labor). But, they strongly feel that they are enabling a shift of responsibility to the mother, and that they are not “in charge” of the birth. Typically, they don’t carry malpractice insurance, because homebirth patients don’t really have legal recourse to sue. A CPM-attended homebirth typically involves the CPM, possibly a second midwife, an apprentice midwife and a doula. It can involve a big team at the house, but there’s no medical backup team so the level of responsibility is high. It’s up to the CPM to properly assess which pregnancies are high risk and ought to be handled in the hospital.
It’s hard to overemphasize how different these two career paths are—they involve different scopes of practice, locations of practice, philosophies of medicine, types of medical knowledge, and levels of training. Still, the commonality uniting the two groups is the notion of the woman-centered, nonsurgical birth experience. For low-risk pregnancies, CPMs and CNMs agree that having an obstetrician deliver the baby is akin to “having a pediatrician babysit your toddler.”

**Philosophy of surgical intervention**

Midwives proudly proclaim that midwife-attended births have lower mortality and complication rates than physician-attended births, but this is a wildly disingenuous statistics game. Midwives only attend to low-risk births, so you would expect that they experience a low complication rate—but that’s a reflection of their patient pool, not necessarily of their quality of care. In fact, there is research to suggest that, after correcting for the risk profile of the midwife-attended pool of patients compared to the physician-attended pool of patients, midwife-attended births may be statistically more dangerous.

An important point that midwives do bring to the public’s attention is the dramatic variation in surgical intervention rates across cultures in the industrialized world, which points to the use of surgery as a matter of philosophy, not medical necessity. For example, if caesarians were only done as a last-resort, lifesaving measure in the United States, the rate would be about 5 percent, not 30 percent. Episiotomies (an incision made in the perineum to widen the vaginal opening) are performed on about 90 percent of first-time mothers giving birth in United States hospitals. In Western Europe, the rate is around 10 percent.

The reason for this dramatic discrepancy is the subject of acrimonious debate. Have obstetricians sinisterly attempted to legitimize themselves by transforming birth into a routinely surgical procedure, as the most militant CPMs suggest? Or are they sincerely attempting to minimize rectal tearing, vaginal desensitization and other complications, regardless of whether those outcomes are well substantiated or not?

Midwives like to say that an obstetrician never gets sued for doing a caesarian when it was arguably unnecessary, but definitely gets sued for not doing one when it might have averted a problem. The point being that liability issues play into making surgery increasingly used as the “conservative” approach. Midwives exist as an option within the health care system to offer a valuable, alternative “model” of birth care where surgery is avoided unless absolutely necessary.
Despite regulation of the midwifery field, there are, of course, plenty of births that occur in people’s homes without either a CNM or CPM. Often this choice is not really a choice, but instead a forced situation due to economic circumstances. However, sometimes people choose to have a “traditional birth attendant” or “lay midwife” present (i.e., a friend or relative who is neither formally trained nor licensed to attend births, and may or may not have prior experience with birthing). Certain religious communities, like the Amish or Russian Orthodox communities, have lay midwives who attend homebirths for their constituents.

In most states, lay midwifery is illegal to protect the health of the mother and baby from someone who may have no background in health care and little experience in birthing; hiring an unlicensed professional in any industry is dangerous because, as the consumer, you just don’t know what training or experience that person has. If you wouldn’t hire an unlicensed neighbor to rewire your house, the parallel is that you wouldn’t hire an unlicensed midwife to be responsible for your health in the risky process of childbirth. The CPM designation was, in fact, created in an attempt to provide a path for lay birth attendants to “get legal,” to establish a universal standard of what it means to be a “midwife.”

**Doula**

A doula is an advocate for the mother in childbirth, a person trained to provide emotional support but not perform any clinical tasks at all. These individuals may provide massage, verbal encouragement to the mother and facilitate communication across the health care team. The doula might be hired to support a mother planning a homebirth with a CPM, or to support a mother planning a hospital birth with a CNM. Certification is available for doulas but not required. Some doulas go on to become CPMs.

These individuals can specialize as labor doulas or postpartum doulas (focusing on breastfeeding support, baby-tending, nutritional advice and light errands/housekeeping).

**PATIENT INTERACTION**

Being a midwife involves having an intense relationship with your patients for a relatively brief period of time. You provide prenatal and postpartum care, but not for long. While some midwives say they do become friends with the occasional patient, it’s unrealistic to keep in contact with all of the mothers you assist cumulatively over the years.
WORK SETTING

CNMs typically work for hospitals, or as employees of physicians’ private practice. Very infrequently, they choose to set up their own practice, and establish “privileges” at area hospitals where their patients will give birth, just like any medical doctor who conducts hospital-based procedures.

CPMs work only in private practice.

TRAINING

CNMs take a two-year master’s program in midwifery once they already have their RN status. You can become an RN by earning a four-year undergraduate degree in nursing, or by earning a two-year master’s in nursing after studying something else in college.

In contrast, CPMs can test into the profession without formal training (but with some time as an apprentice to learn the trade), or they can choose to go to a midwifery school. Either way, it is a much faster way to enter the midwife profession than going through nursing school followed by midwifery specialization. Midwifery school can range anywhere from a two-weekend-long program with five births, to a two-year program with 50 births.

Incidentally, not every practicing midwife has actually had her own child—it’s certainly possible to enter this field without yet having firsthand experience in childbirth. As part of your training, you attend many births to get exposure to all sorts of issues that might arise during childbirth.

INCOME AND LIFESTYLE

Lifestyle is necessarily erratic for a midwife. You are the primary health care provider at a birth, and these are natural births, not advance-scheduled caesarians—that means that your call could come at any time, there could be many false labor starts, and labor could last an indefinitely long time. Thus, this is a career that your entire family truly needs to accept with you. It would be a deep irony if pursuing a career dedicated to creating a supportive birth process were to cause havoc and resentment within your own family.

That said, CNMs working in a hospital environment may have an on-call schedule where they only get called in for a birth if it’s occurring during their scheduled call time. CPMs, not having the institutional support, have lives that are more controlled by the arbitrary timing of labor; however, they can partner up or work as part of a collective, where they rotate through answering the call of births happening at odd hours.
Typically, a CPM charges a flat fee, somewhere in the range of $2,000 to $4,000 for her total package: prenatal checkups, the birth and postpartum checkups. The going rate per birth varies geographically; most CPMs also offer a sliding scale for patients, depending on economic circumstances. For the midwife who handles a full schedule of about 20 births per year, that’s about $60,000 gross income (some of which goes to pay for supplies and insurance). From the patient’s perspective, using a CPM or CNM is usually substantially cheaper than having an MD obstetrician attend to the birth.

**THE BOTTOM LINE**

Midwives offer an important alternative to obstetrician-attended birth. Demand for midwife services is increasing significantly across the country, as the message about unnecessary surgical intervention during birth becomes more widely heard. Regulation of this field varies greatly from state to state, and is actively shifting—it’s crucial that you investigate the status and scope of CNM/CPM licensing in your particular state before starting down a career path.

### Education

- **CNM**: RN status (four-year undergraduate nursing degree, or college + two-year master’s in nursing) + two-year master’s program in midwifery
- **CPM**: up to two years midwifery school, after high school

### Professional designation

- **CNM** (Certified Nurse Midwife), **CPM** (Certified Professional Midwife)

### Full-time annual income

- **CNM**: $85,000 (salaried)
- **CPM**: $60,000 (paid per birth)

### Typical work setting

- Hospital (CNM); client’s home (CPM)
Naturopath

Chapter 11

Naturopathic doctors (NDs) see themselves as comparable to family practice medical doctors (MDs) in terms of function within the health care system; and in a handful of U.S. states, they are licensed to officially act in almost exactly the same capacity as primary care MDs. The general public doesn’t always concur with this vision of the ND, and understanding and acceptance of the profession definitely could be better.

Part of the problem is that naturopathy is only a licensed, legitimate profession in 14 states; in the other 36 states, someone with an ND degree can call themselves an ND, but is constrained to an extremely narrow scope of nonmedical service so as to not violate the medical practice laws (which make it illegal to practice medicine without a license). In the non-licensed states, NDs who wish to practice the full scope of their profession will do so by having a dual degree and officially practicing as a chiropractor, medical doctor, or Oriental medicine doctor (though being careful to only provide services licensed under that profession).

THE JOB

NDs differ from MDs both in terms of philosophy of medicine and of the therapeutic tools they use in their practice. Philosophically, a naturopathic physician believes that the body has an intrinsic ability to heal itself if barriers are removed, and that medication should never be a quick choice or the first choice in addressing a patient’s complaints. MDs treat the symptoms, while NDs address the reason for the symptoms, they like to say. (Of course, in reality, it’s only MDs guilty of malpractice who would dare medicate a symptom without determining its cause … but the point is that NDs are more likely to discuss and counsel patients about nonmedical contributing factors to the symptom.)

The ND’s therapeutic toolkit comprises a range of approaches: herbal medicine (both Chinese and Western remedies), homeopathy (a type of energy medicine), nutritional counseling and dietary supplements, lifestyle counseling, hydrotherapy (alternating hot and cold baths), IV therapy/chelation (delivering high-dose vitamins and minerals intravenously), acupuncture, spinal manipulation and pharmaceuticals (rarely used). Some of these therapeutic approaches are closely tied to traditional, evidence-based medicine, like proper nutrition, use of certain herbs (e.g., St John’s Wort), and counseling (similar to what a social worker would do, though usually not ongoing). At the same time, some of the approaches are wholly rejected by evidence-based medical professionals, like homeopathy (which uses herbs, but on the basis of their “energetic resonance,” not a concrete effect on body chemistry or biology). It’s a profession that has one foot in the camp of traditional medicine and the other in the camp of alternative medicine.
A typical day in the naturopath's office involves seeing a mixture of patients coming in for an annual physical and those with specific complaints. Common symptoms that bring a patient in to see their naturopath include sleep disruption, anxiety, fatigue, digestive problems, weight changes, colds or flu-like symptoms. The illnesses that reveal themselves upon diagnosis to be at the root of such complaints are varied, including thyroid disorders, stress, hormonal imbalances, auto-immune disorders, viral and bacterial infections, and sometimes far more serious illnesses that require referring the patient out to a specialist.

There are no official subspecialties within naturopathy, but you can still tailor your practice around an expertise you develop over time. There are NDs who focus on treating cancer patients, women’s health, pediatrics, spinal manipulation (competing with chiropractors), and IV therapy.

**PATIENT INTERACTION**

The quality of patient interaction is a distinguishing feature of an ND's practice, and often one of the reasons they cite as to why they chose the field. Collecting enough information about a patient's life to assess what is behind his or her symptoms takes a long conversation, and can cover topics of lifestyle, diet, family situation, relationships, mental health, professional life and spiritual outlook. There is a substantial counseling component to what an ND does, making recommendations for life changes in addition to prescribing any medical therapies.

The legitimacy of alternative therapies

The lack of documented scientific evidence supporting the efficacy of some of the naturopath’s more alternative treatments is, in itself, a controversial topic. Skeptical MDs point to the lack of data from controlled clinical trials of these therapies as evidence unto itself that the therapies are worthless.

However, as NDs are quick to point out, clinical trials of drug therapies (or herb therapies, in this case) are expensive. In the case of pharmaceuticals, the pharmaceutical companies are happy to fund the formal, double-blind studies that end up in medical journals. In the case of the herbs in a naturopath’s formulary, who would possibly fund comparable studies? The herb importers? The scale and wealth just doesn’t exist on the manufacturing side of herbs like it does for pharmaceuticals. Until something changes about this situation, naturopaths and naturopathic patients will have to deal with the lack of scientific substantiation of their natural remedies, and live with the accusations that they are not effective.
A good naturopath is aware not only of the benefits offered by naturopathy, but also its limitations, and ensures that her patients (particularly the ones with serious illnesses) also see an MD. When a patient needs diagnostic procedures or more acute and/or invasive care, it’s the MD specialist who brings the necessary training to the table. And, while NDs can technically operate as primary care docs in some U.S. states, it’s still beneficial for the patient to see a primary care MD in parallel for (1) getting primary care treatment that NDs may be trained for but don’t frequently practice, like minor in-office surgery, biopsies or sutures, and (2) making referrals to specialists and ordering diagnostic procedures that the patient’s insurance won’t pay for unless an MD makes the referral/order.

Those who find naturopathic medicine a rewarding career are people who are sincerely committed to promoting health, and doing so in the most conservative way possible—not in earning prestige or high income, or correcting symptoms in the most efficient way possible. While all health care professionals say this, for NDs it is arguably even more important: it’s all about the patient relationships.

**WORK SETTING**

Virtually by definition, naturopathy is an entrepreneurial career. Coming out of school, you either start your own practice or team up with colleagues in a group practice. There are a precious few actual jobs available for NDs to work as employees—for example, as an adjunct provider in the office of a primary care MD who wishes to provide more holistic care, offering patients convenient access to the ND’s expertise in nutrition and herbal medicine (and potentially acupuncture and/or spinal manipulation).
Many naturopaths find it beneficial for both overhead and marketing reasons to colocate with other alternative medicine and natural health service providers. Often, you’ll find the ND’s office next door to a chiropractor, acupuncturist and/or massage therapist. These professionals usually see each other as complementary, and have patients in common that they refer back and forth.

