

## Pediatric Gynecology

Pediatric gynecology is a branch of medicine that focuses on the gynecologic care of infants, children and adolescents. Young people have specialized needs compared to adults. Pediatric and adolescent gynecologists have specialized training that helps them diagnose and treat conditions involving the female reproductive system in this group.

What is pediatric gynecology?

Pediatric and adolescent gynecology (PAG) is a subspecialty of gynecology. Pediatricians trained in adolescent medicine also have special training in PAG. Specialists in PAG provide reproductive healthcare to infants, children and adolescents. This includes care dealing with vaginal pain or rashes, disorders of development and the female reproductive system. The female reproductive system includes the internal and external organs that are responsible for fertility, menstruation and sexual activity.

Babies, children and adolescents have different medical needs than adults do. PAG specialists receive specialized training to provide empathetic, comprehensive healthcare to this age group.

After medical school, physicians in this area first complete a residency program in obstetrics and gynecology or pediatrics. Then, if they trained in obstetrics and gynecology, they complete a PAG fellowship training program. If they trained in pediatrics, they complete a fellowship in adolescent medicine to become PAG experts in everything medical, leaving the surgical to the PAG gynecologists. A PAG or adolescent medicine fellowship trains physicians to:

Perform pediatric gynecological exams with compassion.

Diagnose and treat common and rare pediatric and adolescent gynecologic conditions.

Manage complex reproductive abnormalities and other issues.

Learn specialized surgical techniques for children (PAG gynecologists).

## Allergist

An allergist (allergist/immunologist) is a doctor who diagnoses and treats allergies, asthma and immunologic conditions. In addition to medical school and residency, allergists have

two to three years of special training in allergy and immunology. Allergists can help you manage your allergies or asthma and avoid serious reactions.

### **What is an allergist?**

An allergist (allergist/immunologist) is a doctor who specializes in certain conditions that affect your immune system. Your immune system is made up of special cells, organs and tissues that fight off disease. Types of immune system disorders an allergist treats include:

- **[Allergies](#) and allergic disorders.** You get allergies when your immune system overreacts to something you eat, breathe in (inhale) or touch.
- **[Asthma](#).** Asthma is an inflammation of the airways in your lungs. Asthma attacks are usually brought on by triggers in the environment around you.
- **[Primary immunodeficiency disorders](#).** These are genetic disorders that keep your immune system from working properly. There are over 200 primary immunodeficiency disorders.

### **What is a pediatric allergist?**

A pediatric allergist diagnoses and treats allergies, asthma and immune disorders in

What does an allergist do?

An allergist diagnoses and treats problems with your immune system. An allergist can:

Test for allergies to foods, pollens (grass, trees, weeds), pet dander, mold and other triggers.

Test your lung function and diagnose asthma.

Prescribe medications or devices to prevent, treat or reduce the severity of allergic reactions and asthma attacks.

Recommend lifestyle changes to help avoid asthma or allergy triggers.

Give allergy shots or other forms of immunotherapy to help reduce allergic reactions.

Diagnose immunodeficiency disorders.

Recommend ways to avoid infection while living with an immune disorder.

Administer intravenous immunoglobulin (IVIG) to treat certain immune disorders.

Perform drug desensitization so you can safely take important medications.

How do you become an allergist?

To become an allergist in the U.S., you must first complete medical school and a three-year residency in either internal medicine or pediatrics. This includes passing the exam for either the American Board of Internal Medicine or the American Board of Pediatrics. You then have to complete two to three more years of study in allergy and immunology. Finally, you have to pass an exam to become certified by the American Board of Allergy and Immunology.

## Anesthesiologist

An anesthesiologist is a medical doctor who specializes in administering anesthesia, the medical treatment that keeps you from feeling pain during procedures or surgery.

Anesthesiologists take care of you before, during and after your surgery.

What is an anesthesiologist?

An anesthesiologist is a medical doctor who directs your anesthesia care, pain management and critical care before, during and after surgeries and invasive procedures.

What does an anesthesiologist do?

Similar to your primary care doctor, your physician anesthesiologist manages all aspects of your medical care (blood pressure, diabetes, asthma and heart conditions), while administering an anesthetic that makes you or part of your body unaware of pain from the procedure being performed.

Anesthesiologists help to ensure your safety when you're undergoing surgery or an invasive procedure, making sure your body parts are well padded and protected from injury while you're unaware of your surroundings.

Anesthesiologists have important responsibilities before, during and after a surgery or procedure:

**Before surgery:** Your anesthesiologist is responsible for assessing your health and test results, your fitness for the planned surgery and determining the safest anesthesia plan for you.

**During surgery:** Your anesthesiologist monitors your vital signs during surgery, manages your medical conditions, and administers fluids, blood products and medications to support your bodily functions, such as the function of your heart, lungs and kidneys. They

may work alone or with an anesthesia care team that may consist of nurse anesthetists or physician anesthesiologists in training.

**After surgery:** Your anesthesiologist is responsible for your wellbeing after surgery while you're recovering from the effects of anesthesia. They're typically the healthcare provider who decides when you have recovered from the effects of anesthesia and are ready to go home or go to another room in the hospital.

Anesthesiologists also have an important role in taking care of people who are having minor surgery or who may not need to be unconscious with a general anesthesia, such as people in labor ready to deliver a baby.

They care for people after major surgery in the intensive care unit. They also help people who have serious pain from an injury or chronic pain, such as ongoing back pain, within a pain management team in the hospital or in an office setting.

How does someone become an anesthesiologist?

To become an anesthesiologist, a person must complete all of the following:

Four years of pre-medical education at a college or university, resulting in a bachelor's degree.

Four years of medical school, resulting in a Doctor of Medicine (MD) or Doctor of Osteopathic Medicine (DO) degree.

Four years of residency in an anesthesiology program.

Optional one to two years of fellowship training to subspecialize in a more focused area, such as cardiac, neuro, pediatric, obstetrical, intensive care or pain management.

After residency, most anesthesiologists take the American Board of Anesthesiology (ABA) written and oral exam to become board certified.

Like all medical professionals, anesthesiologists need to complete continuing medical education through attending conferences and classes throughout their careers to keep up with advances and technology in their field of medicine. Some may be involved in research to discover new and better techniques that improve how they administer anesthesia.

How long does it take to become an anesthesiologist?

It generally takes at least 12 years to become an anesthesiologist, which includes pre-med education, medical school and a residency program. Some anesthesiologists pursue a

fellowship in a specialty field of anesthesiology, which takes an additional year or two if combined.

What are some subspecialties of anesthesiology?

Some subspecialties of anesthesiology include:

Pain management.

Cardiac anesthesia.

Pediatric anesthesia.

Neuro-anesthesia.

Obstetric anesthesia.

Critical (intensive) care.

Regional anesthesia / acute pain management.

Hospice and palliative care.

## Cardiologist

A cardiologist is a physician who's an expert in the care of your heart and blood vessels. They can treat or help you prevent a number of cardiovascular problems. They can also specialize in specific areas, like abnormal heart rhythms, heart failure or heart problems you've had since birth.

What is a cardiologist?

A cardiologist is a doctor who's an expert in heart and blood vessel diseases. They can treat heart diseases and help keep you from getting them.

After completing four years of medical school, cardiologists spend three years learning general internal medicine as residents. Then, they get at least three more years of cardiology training after that.

Upon graduating cardiology training, cardiologists take board exams to obtain certification from a national governing group. They then maintain their certification through periodic testing.

Cardiologists must keep up with the latest advances in how to treat people to provide the best care. At the same time, they need to be experts at listening to how you describe your symptoms and finding the right solution for your issue.

What does a cardiologist do?

A cardiologist is a healthcare provider who can treat chest pain, high blood pressure and heart failure, as well as problems with your heart valves, blood vessels and other heart and vascular issues. They can order tests like electrocardiograms, echocardiograms, CTs (computed tomography), CMR (cardiac magnetic resonance imaging) and nuclear imaging to find out what's wrong. With their diagnosis, they can order medicine, help you start healthier exercise and eating habits, or do cardiac catheterization. If you need heart surgery, a cardiologist can refer you to a cardiothoracic surgeon.

A cardiologist will do a physical exam and discuss your symptoms, medical history and biological family history with you. It's important to let your cardiologist know if other people in your biological family have had heart problems because that can increase the chances of you having a heart problem.

Some basic information can give your cardiologist valuable insight into your heart and blood vessel health, like your:

Weight.

Blood pressure.

Cholesterol levels.

Blood glucose (sugar) levels.

Your provider will look at all of this information and any test results to figure out your risk factors for heart problems. They'll also want to know if you smoke, how much physical activity you get, what you eat and which medicines you're taking.

Where do cardiologists work?

You may see a cardiologist in the hospital where they work. Other cardiologists may see you in their own private offices. They may send you to a hospital or another medical facility for testing or procedures.

## Cardiothoracic Surgeon

A cardiothoracic surgeon performs surgery on your heart, lungs or esophagus and other parts of your chest. Surgeries can range from a heart valve replacement or heart transplant to treating lung cancer or esophageal cancer. Cardiothoracic surgeons have extensive training and can specialize in heart surgeries or other areas.

What is a cardiothoracic surgeon?

A cardiothoracic surgeon is a doctor who performs surgery on the organs in your chest, such as your heart, lungs and esophagus. Your heart and lungs are some of your body's most vital organs, providing blood and oxygen to your whole body.

After medical school, cardiothoracic surgeons spend six to eight years of training in surgery. This gives them a combination of general and cardiothoracic surgical training. After that, some spend even more time learning about a specific area of cardiothoracic surgery, such as heart issues babies have when they're born.

What does a cardiothoracic surgeon do?

A cardiothoracic surgeon treats people with diseases or injuries in their chest. They diagnose them and discuss treatment options, do the surgery and follow up with people after they've had surgery.

Cardiothoracic surgeons can treat some of the most well-known organs in your body and some parts of the body you haven't heard about.

They can treat these areas of your body:

Heart and the pericardium around it.

Coronary arteries.

Esophagus.

Chest wall.

Mediastinum (area between your lungs).

Trachea.

Diaphragm.

Lungs and the pleura (linings) that surround them.

Types of cardiothoracic surgeons

Cardiac surgeon.

Congenital heart surgeon.

Cardiovascular surgeon.

General thoracic surgeon.

Transplant surgeon.

# Colorectal Surgeon

A colorectal surgeon is specially qualified to treat conditions of the lower gastrointestinal tract. That means your large intestine: your colon, rectum and anus. Colorectal conditions that may need surgery to manage them include cancers and polyps, pelvic organ prolapse and inflammatory bowel diseases.

What is a colorectal surgeon (proctologist)?

A colorectal surgeon is a surgeon who specializes in conditions affecting your large intestine (your colon, rectum and anus.) Formerly, you may have gone to see a proctologist for these conditions. “Colorectal surgeon” is the more up-to-date term for what’s essentially the same specialty as a proctologist.

Is there a difference between a colorectal surgeon vs. proctologist?

One reason for the name change may be that the term, “proctologist,” literally refers to the rectum and anus, but doesn't include the colon. “Colorectal” refers to the colon and rectum, which make up the largest portion of your large intestine. In practice, a surgeon by either name treats all of these parts.

What qualifications does a colorectal surgeon have?

In the U.S., a colorectal surgeon spends at least five years training as a general surgeon and one additional year of residency specializing in colorectal conditions. After training, they pass a written exam and an oral exam to become certified as colorectal surgeons by the American Board of Colorectal Surgery.

What does a colorectal surgeon study that a general surgeon doesn't?

Colorectal surgeons go deep into the study of intestinal and anorectal physiology in order to understand how all the parts work together. This makes them uniquely qualified to analyze complex physiological problems involving how everything works together and to treat them with the delicacy they require.

What does a colorectal surgeon do?

