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CAREER AS A

DISPENSING OPTICIAN

VISION HEALTHCARE PROFESSIONAL

EYEGLASSES MAKER AND RETAILER

ACCORDING TO A RECENT REPORT FROM PREVENT BLINDNESS AMERICA, MORE than 150 million people in the United States wear eyeglasses or contact lenses to correct refractive errors in the eye. A study from the American Association of Retired Persons found that an almost 30 percent of males and 40 percent of females in the 18-to-35-year-old age range wear some form of corrective lenses. This statistic that only increases with age, with 60 percent of men and two-thirds of women over age 55 requiring spectacles or



contacts. Without the hard work of dedicated opticians, these people would be unable to see correctly, making opticianry a great career choice for those who want to help others as well as people seeking a high level of job security.

WHAT YOU CAN DO NOW

SOME TYPES OF WORK ARE VERY ACCESSIBLE TO INDIVIDUALS WHO ARE STILL IN high school or have recently started attending a college or university. Unfortunately, opticianry is not really one of those careers. Most dispensing opticians are required by their employers to undergo on-the-job training as apprentices, which is fine for those ready to enter the work force full time, but does not give students much of an opportunity to get a head start on the competition. Other employers prefer to hire opticians with some degree of post-secondary education in an eye care related field. Again, that limits the opportunities for those still in school. There are, however, ways to get some advance knowledge and/or training in the field.

The best bet for an aspiring optician is to study, study, study. Not only will it give you valuable knowledge that can someday be practically applied, but it may pay more immediate dividends as well. Some states will allow opticians-in-training to take a licensing exam immediately upon high school graduation (although most do require some practical experience). The Internet is a good source for optical information, as are periodicals and trade associations.

Additionally, there are a great number of trade books available. However, many of them are quite expensive, so you may want to check them out at a local library. Two that might be of particular interest to students pursuing careers in opticianry are Your Future as an Optician by Hans S. Hirschhorn and Dispensing Optician by R. R. Smith. Some advanced-level tomes to expore are Professional Dispensing for Opticianry by Clifford Brooks and A Dispensing Optician Manual: An Introduction to Vision Care for the New Ophthalmic Technician by A.J. Zelada. These are just a small sampling of the types of volumes available to the studious individual.

HISTORY OF THE CAREER

CONSIDERING THAT THE COLUMBIA ELECTRONIC ENCYCLOPEDIA DEFINES AN optician as a "filler of prescriptions for and dispenser of corrective lenses," it would not be a stretch to assert that the history of this particular career field is tied very closely to the history of the corrective lens itself. To fully understand how opticianry and optometry emerged, one must first look at the products that these professions deal with and how they came to be.

According to Richard D. Drewry, Jr, MD, author of *What Man Devised That He Might See*, visual aids similar to the modern corrective lens were nonexistent during the times of the ancient Greeks and Romans. At least this view is supported by a letter written by a prominent Roman about 100 BC in which he stressed his resignation to old age and his complaint that he could no longer read for himself, having instead to rely on his slaves. The Roman tragedian Seneca, born in about 4 BC, is alleged to have read "all the books in Rome" by peering at them through a glass globe of water to produce magnification. Nero used an emerald held up to his eye while he watched gladiators fight. This is not proof that the Romans had any idea about lenses, since it is likely that Nero used the emerald because of its green color, which filtered the sunlight.

The magnifying glass came into existence around 1000 AD, and while there is some debate about who first used this instrument as an aid to overcome declining visual acuity, it is the Oxford, England monk Roger Bacon who is most often recognized as the forefather of eyeglasses. Bacon, who was born in 1220 and died in 1292, wrote about and experimented with lenses and mirrors and became the first to describe the basic concepts of reflection and refraction. In *Opus Majus*, Bacon wrote, "If anyone examine letters or other minute objects through the medium of crystal or glass or other transparent substance, if it be shaped like the lesser segment of a sphere, with the convex side toward the eye, he will see the letters far better and they will seem larger to him. For this reason such an instrument is useful to all persons and to those with weak eyes for they can see any letter, however small, if magnified enough."

The first actual reference to spectacles or eyeglasses came in a 1289 manuscript written in Rome by a member of the Popozo family. This individual remarked that "I am so debilitated by age that without the glasses known as spectacles, I would no longer be able to read or write. These have recently been invented for the benefit of poor old people whose sight has become weak." Two different Italian men, Salvano d'Aramento degli Amati of Florence and Alessandro della Spina of Pisa, both claimed to have invented the spectacle. A third – a monk named Giordino da Rivalta – claimed during a sermon dated around 1306 that it had only been about 20 years since the invention of eyeglasses, and that he personally knew the inventor. There is no proof to establish who actually did invent spectacles, but most experts claim that the event took place sometime after 1260 but before 1290.

Other Key Figures In The History Of Opticianry While known more as an astronomer, German-born Johannes Kepler was the first person to correctly explain how the eye worked. In his 1604 work *Astronomia pars Optica* (The Optical Part of Astronomy), he not only gave a detailed treatise on the mechanics of vision, but he also correctly identified the workings of the pupil, cornea, and retina. He also worked extensively with optic lenses and was the first man to give a plausible explanation as to how corrective spectacles actually worked.

Early on, all spectacles had to be held onto the face by hand. However, that all changed in 1718, when a London-based instrument maker named Edward Scarlett was the first to add arms to the corrective lenses so that they would sit on the ears. He patented the idea in 1727. Scarlett also created many other optic-based instruments, including a variation of the microscope that was first featured in a periodical called Opticks, which was devoted to optics, astronomy, and similar instruments.