TRAINING

There are just four naturopathic schools in the U.S. (and another two in Canada):

- Bastyr University (near Seattle)
- Southwest College of Naturopathic Medicine & Health Sciences (Phoenix)
- National College Of Natural Medicine (Portland, Ore.)
- University Of Bridgeport College Of Naturopathic Medicine (near New York City)

Not surprisingly, with few schools available, there just aren’t that many naturopaths around (though the industry foresees that changing radically over time, with more schools springing up, more states licensing the profession and more people going into the field). Beware of online naturopathic degree programs, which are not accredited and will not enable you to legally practice naturopathy.

Schooling is a four-year graduate program, preceded by an undergraduate degree. Unlike the training pathway for an MD, there is no clinical residency component to an ND’s education, making it three years shorter. You need to follow a pre-med curriculum in college in order to meet the prerequisites for naturopathic medical school (or cover the prerequisites in supplementary classes after graduating with a non-science major).

INCOME AND LIFESTYLE

In theory, a naturopath could make a similar salary to any family practice/general practitioner MD. But in reality, the vast majority of NDs make choices in their practice that result in earning far less than their MD counterparts. As an industry, they set their billing rates for the same services below what an MD would charge. If their patients have insurance that covers ND visits, it will reimburse the ND the same amount as an MD would get; but relatively few patients have insurance plans that cover ND visits and treatments.

Furthermore, because of their personalities and philosophical reasons for practicing naturopathy, NDs tend to spend far longer with each patient than an MD ever would, and therefore see far fewer patients. Fewer patients multiplied by less money per patient equates to a far lower income. That said, you could certainly become a naturopath and approach your practice with a more MD-like efficiency and profitability orientation, leveraging assistants (e.g., RNs or medical assistants),
booking shorter patient visits and more of them per day. There’s nothing wrong with that and nothing to prevent you from earning a salary similar to a family practice MD (somewhere in the $150,000 realm)—it’s just not done that often. Most NDs gross something closer to $80,000 per year, out of which they (just like private practice MDs) pay staff, insurance and other overhead costs.

NDs don’t have hospital privileges, and therefore there’s really no chance of the erratic hours of the on-call life of many MDs. You see patients during your established office hours, and that’s that unless you’ve chosen to hand out your home number to certain patients and make yourself available for after-hours questions.

THE BOTTOM LINE

Becoming a naturopathic doctor involves a long road in school (though not quite as long as that of a medical doctor), and making a sincere commitment to treating patients holistically—spending the time to gather information about not only their physical condition, but also all the other aspects of their life, and then integrating that information into the treatment you recommend. For people interested in nutrition and a counselor type of role (and who can reside in a state that licenses practice of this profession), naturopathy offers a not-so-prestigious, but rewarding career with high job satisfaction among practitioners.

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<td>Professional designation</td>
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Occupational therapy is one of those professions that most members of the lay public have simply never heard of. “Do you help people find jobs?” is the puzzled questioning when you introduce yourself. Alternately, they get confused with physical therapists (PTs), with whom occupational therapists (OTs) indeed work very closely. While PTs get the patient “out of the chair,” OTs work with patients on “everything else” once they’re out of the chair. They help patients to gain skills so that they can fruitfully occupy (hence “occupational”) their time, whether that means basic activities of daily living, work or leisure. It is a difficult profession for even OTs themselves to describe, covering a relatively vague set of physical and mental problems and their solutions. But that very vagueness is what makes the profession so immensely intriguing—few other health care roles offer such a rich set of work settings, patient populations and practice areas to choose from.

THE JOB

The practice of OT combines work on both the physical and psychological aspects of disability. On the physical side, you might help a patient who suffered a stroke figure out how to comb his own hair, take a shower and dress himself. To do this, you have access to an extensive catalog of pre-existing specialized tools (like a comb with a large diameter handle, or a tool that buttons with one hand); you also use your own creativity to come up with workaround and customized tools for particular patient occupational challenges. This is the side of OT that is most well known and most well funded by insurers. OTs often work side-by-side with PTs on physical rehab, with the PT focusing more on the mechanics of proper joint movement, and the OT focusing on practicalities of reaching, bending and turning required to navigate daily life.

The mental side of an OT’s work involves cognitive rehab—educating patients about their health situation, problem-solving their life challenges, acting almost like a life coach. Often, this type of work happens after a patient has an acute episode (e.g., dementia, schizophrenia), triggering the realization in the health care team and/or the patient’s family that they just aren’t functioning successfully in the world and need help. OTs are different than a psychologist or social worker in that they don’t just talk in an office; they often observe a patient in daily life, visiting his home and accompanying him on errands.

An occupational therapist’s work is far more abstract than that of most other physical health care providers. Arguably, it’s more akin to social work or psychology, in that you are dealing with subjective problems and addressing them in very idiosyncratic, customized ways. The lack of concrete, quantifiable illnesses and equally concrete, codified solutions for many of the challenges faced by OT patients makes this career appealing to a particular type of person—unlike many physical medicine roles, not
just anybody with good grades can become a good OT. Interestingly, almost all OTs are female—something these women attribute to the fact that it’s both an extremely non-goal-oriented and a highly emotional occupation.

PATIENT INTERACTION

OTs are known for referring to their patients as “clients,” which is unusual in the health care world. This reflects the intention of the profession to be extremely collaborative with patients, and to envision them not as sick but as people on their way to functioning more successfully in the world. The relationship an occupational therapist has with their patient is similar to that of a social worker (in fact, many people who consider a career in social work also look at occupational therapy, and vice versa). It’s intimate, collaborative, long term, and rarely feels “clinical.”

Explaining your role

“The other day, I walked into the hospital room of a client who had just had a hip replacement, and introduced myself as the occupational therapist. She laughed and said ‘Honey, I’m 80 years old—I don’t need a job!’ That happens all the time. But once they understand what I’m there to help them do, they are really grateful. It’s really disorienting to realize how much your life has to change with a little bit of immobility.”

– Occupational therapist employed in a hospital

WORK SETTING

In hospitals, most OT work is on the physical side, making an OT often look quite similar to a PT. Patients who have had a hip replacement or an amputation, for example, need to retrain how to do all sorts of previously simple daily activities, like going to the bathroom, getting dressed and bathing. In residential care facilities (adult foster care, addiction rehab, skilled nursing facilities), an OT’s job tends to blend both the physical and mental components of their training and skills. The challenges these patients face are more than just physical barriers, but also cognitive ones as well.

OTs also work in schools, providing coaching and therapy for children with learning disabilities. For children, their main “occupation” in the world is play and schooling—and occupational therapy helps with both of those. You might work on
handwriting skills with a child with the weak hands typical of Down’s Syndrome, or play with a developmentally challenged toddler who doesn’t reach across his midline.

There are so many possible settings where OTs can find a niche, and they go well beyond hospitals, residential care and schools. OTs can work with well populations, too—for example, one OT created a role for herself at a community college, coaching single moms, who are students, on lifestyle changes to promote wellness. Where your skills and training would be useful is virtually limitless; job opportunities are more a function of who is willing to fund you to do the work than where there is a need for you. OTs in private practice are more or less unheard of, as there just aren’t enough insurance companies that cover enough aspects of an OT’s treatment plan.

**TRAINING**

The application process for OT schools shows a great deal about the skills needed to be an effective OT. In contrast to many professions, where getting into school is primarily about grades and standardized test scores, OT programs are looking for individuals with extraordinary people skills who are nonjudgmental, approachable and extremely patient. They know that anyone lacking these qualities will either be unhappy, ineffective or just drop out of this challenging profession altogether. Interviews often involve group sessions, where admissions staff can observe how collaborative you are. One school makes groups of applicants sit around a table laden with parts, and asks the group to “build something”—it then becomes clear who might be too bossy or attention-seeking to work constructively with patients. Also, in contrast to physical medicine programs, OT programs demand prerequisites in the arts and psychology, not just the sciences.

Schooling is generally a three-year graduate program that includes clinical rotations, broken up into mental, physical and pediatric segments (though there are a few BA programs out there that lead you directly into an OT career). There are over 100 programs around the country, and most have a strong focus on fieldwork, independent projects and providing a wealth of practical experience across a wide variety of settings. Certificate-based specialties are attainable in addition to the general OT designation, such as hand therapy, sensory integration or driving rehabilitation.

**INCOME AND LIFESTYLE**

It’s hard to get paid less for work that involves giving more of oneself than by becoming an occupational therapist. Salaries start around $30,000, and only certain specific jobs might climb towards $70,000. On average, in the same type of setting, an OT makes perhaps $10,000 less than her PT colleague. Work hours are regular; however, given the level of commitment most OTs have to their clients, it’s common to stay late, and spend hours off the job ruminating on how to solve a particularly daunting problem faced by one patient or another.
THE BOTTOM LINE

Occupational therapy is one of the most “touchy-feely” allied health care careers out there—attractive to creative, abstract thinkers who have an open-minded and flexible orientation to life, and a sincere commitment to helping people lead more meaningful lives in qualitative, sometimes subtle ways that the rest of the health care system glosses over. Consider exploring this exciting and diverse field carefully if you find physical therapy appealing, but feel that something is missing with caring for the psychological aspects of rehabilitation, or if you find social work or psychology appealing, but think that working with patients just in an office setting is limiting.

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<tr>
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<td>Residential care facility</td>
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DAY IN THE LIFE: OCCUPATIONAL THERAPIST

You are an occupational therapist just out of school  You work full time at a 14-bed not-for-profit residential facility serving HIV/AIDS patients.

8:30 a.m.: You arrive at work (referred to by staff as “the house”) by bicycle. One of the perks of this particular job is getting to wear jeans and sneakers—other OTs working in hospitals need to wear nice slacks and uncomfortable shoes!

9:00 a.m.: Today is the thrice-weekly meeting with the other clinicians (nurses, social workers, other OTs) to talk through “rounds” on all 14 patients. This is an informal group discussion of updates on each patient’s status, held in the house’s conference room, upstairs above the nursing station.

You share an important update about Tony, your patient with AIDS-related dementia. Yesterday, you performed a kitchen task analysis with him, and he reached into the oven without a mitt, and couldn’t find the spices, despite the cabinets being clearly labeled. Unfortunately, you don’t feel he’s yet ready to live on his own, even though you know his family back on the East Coast is already avidly looking into housing situations for him. His social worker mentions that she’s waiting to hear back from Tony’s job coach on job possibilities, and, based on your updates, she will make sure to request a position for him that is very routine-based, ideally with no more than three-step commands.
10:00 a.m.: Pop into your office down the hall to check email. Overnight, you’ve received a number of medical updates from the nursing staff. You read that a new resident, a double-amputee with AIDS, was rushed to the hospital last night after breaking his wrist. Also, you receive an FYI that another resident was caught selling drugs across the street—something the facility’s harm reduction policy doesn’t punish, but could still get him into a lot of trouble.

10:30 a.m.: You go into the main living room of the house to collect one of your patients for an “intervention,” i.e., a guided treatment session. Today, you are going to help Allan, who had a traumatic brain injury and suffers from a short attention span, build a model. The two of you move into the OT room, where all sorts of materials and tools are stored in a tall bank of cabinets. What you do with Allan looks a lot like leisure time, but it’s important therapy for him. You show him how to put something together, then spend time working on it together with him, and then ultimately leave him alone for short periods of time to try it on his own.

With Allan you made a lot of progress just last week when you got him a medication reminder watch. All of a sudden, he’s totally compliant with his medications—that was one important independent function checked off the list.

11:00 a.m.: While Allan is working on the model, you steal away to your office to do some quick documentation of yesterday’s interventions. It takes about 15 minutes to write up each thing you do with each patient, and sometimes the day is just too hectic to do it in real time. Medicare/Medicaid needs good documentation to approve treatment, so it’s important that you thoroughly capture what activities you did with the patient, how many cues they required to get it done, and how relevant it was to their goals.

11:30 a.m.: Time to take another patient, Fred, to the therapy pool. Fred was falling a lot when he first arrived at the house, and when you two were playing Wii together, you came up with the idea that water strength training could do a lot of good. Now, every other week, you accompany him to a special therapy pool on the other side of town, where you get in the water with him and do walking laps. It has made a noticeable difference in his balance and stability. Sometimes, the physical therapist on staff handles the therapy pool work, but she only works at the house a half-day per week, so it’s usually left to an OT. People don’t realize how much OTs work on physical mechanics with patients—if someone saw you at the pool, they’d probably guess you were a PT!