Colorectal surgeons practice the full range of endoscopic and surgical techniques for treating your GI tract. That means they have all the available tools at their disposal to treat complex conditions. They can treat you nonsurgically (by endoscopy), with minimally invasive surgery or with open surgery.

Techniques colorectal surgeons use include:



Colonoscopy: Endoscopic examination of your large intestine that allows minor interventions.

Enteroscopy: Endoscopic examination of your small intestine that allows minor interventions.

Sigmoidoscopy: Endoscopic examination of your sigmoid colon, rectum and anus that allows for minor interventions.

Laparoscopy: Exploratory examination of your abdominal organs, using a special endoscope (laparoscope) passed through a small cut in your abdomen.

Laparoscopic surgery: Minimally invasive surgery technique that uses a laparoscope to operate through several small cuts in your abdomen.

Robotic surgery: Laparoscopic surgery using a robotic arm that the surgeon controls from a console.

Procedures colorectal surgeons perform include:

Polypectomy: Endoscopic removal of polyps from your intestines.

Endoscopic mucosal resection (EMR) / endoscopic submucosal dissection (ESD):  
Advanced endoscopic techniques for removing difficult tumors.

Transanal endoscopic microsurgery: Surgery through a proctoscope to remove large tumors or obstructions.

Bowel resection surgery: Removal of part or all of your large intestine.

Ostomy surgery: Colostomy or ileostomy to redirect your bowels to a stoma.

Anastomosis surgery: Reversing an ostomy and reconnecting the bowels.

Appendectomy: Removal of an inflamed appendix.

Anoplasty: Surgery to repair or reconstruct the anus.

Rectopexy: Repair of rectal prolapse.

Sacrocolpopexy: Repair of pelvic organ prolapse.

Hernia repair: Repairing intestinal hernia, including laparoscopic and robotic methods.

Cecostomy / antegrade colonic enema (ACE) surgery: Implanting an enema tube.

They also conduct routine diagnostic tests of your colorectal and anal function, including:

Digital rectal exam.

Anoscopy.

Proctoscopy.

Defecography.

Endorectal ultrasound.

Anorectal manometry.

## Dermatologists

Dermatologists are medical doctors who specialize in diagnosing and treating diseases of the skin, hair, nails and mucus membrane. Some dermatologists are also surgeons.

What is a dermatologist?

Your skin is your largest, heaviest organ, and it has many important functions. It protects you from heat, cold, germs and dangerous substances. It's also a great indicator of your overall health — changes in the color or feel of your skin can be a sign of a medical problem. It's important to take proper care of your skin and be aware of its overall health.

A dermatologist is a doctor who has expertise in the care of:

Skin.

Hair.

Nails.

They're experts in diagnosing and treating skin, hair and nail diseases, and they can manage cosmetic disorders, including hair loss and scars.

What do dermatologists do?

Dermatologists diagnose and treat skin conditions. They also recognize symptoms that appear on your skin which may indicate problems inside your body, like organ disease or failure.

Dermatologists often perform specialized diagnostic procedures related to skin conditions. They use treatments including:

Externally applied or injected medicines.

Ultraviolet (UV) light therapy.

A range of dermatologic surgical procedures, such as mole removal and skin biopsies.

Cosmetic procedures, such as chemical peels, sclerotherapy and laser treatments.

What training and qualifications do dermatologists have?

To become a dermatologist, doctors must complete:

Four years of college.

Four years of medical school.

One year of an internship (training in dermatology and other fields).

Three years of residency (continued training concentrating on the field of dermatology).

One to two years of a fellowship. A fellowship isn't mandatory, but it offers additional training in a dermatology subspecialty.

Licensing/certification. In the United States, dermatologists must obtain a license to practice medicine and pass a board certification exam offered by the American Board of Dermatology, the American Osteopathic Board of Dermatology or the Royal College of Physicians and Surgeons of Canada.

What are some dermatology subspecialty fields?

Some dermatology subspecialty fields include:

Dermatopathology.

Mohs surgery.

Pediatric dermatology.

Cosmetic dermatology.

## Endocrinologist

An endocrinologist is a healthcare provider who's an expert in endocrinology — the study of your body's hormones. Endocrinologists diagnose, treat and manage several conditions that affect your endocrine system.

What is an endocrinologist?

An endocrinologist is a doctor who specializes in hormones. An endocrinologist can diagnose endocrine conditions, develop treatment plans and prescribe medication.

Many common endocrine conditions are lifelong (chronic). So, you may see an endocrinologist throughout your life. They're experts in their field and can help you manage the condition to lead a healthy life.

What is endocrinology?

Endocrinology is the study of hormones and endocrine glands and organs. This is your endocrine system.

Hormones help parts of your body communicate with other parts. Your body makes over 50 different hormones. They have a large role in many bodily functions, like:

Metabolism

Growth

Sexual function and reproduction

Sleep

Endocrine glands release hormones, like your thyroid and pituitary gland. Certain organs in your body also release hormones, like your pancreas and ovaries.

What do endocrinologists do?

Endocrinologists diagnose and provide treatment plans for endocrine conditions. Some of the roles of an endocrinologist include:

Recommending and interpreting lab tests, like blood tests, to diagnose or monitor conditions

Recommending imaging tests to check endocrine glands and organs

Doing and interpreting bone mineral density tests

Doing fine-needle aspiration biopsies of your thyroid

Recommending treatment plans, which may include medication and/or surgery

Prescribing medications

Monitoring your management plan over time if you have a chronic condition

What do endocrinologists specialize in?

An endocrinologist may specialize in certain areas of endocrinology called subspecialties, including:

Diabetes and metabolism

Endocrinology nuclear medicine (using nuclear medicine to diagnose and treat certain endocrine conditions)

Endocrine oncology (cancers that affect your endocrine system)

Metabolic bone disease and calcium disorders

Neuroendocrinology (the interaction between your nervous system and endocrine system)

Pediatric endocrinology

Thyroid disease

You may also hear about reproductive endocrinologists. This is a subspecialty of obstetrics and gynecology. These providers specialize in female infertility.

## Otolaryngologist

An otolaryngologist, or ENT, is a healthcare specialist who treats conditions affecting your ears, nose and throat. They can also perform head and neck surgeries, including surgeries on your ears, mouth, throat, nose, neck and face.

What is an otolaryngologist?

An otolaryngologist (pronounced “ot-o-lar-en-GA-le-jist”) is a healthcare provider that diagnoses and treats conditions affecting your head and neck. Otolaryngologists offer both nonsurgical and surgical treatments.

Otolaryngologists are specialists. First, they must complete their undergraduate education and apply for medical school. Following graduation from a licensed medical school, a doctor who wants to become an otolaryngologist must undergo five more years of residency training in their chosen field. Some otolaryngologists even choose to pursue further education in subspecialties like pediatric otolaryngology and reconstructive surgery.

ENT vs. otolaryngologist

Another name for an otolaryngologist is ENT, which stands for “ear, nose and throat.” Both terms mean the same thing. “ENT” is the more common term, probably because it’s easier to remember. But “otolaryngologist” is the medical term for this type of specialist.

Most otolaryngologists prefer the term “otolaryngologist” because it recognizes that they treat much more than conditions of the ear, nose and throat.

What does an otolaryngologist do?

An otolaryngologist diagnoses and treats conditions affecting your head and neck. These conditions range from mild (such as a cough and runny nose) to serious (such as head and neck cancer).

Because an otolaryngologist treats such a wide range of conditions and diseases, they're trained to perform both nonsurgical and surgical treatments.

What's a board-certified otolaryngologist?

A board-certified otolaryngologist has received additional, voluntary training to hone their skills and demonstrate commitment to their profession. To become board certified, an otolaryngologist must undergo vigorous testing, including written, oral and clinical examinations.

For otolaryngologists in the U.S., the American Board of Otolaryngology — Head and Neck Surgery (ABOHNS) grants board certification.

## Forensic Pathologist

A forensic pathologist is a medical doctor who performs autopsies to determine the cause and manner of unexpected or suspicious deaths. They can work in both medical and governmental settings.

### Overview

What is a forensic pathologist?

A forensic pathologist is a medical doctor who investigates unexpected, suspicious, unnatural and/or violent deaths. They usually do this by performing autopsies (a medical exam of a body after death). Their work involves both medical and legal matters.

Pathology is the branch of medicine that involves the laboratory examination of samples of body tissues for diagnostic or forensic purposes. "Forensic" means "related to scientific methods of solving crimes." But not all deaths that forensic pathologists investigate are criminal.

Forensic pathologists have specialized training in the following areas:

**Toxicology:** The branch of science involving the nature, effects and detection of poisons. Examples of poisonings include carbon monoxide, venomous snake or insect bites, and substances like opioids and alcohol.

Ballistics and ballistics wounds: The study of the motion and effects of projectile units, such as bullets.

Trace evidence: The material(s) left behind when two objects or two people interact, such as fibers, bodily fluids, gunshot residue, hair and fingerprints.

Serology: The study of blood and other bodily fluids. Forensic pathologists may look at these fluids under a microscope or perform tests on the samples with machines, such as analyzers for blood tests.

DNA technology: The study and manipulation of genetic material (DNA). Forensic pathologists may compare evidence DNA to a suspect's DNA or use DNA to confirm the identity of the body, for example.

What do forensic pathologists do?

The main role of a forensic pathologist is to determine the mechanism, time and manner of death (that is, homicide, suicide, accidental, natural or undetermined) in cases in which a person dies unexpectedly or violently.

To do this, a forensic pathologist:

Confirms the identification of a body or gathers information that helps determine identification.

Studies the medical history of the deceased person.

Evaluates crime scene evidence in relation to the death (if applicable).

Performs an autopsy to uncover evidence of injury or disease. They carefully report this evidence, as it may be necessary for a future trial on the death.

Collects and analyzes trace evidence from the body.

After they've finished their investigation, the forensic pathologist prepares a written report explaining the mechanism, time and manner of death. They may also testify to these findings in court as an expert witness.

Forensic pathologists may also be involved in examining cases of living patients who have experienced sexual assault or physical abuse.

Where do forensic pathologists work?

Most forensic pathologists work for a city or county government in the medical examiner's or coroner's offices. Others work in hospitals, medical schools or in a private practice that provides autopsy services under contract to attorneys, families and others.

Forensic pathologists spend most of their time in a morgue performing autopsies or in a lab examining tissue samples and running tests. Occasionally, forensic pathologists may have to go to a death scene to work with police investigators.

How do you become a forensic pathologist?

To become a board-certified forensic pathologist, you must:

Complete pre-medical education at a college or university, earning a bachelor's degree.

Complete medical school, earning a Doctor of Medicine (MD) or Doctor of Osteopathic Medicine (DO) degree.

Have at least three years of advanced medical education in a residency training program.

Pass board certification exams through the American Board of Pathology.

Complete a fellowship in forensic pathology after certification in anatomical and clinical pathology.

How long does it take to become a forensic pathologist?

It usually takes about 13 years to become a forensic pathologist. This includes pre-medical education, medical school, a residency and a fellowship.

## Gastroenterologist

A gastroenterologist is a specialist in gastrointestinal diseases. Gastroenterologists treat all the organs in your digestive system, including your GI tract (esophagus, stomach and intestines) and biliary organs (your liver, bile ducts, pancreas and gallbladder.)

### Overview

What is a gastroenterologist?

A gastroenterologist is a medical doctor who specializes in conditions affecting your digestive system. Gastroenterologists begin as general physicians. They complete three years of medical residency after medical school, treating all kinds of diseases and conditions. To become gastroenterologists, they complete three years of additional study after that. Then they receive a special certification. This certification designates them as experts in gastrointestinal diseases and conditions. It also qualifies them to perform certain exams and procedures that general physicians don't, and to interpret the results.

What is a pediatric gastroenterologist?