Benjamin Franklin is well know for many inventions, not to mention other contributions to early America and indeed to the entire world. However, not many people realize that he also invented the bifocal – although that term itself was not coined until after his death. In his writings, Franklin describes becoming frustrated by having to change back and forth between two different pairs of spectacles, one of which was used exclusively for reading. "Finding this change troublesome, and not always sufficiently ready, I had the glasses cut and a half of each kind associated in the same circle," Franklin has been quoted as writing. "By this means, as I wear my own spectacles constantly, I have only to move my eyes up or down, as I want to see distinctly far or near, the proper glasses being always ready." The invention of the contact lens is credited to a German inventor and physiologist named Adolf Eugen Fick, who in 1887 published the results of his independent experiments with corrective lenses that were placed directly on the cornea of the eye, right on top of the iris. In addition to being the father of contacts, Fick is know for two other scientific discoveries. The first came in 1855, when he introduced a law governing the diffusion of a gas across a fluid membrane. This is know called Fick's Law of Diffusion. Then, 1870, he devised the Fick Principle, which describes a technique for measuring cardiac output. He was born in 1829 and died in 1901.

Lastly, there is Licentiate Benito Daza de Valdes, who, according to the website AntiqueSpectacles.com, "may be considered the world's first optometrist and optician." Daza de Valdes was a renown Spanish optician who lived in the cities of Cordoba and Seville before his death in 1643. He wrote the first book about corrective eyewear, Vso de los Antonios para todo genero de vistas: en que se ensena a conocer los grados que a cada unlo faltan de su vista (The Use of Spectacles, as it is known in English) in 1623. In his work, he discussed the nature and properties of the eye and its refractive conditions, as well as the state of spectacle making as it was during his era. Much of what he wrote about and discusses is strikingly similar to the optometric policies and practices still in use in the vision centers of today.

WHERE OPTICIANS WORK

OPTICIANS CAN BE EMPLOYED IN MANY DIFFERENT TYPES OF WORKPLACES. AN optician may work directly in the offices of an optometrist or ophthalmologist, assisting the eye doctor in a private practice. He/she may work in a specialty store that handles only eyewear, such as LensCrafters or Pearle Vision, or as part of the optical department in a larger retail store such as Wal-Mart or Sears.

Opticians may be self-employed, running their own offices and working with an optometrist or ophthalmologist on-site or off-site to perform examinations. An individual in this career field, depending upon location and type of workplace, may either be the only optician assisting patients or may be part of a large staff of optical professionals all working together in one location. Regardless of the specific type of employment, an optician's workplace will vary little. It should always look equally professional and relaxing, for like any good healthcare facility, the environment of an eye care center must inspire confidence in the abilities of the medical professionals while also helping to relieve a patient of any anxiety he/she may have in regards to the visit.

The walls of the storefront area will likely be covered with various types, sizes, and brands of eyeglass frames. The product must be easily accessible for the customer. Mirrors are another key feature of an optician's workplace, as patients will need a way to evaluate the quality and appearance of the eyeglasses or contacts they are purchasing. There will also be a number of chairs for customers waiting and possibly for pre-examination testing and post-dispensing adjustments to eyeglasses, a secure storage area for patient records (one that meets federal privacy guidelines), and basic office equipment such as computers, cash registers, telephones, and faxes. Additionally, most offices will have a special area set aside with equipment used by the optician during pre-examination testing, as well as a testing area to be used almost exclusively by the optometrist or ophthalmologist on duty.

Some opticianry workplaces also have an in-house lab for the creation and fabrication of corrective lenses. These areas are packed with a great number of machines, each of which has a special function in the preparation, creation and assembly of eyeglasses. Optical labs also contain certain chemicals and other items needed to make spectacles. These areas are usually set off from the storefront area and are sometimes out of the public eye. During times when an optician is busy creating glasses, he/she will have no direct contact with patients. Rarely are laboratories the exclusive workplace for an optician, however. More often than not, in situations where an optical lab is on-site, the optician will split time between creating lenses and servicing customers.

DESCRIPTION OF WORK DUTIES

IN THE MOST BASIC TERMS, A DISPENSING OPTICIAN USES A WRITTEN prescription from a eye doctor (optometrist or ophthalmologist) to help individuals find the proper glasses and/or contact lenses. They help customers choose frames and then make sure that their eyeglasses and contact lenses fit properly. They write work orders for lab technicians or, in some cases, use a lab themselves to create the proper prescription lenses. The also have to perform a number of administrative and customer service duties. As one expert put it, an optician is a "specialist who helps people get the glasses they need." In reality, however, it is more involved and complicated than it sounds.

Pre-Examination Duties The first thing an optician needs to do when interfacing with a new patient is to review and take note of the individual's medical history. This can be done either by conducting an oral interview or by analyzing existing records and documents. It is important that the optician be aware of any known, pre-existing condition that might impact a patient's examination or prescription. Any issues must be brought immediately to the attention of the doctor, especially if they are a serious health concern or if they somehow disqualify a patient as a candidate for corrective lenses.

Next, the optician must conduct a number of tests on the patient. One is a keratotomy reading, which is a surface scan of the cornea. In a keratotomy test, an optician is looking for an abnormally shaped cornea, which helps determine the presence of astigmatism and other corneal ailments, while also serving as a test for contact lens appropriateness. Another test is called an auto-refraction, which sends light through the cornea and gives the optician a ballpark idea of what a patient's prescription will likely be. It is not, however, an exact measurement of an individual's visual acuity. Rather, it is to serve as a preview of sorts, or a starting point so that the doctor has some idea what to expect from a patient's examination results.