1:00 p.m.: No time for lunch today, as usual. But you’re just as happy gulping half a sandwich in your office while you write up documentation for your just-finished therapy pool session. While you’re there, you peruse a Journal of Occupational Therapy article surveying recent research on mobility therapies. You aren’t making up these interventions for your patients out of thin air, after all; you’ve learned all about tried-and-true techniques in school, and keep learning about them in the literature. Of course, there’s a huge dose of creativity required for what you do, and
thank goodness you’re in a career where you get to leverage that out-of-the-box thinking you’ve always been so good at!

1:45 p.m.: OK, so somehow “no time for lunch” turned into 45 minutes. One of the downsides of working in such a flexible, unstructured and social environment is that people are really friendly and they always want to talk. The housekeeper just bent your ear for a few minutes. And then, you just spent another few minutes trading ideas with another OT about one of her patients. You’ve officially got three residential patients assigned to you, plus two more living independently, but you effectively wind up working with all 14.

You squeeze in a few personal phone calls to schedule your own doctor and haircut appointments. Finally, you call the city transit authority to schedule a pickup for one of your remote clients to get to his OT session with you tomorrow morning.

2:00 p.m.: Time for another kitchen task analysis with Tony: today he says he wants to try making fried chicken. With visions of hot oil burns in your head, you gently suggest a Shake-n-Bake version, and he happily agrees. You help him look up a recipe online and make a grocery list. Tomorrow you’ll accompany him to the grocery store to buy ingredients.

2:45 p.m.: Now you have some quality time with Patrick, one of the other OT’s patients, and a really sweet, enjoyable person who you like to work with when you have a few minutes. Just sitting and talking with any of these patients is therapeutic for them. In addition to suffering from AIDS, Patrick lost his ability to speak as the result of a bullet wound to his head. A speech pathologist recently set him up with a communication device, which now allows him to finally be social. But he needs guidance for staying on topic when using it so he can have successful, positive conversations with other people and not wander off on tangents.

3:15 p.m.: Your patient, Fred, has the very admirable goal of becoming a motivational speaker. One the ways you help him work toward this goal is to set up speaking engagements for him. Today, you return a few calls to public schools and troubled youth centers, discussing opportunities.

When friends ask you how you handle the sadness of being around such challenged patients every day, Fred is an example you like to bring up. AIDS is no longer a terminal illness, and there are so many ways that an OT like you—as part of a team of social workers, nurses, physical therapists and doctors—can help AIDS patients make their prolonged life good and meaningful. If Fred wants to be a motivational speaker, he certainly can be; he just needs someone’s help. The same goes for patients whom you helped identify and accomplish goals to finish college, get back into competitive sports, or remember how to be an artist.

3:45 p.m.: You spend a few minutes organizing your schedule for the upcoming few days. Let’s see … you are meeting another remote client at an external support group tomorrow, plus going grocery shopping with Tony, which will take at least an hour. Tomorrow is also the weekly late-afternoon “care conference,” where the OTs
review patient goals (e.g., walk again, live independently, decrease boredom, etc.) with the nurses and social workers, so it will be a late day. Hmm … tomorrow looks like a full day. Perhaps the day after that, you can work from home in the morning and come in late, giving yourself some time to really catch up on paperwork.

4:00 p.m.: Today’s a fairly normal day, and you’re ready to head out. Once in a while you spend a couple hours in the evening reading journal articles to research possible therapies and keep up to date with the OT community, but not tonight. You’ve got an hour left of the business day to get some errands done, then meet friends for happy-hour drinks and still have the whole evening open!
THE JOB

An optometrist is the primary eye care provider for patients, the doctor people see once a year for their annual eye exam. Years ago, this role was more often filled by MD ophthalmologists, but, over many years, ophthalmologists have come to function more as specialists for advanced eye problems and eye surgeries, while optometrists have become “real doctors” for primary diagnostic eye-care and some treatment as well. Optometry tops all sorts of lists of “best professions,” and, in fact, it’s difficult to find an optometrist who dislikes her job. Why would this be? Most optometry jobs are truly 9 to 5, and there is a lot of variety to choose from.

Keeping clean

Becoming an optometrist is heralded as the “cleanest” way to be a doctor. Think about this: you don’t even wear gloves to conduct patient exams! You need to be prepared and capable of handling the occasional “blood and guts” that can certainly be involved, but, for the most part, your patients are healthy and your work noninvasive. Of course, some people do have a strong aversion to dealing with eyes—something you’ll want to take personal stock of before you end up in an eyeball dissection partway through optometry school. How do you discover if you have an aversion to dealing with the eye? Think about how you handle your own visits to the optometrist: Are you perfectly fine having drops put in your eyes? Could you easily pop contact lenses in and out the first time you tried them?

Scope of work

As an optometrist, your licensed scope of work varies significantly by state. Primarily, you’ll do annual eye exams, and fit people for glasses and contacts. Equally important, you screen for all sorts of eye diseases, like cataracts and glaucoma (which, if detected, would cause you to then refer your patient to an ophthalmologist for treatment). In some states, optometrists not only can diagnose but treat glaucoma, as well as write prescriptions, give injections and do suturing. Given a particular patient’s diagnosis, two different optometrists may very well make two different decisions about whether to refer the patient out for treatment or to treat the patient themselves—this is a function of state regulations, but importantly also a function of the optometrist’s personal comfort level with the disease in question.

Optometry is all about diagnosis… and diagnosis of what are often very subtle problems. An inquisitive mind is a helpful asset in being good at what you do. Seeing a patient rub her eyes as she removes her glasses for your exam might be the only tip-off you get that she is in the early stages of an eye disease. One optometrist tells of identifying a retinal tear in a patient, and therefore referring the patient to an
ophthalmologist for treatment … except the ophthalmologist (trained more to repair than to diagnose) couldn’t find the tear because it was so minor! It’s your job to have the keen eye to detect problems early on, and then often send the patient to a specialist to remedy the problem.

**Specialties**

Optometrists don’t have “official” specialties, but definitely can choose to gain additional training via a residency in a particular area. Going through a residency gives you more options in your optometry career. Residency-trained optometrists feel more comfortable treating their own patients, and likely refer out fewer to ophthalmologists; they are also competitive for obtaining hospital-based positions. While you can’t advertise that you are a specialist per se, you can make it known amongst your colleagues and patients that you have a particular area of focus, and thus get referrals for that particular condition and consequently tilt the balance of your practice in that direction. Topical specialties include contact lenses, low vision, vision therapy, pediatrics and hospital-based care.

**Optician**

An optician takes the optometrist’s or ophthalmologist’s prescription and actually fits lenses to the patient, recommends frames and lens coatings, and orders contact lenses. An optician can either work integrally in the optometrist’s office, or in a stand-alone eyeglasses store. A license is required for this job in about half of U.S. states. Certification (available via the national board, regardless of where you reside) is based on either a one- to two-year formal training program in opticianry or on-the-job experience, plus a standardized exam.

**PATIENT INTERACTION**

It is important to understand that the scope of optometric practice can vary considerably, due to both state regulations and personal comfort level with different eye conditions. Where you stop and refer out with respect to, for example, a macular degeneration patient depends on both of those factors.

The variety of eye health issues you deal with may be surprising to you— there’s much more to a day than having patients read the eye chart, peering at their retina with a bright light, and administering a puff of air to test for glaucoma. Your patients include infants and the elderly, routine checkups and serious eye conditions. You could be switching someone from glasses to soft contacts, addressing a post-LASIK patient’s dry eye complaint, removing a foreign body from an eye, or recommending
and fitting some type of advanced refraction technology, like glasses that correct lazy eye, nighttime lenses that reshape the cornea, or bifocal lenses.

In general, your patients are healthy enough to be in a good mood to see you, and what you do to them doesn’t instill fear or discomfort (unlike, for example, going to the dentist). For most conditions, you have a tool in your arsenal to provide a solution, and leave your patients satisfied with the outcome. In fact, it’s interesting to consider that malpractice insurance rates for optometrists are far, far lower than for medical doctors. In a practice where your treatments are noninvasive, technology-based fixes, and much of your time is spent on diagnoses of illnesses, which get treated by other medical professionals, there just isn’t a terribly high risk of disaster. Of course, there are good and bad optometrists, and practitioners who have more or less sensitive solutions to a given patient’s problem—but the prospect that in this profession you’ll be liable for a tragic medical mistake is relatively unlikely.

**A diagnostic role**

“I’ve had the opportunity to detect diabetes in patients who didn’t know they had it—because it manifested via their vision. The same thing goes for brain tumors, hypertension, and high cholesterol. The eye can really reveal a lot about a person’s overall health status.”

— Optometrist in a clinical residency program

**WORK SETTING**

Practicing optometrists get almost giddy when they describe the “good deal” they get in their profession: normal hours, decent pay, limited blood and guts, public respect, and a wide variety of work settings from which to choose. If there’s any other medical profession they can think to compare it to on all those dimensions, it is dentistry.

**Your own practice**

If you have the entrepreneurial spirit, you can start up your own practice, or join a group practice. The opportunity to be a small business owner is truly a major draw into this profession. Optometrists point out that it’s one of the few ways to be in the medical field and own your own practice, apart from being a doctor (and being a doctor in private practice has its own substantial barriers and headaches, like obtaining expensive malpractice insurance, and setting up operating privileges at local hospitals). Among the other “allied health” professions covered in this book where running a practice is an option, most of them are not “medicine” practices, but
rather things like massage and acupuncture (just don’t tell the massage therapists and acupuncturists that some people don’t call that “medicine”).

Running a small business is a risky venture across the board, but the reality is that optometry practices rarely fail—it’s not like opening a retail store, restaurant, spa or professional services outfit where being in the wrong location, having the wrong business concept or encountering a recession can quickly drive you into red ink due to low demand for what you’re offering. Most people consider sight their most precious sense, and tend to do what it takes to see an optometrist regularly.

**Hospitals**

Optometrists are increasingly employed in hospitals. If you see a patient in a hospital, it’s usually because they were admitted for some other medical problem, and in the process it was discovered that they had eye issues that needed addressing. For example, a patient comes out of surgery and reports blurry vision that doesn’t clear up—an optometrist is consulted to deal with this refractory problem, not an MD ophthalmologist who is busy performing eye surgeries.

**Corporate settings**

Then there’s the “corporate” setting for optometry work, which can be very appealing to many. Stores like Lenscrafters don’t just sell eyewear—they also offer the full optometry annual exam on site. Big box stores like Target and Walmart may have an optometry clinic in-house. These setups may be a “store within a store,” where you essentially run your own show; or they may be salaried positions, where you have the ease of showing up for work, treating your patients and going home when your shift ends.

**Academia**

Like most medical professions, optometry also offers options in academia. You can teach optometry at a school, which usually also means you get to mix in research work, and extensive clinical work, too. You may supervise residents who have opted for that extra training, and guide them through seeing patients with more complex eye problems, as well as supervise optometry school students in their clinical rotations.
TRAINING

Getting into optometry school requires good grades in college, a suite of prerequisite courses in biology, chemistry, physics and math, and a good score on the OAT (Optometry Admissions Test).

Training is completed in one of the 19 accredited optometry schools around the United States. These are four-year programs after college, much like the medical or dental school path. A yearlong residency after that is strictly optional, offering the opportunity to become comfortable with treating complex problems, as well as having access to hospital-based positions. At the end of training, you take the NBEO (National Board of Examiners in Optometry) test to get your state license to practice.

INCOME AND LIFESTYLE

An aging population means strong demand for optometry services. Most people believe in taking good care of their vision, and are willing to pay accordingly (as are the insurance companies). Incomes range widely, depending on what type of setting you choose to work in, but it’s a safe bet to say you can start with at least $80,000 in most markets. Academia pays less, and private practice can yield considerably more, especially if you integrate lens and frame sales (which are high margin) into your business. Private practice optometrists report that it shouldn’t be that difficult to make upwards of $150,000 even in the first couple of years of starting out with your business.

Optometry is lauded as a well-paid, 9-to-5 job. Of course, you can choose a mode of practice where you work far more hours than that, or have an on-call schedule, so beware of such generalizations.

Optometrists versus Ophthalmologists

There exists a fairly vicious debate between optometrists and ophthalmologists as to whether optometrists are “real” doctors. The degree is called “doctor of optometry,” true. And it’s also true that, in common parlance, the term “doctor” is reserved for someone who has studied the physiology and pathology of the entire human body, and possibly subsequently specialized in one particular part of the body. Ophthalmologists go through four years of regular medical school, followed by three years of clinical residency training in ophthalmology. Debate circles around how three years of ophthalmology residency (and seven years of total training) compares to the four years of optometry school. And the realistic answer is that they cover distinct bodies of knowledge. An ophthalmologist
Optometry tops all sorts of lists of “best professions,” and for many good reasons. There just isn’t a lot of dropping out of this profession!