A pediatric gastroenterologist is a pediatrician first, with extra training in gastroenterology. Pediatricians spend their three years of medical residency practicing general pediatric medicine, treating babies, children and teens for all kinds of conditions. Pediatric gastroenterologists study for three more years after that to earn their certification. They study the gastrointestinal and liver conditions that are most relevant to growing children, with a special emphasis on nutrition. They learn how to interpret children's signs and symptoms and how to perform exams and minor procedures inside their smaller bodies.

What does a gastroenterologist do?

A gastroenterologist may begin by physically examining you. They may feel and listen to your abdominal organs from the outside, or insert a finger into your rectum. They may order follow-up tests, such as blood tests, poop tests or imaging tests like GI X-ray exams that take pictures of your organs from the outside. But when they need more information than these tests can provide, gastroenterologists are specially trained to perform endoscopic procedures. These are exams that look inside your body with an endoscope — a tiny video camera on the end of a long, thin, flexible tube they insert into your body.

Endoscopic procedures include:

Upper endoscopy or EGD: an examination of your upper GI tract, from your throat down through your stomach to your upper small intestine (duodenum).

Enteroscopy: examination of your small intestine.

Colonoscopy: an examination of your lower GI tract or large intestine.

Endoscopic ultrasound: an upper or lower endoscopy with an ultrasound wand attached to the endoscope, which helps to visualize your biliary system.

ERCP: endoscopic retrograde cholangiopancreatography, an upper endoscopy that extends into your bile ducts and then takes fluoroscopic X-rays of your biliary system (video X-rays).

Polypectomy: removal of polyps from your stomach or intestines during endoscopy.

Endoscopy exams give gastroenterologists a more detailed view inside your body to see how things are working and what might be causing your symptoms. But that's not all — gastroenterologists can also take tissue samples and perform minor interventions with tiny tools they pass through the endoscope. This makes endoscopy an intermediate step before surgery that gastroenterologists can take to treat your condition. And it's often enough. Gastroenterologists can relieve blockages, open up narrowed channels, stop

bleeding and remove tumors through the endoscope. They can also interpret the biopsy results.

### Additional Common Questions

What is the difference between a gastroenterologist and a proctologist?

Proctologists are surgeons who specialize in conditions affecting your large intestine. Your large intestine includes your colon, rectum and anus. The name, proctologist, refers specifically to the lower part of your large intestine — your rectum and anus. This may be one reason why it's not used as much anymore. These days, you're more likely to see a colorectal surgeon for conditions affecting your colon, rectum or anus that may require surgery. Colorectal surgeons tend to have a broader range of specialization than proctologists. They may treat conditions affecting your entire gastrointestinal tract.

The main difference between a colorectal surgeon or a proctologist vs. a gastroenterologist is that they train as surgeons. After medical school, they complete five years of surgical residency practicing general surgery before going on to receive special training in colorectal procedures. While they may treat you in other ways, such as conducting an examination or prescribing medication, they are specially prepared for operative procedures. A gastroenterologist may be able to tell you if you need surgery, but they wouldn't be able to perform the operation. Instead, they'd likely refer you to a colorectal surgeon.

## Geriatrician/Geriatric Medicine Doctor

Geriatric medicine doctors (geriatricians) specialize in caring for older adults, especially those over age 65 with complex medical needs. They diagnose conditions, prescribe treatments and talk to you about your care preferences. Most geriatricians are internal medicine or family physicians with advanced training in caring for aging adults.

### Overview

What is a geriatric medicine doctor?

A geriatric medicine doctor, also called a geriatrician, is a physician who specializes in caring for the medical needs of older adults. They diagnose and treat a wide range of conditions that can happen as you get older. They talk to you about your personal goals for your care and tailor treatment to your unique preferences and needs.

Geriatricians are internal medicine or family medicine physicians with additional training in geriatric medicine. They may work at a hospital as part of a center for geriatric medicine or they may work in a private practice. Some provide care at long-term care facilities or rehabilitation facilities. A geriatrician is a specific type of gerontologist (a professional who supports the health and well-being of older adults).

What does a geriatric medicine doctor do?

Geriatricians view you as a whole person. They evaluate all of your needs, including your physical, emotional, cognitive and social needs. They use this information to guide treatments and recommendations. Here are some specific tasks your geriatric medicine doctor might do for you:

Diagnose medical conditions.

Prescribe medications and other treatments.

Keep an eye on any side effects you're experiencing from medications and change your prescriptions as needed.

Discuss with you the benefits and risks of treatments, including surgery.

Work with other healthcare providers to tailor care to your needs.

Refer you to specialists to manage conditions like cancer or issues with brain function.

Discuss your daily functioning with you and help you decide when to make changes. For example, they might advise you on when it's no longer safe for you to drive or live alone.

Help you and your family manage advance directive planning.

Geriatricians understand each person is different. Someone with your exact same medical conditions might have different preferences for the care they receive or how they live day to day. Some people prioritize independence above all else. Others prefer knowing someone is with them 24 hours a day, seven days a week to help them as needed. Some people want to take fewer medications or avoid surgery, while others want to try any and all available treatments.

Geriatric medicine doctors talk to you about what you want most and how to achieve those goals. They also discuss with you alternatives when your top preferences might not be possible or safe for you. They'll involve your loved ones in these conversations and help you feel as comfortable as possible with your care plan.

What is a geriatric care team?

A geriatric care team is a group of healthcare providers, including geriatricians, who work together to provide care to aging adults. They evaluate your needs and provide treatment for a wide range of health conditions that can affect your body and mind.

Besides geriatric medicine doctors, other team members may include:

Dietitians.

Nurse practitioners.

Occupational therapists.

Pharmacists.

Physical therapists.

Physician assistants.

Psychiatrists and psychologists.

Social workers.

Speech and hearing specialists.

Not everyone has access to a geriatrician or a geriatric care team. Depending on where you live and your healthcare plan, you may instead work with a primary care provider (like a physician or nurse practitioner) who has advanced training in caring for older adult

How do I become a geriatrician?

To become a geriatrician, you must:

Earn a bachelor's degree from a college or university, typically on the pre-med track.

Earn a medical degree.

Complete a residency program.

Get a license to practice medicine, following the requirements specific to your state.

Earn board certification, typically in internal medicine or family medicine.

Complete a geriatric medicine fellowship program.

Some geriatricians choose to earn a Certificate of Added Qualifications (CAQ) in Geriatric Medicine. The American Board of Family Medicine and the American Board of Internal Medicine jointly offer an exam for earning this credential.

# Surgeon

A surgeon is a highly trained medical professional who's qualified to perform surgery. There are many types of surgeons, including general surgeons, cardiothoracic surgeons, neurosurgeons and orthopedic surgeons. Your primary care provider may refer you to a surgeon if you need specialized care or treatment.

What is a surgeon?

A surgeon is a doctor with additional training in performing operations. This means they use the latest tools and technologies to find and fix issues inside your body. Your primary care provider may refer you to a surgeon if you need surgery or other types of specialized care.

There are many different types of surgeons, each with their own area of expertise. For example, a neurosurgeon operates on your brain while a cardiac surgeon works on your heart. No matter their specialty, all surgeons are prepared to manage your care before, during and after your surgery.

What does a surgeon do?

Surgeons are responsible for:

Assessing your condition and reaching a diagnosis

Identifying the type of surgical and/or nonsurgical treatment you need

Performing the operation

Leading a team of healthcare providers involved in the operation, including surgical assistants, anesthesiologists and nurses

Managing your care after surgery (postoperative care)

Despite their title, surgeons often also provide nonsurgical treatments. For example, they might prescribe pain medications, advise your diet or refer you to physical therapy.

If you need surgery, your surgeon will help you understand why. They'll also explain the best type of operation and approach for you. You may need traditional (open) surgery, where a surgeon makes cuts (incisions) to access the inside of your body. Or your surgeon may recommend a type of minimally invasive surgery such as laparoscopy or robotics.

Your surgeon will develop a care plan tailored to your needs and see it through from start to finish.

What are the different types of surgeons?

The American College of Surgeons recognizes 14 types of surgeons, each with their own specialties (listed below). Some surgeons choose to further specialize in a more focused area within their fields.

Cardiothoracic surgeon: Manages conditions affecting organs in your chest

Colorectal surgeon: Manages conditions affecting your small intestine, colon, rectum and anus (butthole)

General surgeon: Does surgery on a wide range of conditions affecting many different areas of your body (many surgical specialists complete five years of general surgery training before pursuing sub-specialty training)

Gynecologic oncologist: Diagnoses and treats cancers affecting the female reproductive system

Neurosurgeon: Manages conditions affecting your brain, spinal cord and nerves

Obstetrician-gynecologist (OB-GYN): Has expertise in both obstetrics and gynecology, cares for pregnant women, delivers babies (including by C-section) and manages conditions affecting the female reproductive system

Ophthalmologist: Delivers total eye care, including eye surgery

Oral and maxillofacial surgeon: Manages conditions and injuries affecting your maxillofacial area (jaws and lower face), roof of your mouth (palate) and teeth

Orthopedic surgeon: Manages conditions affecting your musculoskeletal system

Otolaryngologist: Manages conditions affecting your head and neck

Pediatric surgeon: Does surgeries in babies and children

Plastic surgeon: Does surgeries that restore function to areas of your body affected by congenital (present at birth) conditions, major illnesses or injuries

Urologist: Manages conditions affecting your urinary system, reproductive organs and adrenal glands

Vascular surgeon: Manages issues with your blood vessels

What training does a surgeon receive?

It takes years of extensive, rigorous training to become a surgeon. All surgeons in the U.S.:

Earn a bachelor's degree (typically four years)

Complete medical school or dental school, depending on the specialty (typically four years)

Complete a residency program (three to seven years, depending on the specialty)

Have the option of completing a fellowship in a chosen subspecialty (typically one to three years)

Take one or more exams to earn board certification

Surgeons — like all other medical professionals — engage in continuing education throughout their careers. This means they do things like attend conferences and take classes to keep up with the latest knowledge and technologies in their field.

## Hematologist

Hematologists are healthcare providers who specialize in diagnosing, treating and managing diseases that affect your blood, bone marrow and lymphatic system. Blood diseases may be benign (noncancerous) disorders or malignant (cancerous). Blood disorders and blood cancer may have mild symptoms or be life-threatening.

What is a hematologist?

According to the American College of Physicians, a hematologist is a healthcare provider who specializes in diseases that affect your blood, bone marrow and lymphatic system. Hematology is a sub-specialty of internal medicine.

What does a hematologist do?

Hematologists diagnose, treat and manage a wide range of diseases that affect your blood cells. Blood diseases may be benign (noncancerous) or malignant (cancerous). Some diseases keep your blood from flowing (blood clots). Other diseases make you bleed more than normal. Blood disorders and blood cancer may have mild symptoms or be life-threatening.

Is a hematologist the same as an oncologist?

No, but a hematologist may also be an oncologist. Oncologists diagnose and treat all kinds of cancer. Hematologists focus on problems with your blood and parts of your body that help produce blood. That said, there's a natural overlap between hematology and oncology, as many types of cancer start in blood cells in your bone marrow and lymphatic system.

Does hematology mean cancer?

No, seeing a hematologist doesn't mean you have cancer. Hematologists treat all kinds of blood diseases. You may see a hematologist if your primary care provider recommends you see a specialist because your blood tests show abnormal blood cell count or coagulation levels.

What education is required to become a hematologist?

All healthcare providers must complete four years in medical school to obtain a medical degree. Healthcare providers who are hematologists have completed the following requirements:

They've completed a three-year residency: This is graduate medical education that includes patient care. Many hematologists complete residency in internal medicine or pediatrics.

They've completed a three- to five-year fellowship: This is additional training and education in a specific area of medicine. In this case, healthcare providers have additional training and education in hematology. Some may combine hematology with oncology training.