The optician must also run a pair of tests for glaucoma. One is called a tonometry reading, or a "puff test." In this test, an optician uses a machine called a tonometer which blows a puff of air directly into a person's eye. The other test is a visual field screening, which presents a flickering image to the patient. This screening not only looks for glaucoma, but also for other eye injuries or diseases. It can also point out weak spots in a person's eye and can check the quality of a patient's peripheral vision.

The final test does not involve an individual's eye at all. Rather, the optician uses a large, microscope-like device called a lensometer to analyze a patient's current pair of glasses. This will help both the doctor and the optician note changes that have occurred in the patient's prescription.

Post-Examination Duties After the patient returns from the examination by the doctor, it is time for the optician to analyze and interpret the results. For this, the optician must have a vast depth and breadth of knowledge of ophthalmic conditions. The optician also knows well the product base (the various types of frames and lenses available), and can provide the customer with corrective lenses that most completely fill both his/her wants and needs.

With eyeglasses, this can be challenging. Not all types of frames and lenses can be used with all prescriptions, and an optician must know which products are suitable for a variety of different eye types and vision conditions. Again, this may not seem like a difficult endeavor, but there are a massive number of different frames, and even more styles and brands of lenses. In fact, there are over 250 different combinations of progressive bifocals alone!

Once the optician determines which possible combinations will properly fulfill a customer's prescription, it is time to discuss the different options directly with the patient and encourage browsing the available frames in the display area.

When the customer is happy with the frames selected, the optician must conduct a series of measurements to ensure that the glasses will be medically sound. This involves checking the distance between a person's pupils, calculating the proper segment heights for bifocals, and other similar tasks. The optician then draws up a work order for making the lenses, finalizes the paperwork and accepts payment for the exam and the merchandise.

Now the glasses can be made. In most cases, the order is then passed along to a laboratory or a lab technician, who creates and assembles the glasses, although some opticians also perform this duty. Once the glasses are complete and delivered, the optician must verify the product, making certain that the prescription has been correctly filled, all of the measurements are correct and that there are no irregularities present. The optician then dispenses, or delivers the finished glasses to the customer and performs final checks. This involves making sure that the glasses are correctly adjusted to fit the contours of an individual's face, testing the prescription to make sure the patient can see properly, and in some cases teaching the customer how to use and properly care for the new set of eyeglasses.

The process is slightly easier when it comes to contact lenses. There are no frames to pick out. In fact, there are no variables at all. The optician simply orders the brand and type that the doctor determines. Once the order has been complete and the lenses delivered, the optician then presents the contact user with instructions on how to insert, remove, and care for the lenses. With disposable contact lens users, the optician must also provide instructions on how often to dispose of old lenses and order a fresh set of contacts. Also, opticians must meet again with first time users within a week's time to make sure that the patients are using the contacts properly and are not suffering from any type of allergic reaction.

Other Responsibilities of the Optician While preparing patients for their examinations and helping them to fill their prescriptions are important tasks for opticians, they are not the only responsibilities that these eye care professionals must attend to. In fact, many opticians report that much of their time is actually spent on completing small repair assignments such as replacing lost or broken screws in the temples of eyeglasses, or fixing or replacing damaged nose pieces. These simple repairs use up a lot of time, while rarely contributing any income to the business, as most such work is done as a courtesy to regular customers.

Opticians are also usually the ones in charge of recording and maintaining inventory. They order new frames and then stock them when they come in. They are the ones who inventory the types and amounts of merchandise on hand. They also deal directly with sales representatives of different lenses, frames and contacts when they visit to promote products. Additionally, opticians are the ones who handle insurance, or managed vision care as it is known in the industry. They must make sure that all payments go where they need to go, by submitting them to patients, verifying them and if necessary helping doctors to collect them.

Opticians who create their own prescription lenses are called manufacturing opticians, or ophthalmic laboratory technicians, and they are in charge of cutting, grinding, edging and finishing lenses according to the set instructions that they either prepared themselves or received from a dispensing optician. While in the past this work was primarily done by hand, these days most of the manufacturing process is computerized machine-driven. Manufacturing opticians read the specifications, then choose a lens type and mark it to indicate how it should curve. They then place the lens in a device called a lens grinder, set it to the proper settings, and start the machine. Within minutes, the lens has been cut and can then be smoothed out by a second machine. Afterwards, the optician ensures that the lens has been prepared correctly, and then cuts it again so that it can fit within the chosen frame. Finally, if necessary, any tints or protective coatings are added to the lenses and it is assembled together with the frame.

Besides being healthcare workers and skilled tradesmen and women, opticians are equal parts business manages, human resources directors, customer relations specialists, and sales and marketing pros. They must regularly and effectively communicate with other professionals in the vision care field. They must make sure that their workplaces meet or exceed all company, local, state and federal policies and statutes. They need to demonstrate different products and concepts to the public, educating them about the different types of and care for corrective lenses. In fact, they share many tasks with retail employees, and some with management-level workers – in addition to their primary goal of filling prescriptions for eyeglasses, contact lenses, and sometimes other low vision aids.