**THE BOTTOM LINE**

<table>
<thead>
<tr>
<th>Education</th>
<th>Four years optometry school, after four years college</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional designation</td>
<td>OD (Doctor of Optometry)</td>
</tr>
<tr>
<td>Full-time annual income</td>
<td>$80,000+ (paid per patient/procedure)</td>
</tr>
<tr>
<td>Typical work setting</td>
<td>Private practice</td>
</tr>
</tbody>
</table>

does know optometry, but likely didn’t focus on it enough in training to be a top-notch, full-time optometrist; an optometrist knows optometry well and only optometry. What’s important here is that an optometrist won’t always get the reverence of being a “doctor,” even though they are a specialized, crucial part of the health care system. If those kinds of semantics and perception issues truly make your blood boil, then it might be worthwhile considering whether, as an optometrist, you would always be yearning for more prestige and stature, and potentially allowing that to affect your practice in terms of making appropriate referrals to your ophthalmologist colleagues.
Oriental Medicine Practitioner

Chapter 14

Oriental medicine (a/k/a traditional Chinese medicine, or TCM) comprises acupuncture, Chinese herbology and Asian bodywork like Tui na (shiatsu-like massage). As a practitioner, you can get licensed to do just acupuncture, or to more broadly practice Oriental medicine (adding herbs and bodywork to your toolkit).

The principal of TCM is that energy, known as qi (pronounced “chee”), travels along meridians in the body, and its balance affects health. In modern-day China, all physicians are trained in both Western (a/k/a allopathic, or evidence-based) medicine and TCM. Here in the United States, TCM lives in a gray area in terms of acceptance: some but not all insurance companies cover TCM treatments, many but not all states license TCM practitioners, and some but not all MDs refer patients to TCM providers and work with them on a complementary basis.

THE JOB

Oriental medicine practitioners start with diagnosis, which is the most subjective and difficult part of their practice. They don’t use laboratory testing or imaging equipment, but rely solely on taking the pulse, looking at the tongue, and taking a family history in an effort to determine the root cause of the patient’s symptoms. Based on the diagnosis, a “point prescription” of acupuncture needle locations and/or an herbal mixture is looked up in reference books.

Improving quality of life

Acupuncturists are prohibited from claiming to cure any illnesses—what they can claim to do is stabilize conditions and improve quality of life. Evidence-based medicine has supported acupuncture’s quality of life benefits for certain medical conditions (headaches, infertility, nausea, neck pain, addiction, PMS, arthritis), while remaining agnostic on its potential benefits for the myriad other conditions commonly treated by acupuncturists (depression, asthma, gastrointestinal problems, high blood pressure, kidney problems, etc.). Growth areas of interest to the acupuncture community include stroke rehabilitation and autism, though again there is not yet convincing evidence that acupuncture eases such symptoms.

Vocal detractors

Importantly, it appears that acupuncture has an extremely low-risk profile, so even if it’s being used simply for the placebo effect, the practitioner is not violating the medical principle of “do no harm.” The efficacy of herbology is even more controversial than that of acupuncture, with little scientific evidence in its camp, and some concerning arguments regarding safety. Overall, Oriental medicine certainly has its vocal detractors, but it stands up far better to accusations of quackery than does its cousin, chiropractic.
Acupuncture

Acupuncture schools are generally perfectly welcoming to skeptics—a class is not entirely made up of hippies. Acupuncture school graduates with a leaning toward evidence-based medicine may simply reflect that orientation by doing more referring out of patients to physicians, and by limiting the scope of illnesses that they offer to treat. The American Board of Medical Acupuncture certifies MDs (and only MDs) in acupuncture; this is both indicative that some part of the MD community endorses acupuncture as a valid medical treatment, and that there exists serious and growing competition to acupuncturists who are not MDs. Indeed, a wide range of medical professionals can be licensed to use acupuncture in their practices (naturopaths, chiropractors, dentists, podiatrists, nurses, physician assistants, physicians). A plain acupuncturist has to wonder if the economic pie is large enough to be divided across so many potential practitioners. However, skill increases with repetition, and acupuncturists who do only that have a case to make that they will be more effective at it than a physician who uses the modality only occasionally.

PATIENT INTERACTION

Like most Chinese medicine practitioners, most Chinese medicine patients are attracted to the practice because they are fed up with allopathic (Western) medicine. Patients with chronic pain may be frustrated that their physicians can only offer more pain meds or surgery as answers, and they are coming to you after what may have been a long path of dead-ends with various Western medicine specialists. This means that many of your patients have chronic conditions, they are frustrated, and they are very much hoping that you can finally be the one to help them. (Note: This is very much the same niche that chiropractic occupies in the health care delivery system, and acupuncture providers are inevitably chided just the same as chiropractors: the placebo effect is at work. If patients are so eager to be cured, and have exhausted or been frustrated by other options, then you are arguably virtually set up for apparent success. Similar to the case of chiropractors, and in great contrast to allopathic doctors, acupuncturists end up with extraordinarily satisfied patients.)

Some of your patients will have come to you first (in fact, in a few states, an acupuncturist is classified as a legitimate primary health care provider), some will see you after seeing an allopathic physician, and many will see you in parallel to an allopathic physician. It’s your responsibility as a health care provider to know what other health care your patients are receiving, and to proactively coordinate their care with their other providers. This is particularly true when it comes to herbal medicine, where your prescriptions can potentially have adverse interactions with prescription pharmaceuticals the patient is getting from another provider.
A real alternative, even for skeptics

“A 70-year-old man with post-herpetic neuralgia [debilitating pain following a shingles outbreak] came to see me after years of pursuing ultimately ineffective treatments with neurologists and dermatologists. The poor guy couldn’t stand to have clothing touch the affected area on his shoulder, or be outside when there was any breeze. He had had nerve blocks, cocktails of the standard antidepressant and anticonvulsant treatments, TENS treatments, everything. He was a conservative guy who I could tell thought Oriental medicine wasn’t much more than quackery, but he had exhausted his options. I treated him, and within three sessions, he noticed a profound difference. The pain wasn’t gone completely, but he had his life back.”

– Acupuncturist in private practice, focusing on chronic pain

WORK SETTING

Most Oriental medicine practitioners operate in private practice, though there are a few and increasing numbers of jobs offered on staff at hospitals. A private practice can be structured in a variety of ways. Often, acupuncturists find it useful to team up with other complementary and alternative medicine providers to create a group clinic that serves as a destination for patients. These groups can be co-owned as partners, or simply a set of solo practitioners sharing space and overhead costs.

TRAINING

You can get a degree in either acupuncture alone, or “Chinese medicine,” which includes both acupuncture and herbology. Degree programs are three to four years, and require either an undergraduate degree or a certain number of credit hours and list of science prerequisites.

To become a licensed practitioner, you then need to pass an exam administered by either the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM), or your individual state’s acupuncture board. In the past, some states licensed acupuncturists on apprentice-based learning alone (without formal education), but that has been phased out (though there are special guidelines for would-be practitioners who demonstrate extensive field learning from Asia).
Defying stereotypes

In contrast to the stereotype many people have about the “lefty,” “hippie” types who might be interested in alternative medicine, the schools are filled with a wide variety of personality types and backgrounds, including physicians learning a new skill, nurses looking for a new career, students profoundly interested in the philosophy of Eastern medicine, and students who have little time for the philosophical context and focus on the mechanics of treatments. It is a rigorous and technical training program, particularly with respect to the extensive memorization required related to anatomy, needle point locations, and Chinese names for hundreds of different herbs.

Specialization

There are no official specialties in Oriental medicine, though, of course, you can tailor and market your practice to particular medical conditions you prefer to treat and market. You specialize by taking electives in school, continuing education programs and accumulating experience treating particular issues. Advanced training toward a doctorate in acupuncture is also an option for those who want to go into academia, research, or gain more in-depth knowledge.

INCOME AND LIFESTYLE

Practitioners can expect some of their patients to carry insurance that covers some or all of their treatment bills, with most paying directly out of pocket.

Almost all acupuncturists work in private practice, and the economics of the career look very similar those of massage therapy. Generally, TCM practitioners who run their own practice are collecting $50 to $75 per hour from their clients. After covering overhead, that might mean taking home something like $40,000 to $50,000 annually ($60 per hour times five patients per day times four days per week times 50 weeks per year minus 30 percent operating expenses). Income for the self-employed is almost solely a function of how many hours you want to work. What hourly rate you can command also factors into things, and is a function of your market area. If you incorporate herbs into your practice, you can potentially increase your earnings, due to the markup you can charge on the products.
THE BOTTOM LINE

Oriental medicine involves immersion in a fascinating philosophy of the human body function and of life, and it attracts people from all walks and stages of life who find the alternative medicine approach inspirational and the therapies useful. Choosing this career is really all about embracing the philosophical principles that underscore the practice of acupuncture and herbal medicine … and being prepared for the unstructured, challenging and less-than-lucrative world of entrepreneurship.

<table>
<thead>
<tr>
<th>Education</th>
<th>Three- to four-year Master’s in Oriental Medicine (or a shorter program covering just acupuncture, herbology, or bodywork), after an undergraduate degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional designation</td>
<td>Dipl. OM (Diplomate in Oriental Medicine), Dipl. Ac. (Diplomate in Acupuncture), Dipl. CH (Diplomate in Chinese Herbology), and/or Dipl. ABT (Diplomate in Asian Bodywork Therapy)</td>
</tr>
<tr>
<td>Full-time annual income</td>
<td>$40,000 to $50,000 (paid per patient visit)</td>
</tr>
<tr>
<td>Typical work setting</td>
<td>Private practice</td>
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</tbody>
</table>
Paramedic

Chapter 15

Paramedics are one type of emergency medical technician (EMT). Their job as an auxiliary (para) medical professional is to stabilize patients in the field, possibly administer limited pharmaceutical or invasive treatments, and get them to a hospital where far more extensive tools and specialists are available.

The fact that someone is an EMT isn’t quite enough information to really know what they do for a living. There are different types of EMTs, with quite different job profiles. You might work for an ambulance service, be a firefighter or be a ski patroller. You might be certified at a level to perform CPR and other death-defying, lifesaving measures; or you might be certified for a job that involves quietly transporting stable patients between hospitals. In any incarnation, being an EMT is much more of a human job than an adrenaline job. Being good at it, and being able to enjoy the work for the long haul, requires a compassionate heart and nonjudgmental attitude.

THE JOB

Emergency medical technicians are certified at three different levels, with varying scopes of work:

EMT-basic

This is what most people mean when they say “EMT,” even if they don’t clarify. These people are licensed to perform CPR (or use an automatic defibrillator), control bleeding, stabilize fractures and deliver babies in an emergency setting. The limited scope of treatments that a basic is allowed to provide can be quite frustrating. Because of this, and the low pay, few people make a long-term career out of it.

Typically, when a call comes in to 911, an ambulance staffed by EMT-basics or intermediates is sent to the scene. If they determine that more help is needed, only then is the paramedic-staffed ambulance dispatched.

The EMT-basic designation is also earned by other professionals like police officers, ski patrollers (who likely have some additional wilderness first-aid training), or designated workers at an industrial plant. For these people, their career is not being an EMT per se; they have pursued the training and certification to make themselves more useful in their jobs.

EMT-intermediate

Not every state has this designation. Where it does exist, it’s a certification level midway between basic and paramedic. These EMTs can do more than just stabilize, but can’t perform the most advanced treatments that a paramedic would.
EMT-paramedic

These people are typically referred to simply as “paramedics” to distinguish their skill and responsibility from EMT-basics. They are licensed to administer drugs orally or intravenously, intubate patients, perform some invasive procedures and use a variety of diagnostic equipment like EKGs.

Some paramedics argue that they are some of the more undervalued members of the health care world. A paramedic saves more lives per year than a doctor does, but, as the joke goes, if the two of them walk into a bar, it’s the doctor who is going to get the phone numbers. Equally, though, some paramedics find that their role receives plenty of just recognition. The public seems to know that being a paramedic means you are not only technically skilled, but that you are an upstanding and admiration-worthy member of society.

PATIENT INTERACTION

First-responder EMTs are rarely up to their elbows in blood and guts, despite the public perception that this is the case. You’re not saving lives on every shift by any means, but, of course, there are those days when your shift offers as much drama as TV shows. Nine times out of 10, you’re helping to get a drunk individual up off the ground, or transporting an elderly man to the hospital on his 20th ambulance ride for chest pain.

The EMT’s interaction with a patient is typically very brief—you’re at their home for perhaps 20 minutes. Maybe you accompany them to the hospital in the ambulance, or maybe you hand them off to another transport. Unless it’s one of those rare patients who was so transformed by your help that they show up later at the station with cookies, you will likely never see them again or know the outcome the health situation you helped them with.

The job is intense, even if the frenetic, “blood and guts” situations are infrequent. As a first responder on the scene, you are temporarily in a very intimate relationship with the patient. You have a front-row seat to a very vulnerable moment in his or her life, whether she or she broke a bone, had a seizure, or is near death.
WORK SETTING

There are three quite different work settings to choose from in being an EMT-paramedic (or an EMT-intermediate):

Fire service

Some firefighters cross-train as paramedics (and most fire companies require that all members are EMT-basics). Typically, you try to become a firefighter first, and then choose to train as a paramedic. Becoming a firefighter is an extraordinarily competitive process, involving taxing physical requirements, plus extensive psychological assessments of your character and ethics.