## Hepatologist

A hepatologist is a liver doctor, which is a big job. In order to treat liver disease, a hepatologist has to know about all the organs in your biliary tract. That means they'll treat you for bile duct diseases, as well. Some hepatologists specialize in end-stage liver disease and liver transplantation.

What is a liver doctor called?

A liver doctor is called a hepatologist. "Hepato" means "liver," and "-ologist" is someone who specializes in something. A hepatologist is a specialist in liver disease and conditions affecting your biliary tract.

What organs does a hepatologist treat?

Most people see a hepatologist to diagnose and treat liver conditions, especially chronic liver disease and its complications. But there's some crossover between liver disease and diseases in other organs.

Your liver belongs to your biliary tract, a system of organs connected by bile ducts, which also includes your gallbladder and pancreas. Because they're connected, disease in one organ can involve the others.



Is a hepatologist the same thing as a gastroenterologist?

A hepatologist is a gastroenterologist who chooses to focus their training on the study of liver diseases. So, all hepatologists are gastroenterologists, but not all gastroenterologists become hepatologists.

Hepatology is a subspecialty of gastroenterology, which studies all the organs in your digestive system, including your liver. Gastroenterologists also treat liver disease, but hepatologists specialize in it.

Is a hepatologist also a gallbladder doctor and a pancreas doctor?

You can ask a hepatologist about your gallbladder or pancreas. They're trained in gallbladder and pancreas matters, but they mostly focus on the liver.

It's more common to see a gastroenterologist about your gallbladder or pancreas. You could also see a pancreatologist about your pancreas, but they aren't very common.

Why would my doctor send me to

How do you become a hepatologist?

You can choose to specialize in hepatology after completing the qualifications to practice general medicine. That means completing a four-year medical degree and a three-year residency program.

Hepatologists complete an additional three-year fellowship program in gastroenterology, which includes the study of hepatology. They might spend a significant portion of this training on hepatology.

Some hepatologists become certified as gastroenterologists first and then complete an additional fellowship program focused on hepatology. Fellowships typically last one or two years.

Others choose to become certified transplant hepatologists. To do this, they complete an accredited one-year training program for gastroenterologists. Then they pass an exam to become certified.

What is a pediatric hepatologist?

A pediatric hepatologist is a pediatrician who completes extra training in gastroenterology and hepatology. They treat infants, children and teens with gastrointestinal (GI), liver and biliary diseases.

A pediatric hepatologist begins with a medical degree and a three-year residency program in general pediatric medicine. Then they complete a three-year pediatric gastroenterology residency program.

A pediatric gastroenterologist might choose to specialize in hepatology during their residency, or they might complete a fellowship in hepatology afterward to become a pediatric hepatologist.

A pediatric gastroenterologist can also pursue a certification in pediatric transplant hepatology. Pediatric transplant hepatologists are specially equipped to treat children with liver failure and liver cancer.

## Clinical Care Team

A clinical care team manages every aspect of your hospital care. It includes doctors, nurses and other providers depending on your medical needs. Keep in mind that no matter who's on your team, you're the most important member. The team comes together around you and your needs. Don't be afraid to speak up, ask questions and share your preferences.

What is a clinical care team?

Your clinical care team is a group of healthcare providers who work together to care for you at a hospital. Each provider brings unique knowledge and skills to the team. You may see some providers often — like the main doctor who leads the team (attending physician) or your nurses. Others you may only see once or twice. But they all contribute toward giving you the best possible care.

What is the role of the care team?

The purpose of a clinical care team is to diagnose and treat conditions that put your health or life at risk. Hospital care teams are prepared to manage everything from seasonal infections to long-term (chronic) conditions. If you're having surgery, you can trust that a care team is ready to get you from prep to recovery. Each member of the team plays an instrumental part to help speed up your recovery, maintain your health and improve your well-being.

Whether it's for one night or many months, a hospital stay can feel scary. You might not know what to expect. Your loved ones may be worried and anxiously awaiting news. Your care team knows this isn't easy. They'll tend to your medical and emotional needs and also be there for your loved ones.

For example, a psychologist helps you work through the emotions you're feeling. A social worker connects you with resources as you prepare to return home. A dietitian makes sure you're getting the right nutrition. Let's take a closer look at all these different types of providers and how they help you.

Who's on my clinical care team?

Exactly who's on your team varies according to your medical needs. Also, different hospitals have different ways of organizing their teams. In general, you'll have doctors, nurses, therapists, techs, aides and other experts who each play a role in your care.

Hospital patient care personnel

Your clinical care team may include:

Attending physicians

You'll typically have one attending physician who leads the team and makes sure everyone's on the same page. This is often a doctor with special training in caring for people in hospitals (hospitalist). In some cases, your attending physician might be your primary care provider, a surgeon or another type of specialist.

Specialist physicians

These are doctors with expertise in a certain area of medicine. They help with diagnosis and treatment. The types of specialists on your team depend on your needs. Common examples include heart doctors (cardiologists), kidney doctors (nephrologists), cancer specialists (oncologists) and various types of surgeons.

Nurse practitioners (NPs) and physician assistants (PAs)

NPs and PAs are often called advanced practice providers. They work with your attending physician to make sure you get the care you need from day to day.

Registered nurses (RNs) and licensed practical nurses (LPNs)

These nurses quickly become familiar faces because they interact with you often. RNs give you medications and keep a close eye on how you're doing. LPNs check your vital signs and help with daily tasks like getting dressed or using the bathroom.

Certified nursing assistants (CNAs)

These providers are sometimes called patient care technicians or nurses' aides. They work closely with nurses to make sure all your needs are met. They might bring you a blanket if

you're cold or help you with eating or moving. They're often the ones holding your hand and reassuring you in some of the scariest moments.

#### Speech-language pathologists

Some conditions affect your ability to swallow and/or speak. Speech-language pathologists (SLPs) can teach you techniques for safe swallowing. They can also help you form words and produce sounds so you can talk with others. If speaking isn't possible, they'll teach you how to use assistive devices to communicate.

#### Occupational and physical therapists

Occupational therapists help you do activities of daily living (ADLs) as independently as possible. Physical therapists help you move safely during and after your hospital stay. For example, they can help you regain your strength after surgery or bed rest.

#### Respiratory therapists

You may need a respiratory therapist on your team to help maintain or restore your lung function. If you're in the intensive care unit (ICU), a respiratory therapist may connect you to mechanical ventilation or do other procedures to help you breathe.

#### Pharmacists

A clinical pharmacist works with your attending physician and other members of your care team. They make sure the medicines you're taking are safe for you and won't interact with each other. They may also teach you about your medicines and answer your questions.

#### Dietitians

Your dietitian makes sure you get the nutrition you need in the form that's right for you. They plan meals you chew and swallow, as well as nutrition you get through a tube or IV.

#### Mental health professionals

A psychologist or another type of mental health professional may be part of your team. They help you and your loved ones process the emotions you're feeling. Some research shows that working with a psychologist while you're in an intensive care unit (ICU) can lower your risk of depression, anxiety and post-traumatic stress.

#### Social workers

Your social worker helps you plan for life after your hospital stay. They connect you with resources and services that support your recovery. They also help arrange for things you might need when you're back home, like special beds or mobility devices.

## Nonclinical staff

Besides these healthcare providers, your care team might also include nonclinical staff. This is an umbrella category for people like:

Interpreters, who support communication between you and your providers

Clergy, who offer spiritual support

Patient advocates (sometimes called ombudsmen), who are available to discuss any concerns you might have about the care you're receiving

## Infectious Disease Doctor

Infectious disease doctors are healthcare providers who specialize in diagnosing and treating conditions caused by bacteria, parasites, viruses and fungi. In most cases, another healthcare provider refers you to see an infectious disease doctor.

What is an infectious disease doctor?

An infectious disease (ID) doctor or infectious disease specialist is a physician who specializes in infectious diseases.

Infectious diseases are illnesses caused by harmful organisms that get into your body. The most common causes of infectious diseases are viruses, bacteria, fungi and parasites. These organisms are everywhere. Most of the time, we coexist with some of them without them ever causing a problem. But they can also cause diseases that range from mild to deadly.

Infectious diseases usually spread from person to person, through contaminated food, water and soil, or through insect and animal bites. Infectious diseases can affect your skin, urinary tract, lungs, blood and virtually any area of your body.

Infectious diseases are extremely common worldwide, but some are more common than others. The flu, measles, common cold, strep throat, COVID-19 and salmonella are all examples of infectious diseases.

You don't need to see an infectious disease doctor anytime you have a virus or infection. Most healthcare providers can treat common infections and viruses. An infectious disease doctor is an expert in diagnosing, managing and treating rare, complex, serious or chronic infections. In some ways, they're like detectives of organisms in the human body, considering tiny details of a person's medical history or laboratory results to try to understand and control an infectious disease.

What does an infectious disease doctor do?

An infectious disease doctor is an expert in diagnosing, managing and treating acute (sudden) and chronic (present for a long time) diseases caused by bacteria, viruses, fungi, parasites and prions. They often work alongside other physicians and specialists to diagnose and treat conditions or determine the cause of a specific symptom. They spend many hours conducting research on how organisms affect different parts of your body and how these organisms can affect our society as a whole.

They also work to understand:

New or emerging infections or infections that change over time.

Infections that spread mainly due to international travel.

Antibiotics, antivirals and vaccinations.

### **How do you become an infectious disease doctor?**

Infectious disease doctors have a similar medical background as other doctors. But they spend many additional years understanding and learning about immunology and epidemiology. Immunology is the study of a person's [immune system](#) and how organisms affect it. Epidemiology is a science that investigates factors that determine why diseases and disorders exist or don't exist.

Infectious disease specialists have extensive knowledge of how and why viruses, parasites, bacteria and fungi affect your body.

This requires years of training. Infectious disease doctors complete the following:

- Undergraduate degree.
- Medical school (four years).
- Residency in internal medicine (three years).
- Fellowship in infectious diseases (usually two years).
- Specialization in a specific area like transplant infectious disease (optional one-year program).
- Board certification.

## **Where do infectious disease doctors work?**

Some infectious disease doctors focus on research and may spend time working in public health, such as for the Centers for Disease Control and Prevention (CDC). Other infectious disease specialists are more clinical, which means they work in a hospital or community practice and visit patients regularly.

## **Neurorehabilitation for Brain Health**

The goals of neurorehabilitation are to improve / maintain function, decrease the impact of symptoms, and improve the quality of life of the patient and caregiver.

What is neurorehabilitation for brain health?

Neurorehabilitation is a program for people with diseases affecting the brain. Some examples of these conditions include:

Alzheimer's disease

Dementia

Parkinson's disease

Multiple sclerosis

Amyotrophic lateral sclerosis (Lou Gehrig's disease)

Huntington's disease

What are the goals of neurorehabilitation?

The goals of neurorehabilitation are to improve / maintain function, decrease the impact of symptoms, and improve the quality of life of the patient and caregiver.

What types of healthcare professionals are on a neurorehabilitation brain health team?

Members of a neurorehabilitation brain health team may include:

Neurologist/Neurosurgeon

Other specialty physicians

Internist

Nurses

Nurse practitioners/Physician assistants

Registered dietitian

Social worker

Psychologist/psychiatrist

Physical therapist

Occupational therapist

Speech and language therapist

Others based on patient-specific needs or requests

## Interventional Cardiology

Interventional cardiology is a specialty that diagnoses and treats heart and blood vessel conditions using small tubes called catheters. Working with these small tubes, which they put through your blood vessels, allows providers to avoid doing open-heart surgery. Yet they achieve results that can be life-saving, like when treating a heart attack.

What is interventional cardiology?

Interventional cardiology uses catheters to diagnose and treat heart disease. Catheters are very small tubes (similar to IVs) that healthcare providers put through your blood vessels. This is why you don't need an incision for a procedure that uses a catheter.