OPTICIANS TELL THEIR OWN STORIES

I Have Worked as a Licensed Optician for More Than a Decade "I started as an

apprentice optician when I was only 19 years of age. My first job was working for Pearle Vision in one of their store's labs. It was more of a trade job at the time, and less of the healthcare field that it is considered today. It was actually luck that I landed in the field. I had no previous idea that this would be the work that I would be devoted to for the rest of my life. I am very grateful for the Licensed Optician (my manager at the time) who offered me the chance to further myself by apprenticing me in optics. I was actually working in a coffee shop at the time when the offer came. He was down a few employees, and as a regular customer at the coffee house, he had gotten to know me and was apparently impressed with the way I conducted myself. He offered me a job. I accepted and I haven't looked back since.

Opticianry is a very diverse field. At one point, we are the optometrist's front line for patients. I pre-test, do keratotomy readings, refractions, visual field screenings, and tonometry readings before the patient even reaches the doctor. After the exam, I show the patient the selection of frames, discuss lens options and types that would be best for them, and sell them the glasses. I also grind and make the eyewear for them as well in our lab. As I am also a contact lens licensed optician, I also will do insertion and removal classes for new contact lens wearers, evaluate their contact lens fittings, and instruct them on the proper care and wear of their new lenses. Also, since there is a sale of products to the patient, this can also be defined as a retail field as well, and I must maintain the inventory of frames and lenses, and balance the books for the day.

I apprenticed for two years under an Ohio licensed optician, and then sat for the State Board examinations. I carry not only the state license, but my American Board of Opticianry certification (ABOC) and National Contact Lens Examiners Certification (NCLEC) as well. Not everyone will have the resources that I had at my disposal to educate themselves so extensively on the job, so I greatly suggest that you look into one of the many colleges that offer two-year opticianry degrees, which will also eliminated the need for an apprenticeship in most cases.

There is nothing like the feeling you get when you fit a person for the first time with a pair of glasses and they can see so much better than before. It's a gratifying feeling knowing that you are helping the world see better, one person at a time. However, some large stories are starting to consider optics to be just another retail department, and don't necessarily have the patient's best interests at heart. Opticians are required to push products that may not be the best choices for the patient, or as they view them 'customer.' Also, as you deal with the public in general, be prepared to have your fair share of complainers, just and unjust.

At its best, the field of optics is a rewarding and fulfilling healthcare profession, and can be quite financially rewarding as well. If you're thinking about getting into the field, though, be prepared to work hard. It is a mentally demanding field that requires problem solving and out-of-the-box thinking. The studying never ends, as the field changes every day. That's both the beauty and frustration of optics."

I Am a Dispensing Optician and Lab Tech "My career as

an optician actually started just by chance. I was working as a salesman in a large department store. Looking for a career change, I just happened to come across an ad in a newspaper for an optical apprentice. The job was part time and I couldn't work both, so I never bothered to pursue the opportunity. About five months later, I waited on a woman who worked at Pearle Vision. As we talked, she told me that they might be hiring a full-time person for an apprentice. I pursued this opportunity and sure enough was hired at Pearle Vision as an apprentice lab technician. The reason I pursued this opportunity is because I am a person who likes working with my hands and doing more physical labor. This sounded interesting for it gave me a chance to get away from the hustle and bustle of sales and gave me a job actually creating something.

After being on this job for almost five years now, my responsibilities have grown into all areas of opticianry. My day usually starts out by making any glasses that were sold the night before and promised for the next day. Jobs previously ordered are also made according to the promised delivery schedule. An average day has from six to ten jobs delivered.

Throughout the day I am also repairing glasses that have been damaged. People find every way imaginable to break or damage their glasses: sitting or stepping on them, shutting the car door on them, babies grabbing them off their faces – you would believe all the stories. Of course, not all glasses can be repaired. Some need to be replaced.

When my lab jobs are finished, I join everyone else on the sales floor to wait on customers until another job is sold and needs to be made. The evening is spent cleaning and shutting down the lab, doing the daily business report and filling out the sales reports and payroll.

My duties also include taking care of the equipment, inventory and order of lenses and daily store maintenance. It is my responsibility to see that all the machines are cared for and in proper running condition. Maintenance and calibration checks are done monthly or as needed, depending on the machine. I need to order any lenses or parts that were used during the day to keep the stock updated to the proper lens matrix for our store. I have to replace light bulbs, do cleaning, sweeping, etc. And of course, answering the phone. Sometimes it seem that half the day is spent on the phone answering customer questions or setting up doctors exams.

I can't really say that I pursued any specialized training for this career because it was just a random thing. But, I do have a Bachelor of Business Sdministration degree, and the math and physics courses help with the math needed in this field. My recommendation would be to take math and physical science courses. Mathematical equations are used throughout optics to figure curves needed to make the correct lenses. The study of light rays and how they are affected by passing through different materials is also very important in the making of spectacle lenses. Of course, anatomy of the eye and how it reacts with light is also going to be a very important part of the knowledge needed for this field.

Being able to make something with your hands is enjoyable for me. Taking a chunk of plastic and turning it into something useful and needed is what I enjoy most. Then there's the challenge of trying to figure out why someone cannot see using a pair of glasses. Even though the prescription may be correct, there are other factors involved that may determine whether a person can see clearly or not.

Being able to work with patients and solve their problems is enjoyable and keeps you thinking. It is also a job where you are constantly interacting with new people. You meet all kinds of people from every environment and background imaginable. I guess working in a lab like I do it gives me the option to work in a quiet and secluded lab or go onto a sales floor and interact with the public in a more lively and sociable environment.