As first-responders to emergency scenes, the firefighter paramedic often starts to treat the patient before the ambulance arrives. (Did you know that there are more fire trucks than ambulances in the country?) Life as part of a fire service involves a special kind of camaraderie that is a real draw into the profession. During your shift (often 24 hours on, 48 off), you spend your time at the fire station with your teammates, where there are beds, a kitchen to prepare hot meals and a gym.

Private paramedic service

People generally don’t realize that most of the ambulances you see on the street are actually private services under contract with the municipality, or owned by a hospital. While the paramedic working for the fire service self-identifies as “a firefighter,” the paramedic working for an ambulance service is plainly “a paramedic.” This is the most common type of job for a trained paramedic.

Ambulance work is staffed in 12-hour or 24-hour shifts, usually two days per week. During your shift, you are constantly moving around from post to post—locations in the service territory from which you are geographically accessible to quickly respond to 911 calls. For example, you might spend hours sitting in a 7-11 parking lot,
munching on snacks and waiting for the next call. Your ambulance is either staffed with just you, or you and one other EMT. As you can imagine, that's an entirely different experience than hanging out in a station waiting for the next call.

Public paramedic service

A dedicated paramedic service based out of a paramedic station is a relative rarity. This is more common in large cities on the East Coast than anywhere else. In this setup, the city or county funds a paramedic service just like they have a fire service and police service. Just like firefighters, you are based in a station, where you spend your time between calls and develop a real sense of camaraderie with your colleagues.

Regardless of which type of employer for which you do paramedic work, it’s always something that involves a lot of downtime, interrupted by spurts of activity.

A position as an EMT is definitely one of those jobs that is never boring. You might have 10 chest pain calls in a week, but they will all be different in some way—there will be some unique component to the health situation and/or the personal situation you are dealing with.

TRAINING

The best way to decide if this career is for you is to do some observational ride-alongs with EMTs. There are a lot of myths about the day-to-day life of an EMT, and while shadowing a practitioner is a good idea when considering any career, it’s imperative for this one. One common assumption, for example, is that paramedics are predominantly men; in fact, more than a quarter of them are women.

For someone serious about this career (or any career in the medical field), it makes a lot of sense to go through the short (usually around four months) EMT-basic training and volunteer or work as an EMT-basic for a while. The best setup in this case is to get staffed to a “PB” or “peanut butter” truck (i.e., ambulance), where there is one paramedic and one basic working together (hence, the term “PB”). That way, you can observe and participate in more substantial medical treatment, and get a better taste of the work. Furthermore, it is almost always a requirement to have your EMT-basic certification before you start paramedic school.

Paramedic school is typically a one-year course (though some stretch to two years), which can be taken full time or as night classes while working elsewhere. There are some 200 such programs around the country, and they are not terribly competitive to get into, though it doesn’t hurt to have some education beyond high school, like an associate degree or even an undergraduate degree. To obtain a license, you must also pass the NREMT (National Registry of Emergency Medical Technicians) exam for your level. Training programs are not really as academically difficult as you might
think—success in EMT training is much more related to your ability to retain lots of information, than your history as an ace student in the sciences.

INCOME AND LIFESTYLE

Paramedic salaries vary greatly by geography across the country. Salaries are a function of how well funded the municipality is (if you work for a public service or a fire service), or how competitive the market for ambulance services is (if you work for a private service).

For example, an EMT-paramedic in a large Northeast or West Coast city's fire brigade may make around $90,000 annually, plus enjoy good benefits and a pension (and working the standard amount of just nine days per month). In the Southeast, Midwest, or underfunded cities like, for example, Detroit, the salary could be as low as $25,000. Intermediates would make considerably less.

With private and public ambulance services alike feeling financial constraints, the number of paramedic positions relative to intermediate/basic positions is declining somewhat. Even if you are trained as a paramedic, you realistically could end up working or filling in extra hours in an EMT-basic role. You can still leverage your extensive paramedic knowledge, but you’ll be staffed on a truck with only basic equipment—and your pay will be that of a basic as well.

EMT-basic

For EMT-basics, the training requirements and income are very different than for paramedics (and intermediates). There are a lot of volunteers who do this job, or college students needing to make a little extra money. Pay is generally no more than $15 per hour. Training can be accomplished in a 140-hour course.

Be aware that few people go into this field intending to stay for the long haul. It's a very physical job, requiring that you be in pretty good shape—lifting patients, carrying them down flights of stairs, wielding equipment, and simply being on high alert and in trauma mode energy-wise. On top of that, there can be a lot of frustration inherent in the job, where your interaction with patients is brief, your toolkit to help them in the field is limited primarily to stabilization, and the shift work can be lonely and sometimes involve a lot of idle downtime. Cross-trained firefighters may have very high job satisfaction doing their version of paramedic work, but the physicality of the career still takes its toll.
THE BOTTOM LINE

Paramedics see a wide variety of both high-adrenaline and low-adrenaline situations, interspersed with a lot of downtime. Those who stick around in this career are patient and sensitive to the less-than-life-threatening calls they often respond to, and can good-naturedly deal with the physicality of the job and the erratic life of shift work.

<table>
<thead>
<tr>
<th>Education</th>
<th>One year of paramedic school, after four months EMT-basic training</th>
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</thead>
<tbody>
<tr>
<td>Professional designation</td>
<td>EMT-paramedic (EMT-intermediate or EMT-basic also available with less training and less pay)</td>
</tr>
<tr>
<td>Full-time annual income</td>
<td>$25,000 to $40,000 (and even up to $90,000 in a well-funded city fire brigade)</td>
</tr>
<tr>
<td>Typical work setting</td>
<td>Private ambulance service</td>
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</tbody>
</table>
Pharmacist

Chapter 16

It used to be that quiet, math-and-science people dominated the ranks of our nation’s pharmacists. But that’s not really the case anymore. Pharmacy is a career that requires advanced subjective decision-making skills, and a personality to deal pleasantly with agitated, hurried and noncommunicative clients. The best pharmacists (and they do vary greatly in aptitude) are a little bit “OCD,” i.e., extremely detail-oriented with regard to documentation and data. They have a decently thick skin, and can accept having their extensive education often underappreciated.

Of course, there are people who go into pharmacy careers because of the economic package: good pay with flexible hours, yet less investment in education than for medical school. Indeed, where else can you earn a six-digit salary for a 40-hour workweek in your first year out of school? It’s a vastly appealing deal. But only if you enjoy the work—no amount of money can substitute for personal fulfillment, having a job you feel good about, and feeling like you are using your talents to their highest and best use.

Some people apply to pharmacy school (52 percent of applicants accepted) when they get rejected time and again from medical schools (42 percent of applicants accepted); stats don’t bear out that it’s actually easier to get into pharmacy school than med school, but for a particular individual that very well could be the case. In fact, rejected med school applicants have been known to enter pharmacy school and then reapply, transferring out to a medical school partway through. But the reality is that it’s an entirely different type of career than that being a doctor: medical doctors treat illnesses, while pharmacists check and dispense medications.

THE JOB

Know your medications

One of the pharmacist’s primary responsibilities is to check for drug interactions, which is done with software, but it’s still not a black-and-white process. It doesn’t follow that just because two drugs have a documented interaction you will automatically have a problem. It’s the pharmacist’s job to use her or his judgment to determine the correct path. She can ask if the patient is taking any OTC (over-the-counter) drugs, and inquire whether the possible interaction effect has been a problem for the patient (it might just be, for example, a mild rash that isn’t bothersome). If the prescribed dosage is unusually high, the pharmacist is responsible for checking with the manufacturer’s guidelines and with the physician to make sure a mistake hasn’t been made. Increasingly, physicians employ untrained medical assistants in their clinics (instead of medically trained nurses) to increase efficiency and cut down on costs, but that also can mean more misinterpretation of prescriptions.
A bitter pill

Mistakes anywhere along the communication chain can be tragic, and there’s a lot on the line for the pharmacist, sitting in the final check position. It has been surmised that nearly half of all hospital admissions are prompted by a medication error! Pharmacies usually purchase malpractice insurance for their pharmacists, and some pharmacists elect to purchase supplementary coverage themselves as well.

Sometimes, patients can have a reaction to a certain component of a drug—not the active ingredient, but perhaps a dye or substrate used in the formulation. The pharmacist can identify this problem, suggest a switch to another manufacturer’s formulation of the same drug, or refer the patient to a compounding pharmacy that can concoct a custom formulation.

An evolving role

Pharmacists cannot prescribe meds (though there is buzz about one day allowing them to do so, and some pilot programs where they can prescribe birth control). However, retail pharmacies may increasingly go in the direction of having nurse practitioners on site who can diagnose and prescribe, thus creating a clinic environment right there in the pharmacy. This is one trend leading toward the pharmacist becoming ever more integral to the health care team.

Continuous learning

Pharmacists need to complete continuing education to maintain their licenses. It’s a job that most practitioners feel never gets old—there are always new drugs on the market to learn about, and no two patients are ever exactly alike. Like most careers, experience matters, and pharmacists get better and better at their jobs over time.

Catching mistakes

“A woman came in right as we were closing, wanting to fill a Depakote (anti-seizure drug) prescription for her child who had just been released from the ER. The dose looked high to me, so I called the physician to confirm. He insisted it was correct...until I was persistent and walked him through the dosing calculation for the child’s age and weight. Ultimately, the physician realized he was grossly wrong and had me change the dose. The whole time, the mom was pressuring me to just fill the prescription quickly, and the store manager was reminding me that we were closing. I averted what could have been a very bad outcome, but won’t get and don’t expect a medal—that’s just my job!”

– Chain store pharmacist
PATIENT INTERACTION

Patient counseling is often the most cherished part of the job for a practicing pharmacist. It’s also the most challenging. Patient counseling is a central part of pharmacy education—pharmacists are trained to ask open-ended questions to effectively probe for information from patients. The pharmacist is sandwiched between the prescribing physician (or nurse or medical assistant) on one side and the patient on the other, and often has to translate, mediate and clarify information. In a retail setting, patients can often be in an extreme hurry, frustrated at something unrelated to the pharmacist, or resentful about their illness or the cost of medication—all of this can land in the lap of the pharmacist. A thick skin is certainly something that makes the job much more enjoyable.

The type of patient interaction a pharmacist has with her or his clients varies widely from patient to patient. Some prefer to pay for their drugs and walk away (elderly people used to keeping health issues a private matter, for example). And then some fully leverage their pharmacists’ extensive knowledge base and ability to provide advice and confirm the drug treatment plan makes sense. Pharmacists also spend a lot of time helping patients reduce their drug costs, by suggesting less expensive alternatives and calling the physician to get approval for a substitution. It’s a wide spectrum of types of conversations, but always characterized by “no bodily fluids.” Indeed, many future pharmacists are very clear when choosing the profession that they have an issue with touching people they don’t know.

The health care system is gradually coming to more highly value the role of pharmacists, and therefore their roles are expanding. At the same time, corporate cost-cutting leads to leaner staffing, and less time for patient counseling. Even when new technology theoretically increases efficiency, it’s more likely to enable higher prescription processing volume than to allow for more time per patient. In a particularly busy pharmacy, it can really feel like a “fast-food” type of environment, rather than the interactive, thoughtful dynamic that would be ideal.

Optimizing the prescription

“One of my patients came in with a prescription for two different cholesterol medications, which is fairly common. With most insurance plans, combining them into one pill would be more expensive than dispensing two separate pills. But, it occurred to me to check her plan, just in case. It turned out that she could save $50 per month if I made it up as two separate pills, which I was happy to do. I know from experience that if the meds are too expensive, patients often don’t comply—if we want the treatment to work, we need to make sure it’s as easy as possible for the patient, and the pharmacist is in a position to really help with that.”

– Independent retail pharmacist
WORK SETTING

Retail

Two-thirds of pharmacy jobs are in retail settings. This is the pharmacist you are likely familiar with—the one at the counter in your local drugstore. Even within the realm of retail pharmacy, there are a few different types of jobs available. You can work for a large chain, like Walgreen’s, CVS or RiteAid. Alternatively, there are still some independent pharmacies in existence. (Actually, North Dakota is in the unique position of having lots of them, having legislated that all pharmacies must be 51 percent owned by practicing pharmacists!) Entrepreneurially motivated pharmacists can choose to open and run their own operation.

Compounding

Compounding pharmacies, whether independent or owned by a chain, offer yet a different type of experience. Most of their patients are there because a regular pharmacy couldn’t fill their needs. Prescriptions and dispensing is more complex. In addition, they usually work with veterinary medications, too!