Healthcare providers working in this type of cardiology help people with vascular (blood vessel) and coronary (heart) diseases. They also help people who have structural heart disease. These diseases include heart valve defects and septal defects — abnormalities in the walls separating your heart chambers.

Some interventional cardiology providers spend their careers working with babies and children who have congenital (since birth) heart issues. Others focus on adult patients who need interventions as a result of a congenital heart issue.

Interventional cardiology vs. cardiothoracic surgery

An interventional cardiologist uses catheters to perform minimally invasive procedures on your heart or blood vessels. This means they don't need to make a large incision called a sternotomy. However, they don't perform open-heart surgery.

A cardiothoracic surgeon is a provider who operates on the organs in your chest, such as your heart, lungs and esophagus. They use open-heart surgery for these operations, as well as other methods that use several small incisions instead of one long one.



It often takes both specialties to determine the best treatment plan for each individual.

What does a provider in interventional cardiology specialize in?

An interventional cardiologist specializes in doing heart and blood vessel procedures with a catheter. They use some of these procedures to diagnose an issue and others to treat it.

What kind of tests does an interventional cardiologist do or order?

In interventional cardiology, the focus is on making sure the blood in your body flows the way it should. Providers in this area of cardiology identify and fix issues that get in the way of your blood flow. For example, they may check the blood flow and pressure in your coronary arteries and heart chambers.

Interventional cardiology tests may include:

Computed tomography (CT) of coronary arteries.

Intracardiac echocardiogram.

Heart MRI.

Chest X-ray.

What is an interventional cardiac procedure?

A provider performs an interventional cardiac procedure on your heart with a catheter. They do this instead of making incisions (cuts in your skin) and doing surgery. A heart valve replacement or repair a provider does with a catheter is one example of an interventional cardiac procedure.

What procedures does an interventional cardiologist do?

Interventional cardiology procedures include:

Cardiac catheterization.

Angiogram (peripheral or coronary).

Angioplasty.

Coronary atherectomy (plaque removal).

Fractional flow reserve (FFR) measurement.

Intravascular ultrasound (IVUS).

Optical coherence tomography (OCT).

Stent placement.

Heart valve replacement and repair.

Left atrial appendage closure.

Atrial septal defect closure.

Alcohol septal ablation.

Patent foramen ovale closure.

Renal denervation (damaging renal artery nerves to lower blood pressure).

Thrombolysis.

What is the most common procedure performed by interventional cardiologists?

The most common procedure an interventional cardiologist does is angioplasty and stent placement in your coronary (heart) artery. With this minimally invasive procedure, they can use a catheter to find a blockage in one of your heart's arteries. Then, they make a path for your blood using a tiny balloon that pushes cholesterol buildup against your artery wall. They can keep that pathway open with a stent (wire mesh device) if needed. Restoring blood flow to your heart is a life-saving procedure for a heart attack.

What is the training for interventional cardiology?

People spend many years training before working in interventional cardiology. After finishing medical school (four years), people in this subspecialty spend three years in an internal medicine residency and three years in a general cardiology fellowship.

Next, they spend at least one year in an interventional cardiology fellowship that focuses on using catheters. Then, they get certification from a medical board.

An interventional cardiologist may become a member or fellow of the Society for Cardiovascular Angiography and Interventions (SCAI). A fellow in this organization has performed more than 1,000 procedures.

What is a perinatologist?

A perinatologist is an obstetrician-gynecologist (OBGYN) who specializes in high-risk pregnancies. Perinatologists are also called maternal-fetal medicine (MFM) specialists or high-risk OBGYNs. They focus on pregnancies where the pregnant woman or the fetus has a health complication. If you have a chronic medical condition, you may work with a perinatologist before or shortly after becoming pregnant. Or you might develop a condition during pregnancy that requires extra monitoring or testing from a perinatologist. A

perinatologist can also be involved in your prenatal care if the fetus has a congenital disorder or birth abnormality.

What does a perinatologist do?

A perinatologist is an expert in prenatal and postnatal care for people at higher risk of pregnancy, labor or delivery complications due to a health condition. They help treat preexisting conditions as well as conditions caused by pregnancy. Their expertise includes treating pregnant women and diagnosing and managing health conditions in fetuses. Perinatologists can offer more advanced testing for congenital disorders and provide information on how certain pregnancy conditions affect the fetus.

Perinatologists are responsible for:

Preconception counseling for underlying health conditions that may lead to pregnancy complications.

Routine prenatal care and testing for high-risk pregnancies.

Managing preexisting or new health conditions in a pregnant woman.

Using ultrasounds or other tests to diagnose genetic disorders or birth abnormalities.

Assisting in labor and delivery as needed.

Managing postpartum complications.

Perinatologists, or maternal-fetal medicine specialists, are experts in high-risk pregnancies. They provide care when a medical condition, congenital disorder or disease may cause pregnancy or delivery complications.

How long does it take to become a perinatologist?

Perinatology is a sub-specialty of obstetrics and gynecology. Perinatologists complete an undergraduate degree and then attend medical school. After completing a four-year residency training in obstetrics and gynecology, perinatologists complete an additional two- or three-year fellowship in perinatology. Perinatology fellowships focus on how to treat pregnancy complications and how diseases affect the pregnant woman and the fetus.

# Geneticist

Geneticists are healthcare professionals who diagnose and manage genetic disorders. Most are medical doctors. You might see a geneticist if you or a family member is diagnosed with a genetic condition. Geneticists will help you understand what's happening and what the path forward looks like.

## Overview

### What is a geneticist?

A geneticist (medical or clinical geneticist) is a doctor who specializes in understanding the links between our genes and our health.

Geneticists diagnose and manage genetic disorders that affect people of all ages, from pregnancy onward. In addition to working directly with individuals and families, clinical geneticists often do research that helps advance our understanding of genetic disorders. They may also take on administrative or teaching roles.

### What is a clinical geneticist?

The term clinical geneticist refers to a geneticist who sees patients. They have a Doctor of Medicine (MD) or Doctor of Osteopathic Medicine (DO) degree.

Most geneticists are considered clinical geneticists. But some geneticists don't see patients and instead work primarily in labs. They might have a medical degree or a Doctor of Philosophy (PhD) degree — or both. They typically go by the title of geneticist or medical geneticist, but not clinical geneticist.

### Where do geneticists work?

Most geneticists work in major hospitals and medical centers. Some work in private or group practices. A small number work exclusively in commercial labs.

Geneticists typically meet with you in person, but many are available for virtual appointments, too (telehealth). Telehealth is especially important in areas where there aren't many — or any — geneticists available.

Most geneticists work in or near big cities, so that means many people live in areas without easy access. If you want to see a geneticist but there isn't one near you, ask your healthcare provider about your options.

### What does a geneticist do?

A typical work week for a clinical geneticist might involve:

Doing detailed physical exams.

Talking to people about their family history and symptoms.

Planning and ordering genetic testing.

Reviewing test results with individuals and their families.

Sharing a diagnosis that may be upsetting for a person to hear — and supporting the person and their family with kindness and compassion.

Working with other healthcare providers to coordinate care.

Recommending treatments or strategies to manage a condition.

Reading published articles in medical genetics to keep up with the latest research.

Doing administrative work or teaching.

Researching and writing articles for publication.

Not all geneticists directly see patients. Some work in labs doing behind-the-scenes tasks like:

Running tests for genetic disorders.

Interpreting test results.

Creating detailed reports for healthcare providers.

What's the difference between a geneticist and a genetic counselor?

Geneticists and genetic counselors are both genetics experts, but they have different types of training:

Geneticists are doctors. They go to medical school and specialize in genetics.

Genetic counselors are trained professionals who earn their master's degree in genetic counseling. They also take an exam to earn the Certified Genetic Counselor (CGC®) credential. They can perform many of the tasks mentioned above but can't perform physical exams or create medical management plans that aren't published already.

Geneticists and genetic counselors work together on teams with other health professionals, including genetics nurses, dietitians and specialists in pharmacogenomics. Genetics experts also work with primary care physicians (PCPs) and other specialists (like neurologists or oncologists) to diagnose and manage conditions.

How do I become a geneticist?

To become a geneticist, you need advanced education — either medical school (to get an MD or DO) or graduate school (to get a PhD). Here are the basic steps most geneticists follow:

Earn a bachelor's degree.

Attend medical school to earn an MD or DO degree.

Complete a medical residency (in an area like internal medicine or pediatrics) and an additional fellowship in genetics or a combined residency such as pediatrics/genetics.

Take an exam to earn board certification through the American Board of Medical Genetics and Genomics (ABMGG).

If you'd rather do research or work in a lab instead of meeting with patients, you may choose to earn a PhD instead of a medical degree. Some people earn a dual degree (MD/PhD). The exact path you take depends on your interests and professional goals. It's a good idea to visit prospective schools and talk with faculty and students to learn more about your options.

What is a pediatric geneticist?

A pediatric geneticist diagnoses and treats genetic conditions in babies and children. They also provide education and support to families. For example, they:

Explain details of your child's condition in terms you can understand.

Walk you through test results.

Explain the chances of the genetic condition affecting other family members or future pregnancies.

You may work with a pediatric geneticist if your child was born with:

Congenital heart disease.

A genetic syndrome affecting their chromosomes, like Down syndrome.

An inherited disorder like cystic fibrosis or sickle cell disease.

Pediatric geneticists complete residency training in both pediatrics and medical genetics, and they're often board certified in both areas.

# Neonatologist

A neonatologist specializes in caring for and treating premature babies or infants born with congenital disorders, diseases or other health conditions.

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What is a neonatologist?

A neonatologist is a healthcare provider who specializes in premature babies or newborns with high-risk or complex health conditions. If your baby is born premature or with an illness or congenital disability, a neonatologist will be the provider managing your baby's care. A neonatologist may be involved in your prenatal care if the health condition is diagnosed before birth. In some cases, neonatologists are in the delivery room to treat newborn babies immediately after they're born.

Most neonatologists work in hospitals in neonatal intensive care units (NICUs). NICUs are a special type of newborn nursery that provides 24-hour care to sick or premature babies. A neonatologist may provide follow-up care after your baby is discharged from the NICU and work with your baby's pediatrician.

What does a neonatologist do?

A neonatologist provides specialized care and attention to babies born with severe illnesses, injuries or birth disorders. They can become involved in your pregnancy when a congenital disorder is diagnosed before birth. Neonatologists work with obstetricians to

ensure that sick babies have all the medical care they need at birth. Sometimes they aren't involved until after a baby is born because the condition was unexpected.

A neonatologist:

Diagnoses and treats disorders, infections or illnesses in newborns.

Coordinates and manages care, surgery and treatment.

Orders blood tests or imaging tests like X-rays, echocardiograms (EKGs) or ultrasounds to monitor conditions or organ function.

Makes sure sick or ill babies receive the proper nutrients.

Assists in the delivery room and provides immediate care to an infant with medical conditions at birth.

Consults with obstetricians, maternal-fetal medicine and pediatricians on the infant's care.

Provides support to families during their baby's NICU stay.

How does someone become a neonatologist?

Neonatology is a subspecialty of pediatrics. Neonatologists receive training as a pediatrician before specializing in neonatology.

First, a neonatologist attends college and obtains a bachelor's degree. Next, they complete the Medical College Admissions Test (MCAT) and attend medical school. After medical school, neonatologists complete a residency program in pediatrics. The residency lasts approximately three years. A neonatologist will get hands-on experience working with children in clinical settings during their residency program.

After residency, a neonatologist needs to complete their fellowship in newborn intensive care or neonatology. A fellowship program lasts another three years. The final step is to become certified by the American Board of Pediatrics and by the sub-board of Neonatal-Perinatal Medicine.

It takes at least 11 years to become a board-certified neonatologist but may take up to 14 years.