Because you are working with the general public, you must be able to accommodate them whenever they are able to make it to your place of business. This means you must be open long hours and weekends to serve your customers.

As a lab tech, the only part I consider negative is that fact that I cannot take care of every customer's needs immediately. Many lenses have to be ordered from an outside source, and that means I cannot oversee the quality of the product and am not able to control the amount of time it will take for a customer to receive their eyewear. Lost orders or a job not coming in with the correct prescription causes extra wait time for the customer and ultimately a bad reflection on our business. Working in a licensed state also makes it a little more difficult as far as scheduling personnel, because there must be a licensed optician on the premises at all open times. This makes it difficult when you are a small operation, such as we are with only four employees. If you want to work in the field of optics, you should have a good understanding of math and physical science. Being able to think on your feet and have good problem solving abilities are also very important. Patience is a must. You will be working with the general public, and they can test every part of your patience. Having good people skills and knowing how to interact with them is very important. Optics doesn't involve just the physical areas of making the glasses. Having ability and skills in selling is also a big part of being an optician. Some apprentices never make a pair of glasses, they are there for their sales ability and product knowledge. So whether you are a person who enjoys working with the public and sales, or someone who likes the concentrated work in a lab, there are different environments within the optics field."

I Work in One of the Vision Centers of a Major Retail Store

Chain "I had just recently graduated from college with an accounting degree and was having a very hard time finding work. I happened to be in the local mall when I discovered a 'help wanted' sign hanging on the front door of the Pearle Vision eye center. I went in and grabbed an application. Long story short, they hired me.

A 'typical day' in this business is very relative. I personally feel that there is no such thing. When you're dealing with the public, anything can happen, and just when you think you have seen it all, something else dazzles you. I suppose a normal day would begin by making sure that all of the previous day's paperwork is done and verifying insurance eligibility for the patients who are to be seen by the doctor that day. All orders (contacts, glasses, store stock) are to be picked up from receiving in the back and the corresponding paperwork is to be checked and verified to insure order accuracy. Glasses are cut to order and then final inspected before patients are called to pick the order up. All the while, your day is busy just taking care of patients who need pre-tested, fit for their glasses, need their glasses adjusted, or just generally need to complain. Of course, you also have your basic cleaning duties and keeping up with frame boards to insure accurate inventories.

I had no formal education or experience when I entered this field. I toughed it out as an apprentice for two years before sitting for the state licensure exam to become a licensed optician. I believe there are several schools that offer associate degrees in this field. I would highly recommend it because it would give an aspiring optician solid background knowledge of the basics of the field. However, there is a lot to be said for the way I learned the trade. I trained under a pair of licensed opticians, both of whom had many years of experience, and they taught me just about everything I know. There is a lot to be said for learning the trade 'hands on.' If you are genuinely interested in this field, you should not feel that an college education is absolutely necessary. Just wanting to learn the trade may be enough to take you far in your job.

What do I enjoy most about my work? The people. Anybody who truly knows me knows that all in all, I am a people person. I get along well with just about everybody and make friends quite easily. Patients of mine have followed me from Pearle Vision to my current place of employment because they like me and trust my work. It can be fulfilling, especially when you know that you have done good for patients and when they shake your hand you know they truly appreciate it. Very rewarding.

What do I enjoy least about the job? The people. I know it sounds odd, but it actually makes sense. You want to know something funny? I try very hard to remember my customers' names. Some I do with little effort, some I just plain forget and feel bad for it. The sad thing is the few customers we get that are just impossible to please and are absolute idiots – I will never forget their names! People can be extremely unfair. Some of them know how to 'work the system,' meaning that they know if the bark loud enough, they will get what they want. Luckily, these kinds of customers are few and far between. If you are considering this as a career, go for it. Education or not, experience or not, you can excel in this career by learning from others who have done it for a while. Once you get your foot in the door, the sky is the limit. Obtaining a state license to do this can basically guarantee you work anywhere. Licensed opticians are almost always in demand. If you are people oriented and willing to learn the basics, the rest will come in time and you could be set for a rewarding career."

PERSONAL QUALIFICATIONS

WHETHER OBTAINED THROUGH SELF-STUDY OR A FORMAL EDUCATIONAL program, a background of technical knowledge, especially in science, is definitely a requirement. A careerist pursuing a career in this field should have a good working understanding of anatomy and physiology, especially in terms of the structure and function of the human eve. He/she also needs to be schooled in algebra, geometry, and other mathematical concepts, since a great number of calculation are necessary for the day-to-day tasks of an optician's job. In addition, an optician should have at least basic computer literacy and should feel comfortable dealing with machinery (although specifics can be learned on-the-job). Once on the job, opticians will need to have an in-depth working knowledge of various insurance or vision care plans, as they will be dealing with them frequently. An aspiring optician must be a quick learner and a good study, for he/she will be expected to master difficult concepts in a relatively short time as an apprentice.

Dispensing opticians must be good communicators, as they deal constantly with the public. They must be caring, polite, and friendly in their dealings with patients, even when the customers are themselves difficult to deal with. They must be good teachers, for over the course of their careers they will need to explain many things to the patients, including prescription details, the proper care and maintenance of corrective lenses, and possibly even various eye-related ailments and their effects. Likewise, communication skills come into play when dealing with doctors and eyewear distributors. There is an immense amount of back-and-forth communication between doctors and opticians, as the optician must be able to convey the results of pre-examination testing and then listen to and understand the specific post-examination instructions given from the optometrist or ophthalmologist. As for distributors, good listening and speaking skills will help the optician to find new products and make sure that the business is supplied with the correct types of goods.