Hospitals and nursing homes

Aside from working in the community pharmacy, there are many, many jobs available in pharmacies located inside hospitals and nursing homes. In a hospital, the basic tasks are the same as in a retail pharmacy, except you dispense meds to physicians and nurses. In this setting, there is now an increasing focus on including the pharmacist as a part of the health care team. The hospital pharmacist may conduct rounds with the physicians and become directly involved in patient care, compared to maintaining a more arm’s-length relationship to the patient in the retail setting. Pharmacists in hospital roles report that this setting leverages their pharmacy training the most—the clients are more demanding for information, the health conditions of patients more extreme, and the pace often faster.

Managed care

A pharmacy degree is also very useful for getting a job in a managed care organization. It’s an appealing credential for employers looking to hire people to work in contracts and claims, even if they won’t be practicing pharmacy per se. Similarly, pharmaceutical companies are often keen to hire sales reps with pharmacy training.
Other niche jobs

There are a host of other niche jobs waiting to be filled by trained pharmacists: the FDA, the VA, nonprofit associations, general business jobs where the pharmacy knowledge provides useful background, etc. You can also use pharmacy school as a preamble to another advanced degree that will lead into bench research or academics. These are unique enough positions that one shouldn’t necessarily go into the field planning to get one of them—but it’s useful to know that there will inevitably be a wide variety of jobs beyond retail pharmacy to tantalize you throughout your career. Indeed, the variety of work opportunities is one of the attractive features of this career.

TRAINING

Demand for pharmacists is growing, and with that, we are seeing pharmacy school programs expanding, and new ones cropping up (there are currently about 100 programs around the country). To become a licensed pharmacist, you need a PharmD degree from a four-year pharmacy program, following college. Students can get admitted with just a two-year associates degree if they have the correct prerequisites.

Getting into pharmacy school is not totally predictable, just like any graduate program. However, a good bet for admission would be to present the following on your application:

- Four-year college degree with a GPA in at least the mid-3's, and a higher GPA in your science classes
- High PCAT score
- Extracurriculars and work experience that reflect a sincere interest in pharmacy. You can volunteer in a health care setting, work as a pharmacy technician, do an internship, shadow a pharmacist.

Pharmacy schools care a lot about your ability to work hard, and thus focus much more on GPA (as a reflection of diligence) than on whether you went to a name-brand school (as a reflection of raw intelligence). In fact, sometimes the pedigreed resume can hurt you if you look like someone who is just using pharmacy school as a means to get into medical school. (There are those who use pharmacy school to “amp up” their resume to get through the ultracompetitive medical school admissions process.)
Residencies

Clinical pharmacy jobs (i.e., in a hospital) often require a residency after pharmacy school. Residencies are a way to subspecialize, too; you can subspecialize in nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, psychiatric pharmacy or applied toxicology. Most of these specialized jobs are hospital-based.

Finding a job in pharmacy these days is easy—professional recruiters usually come to you! Failing that, there are pharmacist placement agencies (e.g., “RPh On the Go”), and the usual public job boards.

Pharmacy technician

You can do many of the functions of a pharmacist without a college or graduate degree by becoming a pharmacy technician. In many retail pharmacies, one pharmacist and one pharmacy technician work side by side during each shift. (Notice the pharmacists in one color or style coat, and the pharmacy techs in a different color or style!) Pharmacy techs usually earn around $15 per hour ($30,000 per year). They are licensed professionals, but may or may not have attended a pharmacy tech school after high school. If you like the environment of working in pharmacy, but don’t want to or can’t attend college plus four years of graduate school, this is a very good option. Demand for techs is just as healthy as for pharmacists, and it’s also a job about which you can feel really good at the end of the day.

INCOME AND LIFESTYLE

Starting salaries in retail pharmacies currently hover in the range of $40 to $55 per hour, or $80,000 to $110,000 per year. Thereafter, you can expect annual cost-of-living increases. To see a stair-step jump in salary, one would need to move into some sort of management position, or get poached by a competitor pharmacy chain in desperate need of staff. Salaries are somewhat negotiable, and if you have a bargaining chip like excellent grades in pharmacy school, a second master’s degree (e.g., health administration), or training in a subspecialty, then it can be translated into an even higher salary.

Demand for pharmacists seems to be relentlessly increasing. There are ever more drugs on the market, with more people taking prescription medications as the population ages, and more medications per person as companies develop and market new drug therapies. Compensation reflects this high demand. For example, six-figure salaries are pretty universal in markets like California with a severe shortage of retail pharmacists. You could feel pretty certain of earning around $120,000 in
your first year. With optional overtime and a possible signing bonus, your total compensation could be north of $160,000. Clinical pharmacy jobs pay somewhat less, around $70,000 starting salary on average at the moment, depending on the particular geography and hospital.

Pharmacy is known to be a highly flexible career. Retail pharmacies in particular are amenable to letting staff work part time, and it has become common for pharmacists to take advantage of this for child-rearing purposes. Job mobility is also high (again because of the high demand for pharmacists), as is stability—for the foreseeable future, this is not a career path that would ever suffer from layoffs.

THE BOTTOM LINE

Pharmacy is a healthily growing field that should appeal to careful, detail-oriented people who yearn to help people as part of the health care team, but don’t absolutely require the recognition for it. As an added bonus, you can earn six figures right away and without horrendous hours.

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<tr>
<td>Full-time annual income</td>
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<td>Typical work setting</td>
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Physical Therapist
Chapter 17

Physical therapists are coaches at heart, helping patients work toward goals of better mobility and physical comfort in their daily lives. There’s a significant psychological component to the role a PT plays, providing an important support system for patients who are in vulnerable stages of either recovery from injury or decline due to chronic illness.

The physical therapy field is at a crossroads in terms of how it aims to fit into the overall health care system. There is a lot of overlap in what PTs do with what chiropractors, occupational therapists and massage therapists do, and arguably many pieces of a PT’s job could be completed by lesser-trained technicians. The defining character of physical therapy has always been that it is in fact so multidisciplinary, combining approaches used by those other specialties into a uniquely integrated package. But there are always territory struggles among professions with overlapping scopes of practice, as they see themselves competing for shares of a finite “pie” of patient work.

One of the ways that PTs are staking their claim to a clearly defined practice niche is to up the educational requirements for the field. Going forward, becoming a physical therapist involves three (versus two) years of postgraduate schooling, leading to a DPT degree. The vision is that PTs become perceived more as “real doctors,” and acquire the educational underpinnings to legitimize the diagnostic role they already play with patients.

THE JOB

PTs work with patients on regaining lost strength, endurance, flexibility, balance, and coordination, with the goal of enabling patients to function productively and comfortably in life. Patients may be recovering from a trauma or surgery, or suffering from a chronic disease. Common medical situations triggering a need for physical therapy include orthopedic injuries (broken bones, torn ligaments, joint damage, joint replacement) and neurological conditions (stroke, spinal cord injury, Parkinson’s disease, Multiple Sclerosis).

Physical therapists have a lot of techniques in their repertoire to choose from for a given patient situation. Individual patient challenges and functional goals are unique, and there is quite a bit of resourcefulness, creativity and thoughtful consideration involved in determining what PT approach will work best in each case. PTs guide patients through conditioning, stretching and strength-building exercises, as well as prescribe exercise regimens for the patient to work on at home (often requiring the assistance of the patient’s family or at-home caretaker). They also can use massage (long strokes of effleurage, quick rubbing of friction massage, craniosacral techniques or acupressure), TENS (transcutaneous electrical nerve stimulation) and ultrasound devices, hot tubs and hot/cold packs, and spinal manipulation (like what a chiropractor does).
The PT job is fairly physical and potentially tiring, where you are on your feet and moving around with your patients for most of the day. And it’s a far from boring one, despite the assumptions that some people like to make. With so many different therapeutic techniques at your disposal, and with the immense variety of particular patient conditions, you are constantly rotating activities through a given day. If there is a component of the job that is, in fact, more routine—like the repetitive range-of-motion exercises—it is often handed off to an assistant (PTA), while you attend to more complex situations.

**PATIENT INTERACTION**

Physical therapy is a field with particularly high job satisfaction, and most practitioners point to the patients as the reason why. You interact with a wide variety of patients, and get to know not only their medical condition, but the context behind that condition—their family situation and personal history, their aspirations and goals in life. Most PT patients see their therapist for several recurring sessions (and, in a rehab center setting, it could be years of continuous therapy). You are there at the patient’s side to see and share the joy in their small victories on their path to meeting their physical functionality goals. It’s quite different than a doctor-patient relationship, because you are working collaboratively, respecting the patient’s goals and limits, and listening to the patient’s input on what makes sense for them.

Depending on where you choose to work, you could be working with more of a well population (athletes with shoulder injuries, healthy young adults after knee surgery), people who have been through an acute traumatic event (amputees, violent crime victims after surgery), or with a very debilitated population (stroke survivors, cancer patients, and so on).
patients, patients with progressive neurological diseases). There is also PT work in injury prevention, working with the elderly on balance, posture and using assistive devices to protect joints, conserve energy and prolong mobility.

WORK SETTING

Physical therapists have lots of choice in terms of where they go to work. Schools hire PTs to work with disabled children. Skilled nursing facilities (i.e., long-term care, or nursing homes) employ PTs to work with their patients on injury prevention and prolonging function. Hospitals have PTs on staff to work on an in-patient basis (short-term therapy for postsurgical patients) and an out-patient basis (working at a physical therapy clinic located at the hospital, doing longer-term rehabilitation work). Specialized rehab centers are a big employer. And then there are many PTs who opt to go into private practice, either setting up their own small physical therapy clinic, or working as a contractor and hopping around to various clinics when they have a need.

Indeed, physical therapy is a career that lends itself well to part-time work. There are countless PTs who have set up their lives to spend part of each week—or part of each year—doing physical therapy, and part doing some other, complementary activity. Given the kinetic nature of the job, it attracts many athletic types, who might work part-time as mountain guides, ski instructors, dancers, Pilates or yoga teachers, or semi-pro athletes. Some PTs find that it suits them to have a dual career in counseling and physical therapy, balancing their time between psychology and kinesiology.

TRAINING

Physical therapists have historically been seen as technicians who assist patients in regaining strength and proper range of movement. But, over the years, PTs have moved into a more diagnostic role. Oftentimes, a patient shows up to a PT with a referral from their MD that simply says “diagnose and treat,” leaving it entirely up to the PT to figure the situation out.

Diagnosis is the most difficult part of any medical practice, and regulators have been careful to reserve it for the most highly-trained professionals in the healthcare system. This is why the physical therapy industry has determined to change over from requiring a two-year master’s degree to a three-year doctorate degree. Labeling PTs as “Doctors of Physical Therapy” (DPT), plus adding 50 percent more schooling, will go a long way toward legitimizing the physical therapist in the role the already often play as independent practitioners. This education requirement is set to take effect in 2020; but it’s unclear how the grandfathering rules will work, so it’s our recommendation that students pursuing a physical therapy degree now definitely go for the DPT version.
Physical therapy school is known to be quite competitive, and by some accounts more difficult to get into than medical school. There are 200 programs around the country, but there are also lots of eager applicants clamoring for a spot in this appealing career path. Tips for making your application stand out include getting experience as a physical therapy aide to demonstrate your knowledge and interest in the field; demonstrating your longstanding interest in kinesiology (how the human body moves) through dance, sports or fitness (martial arts, yoga, Pilates, strength training); and evidencing interest in public or community health.

INCOME AND LIFESTYLE

Income varies widely, depending on your work setting. Public schools, not surprisingly, pay the least; they pay their PTs a teacher’s salary, and PTs sometimes supplement their income with weekend work at clinics. Jobs focused on sports medicine usually top the pay range.

In most health care careers, salaries are more or less flat (except for cost of living increases) after you start practicing, unless you take a step up into a more supervisory position of some sort (which PTs can do by becoming group supervisors or rehab center managers). Physical therapy is relatively unique in that employers are willing to pay for experience. There is considerable technique involved in helping patients, and the more time you have on the job, the more you perfect the therapies. Therefore, a DPT with extensive experience can potentially make close to $100,000 in certain jobs over time, while they may have had a far lower starting salary just out of school with that same employer.

A student of body movement

“I’ve been a dancer my whole life, and am fascinated by how the human body moves through space. I stumbled upon Pilates and fell in love with the one-on-one style of physical conditioning, and the emphasis on subtle improvements in abdominal strength that can make you feel so much more energetic, with better balance and posture. Eventually, I realized that I was essentially doing some basic form of physical therapy with my clients, and decided I ought to pursue a PT degree so I could do it for real. But I still dance and teach Pilates on the weekends!”

– Physical therapy student
THE BOTTOM LINE

Happy PTs often like to describe their career as an alternative to nursing with comparable (or superior) pay and none of the erratic shift work that eats into weekends and holidays. The signature feature of a PT career is the variety in what one does from day to day, and the various settings one can move between over the course of a career. Detractors warn that the job market may be soured by ballooning numbers of physical therapy assistants, but the reality seems to be that demand for PTs continues to climb.