# Obstetrician

An obstetrician is a physician who specializes in delivering babies. They care for you during pregnancy and after you give birth. Obstetricians treat medical conditions unique to pregnancy. They can provide a variety of pregnancy- and childbirth-related procedures.

What is an obstetrician?

An obstetrician (OB) is a doctor who cares for you from before pregnancy to after childbirth. This includes the following stages:

Preconception

Pregnancy

Labor and delivery

Postpartum

Some obstetricians are also gynecologists (Ob/Gyns). Gynecologists specialize in the female reproductive system.

Choosing your pregnancy care provider is a big decision. An obstetrician is one of your options. They screen for, diagnose and treat conditions related to pregnancy to ensure both you and the fetus are healthy.

What do obstetricians do?

An obstetrician provides routine prenatal care to women who are pregnant. They also diagnose and treat complications during pregnancy. Obstetricians deliver your baby and monitor you after childbirth.

Your obstetrician is responsible for:

Prenatal screenings, exams and lab tests

Providing information to help you manage pregnancy

Evaluating the fetus's size, growth and position during pregnancy

Detecting congenital differences or potential complications

Using ultrasound, blood tests, urinalysis, and other tools to monitor your pregnancy

Treating health conditions that can affect your pregnancy

Managing labor and delivery, including labor induction and emergencies

Providing postpartum care for up to six weeks after childbirth

When should I see an obstetrician?

You should see your obstetrician:

When you find out you're pregnant

Throughout your pregnancy for routine appointments

If you develop complications during pregnancy

After you give birth (usually six weeks after)

If you develop complications after giving birth

Reach out to an obstetrician as soon as you know you're pregnant. In most cases, you'll see an obstetrician or another pregnancy care provider for the first time around seven or eight weeks after your last menstrual period.

The prenatal appointment schedule is then usually monthly, biweekly and weekly as you near your due date. You may have more appointments if you have a high-risk pregnancy.

If you give birth in a hospital, an obstetrician will deliver your baby — either vaginally or via C-section. After birth, the obstetrician monitors your bleeding and bowel and bladder function. They check for signs of blood clots or other postpartum conditions. They'll allow you to go home between one and four days later if your recovery is going well.

Most practices schedule a postpartum visit with your obstetrician about six weeks after you've given birth. This is to check for any complications from healing. They'll also ask about your mental health

What conditions do obstetricians treat?

Obstetricians monitor your general wellness during pregnancy. But they also check for complications or conditions that can affect pregnancy. Some of the conditions they help manage include:

Congenital genetic disorders

Ectopic pregnancies or miscarriages

Gestational diabetes

High blood pressure or preeclampsia

Infections

Issues with the placenta, like placental abruption

Morning sickness

Pregnancy discomforts

Some obstetricians have additional experience managing higher-risk pregnancies. A high-risk pregnancy has a greater chance of complications. If the pregnancy is beyond your obstetrician's comfort level, they may refer you to a maternal-fetal medicine specialist (perinatologist).

What procedures do obstetricians perform?

Obstetricians can do procedures related to pregnancy, labor and delivery. Some examples include:

Amniocentesis

Cervical cerclage

Cervical check to assess dilation and effacement

Cesarean (C-section) and vaginal delivery

Dilation and curettage (D&C)

Episiotomy

External cephalic version (ECV)

Membrane sweep

Using forceps or a vacuum to assist with the birth

How do I choose an obstetrician?

Choosing an obstetrician that you feel comfortable with can make your pregnancy and birthing experience more empowering. If possible, find an obstetrician or Ob/Gyn before getting pregnant. Ask your friends and family who they recommend or go online to read reviews. Your primary care physician or other providers can also recommend obstetricians.

Think about what's important to you during pregnancy and childbirth. Making a checklist may help. Some questions you may want to ask yourself are:

Do I feel comfortable with this provider? Does my partner?

Does this provider explain things clearly and answer my questions?

What are this provider's views on my birth plan?

What is communication like with this provider outside of appointments?

Who covers my care if my preferred provider isn't available?

Some obstetricians or Ob/Gyns are in a group practice. Group practices often want you to see as many providers as possible for your prenatal care. This is because the obstetrician who is on-call the day you go into labor will deliver your baby. In the case of a scheduled C-section, you may have a greater chance of selecting your obstetrician.

It's natural to prefer one provider over another. Remember that all obstetricians are trained and experienced in pregnancy and childbirth.

## Surgeon

A surgeon is a highly trained medical professional who's qualified to perform surgery. There are many types of surgeons, including general surgeons, cardiothoracic surgeons, neurosurgeons and orthopedic surgeons. Your primary care provider may refer you to a surgeon if you need specialized care or treatment.

What is a surgeon?

A surgeon is a doctor with additional training in performing operations. This means they use the latest tools and technologies to find and fix issues inside your body. Your primary care provider may refer you to a surgeon if you need surgery or other types of specialized care.

There are many different types of surgeons, each with their own area of expertise. For example, a neurosurgeon operates on your brain while a cardiac surgeon works on your heart. No matter their specialty, all surgeons are prepared to manage your care before, during and after your surgery.

What does a surgeon do?

Surgeons are responsible for:

Assessing your condition and reaching a diagnosis

Identifying the type of surgical and/or nonsurgical treatment you need

Performing the operation

Leading a team of healthcare providers involved in the operation, including surgical assistants, anesthesiologists and nurses

## Managing your care after surgery (postoperative care)

Despite their title, surgeons often also provide nonsurgical treatments. For example, they might prescribe pain medications, advise your diet or refer you to physical therapy.

If you need surgery, your surgeon will help you understand why. They'll also explain the best type of operation and approach for you. You may need traditional (open) surgery, where a surgeon makes cuts (incisions) to access the inside of your body. Or your surgeon may recommend a type of minimally invasive surgery such as laparoscopy or robotics.

Your surgeon will develop a care plan tailored to your needs and see it through from start to finish.

## What are the different types of surgeons?

The American College of Surgeons recognizes 14 types of surgeons, each with their own specialties (listed below). Some surgeons choose to further specialize in a more focused area within their fields.

**Cardiothoracic surgeon:** Manages conditions affecting organs in your chest

**Colorectal surgeon:** Manages conditions affecting your small intestine, colon, rectum and anus (butthole)

**General surgeon:** Does surgery on a wide range of conditions affecting many different areas of your body (many surgical specialists complete five years of general surgery training before pursuing sub-specialty training)

**Gynecologic oncologist:** Diagnoses and treats cancers affecting the female reproductive system

**Neurosurgeon:** Manages conditions affecting your brain, spinal cord and nerves

**Obstetrician-gynecologist (OB-GYN):** Has expertise in both obstetrics and gynecology, cares for pregnant women, delivers babies (including by C-section) and manages conditions affecting the female reproductive system

**Ophthalmologist:** Delivers total eye care, including eye surgery

**Oral and maxillofacial surgeon:** Manages conditions and injuries affecting your maxillofacial area (jaws and lower face), roof of your mouth (palate) and teeth

**Orthopedic surgeon:** Manages conditions affecting your musculoskeletal system

**Otolaryngologist:** Manages conditions affecting your head and neck

Pediatric surgeon: Does surgeries in babies and children

Plastic surgeon: Does surgeries that restore function to areas of your body affected by congenital (present at birth) conditions, major illnesses or injuries

Urologist: Manages conditions affecting your urinary system, reproductive organs and adrenal glands

Vascular surgeon: Manages issues with your blood vessels

What training does a surgeon receive?

It takes years of extensive, rigorous training to become a surgeon. All surgeons in the U.S.:

Earn a bachelor's degree (typically four years)

Complete medical school or dental school, depending on the specialty (typically four years)

Complete a residency program (three to seven years, depending on the specialty)

Have the option of completing a fellowship in a chosen subspecialty (typically one to three years)

Take one or more exams to earn board certification

Surgeons — like all other medical professionals — engage in continuing education throughout their careers. This means they do things like attend conferences and take classes to keep up with the latest knowledge and technologies in their field.

## Orthopedic Surgeon (Orthopedist)

An orthopedic surgeon (orthopedist) is a medical specialist who focuses on injuries and diseases affecting your musculoskeletal system (bones, muscles, joints and soft tissues). Although this type of doctor is a surgeon, they often help people get relief with nonsurgical therapies.

What is an orthopedic surgeon?

An orthopedic surgeon is also known as an orthopedist (sometimes it's spelled orthopaedic surgeon or orthopaedist). This specialist helps people get relief from pain and mobility problems due to musculoskeletal issues.

What are musculoskeletal issues?

This group of disorders can affect your:

Bones.

Cartilage.

Joints.

Ligaments.

Muscles.

Nerves.

Tendons.

What does an orthopedic surgeon treat?

Orthopedic surgeons diagnose and treat a broad range of conditions, including:

Arthritis, specifically osteoarthritis.

Benign soft tissue tumors.

Bone cancer.

Bursitis.

Congenital (present at birth) defects, like clubfoot and hip dysplasia.

Neck and lower back pain.

Orthopedic trauma, such as bone fractures.

Sports injuries.

Sprains and strains.

Tendinitis.

Scoliosis.

What is the difference between a rheumatologist and an orthopedic surgeon?

Rheumatologists and orthopedic surgeons (orthopedists) both specialize in diseases affecting your musculoskeletal system. They treat many of the same conditions, including arthritis, back pain and osteoporosis. But there are differences between these medical specialties.

Orthopedists perform surgery. Rheumatologists don't. Orthopedic surgeons focus on issues due to injury, congenital defects and wear and tear (degenerative disease).

Rheumatologists treat conditions that stem from systemic disease, which affects your entire body. Examples include lupus, vasculitis, rheumatoid arthritis and rare inherited disorders.

Rheumatologists and orthopedists often care for people together. For example, if you have rheumatoid arthritis, your rheumatologist and orthopedist might work together, ensuring comprehensive care.

What does an orthopedic surgeon do?

Some orthopedic surgeons are generalists and treat a wide range of conditions. Other orthopedists choose to subspecialize. They have training in advanced treatments for specific groups of diagnoses.

Orthopedic subspecialties include:

Foot and ankle surgery.

Hand and upper extremity surgery.

Joint replacement.

Orthopedic oncology, which includes tumor and cancer care.

Orthopedic trauma.

Pediatric orthopedic surgery.

Spine surgery.

Sports medicine.

## Otolaryngologist

An otolaryngologist, or ENT, is a healthcare specialist who treats conditions affecting your ears, nose and throat. They can also perform head and neck surgeries, including surgeries on your ears, mouth, throat, nose, neck and face.

What is an otolaryngologist?

An otolaryngologist (pronounced “ot-o-lar-en-GA-le-jist”) is a healthcare provider that diagnoses and treats conditions affecting your head and neck. Otolaryngologists offer both nonsurgical and surgical treatments.

Otolaryngologists are specialists. First, they must complete their undergraduate education and apply for medical school. Following graduation from a licensed medical school, a



doctor who wants to become an otolaryngologist must undergo five more years of residency training in their chosen field. Some otolaryngologists even choose to pursue further education in subspecialties like pediatric otolaryngology and reconstructive surgery.

### ENT vs. otolaryngologist

Another name for an otolaryngologist is ENT, which stands for “ear, nose and throat.” Both terms mean the same thing. “ENT” is the more common term, probably because it’s easier to remember. But “otolaryngologist” is the medical term for this type of specialist.

Most otolaryngologists prefer the term “otolaryngologist” because it recognizes that they treat much more than conditions of the ear, nose and throat.

### What does an otolaryngologist do?

An otolaryngologist diagnoses and treats conditions affecting your head and neck. These conditions range from mild (such as a cough and runny nose) to serious (such as head and neck cancer).

Because an otolaryngologist treats such a wide range of conditions and diseases, they’re trained to perform both nonsurgical and surgical treatments.