There are many other factors that contribute to a careerist's success in this field. Opticians should be energetic and must have stamina, because they will spend long hours on their feet going back and forth between various duties. It can be taxing work. You must be flexible and able to alternate between these responsibilities on a regular basis. Likewise, you must be adaptable and ready to handle unexpected problems as they arise. You must be able to motivate your co-workers and especially apprentices, and you must be able to inspire confidence in those around you

Patience is also a virtue, especially when dealing with a particularly difficult customer or set of corrective lenses. Caution and fine motor skills are also recommended for those who cut and finish their own sets of eyeglasses, as is aptitude with paperwork and computer record keeping.

ATTRACTIVE FEATURES

AS WITH ANY HEALTHCARE FIELD, THOSE WHO WORK IN OPTICIANRY SPEND much of their time helping others, and these professionals cite this as one of their favorite parts of the job. Not everyone can make a difference during the day-to-day course of their careers, but opticians are one of those select few who are able to do just that. Opticians help by playing a large part in enabling others to see better than before, many for the first time in their lives. They do so not just by aiding in the prescription and fabrication processes, but also by instructing new patients and by repairing damaged merchandise (which also helps to save customers money on new eyewear). In some cases, opticians will even have the opportunity to contribute in the assistance of individuals suffering from severe ocular damage, helping to make vision a possibility once again despite the odds. There are numerous other benefits to becoming an optician. Employees tend to earn more than those is traditional retail fields, to which opticianry is often compared. The career promises competitive salaries, especially for those who earn their licenses, as well as numerous benefits. Medical, dental, and vision insurance are common benefits for these careers, along with paid holidays and vacations, 401k and profit sharing plans, stock options, employees merchandise discounts and tuition reimbursement.

Opticianry is a great career for those who enjoy a challenge, as the tasks of deciphering and analyzing prescriptions can be like solving a complicated mathematical or logical puzzle.

There is the self-respect factor. Opticians do a difficult job and can feel good about answering the call and meeting the challenges that they are faced with on a daily basis. An individual that enjoys testing his/her limits would be well suited for a career in this field.

One other good feature of becoming an optician is that it is a relatively safe career choice in terms of employment. Dispensing opticians tend to be in demand, and those with licenses are definitely sought by employers. Opticians with experience grinding and fabricating lenses especially are highly prized employees. Once an optician finds a good job, he/she should be pretty safe in it. Job security is good in this career field, and there are opportunities for advancement. So even if an optician leaves a job, it is more than likely to move up the corporate ladder and to improve earnings potential. If an optician should lose a job, it should not be difficult to find another. For now and in the foreseeable future, people will need corrective lenses and companies will need people to facilitate their creation and sale.

UNATTRACTIVE FEATURES

ONE OF THE BIGGEST DOWNSIDES IN THIS CAREER FIELD IS ITS SIMILARITY TO retail work, both in terms of dealing with customers and with supervisors, corporate or otherwise. Despite their generally-recognized status as healthcare professionals, opticians have to deal with patients as retail customers. This can be difficult, especially if an optician's skill base leans more toward the technical side of the job rather than the customer relations aspect of it. To put it bluntly, retail customers are not always the most pleasant individuals to deal with, especially during busy or stressful times and especially for those who are relatively new to doing so. Dealing with problem patients can seem like a cakewalk, however, compared to enduring the wrath of a manager with a retail background, little knowledge of the intricacies of opticianry, and the belief that licensed opticians are easily replicable by anyone with a few years of experience in a sales-related field.

There is no mistaking that opticianry is a stressful job, partly because of problematic customers and superiors but also due to several other reasons. For one, the pace of the job is usually fast and furious, with many patients to serve and many other tasks to complete but very little time. Opticians must get used to dealing with everything at breakneck speed, while being courteous as well as flexible. New challenges will constantly arise, and an optician must be willing and able to deal with any situation.

Working as an optician may mean putting in long hours and spending much of that time standing. Employees in this position will often be asked to alter their hours based upon how quickly or slowly the optometrist or ophthalmologist is progressing through the list of scheduled appointments. This can result in even longer work hours. It can be grueling and exhausting.

There is one additional factor that is somewhat negative, and that is the issue of certification. Dispensing opticians should maintain a set of licenses. These certifications require passing an initial test and then undergoing renewal procedures on a regular basis. Doing so will invariably cost money (although some employers will reimburse employees that pass an examination) and will require use of personal time to study. These exams are usually only given at set times and pre-determined locations, meaning that considerable travel may be required. Ultimately, it is worth it, as licensed opticians are in much greater demand and typically receive much higher salaries. However, it is definitely something to consider before committing to this career.

EDUCATION AND TRAINING

IT IS POSSIBLE TO GET A JOB AS AN OPTICIAN OR OPHTHALMIC LABORATORY technician even if you have no specific background in the field. Employers then provide the required training on the job. Nevertheless, it is definitely preferable to complete some education and training. As with most careers in healthcare-related fields, it is essential for aspiring opticians to undergo rigorous training in terms of classroom learning, practical application, and certification programs.

Opticians begin their careers as apprentices, learning under an experienced member of the work force until they attempt to become licensed themselves. All dispensing opticians are required by federal law to be certified by the American Board of Opticianry (ABO). The National Opticianry Competency Examination (NOCE) includes a series of questions that test whether an apprentice has mastered the various skills and learned all of the information required to be deemed a competent ophthalmic dispenser. However, it should be noted that the NOCE test only applies to dispensing eyeglasses. In order to legally dispense contact lenses, an optician must pass a separate test provided by ABO's sister organization, the National Contact Lens Examiners (NCLE).