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<td>Professional designation</td>
<td>DPT (Doctor of Physical Therapy)</td>
</tr>
<tr>
<td>Full-time annual income</td>
<td>$50,000 starting, up to $90,000 with extensive experience</td>
</tr>
<tr>
<td>Typical work setting</td>
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Physician Assistant

Chapter 18

Physician assistants (PAs) would, in theory, be more aptly termed “physician associates,” to reflect their elevated position and training. Unlike other “assistant” type roles in health care, PAs are licensed to actually practice medicine (diagnose, prescribe, cut, etc.), but do so under an MD’s license and supervision: not a doctor, not a registered nurse, but something in between. In fact, if you don’t think you’ve encountered a PA in your own experience receiving health care, chances are you actually have, but you thought that person was a doctor. In 2006, when Vice President Dick Cheney accidentally shot his hunting partner, a physician assistant in the group triaged the injury, referenced in the media using the more general and familiar term “doctor.”

THE JOB

PAs do most tasks that a doctor would do in the particular specialty in which they work. This can include taking patient histories, doing full physical exams, suturing, giving injections, ordering and reviewing lab work and diagnostic imaging, writing prescriptions, performing office surgery and assisting in major surgery. The specifics of the job are entirely dependent on which type of physician the PA is working under. For example, a family practice PA will have a day much like a family practice MD, full of annual physicals, colicky infants, pap smears, earaches, suspected broken bones and high fevers. In contrast, a surgical PA’s day will look similar to that of a MD surgeon, spending time prepping patients for surgery, assisting in the operating room and doing rounds on post-op patients.

Communication skills are a major part of PA school and job interviews, and for good reason. A valuable PA is one who can negotiate between the patient and doctor, is a proactive communicator, a collaborative team-player type of personality.

PATIENT INTERACTION

PAs typically have extensive patient interaction, usually more so than their MD supervisor does. Yet, their role as assistants means that they don’t usually get the credit and aren’t the center of attention. This is one of those jobs without much glory, which is satisfying to low-key personalities who can handle being somewhat under-recognized.

Most PAs endure a continual process of explaining what they are to their patients, to other health care professionals, and even to MDs. The profession was created in the post-Vietnam era, when the health care system didn’t have a role for returning field medics with lots of experience in invasive medicine but no medical degree. PAs have similar skills to nurse practitioners, but operate under a different philosophical “model”
of health care—they partner with an MD as a “physician extender,” and never conceptualize themselves as a substitute for an MD. Another similarity between PAs and NPs is the gender ratio; both occupations are some three-quarters female, with more men continually entering the field over time and shifting the ratio toward parity.

WORK SETTING

PAs always work under a particular medical doctor’s license, insurance and supervision, but the amount of actual supervision can be quite minimal. For example, a PA in a rural area might be working with an MD supervisor hundreds of miles away, checking in by phone to confirm actions in complex cases, but otherwise by all outward appearances functioning independently. Similarly, a surgical PA is often in the OR working invasively on a patient, while the MD isn’t even in the room and only swoops in at the key moment to perform the crux of the operation. Each state defines the minimum “supervision” that a PA must have from his or her MD, and it can range from monthly phone calls to review patient records, to requirements that the MD countersign patient medical records, or weekly face-to-face meetings.

The PA-MD partnership

“Last night, a post-surgery patient of mine in intensive care went into shock while I was on call. I gave meds and fluids to support his BP, but in a breathing tube, and did a head scan as a precaution. Then I called my MD at home to run it by him, after the fact. I didn’t think there was anything else I could do, but there’s always a chance he would have an idea I didn’t have. The collaboration is key.”

– Cardiology physician assistant employed at a hospital

TRAINING

Most PAs enter the profession via one of the 150ish master’s programs around the country, after completing an undergraduate degree (there are some BA programs out there which lead you directly to a PA career, but are likely to be phased out as educational standards increase for this and other health care professions). Prerequisites to get in to these two-year-long programs are far less extensive than for medical school, which is one of the reasons its an appealing career for many who might have otherwise thought about medical school but found it too much of a reach. However, PA school is not generally a good place for those who would truly rather be doctors; the essence of being a PA is working in partnership and not at all as an independent practitioner. PAs are practically religious in their insistence on the
virtues of this model, and if you were going the PA route thinking you get be an MD in all but name while skipping the long schooling, you’ll probably find that you just fundamentally don’t fit into the PA profession on a philosophical level.

Training is the same for all PAs, and specialized knowledge for a given area of medicine is primarily acquired on the job (though choosing your electives wisely in school can make you more competitive for a specialty in which you are interested). Prospective PAs can also choose longer, three-year programs that offer combined degrees in public health—a strategy that makes you more competitive for jobs and sets you up for long-term flexibility in your PA career. There are a few surgical specialties that do require a formal residency.

**INCOME AND LIFESTYLE**

Lifestyle for the PA is a function of which medical specialty he or she is practicing in. At its heart, it's a 40-hour-per-week job, but then there's also time spent when you get called after hours. In most cases, the on-call schedule is far less burdensome than that of an MD. For example, if a dermatology patient needs to see their MD after hours, it's unlikely that the PA needs to get called in as well. However, cardiothoracic surgery PAs are often the gatekeepers, the first call when a patient is in distress, with the MD only called in if the issue progresses to surgery.

One of the major selling points of the PA career is that the work can be virtually as stimulating and satisfying as that of an MD, but the lifestyle more palatable. An MD in private practice works many more than 40 hours per week, because she is also a business owner with all of the attendant responsibilities. As a PA, you are an employee, and when your shift is over, you go home.

Over time, a PA can aspire to become supervisor of a PA group, garnering a little more responsibility and income. Some eventually move into hospital administration, or turn to teaching in a PA school part time or full time.
THE BOTTOM LINE

The driving force of profitability is rapidly expanding the ranks of PAs. PAs get paid less than doctors, but can do virtually anything a doctor can, so they serve to make health care less expensive and more efficient. From the job seeker’s perspective, it’s an extremely lucrative job, where you get to almost “be a doctor,” having avoided the long and costly years of medical school and residency.

DAY IN THE LIFE: PHYSICIAN ASSISTANT

You are one of four physician assistants working in the cardiology department of a major urban hospital, which is staffed with 15 MDs specializing in either interventional cardiology (stent implantations, angioplasty) or electrophysiology (radiofrequency ablations, defibrillator implantations).

7:45 a.m.: Arrive at the hospital, already dressed in your scrubs, latte in hand. Rounds start in half an hour and you have just enough time for your daily routine of reviewing the updated patient list, distributing it to the other department PAs and nurses, and discussing the plan for the upcoming day with the team.

8:15 a.m.: The first two patients on rounds are both ready to be discharged, one of these after yesterday’s successful drug-eluting stent placement to treat his coronary artery disease. The discharge conversation involves reviewing with the patient his clear post-op angiogram findings, his new prescription for anti-clotting drugs, heart-healthy diet and exercise recommendations, doing a last physical check of the patient, and documenting it all on the chart.

9:15 a.m.: The next two patients on rounds are in the cardiac intensive care unit. One is in for pulmonary hypertension—you review some new lab results and order some more, get updates from the overnight nursing staff, do a physical exam of the patient, and then write an order for some new meds and transfer to the telemetry unit (for continuous EKG monitoring). Patient No. 2 is recovering from a myocardial infarction (MI, a/k/a heart attack), and has an intra-aortic balloon pump that needs removing; you pull it out gently via the catheter, and then watch the patient for a good 15 minutes to make sure there are no clotting complications from the removal.
is the closest you get to interventional work on your patients—it’s your compatriot PAs in the cardiothoracic surgery group who get involved in the operating room. You order some more labs, an X-ray and some adjustments to the IV meds.

10:30 a.m.: You are on your way to the telemetry unit to continue rounds, but hurry your way over faster when you receive a page that one of your patients over there just went into atrial fibrillation with an elevated heart rate. The patient is recovering from coronary artery bypass surgery. You order some IV meds, watch the patient for a little bit, and then tell the nurses to call you if the heart rate doesn’t go down soon.

11:00 a.m.: Three more patients left to conduct rounds on for the day, and they are all in the telemetry unit. The first patient has congestive heart failure (CHF); you review labs and order some more, order physical and occupational therapy consults, and you discuss post-discharge care at home with family members who are present. The next patient you see is pre-op, awaiting an angiogram later today to check for suspected peripheral artery disease; you review the procedure risks after ordering more labs and new meds. Your last hospital-based patient for the day is more complicated, and you call an attending cardiologist in to discuss the situation; active chest pain and EKG changes cause you to agree to add some new IV meds and schedule an angiogram for today.

12:15 p.m.: Time for lunch! Today is the once-per-month conference on echocardiography, and one of the attendings in your group is presenting a PowerPoint, which you eagerly take in while enjoying a sandwich from the hospital cafeteria.

1:00 p.m.: For the afternoon, your duties switch to seeing cardiology patients in the hospital-based out-patient clinic. First up is a patient with heart failure who is coming in every two weeks for check-ups. You do an exam, review lab results, and have a serious discussion with the patient about monitoring his weight and sticking to a low-sodium diet; after adjusting his medications, you tell him to schedule his next follow-up in another two weeks.

1:30 p.m.: The next appointment is a patient with chronic angina, who was in the catheterization lab (cath lab) this morning for testing. You review the cath lab report (ventricular function, ejection fraction, blood pressure, etc.) with an attending cardiologist, agree on a medication adjustment, and tell the patient to come back the next day for an exercise stress test.

2:00 p.m.: The next patient has called to cancel her appointment at the last minute, so you have some time to grab an afternoon coffee with the attending cardiologist. You two take the opportunity to further discuss that patient from the telemetry unit with active chest pain. While on break, you also check your email, and call a couple of patients at home with their lab results.

2:30 p.m.: Two more patients to see in the clinic for today: First you talk with a patient who is happily now one-year post-heart attack with no symptoms. The patient’s lipids (cholesterol) are still a bit high, so you make an appointment for her in your hospitals “lipid clinic” (a counseling service where dietitians, nurses and
cardiologists collaborate to optimize a diet and medication plan to control lipid levels). You are briefly interrupted during this consult with a page from the critical care unit, where a nurse is requesting new meds for a patient—you call back and quickly approve the order. Your last patient of the day is here to get pre-surgical clearance for an ICD (implantable cardioverter defibrillator) placement tomorrow. After doing an exam and reviewing labs, you confer with an attending cardiologist about dosing for pre-surgical medications, and give final clearance for the surgery.

3:45 p.m.: One more patient comes in at the last minute, sent over from the urgent care clinic with a swollen area on the groin. The patient had an ablation procedure the other day (via femoral artery catheter), so you suspect a pseudoaneurysm and, therefore, order an immediate vascular ultrasound. A little while later, the ultrasound tech calls to inform you that the area is clear, and you relay that message by phone to the patient—the swelling is just a hematoma, and can be treated with compression. Meanwhile, a call comes from the hospital pharmacist, who wants to alert you that your most recent medication order involves a possible drug interaction in that patient; the two of you discuss the issue and the alternatives, and you end up changing the order to a different drug.

4:30 p.m.: Winding down your day involves checking your email, dealing with some paperwork, conferring with other cardiology PAs on a couple logistical issues and discussing tomorrow’s plan for a critical care unit patient with one of the attendings (who will be sticking around for a while longer, signing off on the patient decisions the PAs have made through the day). By a little after 5, you are done for the day and on your way home!
Other Careers of Interest

Chapter 19

There are literally millions and millions of jobs in the health care sector. You can be part of the industry by working in insurance, regulation, community education and public advocacy, professional and advisory services to the industry, scientific research, academics, drug or device development, or journalism (and the list goes on). When you realize that health care is not just about the doctors, but all the allied health care providers, and then on top of that the people who manage the information, manufacture the tools and therapies, provide the industry oversight, run the hospitals and clinics, make sure everyone gets paid and (almost) everyone gets treated…and you add it all up, it’s an enormous arena in which to carve out a career niche for yourself.

Arguably, many of the health care sector careers that don’t involve providing health care to patients are, in a sense, part of the “allied health care” system, functioning in alliance with the physician to deliver better quality health care to more patients more efficiently. Therefore, we provide a brief overview of some of these career paths here.

PHARMACEUTICAL/BiOTECH OR MEDICAL DEVICE COMPANY JOBS

Sales reps

For people otherwise considering a clinical health care role, becoming a pharma or device sales rep is a way to work on the business side of things but stay close to the clinical environment. As an additional draw, sales rep jobs can easily pay six figures even just starting out (pay is highly performance-based, and reps who sell more can really do well financially). Sales reps have a wide range of backgrounds, including undergraduate degrees in the sciences or liberal arts, or master’s degrees in health science or business. In pharma, the required background to get these lucrative jobs really depends on which drug you are selling to which type of physician: jobs selling something with a simple therapeutic mechanism to a nonspecialist (e.g., allergy drugs to general practice physicians) are often staffed with charismatic salespeople without much clinical or science background; a job selling something that requires a more complex conversation about biomedicine (e.g., promoting a new MS drug therapy to neurologists) is more likely to be given to candidates with more advanced science education credentials.