## Perinatologist

Perinatologists, or maternal-fetal medicine specialists, are experts in high-risk pregnancies. They provide care when a medical condition, congenital disorder or disease may cause pregnancy or delivery complications.

### What is a perinatologist?

A perinatologist is an obstetrician-gynecologist (OBGYN) who specializes in high-risk pregnancies. Perinatologists are also called maternal-fetal medicine (MFM) specialists or high-risk OBGYNs. They focus on pregnancies where the pregnant woman or the fetus has a health complication. If you have a chronic medical condition, you may work with a perinatologist before or shortly after becoming pregnant. Or you might develop a condition during pregnancy that requires extra monitoring or testing from a perinatologist. A perinatologist can also be involved in your prenatal care if the fetus has a congenital disorder or birth abnormality.

### What does a perinatologist do?

A perinatologist is an expert in prenatal and postnatal care for people at higher risk of pregnancy, labor or delivery complications due to a health condition. They help treat preexisting conditions as well as conditions caused by pregnancy. Their expertise includes treating pregnant women and diagnosing and managing health conditions in fetuses. Perinatologists can offer more advanced testing for congenital disorders and provide information on how certain pregnancy conditions affect the fetus.

Perinatologists are responsible for:

Preconception counseling for underlying health conditions that may lead to pregnancy complications.

Routine prenatal care and testing for high-risk pregnancies.

Managing preexisting or new health conditions in a pregnant woman.

Using ultrasounds or other tests to diagnose genetic disorders or birth abnormalities.

Assisting in labor and delivery as needed.

Managing postpartum complications.

How long does it take to become a perinatologist?

Perinatology is a sub-specialty of obstetrics and gynecology. Perinatologists complete an undergraduate degree and then attend medical school. After completing a four-year residency training in obstetrics and gynecology, perinatologists complete an additional two- or three-year fellowship in perinatology. Perinatology fellowships focus on how to treat pregnancy complications and how diseases affect the pregnant woman and the fetus.

What can I expect from my first visit to a perinatologist?

It depends on your condition and why you were referred to a perinatologist. In most cases, your first appointment will be used to collect your health history or go over details of your condition and how it impacts your pregnancy. Your perinatologist may counsel you on genetic or congenital conditions the fetus has and discuss the type of medical care needed at birth. Sometimes a perinatologist will provide genetic testing, ultrasounds, fetal monitoring and other tests to diagnose a condition.

You can expect your perinatologist to work with your OBGYN and any other healthcare providers on your care team throughout your pregnancy and delivery. They may also work with a neonatologist or pediatrician.

What tests does a perinatologist perform?

Perinatologists perform various laboratory tests to diagnose genetic conditions and diseases during pregnancy. Some of these are:

Ultrasound.

Blood tests.

Prenatal screening.

Amniocentesis.

Chorionic villus sampling (CVS).

Do perinatologists deliver babies?

Sometimes. It depends on the condition and the potential complications. In most cases, an obstetrician will deliver your baby.

Do perinatologists do surgeries?

Your obstetrician or gynecologist will still manage most of your care. They'll consult with your perinatologist on your pregnancy, labor and delivery needs as they relate to your medical condition. In some cases, it could mean having a perinatologist in the delivery room.

Perinatologists often perform specialized surgeries including complicated C-sections, cervical cerclage and emergency hysterectomy.

Endocrinologist

An endocrinologist is a healthcare provider who's an expert in endocrinology — the study of your body's hormones. Endocrinologists diagnose, treat and manage several conditions that affect your endocrine system.

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What is an endocrinologist?

An endocrinologist is a doctor who specializes in hormones. An endocrinologist can diagnose endocrine conditions, develop treatment plans and prescribe medication.

Many common endocrine conditions are lifelong (chronic). So, you may see an endocrinologist throughout your life. They're experts in their field and can help you manage the condition to lead a healthy life.

What is endocrinology?

Endocrinology is the study of hormones and endocrine glands and organs. This is your endocrine system.

Hormones help parts of your body communicate with other parts. Your body makes over 50 different hormones. They have a large role in many bodily functions, like:

Metabolism

Growth

Sexual function and reproduction

Sleep

Endocrine glands release hormones, like your thyroid and pituitary gland. Certain organs in your body also release hormones, like your pancreas and ovaries.

What do endocrinologists do?

Endocrinologists diagnose and provide treatment plans for endocrine conditions. Some of the roles of an endocrinologist include:

Recommending and interpreting lab tests, like blood tests, to diagnose or monitor conditions

Recommending imaging tests to check endocrine glands and organs

Doing and interpreting bone mineral density tests

Doing fine-needle aspiration biopsies of your thyroid

Recommending treatment plans, which may include medication and/or surgery

Prescribing medications

Monitoring your management plan over time if you have a chronic condition

What does an endocrinologist treat?

An endocrinologist can diagnose and treat several conditions that involve your hormones. Some examples include:

Calcium and bone conditions, like hypercalcemia and osteoporosis

Diabetes

Endocrine cancers and tumors, like thyroid cancer and neuroendocrine tumors

Metabolic conditions, like obesity and metabolic syndrome

Pituitary and adrenal gland conditions, like hypopituitarism and Cushing syndrome

Sexual development and reproduction conditions, like hypogonadism and PCOS

Thyroid diseases, like hypothyroidism and hyperthyroidism

When should I see an endocrinologist?

Primary care physicians (PCPs) can diagnose and help manage many endocrine conditions. But you may benefit from seeing an endocrinologist. They're likely more knowledgeable on the condition and more current on the medications and technology that can help treat it.

You can think of it like taking your vehicle to get fixed. You may want to take it to a repair shop that specializes in your vehicle's brand instead of a general repair shop.

If your PCP thinks you have hormonal imbalances, they may refer you to an endocrinologist for a proper diagnosis. An endocrinologist could also be part of a healthcare team to treat certain conditions, like cancers and fertility issues.

What should I expect when seeing an endocrinologist?

You'll most likely see an endocrinologist during an outpatient visit to their office. They'll ask thorough questions about your medical history, current medications and symptoms. They may also do a physical exam.

What do endocrinologists specialize in?

An endocrinologist may specialize in certain areas of endocrinology called subspecialties, including:

Diabetes and metabolism

Endocrinology nuclear medicine (using nuclear medicine to diagnose and treat certain endocrine conditions)

Endocrine oncology (cancers that affect your endocrine system)

Metabolic bone disease and calcium disorders

Neuroendocrinology (the interaction between your nervous system and endocrine system)

Pediatric endocrinology

Thyroid disease

You may also hear about reproductive endocrinologists. This is a subspecialty of obstetrics and gynecology. These providers specialize in female infertility.

## Surgical Oncologist

Surgical oncologists are healthcare providers who use surgery to treat cancer. They're a key part of the cancer care team. Some surgical oncologists have expertise in treating specific kinds of cancer.

Overview

What is a surgical oncologist?

A surgical oncologist is a surgeon who diagnoses and treats cancer. Surgery is the most common treatment for cancer. Surgical oncologists coordinate treatment with other specialists like medical oncologists and radiation oncologists.

What does a surgical oncologist do?

Surgical oncologists can:

Do biopsies to find out if unusual masses or growths are cancerous tumors

Explain what biopsy results mean

Determine cancer stages

Work with the rest of the cancer team to plan treatment

Discuss potential surgical treatments

Explain the benefits and drawbacks of potential surgical treatments

Explain what you should do to prepare for surgery

Discuss what you can expect after surgery

Oversee your recovery from surgery

Treat any surgery complications

Perform palliative care surgery to ease cancer symptoms

Why would I need to see a surgical oncologist?

You may need to see a surgical oncologist if:

Cancer screening or other tests show signs of cancer (your surgical oncologist will arrange for a biopsy to obtain a sample of suspect tissue)

You have an increased risk of developing cancer; for example, they may do a prophylactic mastectomy if you have a high breast cancer risk

You need surgery to remove a cancerous tumor including tumors that spread (metastatic cancer)

You need palliative care surgery to ease your symptoms

What types of surgeries do surgical oncologists perform?

Cancer surgery may be minimally invasive or open surgery.

Minimally invasive surgery. Surgical oncologists make several small incisions(cuts). They use specialized tools to remove a cancerous tumor

Open surgery. Providers make a single large cut (incision) to remove a cancerous tumor.

Surgery is a common treatment for solid tumors. It's the primary treatment for cancers like breast cancer. It may also be a primary treatment for early-stage cancer. This is cancer

that hasn't spread to nearby lymph nodes. For example, surgery is the primary treatment for early-stage:

Colon cancer, where a surgical oncologist may do a polypectomy or partial colectomy.

Non-small cell lung cancer, which may include a lobectomy or lung resection.

Prostate cancer, whose surgery may be a prostatectomy.

What to expect during your first visit with a surgical oncologist

Your surgical oncologist will:

Explain what test results mean

Discuss the cancer stage

Explain treatment options, benefits and any downsides (for example, they may recommend a specific type of minimally invasive surgery, or they may recommend open surgery)

Discuss next steps, like deciding on treatment and scheduling treatment

Your surgical oncologist will also ask how you're doing. They understand a cancer diagnosis is a life-changing experience. They also know surgery can be intimidating. They'll want to get to know you and how they can help you manage some of the stress.

Questions to ask your surgical oncologist

You'll probably have a lot of questions and concerns. Your first visit with your surgical oncologist is a good opportunity to ask questions like:

What other types of care will I receive?

What's the goal of this surgery?

What's the success rate?

Will I need more than one surgery?

Are there any nonsurgical options?

## Cardiothoracic Surgeon

A cardiothoracic surgeon performs surgery on your heart, lungs or esophagus and other parts of your chest. Surgeries can range from a heart valve replacement or heart transplant



to treating lung cancer or esophageal cancer. Cardiothoracic surgeons have extensive training and can specialize in heart surgeries or other areas.

What is a cardiothoracic surgeon?

A cardiothoracic surgeon is a doctor who performs surgery on the organs in your chest, such as your heart, lungs and esophagus. Your heart and lungs are some of your body's most vital organs, providing blood and oxygen to your whole body.

After medical school, cardiothoracic surgeons spend six to eight years of training in surgery. This gives them a combination of general and cardiothoracic surgical training. After that, some spend even more time learning about a specific area of cardiothoracic surgery, such as heart issues babies have when they're born.

What does a cardiothoracic surgeon do?

A cardiothoracic surgeon treats people with diseases or injuries in their chest. They diagnose them and discuss treatment options, do the surgery and follow up with people after they've had surgery.

Cardiothoracic surgeons can treat some of the most well-known organs in your body and some parts of the body you haven't heard about.

They can treat these areas of your body:

Heart and the pericardium around it.

Coronary arteries.

Esophagus.

Chest wall.

Mediastinum (area between your lungs).

Trachea.

Diaphragm.

Lungs and the pleura (linings) that surround them.

Types of cardiothoracic surgeons

Cardiac surgeon.

Congenital heart surgeon.

Cardiovascular surgeon.

General thoracic surgeon.

Transplant surgeon.

What does a cardiothoracic surgeon specialize in?

Cardiothoracic surgeons can specialize in these types of surgery:

Heart.

Heart and lung transplant.

Heart problems people have when they're born (congenital).

Thoracic.

Where do cardiothoracic surgeons work?

Cardiothoracic surgeons work in hospitals and in private practice. Some work in research or teach medical students.

## Trauma Surgeon

Trauma surgeons are healthcare providers who treat serious injuries from falls, motor vehicle accidents, industrial accidents or assaults. They also provide critical care treatment for people already in the hospital. Trauma surgeons typically work with surgeons who treat specific conditions like broken bones or injuries that affect your brain, heart or lungs.

What is a trauma surgeon?