The Contact Lens Registry Examination (CLRE) and the NOCE test are both offered twice a year, once in May and again in November. Both tests are open to anyone who is at least 18 years old and has either a high school diploma or a GED, although the ABO and NCLE recommend two-to-three years of professional experience or the completion of a two-or-four year course of study in an optical field at an accredited college or university.

The ABO exam covers the analysis and interpretation of prescriptions, the fitting and dispensing of spectacles, and the proper use of the equipment commonly used in opticianry.

The NCLE test covers pre-fitting preparation and evaluation for contact lens users, determining which type and style of contact lens to use, procedures used in instructing customers, the delivery of the contact lenses, and how to properly conduct follow-up sessions with patients. Both the ABO and the NCLE also offer advanced certification programs, which instruct prepare veteran opticians to work in a vast array of different workplace settings, including private offices, university hospitals, HMO or managed care offices, large clinics, and more. Among the courses required for advanced certification are: Advanced Knowledge of Ocular Anatomy and Physiology, Principles of Refraction, Diagnosing and Recommending Appropriate Eyewear, Computer Applications in the Optical Business, Optical Business Management, Corneal Topography and Contact Lens Modification.

To maintain ABO and NCLE certifications, a minimum amount of continuing education credits must be obtained every three years for renewal. Furthermore, there are 21 states that require opticians to maintain a state certification in addition to the federal requirements.

Many employers choose to seek out individuals who have completed some level of education in an optical field after high school graduation. Colleges and universities offer a variety of different programs, ranging from one-year certificates to four-year Bachelor of Science degrees, in vision care fields.

Douglas College in New Westminster, British Columbia, for example, offers both a one-year certificate and a two-year diploma in their Dispensing Optician Program. The focus of this program is instruction in dispensing optician, eyeglass and contact lens theory, lab skills and clinical practice. Here is the website for details: http://www.douglas.bc.ca /calhtm/programs/pdop.htm

Indiana University School of Optometry in Bloomington, Indiana, offers a two-year Associate of Science degree in optometric technology. Like the Douglas College program, the Indiana University curriculum features courses on various basic aspects of opticianry, but also adds courses in first aid, interpersonal communications, mathematical sciences and business studies to the mix. Information at this website http://www.opt.indiana.edu/

EARNINGS

AS OPTICIANRY GAINS MORE RECOGNITION AS A SPECIALIZED HEALTHCARE field nstead of a retail field, and because the requirements of the job are much more advanced than many sales or service sector positions, opticians will tend to earn more than the average retail salesperson. A valued optician can earn more than retail store management level employees. Considering the amount of training and certification required, it is hard to argue that these differences in pay rate are not justified.

The base salary for an optician will vary depending upon a variety of factors. Clearly, licensed opticians will earn far more than apprentice opticians. Those who achieve specialized contact lens certification tend to earn more than those licensed just for spectacles. Geographical location is a factor, not only because of cost-of-living differences between certain rural and urban areas, but also because of varying demand and certification requirements among different states. Plus, experience and aptitude are clearly factors in determining how much an optician will earn. The level of responsibility will also help to dictate earning potential.

Median annual earnings of dispensing opticians are about \$25,000. The middle 50 percent earn between \$20,000 and \$35,000. The top 10 percent earn more than \$45,000 in yearly income. Those who work in physician offices tend to earn the most (a median of almost \$30,000), followed by opticians employed in health and personal care businesses and those who work in the offices of other healthcare practitioners.

Manufacturing opticians, or ophthalmic laboratory technicians as they are sometimes known, earn a median hourly income of about \$12, with the middle 50 percent ranging from \$10 to \$15 per hour.

According to one employment website, the median national average salary for an optician working in the United States today is around \$37,000, with the top 25 percent earning more than \$40,000 in base salary. It depends on where you live and work. In the New York area, for example, the median jumps to nearly \$45,000 a year, with some earning as much as \$50,000.

The National Federation of Opticianry Schools (website www.nfos.org) lists the starting salary of a licensed dispensing optician in the \$25,000 to \$30,000 range, based upon employee experience and employer location.

OPPORTUNITIES

YOU MIGHT THINK THAT THE GROWING FIELD OF LASER CORRECTIVE EYE surgery would result in a decrease in the business opportunities for those who work in eyewear. Not so, says one optician interviewed for this report. "Many of the doctors who do LASIK surgery have stopped taking in traditional eye patients," he says. "Not everyone is a candidate for this type of surgery, nor does everyone want it because of the price or the procedures involved. The result has actually been a rise in the patient-to-doctor ratio, which means despite the advances in laser surgery, we have actually seen our business increase pretty steadily."

Dispensing opticians currently hold almost 65,000 jobs, and the number of employees in this field is expected grow during the next decade. The demand for corrective eyewear will increase due to the aging of the baby boom generation and the rising popularity of corrective lenses as a fashion statement. "Middle age is a time when many individuals use corrective lenses for the first time, and elderly persons generally require more vision care than others," a government analyst reasons. "Fashion, too, influences demand. Frames come in a growing variety of styles and colors, encouraging people to buy more than one pair."