Medical devices can be quite simple and conventional (biopsy needles), represent totally new therapeutic techniques (drug-eluting stents), or be extremely high-tech (multimillion-dollar imaging equipment). Medical device sales rep jobs usually require an advanced degree or clinical health care experience, as they involve particularly detailed technical conversations with the physicians, training them on usage of the devices and observing their application in clinical settings. As with pharma sales rep
jobs, the more complex the product you are selling, the more experience and education required to get the position. For example, as a sales rep for implantable defibrillators, your job would involve sitting in on implantation surgeries to observe, advise on the device settings, and gather feedback for the R&D team at your company (stories abound about sales reps actually physically participating in such surgeries, which, of course, would be illegal—but the point is that they are very intimately involved with the individual cases where their devices are getting used).

Science jobs
Pharma and biotech companies offer a plethora of science jobs. Beyond the many positions available for PhD research scientists, there are lots and lots of jobs of a more “allied” nature. Being a “research assistant” in a corporate lab usually requires only an associate’s or bachelor’s degree in the sciences. These folks help the lab run smoothly by dealing with regulatory compliance, inventory management, invoicing and administrative tasks. More hands-on science jobs for non-PhDs are often titled “technician.” Depending on the lab’s particular focus, technician jobs can be filled by people with a variety of educational backgrounds: a BA/BS in science, associate’s degree plus science or health care-specific certificate, phlebotomists, licensed practical nurses (LPNs), or medical lab technicians. Technicians operate process equipment, prepare samples for testing and essentially assist a PhD principal scientist.

Clinical trial coordinator
Another interesting pharma job involves working as a clinical trial coordinator. All drugs go through a long series of phased clinical trials, where they are tested for safety, efficacy and proper dosing in human subjects. Setting up these trials such that they are properly randomized, compliant with strict FDA rules, and generate the necessary data to submit application for commercial approval is a complex process involving a large team. There are on-the-ground coordinator roles for people with a BA in the sciences, where you are working in a hospital setting and with patients directly. This type of job can be a very rewarding way to feel like you are working in patient care, without actually being a medical professional. Oftentimes, you are testing promising new therapies on very sick patients who are desperate and grateful for the hope of a successful treatment for their disease. It can be a very emotionally charged environment.

Regulatory and public affairs
Regulatory and public affairs jobs in pharma/biotech and device companies can be interesting places to work, involving all sorts of roles dealing primarily with product safety and efficacy, and the FDA approval process. There are good roles for those with a BA/BS in science, for example, to manage drug safety adverse event tracking and database maintenance.
Other paths

Pharma companies are big corporations, with all of the other career paths you would expect to exist in any major company, regardless of industry sector. You can work in marketing, production, human resources, finance, legal, etc.

CODING AND BILLING SPECIALIST

Medical records coding can be something of an art. Each event recorded on a patient’s chart and submitted to insurers has potentially one of several different ICD-9 (International Classification of Diseases, 9th Revision) and CPT (Current Procedural Terminology) codes that could be deemed appropriate to reference the patient’s condition and the treatment selected, respectively. Depending on which code the physician chooses, the insurer may reimburse a greater or lesser amount. So there’s a need to not only be accurate, but to optimize coding from a profitability perspective. In fact, fraud is, unfortunately, a big problem in the coding world, with physicians feeling tempted to go beyond optimization and actually game the system with improper codes to receive more reimbursement.

In larger physician practices and hospitals, the job of coding and then billing the insurance companies is allocated to a separate individual specialist. In smaller practices, the physician and her receptionist usually find a way to just get it done on their own. A big source of jobs for coding specialists is health insurance companies—they check all submissions for reimbursement to make sure the coding is correct.

To learn the (fairly technical) ropes of medical coding, there are professional certification programs, where you can become a certified professional coder (CPC-H), registered health information administrator (RHIA), registered health information technician (RHIT), or CCS (certified coding specialist). Often just a few months to a year in length, these certificate programs give you access to a growing pool of jobs hungry for people who can make sense of the complicated, inconsistent and ever-shifting mess of medical codes.

MEDICAL INFORMATION MANAGEMENT

The medical records field is one of the last major industries to be computerized, and it’s progressing in that direction with aching slowness. Health care facilities have, of course, had their financial and operational information in electronic format just as long as any other industry has in the post pen-and-paper era, but the sticking point is how to add patient records into the mix. In each hospital, there are multiple individuals assigned solely to medical records management, which usually means fetching, filing and organizing stacks of paper records for tens of thousands of patients. Physicians in private practice usually either manage their own records on site, or let their HMO deal with medical records (if they are part of one).
Increasingly, hospitals and private clinics are joining something called a regional health information organization (RHIO), which are an exciting part of the movement toward electronic health records (EHR)/electronic medical records (EMR). There are currently about 150 of them in existence around the country, many of which are more or less in startup mode and, thus, offer good opportunities to enter a growing organization at an early stage.

Getting medical records into electronic format is an extraordinarily complex task … and then managing those records requires the effort of what has become the massive industry of health care information management and information technology. Some of the issues that arise related to electronic medical records include:

- **System choice** (Which platform, given that there are several competing ones in use?)
- **Data integrity** (How often to backup onto tape? How often to back those backup tapes up off site?)
- **Information exchange protocols** (Who gets access? How to ensure HIPAA compliance? How to transfer records across incompatible networks when a patient moves?)
- **Network infrastructure management** (How to normalize equipment type, and equipment replacement programs across facilities? How to improve network availability, especially when hospital electrical systems are overloaded and upgrade funding is scarce?)
- **User interface** (Will physicians use PDAs or desk terminals? What does the interface look like? How will patients access information?).

**Job categories**

There are myriad job categories within the field of health care IT, working at a hospital, large clinic with in-house IT, or a software company. For example: EMR manager, clinical information systems manager, patient monitoring IT manager, cancer registry coordinator, imaging database expert, clinical systems architect, systems integration implementation project manager, software developer. Any IT function that exists in a corporate environment also exists in a hospital; there are countless opportunities for network administrators, help desk technicians and system support specialists that aren’t really any different in job content than at another type of employer … except you are working in a health care delivery environment and around medical personnel, which can be exciting and rewarding.

Many EMR personnel are clinicians, such as RNs, who have gone on to gain extensive training in IT. Jobs often look for an undergraduate degree in health information technology or computer science, and possibly an MBA for more senior positions. Experience with the brand of EMR in use at a given hospital is usually important (Eclypsis, Cerner and PICIS are common ones). The Health Information

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and Management Systems Society (HIMSS) offers the option to become a certified professional in health care information and management systems (CPHIMS) if you have a few years of health care IT experience and can pass its standardized exam.

HEALTH INSURANCE COMPANY JOBS

Health insurance companies are massive organizations with tons of opportunities available for those interested in this facet of the health care system. With just a high school diploma, you can be hired on as a claims analyst, evaluating provider and patient submissions for reimbursement.

More advanced roles deal with providing prior authorization to medical providers and patients for particular procedures and drug therapies. The approval hierarchy inside an insurance company is fairly deep, and there are roles for people with just a BA, as well as roles for pharmacists and MDs. Case managers, who evaluate appropriate medical interventions for ongoing patient conditions, are usually clinicians (often an RN or LPN); they are supervised by an MD medical director, with whom they confer on complex questions.

MEDICAL ASSISTANTS AND IMAGING TECHS

Medical assistants are tasked with making medical offices run smoothly. They might handle both administrative tasks (scheduling appointments, coding insurance forms, arranging for lab services, billing, inventory of medical supplies, and sending and receiving correspondence) and basic patient care tasks (taking medical histories, taking vital signs, collecting lab specimens, prepping the exam room, relaying physician instructions and explaining procedures to patients, and sometimes more advanced tasks like removing sutures and drawing blood). Which particular tasks you spend most of your time on depends on the size of the medical office in which you work, and the medical specialty. In larger offices, there might be a purely clerical receptionist to handle much of the administrative work, leaving the medical assistant to do primarily patient care. Sometimes there is a specializing billing and coding person, and the medical assistant outsources those tasks but still takes care of the phones, mail and other administrative work. Depending on the particular set of responsibilities that will be given to the assistant, a job opening might be advertised with any of a number of closely-related titles: medical assistant, medical data assistant, medical billing clerk, medical record technician.
**Certification**

The medical assistant is not a licensed profession, and you don’t technically need a degree. However, most employers like to see that you have the optional CMA certification through the AAMA (American Association of Medical Assistants), which can require either a two-year associate’s degree or a one-year certificate program, plus passage of a standardized exam. Salaries for this type of position average in the $20,000 to $30,000 range, depending on your level of experience and how many important tasks you can handle and therefore enable the physician to be more productive.

**Diagnostic imaging**

Another interesting assistant role is that of the diagnostic imaging technician. You can become an ultrasound technician (operating sonography equipment) with a one-year certificate program right out of high school. While working as an ultrasound tech does not require licensing in the United States, you can choose to demonstrate your domain competency by getting a certification through the American Registry of Diagnostic Medical Sonographers (ARDMS).

**Radiologic technician**

Alternatively, you can become a radiologic technician (operating X-ray, CT and MRI equipment). Certificate programs for this role are a little more stringent than for ultrasound techs, and usually require an associate’s degree. Most U.S. states require certification for this profession, which is accomplished by passing an exam administered by the American Registry of Radiologic Technologists (ARRT).
APPENDIX

Vault Guide to Allied Health Care Careers

Industry Association Websites
Allied Health Care Research Resources Online
Practice Management Consultants
Appendix

INDUSTRY ASSOCIATION WEBSITES

**Chiropractic:** nacm.org (National Association for Chiropractic Medicine)

**Dental Hygiene:** adha.org (American Dental Hygienists Association); dentalassistant.org (American Dental Assistants Association)

**Dietetics:** eatright.org (American Dietetic Association)

**Massage Therapy:** amtamassage.org (American Massage Therapy Association)

**Medical Technology:** amt1.com (American Medical Technologists); ascls.org (American Association of Clinical Laboratory Science); ascp.org (American Society of Clinical Pathology)

**Midwifery:** acnm.org (American College of Nurse Midwives); mana.org (Midwives Alliance of North America)

**Naturopathy:** naturopathic.org (American Association of Naturopathic Physicians); anma.org (American Naturopathic Medical Association)

**Occupational Therapy:** aota.org (American Occupational Therapy Association)

**Optometry:** aoa.org (American Optometric Association)

**Oriental Medicine:** aaaomonline.org (American Association of Acupuncture and Oriental Medicine)

**Paramedic:** naemt.org (National Association of Emergency Medical Technicians); nremit.org (National Registry of Emergency Medical Technicians)

**Pharmacy:** aphanet.org (American Pharmacist Association)

**Physician Assistant:** aapa.org (American Academy of Physician Assistants); aaspa.com (American Association of Surgical Physician Assistants)

**Physical Therapy:** apta.org (American Physical Therapy Association)

**Information Technology:** himss.org (Health Information and Management Systems Society); ahima.org (American Health Information Management Association)

**Medical Assistant:** aama-ntl.org (American Association of Medical Assistants)

**Imaging Technology:** medicalimaging.org (Medical Imaging & Technology Alliance); aiim.org (American Institute of Ultrasound in Medicine); asrt.org (American Society of Radiologic Technologists)
ALLIED HEALTH CARE RESEARCH RESOURCES ONLINE

Some of the better-quality health care career websites include:

- www.science.education.nih.gov/lifeworks.nsf
- www.myfirstday.org
- www.labormarketinfo.edd.ca.gov/occguides
- www.explorehealthcareers.org
- www.nycareerzone.org
- www.cacareerzone.org

PRACTICE MANAGEMENT CONSULTANTS

Many allied health care careers demand that you become an entrepreneur, which can be a daunting task. Health care providers of all types can find it useful to contract an advisory services firm to help them set up shop, particularly for large or group practices. You can look for firms that are Certified Healthcare Business Consultants (CHBC) to ensure you are talking to a place with expertise in medical office practice management and startup.

We’ve listed a few firms to check out. Even just reading about the services they offer will give you a better sense of what challenges one can face when starting and growing a new health care practice.

- Clayton L. Scroggins Associates, Inc. (scroggins.com)
- Orrick Associates (orrickassociates.com)
- Professional Management and Marketing (practicemgmt.com)
- Conomikes Associates (conomikes.com)
- Gates Moore & Company (gatesmoore.com)
- Professional Medical Staff Association (thepmsa.org)
Laura Walker Chung has written several books for Vault, including the *Vault Career Guide to Consulting* and *Vault Career Guide to the Energy Industry*. Her prior role as a partner in a life sciences consulting firm inspired her to develop a book on allied health care careers. In addition to having deep experience as a management consultant, Laura was also a pioneer in renewable energy, developing the nation’s first merchant wind power generation facility back in 1998. She currently lives in sunny Portland, Oregon, with her husband, Eric (also a Vault author), and an incredibly cute Portuguese Water Dog named Brian. Laura graduated with highest honors from Dartmouth College, and earned her MBA in finance and economics from the University of Chicago Booth School of Business.