A trauma surgeon is a healthcare provider who does emergency surgery to treat life-threatening injuries and medical conditions. If you have a serious injury from an accident, a trauma surgeon will lead your healthcare team. That team may include critical care staff and surgical specialists. Trauma surgeons also coordinate your care after surgery, working with your primary care physician. Other titles for trauma surgeons are acute care surgeons and critical care surgeons.

What conditions do trauma surgeons treat?

Every year in the U.S., millions of people go to emergency rooms for treatment after an injury. Trauma surgeons have experience treating a wide range of injuries and illnesses, but the most common are:

**Blunt force trauma injuries:** These injuries happen when you're hit hard by a blunt force. Being in a motor vehicle accident or being injured after a fall are the most common reasons why you may need emergency surgery.

**Penetrating trauma injuries:** A penetrating trauma injury happens when something breaks through your skin and enters your body. Examples are being shot, stabbed with a knife or other sharp object, or running into a sharp object.

**Burn injuries:** A trauma surgeon may provide care if you have a serious thermal burn from exposure to flame, hot liquids or steam. They also treat injuries from chemical burns, inhalants or frostbite.

**Emergency general surgery and critical care:** Many trauma surgeons also cover other emergency surgical situations. For example, they may do surgery to treat a life-threatening condition like bowel obstruction. They can help treat sepsis, respiratory failure or organ failure that happens when you're already in the hospital.

What are the educational requirements for a trauma surgeon?

Trauma surgeons are board-certified general surgeons. In the U.S., trauma surgeons have 13 to 15 years of education, including:

Four years of college.

Four years of medical school.

Five years in a residency program, where they focus on general surgery.

One to two years in a fellowship program with an emphasis on critical care and trauma.

They also may complete one to three years of research during the residency program.

Trauma surgeons must also:

Complete the U.S. Medical Licensing Examination.

Obtain general surgery certification and a subspecialty certification in surgical critical care from the American Board of Surgery.

Some trauma surgeons receive additional training in providing care during mass casualty incidents. For example, they may receive training to provide care to many people hurt in a single event like a mass shooting, explosion or severe destructive weather.

What's the difference between a general surgeon and a trauma surgeon?

All trauma surgeons are general surgeons. The difference is that trauma surgeons complete critical care and trauma fellowships and obtain certification in surgical critical care from the American Board of Surgery.

What's the difference between a trauma center and a regular hospital?

Trauma centers have specialized staff on call 24 hours a day. In the U.S., state or local authorities designate specific hospitals as trauma centers. The American College of Surgeons verifies that a given trauma center has resources, including trauma surgeons,

## Urologist

A urologist is a medical doctor who specializes in conditions that affect the urinary and reproductive systems in adults and children. These conditions range from problems peeing to difficulty getting pregnant. When you meet with a urologist, expect to describe your health history and symptoms and get testing.

What is a urologist?

A urologist is a physician and surgeon who specializes in diagnosing and treating conditions that affect your urinary system. Your urinary system keeps your body healthy by filtering out wastes and toxins and sending them out of your body via urine (pee). Your urinary tract includes your:

Kidneys

Bladder

Ureters

Urethra

A urologist also treats conditions that affect your reproductive organs and adrenal glands. Your adrenal glands are on top of your kidneys. The male reproductive system and female reproductive system link closely to the urinary system. "Genitourinary" is a word that refers to the symptoms, conditions and treatments that affect both systems.

What does a urologist do?

A urologist can diagnose and treat many kinds of issues. Some urologists might practice without performing surgery. But all urologists receive training to be surgeons.

Some urologists concentrate on specific fields (subspecialties). These may include:

Treating infants and children (pediatric urology)

Cancer (urologic oncology)

Kidney transplantation

Sexual dysfunction conditions, like erectile dysfunction and vaginismus

Infertility

Restoring function and appearance of the genitourinary system (genitourinary reconstruction)

Minimally invasive surgery, including robotic, laparoscopic and endoscopic surgeries

How does someone become a urologist?

To become a urologist in the U.S., you must first get a bachelor's degree and then pass the Medical College Admissions Test (MCAT) to get into a medical school. Earning a medical degree usually takes about four years.

From there, you spend five to six years in a residency program. During this time, you'll get training in both surgical and medical treatments of urologic diseases.

After that, if you want to specialize in a narrower field, you must complete a fellowship. A fellowship may last another one to three years.

After residency, you may choose to become board-certified by the American Board of Urology.

Then, in order to practice as a doctor, you must take and pass your state medical examination and meet any guidelines that the medical board issues.

What conditions do urologists treat?

Urologists treat common and rare conditions that can affect anyone. They can also treat conditions that affect only males or females. Some of these conditions include:

Frequent urinary tract infections (UTIs)

Inability to control when you pee (urinary incontinence)

Blood in your pee (hematuria)

Enlarged prostate (benign prostatic hyperplasia)

Interstitial cystitis/bladder pain syndrome

Urologists also treat other conditions, like:

Bladder cancer

Kidney cancer

Prostate cancer

Erectile dysfunction

Kidney stones

Bladder stones

Pelvic organ prolapse

Urinary tract problems that are present at birth (congenital urinary abnormalities)

When should I see a urologist?

You should schedule an appointment or get a referral to a urologist if you have:

Changes in how you pee, including trouble getting started, a weak pee stream, pain, cloudy pee, blood in your pee, peeing more than usual (frequent urination) or uncontrollable urges to pee (urge incontinence)

Trouble getting or keeping an erection firm enough for sexual intercourse

Infertility

A feeling that something is falling down in your vagina or heaviness in the area

Pelvic pain

What can you expect during your visit to a urologist?

When you make an appointment with a urologist or when a healthcare provider refers you to a urologist, you should expect to discuss why you're there. It's a good idea to bring a list of questions or symptoms that relate to why you made the appointment. You should also expect to answer questions about your medical history and all medications and supplements you take.

A urologist will likely perform a physical examination. If you're male, that may include a digital rectal exam. If you're female, it may include a pelvic exam.

They may also recommend tests, including:

Pee test (urinalysis)

Blood tests

Semen analysis

Imaging tests, including an ultrasound or CT scan

What is the difference between a nephrologist and a urologist?

A nephrologist is a doctor who specializes only in the kidneys. It's a subspecialty of internal medicine rather than urology. That means nephrologists aren't surgeons. Nephrologists also manage conditions that happen elsewhere in the body and cause kidney problems, or those that occur because of kidney problems — like high blood pressure or Type 2 diabetes.

## Vascular Surgeon

Vascular surgeons are highly trained specialists who manage a wide range of issues with your blood vessels. They diagnose diseases and create treatment plans. They provide an array of medical treatments, including medications, physical activity programs, guidance on what to eat, minimally invasive procedures and complex open surgeries.

What is a vascular surgeon?

A vascular surgeon is a doctor who diagnoses and treats problems with your blood vessels other than those in your heart and brain. Most vascular surgeons treat the entire spectrum of vascular disease. This includes wound care, injuries, blood clots and compression issues.

You have 60,000 miles of blood vessels throughout your body. These include arteries, veins and lymphatic vessels. Vascular surgeons are experts on these blood vessels and anything that affects them. They understand how each one works and what can go wrong with them. Vascular surgeons help you manage vascular disease so you can be at your best.

Depending on your case, you may meet a vascular surgeon for the first time in their office or at a hospital or another place where you have surgery.

Vascular surgeons are highly skilled at solving serious medical problems and working with complex anatomy. Known as the “surgeon’s surgeon,” they’re often involved in complex cases, as well as assisting when complications occur in other areas of surgical specialties. A vascular surgeon can help when someone in another surgeon’s operating room has unexpected bleeding or a blood vessel blockage.

What does a vascular surgeon do?

Vascular surgeons care for people who have diseases that affect blood vessels other than those in your heart and brain. They assess your risk for vascular issues, diagnose diseases and create treatment plans. They provide a range of medical treatments, including medications and changes to daily habits like physical activity or the foods you eat.

A vascular surgeon can save your limb and your life. They can provide treatments that help prevent stroke and aneurysm rupture and relieve symptoms from blocked arteries. They also perform procedures and surgeries to treat vascular diseases. These range from minimally invasive, catheter-based procedures to complex open surgeries. And vascular surgeons can do hybrid procedures that combine the benefits of both.

Your vascular surgeon will get to know you as an individual and support you for a long time to come. That's because vascular surgeons help people with long-term conditions that need care over many years. Many people with blood vessel problems have other health conditions. This means their treatment plans are complex. Vascular surgeons work with other specialists to coordinate your care every step of the way.

What diseases do vascular surgeons diagnose and treat?

Vascular surgeons manage a wide range of conditions that affect your blood vessels, including:

Aortic aneurysms (a bulge in your aorta's wall)

Atherosclerosis (most common)

Autoimmune diseases of the blood vessels

Blood clots

Carotid artery disease (a blockage or narrow spot in your carotid artery)

Cerebrovascular disease

Chronic limb-threatening ischemia (blocked blood flow to a limb)

Chronic venous insufficiency (damaged leg veins)

Deep vein thrombosis (DVT or blood clot)

Dialysis access

Diabetes-related foot ulcers

Endoleak (blood flowing in the wrong place after a minimally invasive or endovascular aneurysm repair)



Median arcuate ligament syndrome (compressed artery in your belly)

Mesenteric ischemia (a shortage of blood flow in your intestines)

Nutcracker syndrome (compressed vein in your belly)

Thoracic outlet syndrome (compressed blood vessels and nerves in your neck and arms)

Peripheral artery disease (narrowing of your leg arteries)

Peripheral artery and venous aneurysms

Popliteal artery entrapment syndrome (compressed artery behind your knee)

May-Thurner syndrome (compressed vein in your pelvis)

Stroke

Superficial venous thrombosis (blood clot)

Varicose (swollen) veins

What tests does a vascular surgeon use to diagnose me?

Vascular surgeons and their teams diagnose blood vessel problems using many different tests. These include:

Ankle/brachial index (ABI)

Chest X-ray

CT angiogram

Magnetic resonance angiogram (MRA)

Vascular ultrasound

What procedures do vascular surgeons perform?

Vascular surgeons have the expertise to perform many procedures, including:

Aneurysm surgery (traditional open surgery)

Angioplasty to move aside plaque or blood clot buildup in your arteries or veins

Atherectomy to remove plaque from blood vessels in a minimally invasive way

Endarterectomy to remove plaque from blood vessels

Endovascular repair of abdominal, thoracic and thoracoabdominal aortic aneurysms

Bypass surgery for aortic and extremity (arm and leg) artery blockages

Popliteal entrapment repair

Stent placement in blood vessels

Vena cava filter placement

Transcarotid artery revascularization (TCAR) to improve blood flow in your neck

Thoracic outlet repair

Creating and maintaining access for dialysis

Thrombectomy (removal of an acute blood clot from arteries or veins)

Thrombolytic therapy (giving clot busters to break up blood clots)

Median arcuate ligament syndrome repair (open surgery)

Nutcracker syndrome repair (open surgery)

Endovascular ablation of insufficient veins (leaky veins in your legs)

Why would you be referred to a vascular surgeon?

Your primary care provider may refer you to a vascular surgeon if you have a condition that prevents your blood vessels from working as they should. Healthy blood vessels keep blood moving throughout your body to all of your organs. Damage to one or more blood vessels can affect your whole body. That's why vascular surgeons play such an important role in finding out what's wrong and fixing the problem.

A vascular surgeon can help if you have blood vessel problems needing specialized care. This is usually how people visit a vascular surgeon for the first time. But you might also need a vascular surgeon unexpectedly, like in a medical emergency.

Hearing the word "surgeon" can feel intimidating. Many people don't know what a vascular surgeon is until they need one. Vascular surgeons do much more than surgery. They treat many issues with prescription medication, lifestyle changes and minimally invasive procedures. But if you do need surgery, you may need to continue seeing your vascular surgeon long-term so they can monitor your condition. Together, you'll keep an eye on things and catch any new problems that come up.