Statistics seem to confirm that employment opportunities within the opticianry field have indeed been growing. According to information obtained from the California Projections of Employment, there were 6,950 people statewide working as dispensing opticians in 1993. Today, there are almost 8,5000. Further, the report, which was released through the state's Labor Market Information Division, claims that there may be more than 2,000 openings within the field.

The Health Career Centers website at www.mshealthcareers.com has this to say about the future outlook of job openings in the field of opticianry: "Employment opportunities for opticians should be very good over the next decade. There is an expected 10 to 20 percent increase in the number of new job openings through the year 2012. The demand will continue to increase because of the growing middle-aged and elderly population in this country. As the baby boom generation grows older, more vision care specialists will be needed to keep up with demand created by this surge. Employment opportunities will also become available as people within the profession retire or leave the workplace for other reasons."

GETTING STARTED

STUDY TO LEARN WHAT THE JOB ENTAILS. GET THE PROPER POST-SECONDARY education. If applicable, pursue certification. Become an expert in all of the different scholastic fields required for this chosen career. Once all of that has been done, a careerist can begin to focus on formulating a strategy to enter full-time work in the field. This is one of the few ways in which opticianry is like a career in retail, in that both fields require an almost identical approach to landing that all-important first job. Here is some advice designed to help you become an optician and get started on a long, rewarding and enjoyable professional life.

As in many other job fields, one of the most important things a careerist can do when planning to go out looking for that first optician's job is to design a way to sell his or her own abilities. The first step is to create a resumé that emphasizes the individual's previous work experience (which, at this point, is most likely not optical-related in nature), personal qualities, educational background and prior field-specific training and/or certification. While there are numerous software programs and instruction manuals available that might be able to help you decide what information is relevant and how the information should be formatted and presented, it might behoove an aspiring optician to talk to a professional in the field and before finalizing your resumé.

The second step is to prepare for the inevitable interview. Remember to look and act professional at all times, dressing for success and answering questions in a confident and articulate manner. While it is vital to have an impressive background, it is arguably more important for a careerist to impress a potential employer with deeds, words and actions.

There are a many ways to find job openings for opticians. Newspaper classifieds or advertisements in trade magazines such as 20/20 or Vision Monday could be a good place to start. Careerists could also search online, investigating either all-inclusive job-listing websites or using optician-specific pages such as OpticianJobs.net at www.opticianjobs.net/jobs/index.asp. A careerist could also take the initiative by placing phone calls, registering a resumé with a job placement service, by cold-mailing cover letters and resumes to different businesses, or by visiting local optical establishments in person. Keep in mind, however, that employers may require potential opticians to relocate to different areas. Clearly, once a careerist is confident of knowledge and abilities, the best way to get started as a dispensing optician is to find a job as an apprentice, learn all that you can, and then become ABO, NCLE and (if necessary) state certified.

ASSOCIATIONS

- American Board of Opticianry www.abo.org
- Arizona Association of Dispensing Opticians http://aado.info/index.htm
- Association of British Dispensing Opticians www.abdo.org.uk
- Connecticut Opticians Association www.ctopticians.com
- Louisiana Association of Dispensing Opticians www.lado.org
- Mississippi Association of Dispensing Opticians www.mado.org
- National Contact Lens Examiners www.abo.org
- New York State Society of Opticians www.nysso.org
- Opticians Association of America www.oaa.org
- Opticians Association of Canada www.opticians.ca
- Opticians Association of Georgia www.oagonline.org/index.html
- Opticians Association of Illinois www.illinoisopticians.org

- Opticians Association of Maryland http://marylandopticians.com
- Opticians Association of Massachusetts http://opticiansma.org/
- Opticians Association of Michigan www.theoam.org
- Opticians Association of New Jersey http://home.att.net/~oanj/wsb /html/view.cgi-home.html-.html
- Opticians Association of Ohio www.oao.org
- Opticians Association of Oregon www.oregonoptician.org/default.shtml
- Opticians Association of Virginia http://vaopticians.org
- Opticians Association of Washington www.oaw.org
- Professional Opticians of Florida www.pof.org
- Registered Opticians Association of Texas www.roatx.org
- Society of Dispensing Opticians of Kentucky www.gosdok.com
- Tennessee Dispensing Opticians Association www.tdoa.org

PERIODICALS

- 20/20
- Administrative Eyecare
- California Optometry
- Contact Lens Spectrum
- Eyecare Business
- Eyeworld News
- Optician
- Opti Courier
- Optometric Management
- Optometry Today
- Professional Dispensing
- Review of Optometry
- Review of Ophthalmology
- Vision Monday

WEBSITES

- About Children's Vision www.children-special-needs.org
- AllAboutVision.com www.allaboutvision.com
- Contact Lens Tips www.contact-lens-tips.com
- EyeCommunication.com www.eyecommunication.com

- International Vision Expo East www.visionexpoeast.com/App /homepage.cfm?moduleid=42 &appname=192
- International Vision Expo West www.visionexpowest.com/App /homepage.cfm?moduleid=42&appname=100074
- Internet Ophthalmology www.ophthal.org
- Midwest Vision Congress and Expo www.midwestvisioncongress.com /App/homepage.cfm?moduleid=42 &appname=190 MyEyeNet < http://myeyenet.com/</p>
- Optical Formulas Instructor www.opticalinstructor.homestead.com
- OpticianJobs.net www.opticianjobs.net/jobs/index.asp
- Temporary Optical Personnel Service http://temporaryoptical.com/
- TheDispensingOptician.com www.thedispensingoptician.com
- The Eyecare Connection http://eyecarecontacts.com /eyecare_connection_home.html

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