

# Medical Assistant Specialties

**G**ROWTH in the medical assistant profession will be greatest in outpatient treatment facilities. Currently 26 percent of medical assistants work in outpatient facilities. The number of these facilities is growing as the population ages, new medical technologies are developed, and more preventive medicine is practiced.



## Objective:



Identify medical assistant specialty areas, and describe unique roles and responsibilities in each area.

## Key Terms:



cardiology	gynecology	otorhinolaryngology
dermatology	neurology	pediatrics
endocrinology	obstetrics	proctology
gastroenterology	ophthalmology	pulmonology
geriatrics	orthopedics	urology

## Medical Specialty Areas

Medical specialty areas focus on care and treatment of disorders that affect particular body systems. Medical assistants are often needed to work with physicians in these specialty areas. Specialty medical assistants have unique roles and responsibilities beyond the typical duties of taking medical histories and checking heights, weights, vital signs, and routine lab tests.

### CARDIOLOGY

**Cardiology** is the branch of medicine that deals with prevention, diagnosis, and treatment of diseases and disorders of the heart. Specialty medical assistants often perform a 12-lead EKG

(electrocardiogram). This test records the electrical activity of the heart by attaching electrodes to the patient's chest.

Medical assistants may apply a portable Holter monitor, an EKG device that has between three and eight electrodes connected to a small piece of equipment. It can be attached to a patient's belt or worn around the neck. The device is usually worn 24 hours a day, often for a two-week period to record heart activity in a patient's daily routine.

Medical cardiology assistants may assist patients with treadmill stress tests. In these tests, an electrocardiogram compares the patient's heart circulation at rest and at maximum physical exertion, often followed by an echocardiogram that shows blood flow to the heart.



**FIGURE 1.** This medical assistant is eager to perform her role of helping the office run efficiently.

## DERMATOLOGY

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**Dermatology** is the branch of medicine that deals with the diagnosis and treatment of diseases and disorders of the skin. A specialist may obtain wound cultures and assist with skin testing to identify germs found in the form of bacteria, fungus, or virus that may be growing in a wound. A sample of skin, fluid, or tissue is placed in a culture medium that helps organisms grow. If nothing grows, the culture is negative. If something grows, the culture is positive. As a result, the wound must be treated.

## ENDOCRINOLOGY

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**Endocrinology** is the branch of medicine that deals with glands, hormones, and disorders of the endocrine system. The medical assistant may administer tests to evaluate deficiency or excesses in hormones and educate the patient and his or her family in the care and treatment of such diseases as diabetes and hyperthyroidism. Diagnosis of endocrine diseases often requires more laboratory tests than other specialties. Most endocrine disorders are chronic diseases that require life-long care.

## GASTROENTEROLOGY AND PROCTOLOGY

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**Gastroenterology** is the branch of medicine that deals with diseases of the stomach, intestines, and associated organs along the gastrointestinal tract. The gastrointestinal tract or alimentary canal reaches from the mouth to the anus.

**Proctology** is the branch of medicine that deals with disorders of the lower colon, rectum, and anus. The proctology exam checks for cancer and other diseases. Proctology medical assistants may have to prepare and position patients for gastrointestinal and proctology examinations and collect specimens.

## GERIATRICS

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**Geriatrics** is the branch of medicine that deals with the diagnosis and treatment of diseases affecting the elderly or aged. This area is growing as our population ages, new medical technologies are developed, and more preventive medicine is being practiced. Medical assistants will perform a larger role in the treatment of geriatric patients, such as assisting with testing for conditions common to the elderly and possibly administering hearing and bone density tests.



**FIGURE 2.** The medical technician assists an older patient.

The geriatric medical assistant may need to educate patients and their family members on care and treatment procedures as well as about drug interactions that could occur when over-the-counter or herbal drugs are combined with prescribed medications.

## GYNECOLOGY

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**Gynecology** is the branch of medicine that deals with the health of the female reproductive system: uterus, vagina, and ovaries. Usually annual exams help prevent the development of severe disease. Gynecology assistants may help educate patients on breast self-examination and set up for as well as assist the physician during pelvic exams and Pap smears. A pelvic exam looks for signs of illness in a woman's reproductive organs. Meanwhile, a Pap smear is a screening test to detect pre-cancerous and cancerous growths in a woman's cervix.

## NEUROLOGY

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**Neurology** is the branch of medicine that deals with diagnosis and treatment of diseases and disorders of the nervous system. Medical assistants may prepare the patient for an EEG (electroencephalography) that records electrical activity along the scalp by means of electrodes placed on the scalp. An EEG is a valuable tool for research and diagnosis.

## OBSTRETRICS

**Obstetrics** is the branch of medicine that deals with the care of women during pregnancy, childbirth, and the period after delivery. Medical assistants may prepare the patient for an ultrasound procedure that lets the physician visualize a fetus during routine and emergency care. (Ultrasound is cyclic sound pressure with a higher frequency than the limit of human hearing.) Obstetrics assistants may help educate patients on family planning, a system that allows the patients to plan when to have children and that teaches about the use of birth control.

## OPHTHALMOLOGY

**Ophthalmology** is the branch of medicine that deals with diagnosis and treatment of the eyes. Ophthalmology assistants may help with eye exams by giving eye tests. For example, the



### DIGGING DEEPER...

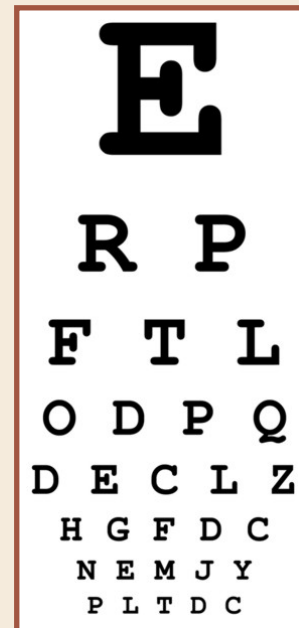
#### UNCOVERING ADDITIONAL FACTS: Snellen Eye Chart

Dutch ophthalmologist Hermann Snellen devised the Snellen eye chart in 1862 to test visual acuity. Snellen determined that there is a relationship between the sizes of certain letters viewed at certain distances. The Snellen eye chart has a series of letters or numbers, with the largest at the top. As the patient reads down the 11 lines of the chart, the numbers become smaller.

For patients who cannot read, another version of the chart may use a tumbling capital “E” that faces in different directions. The patient must determine which direction the “E” is pointing: up, down, left, or right. The Snellen fractions (e.g., 20/20 and 20/30) measure visual acuity or the sharpness of sight. To check visual acuity, first one eye is covered, then the other, to test the vision of each eye separately and then both eyes together.

In the Snellen fraction of 20/20, the first number represents the distance from the eye chart: 20 feet. The second number represents the test distance that the average eye can see the letters on a certain line of the eye chart. Therefore, 20/20 means the eye being tested can read a letter from a distance of 20 feet. The maximum acuity of the human eye with corrective lenses is thought to be about 20/10.

Many people have one eye with greater visual acuity. In the United States, a person is considered legally blind with a visual acuity of less than 20/200 in the better eye, even with corrective glasses. Visual acuity measures only the smallest details we see. It does not represent vision quality. Also, it does not indicate how well a patient sees larger objects and objects with poor color contrast, such as steps and curbs.



The line of letters on the Snellen eye chart that measures 20/20 visual acuity is 4 mm high in size.

Snellen test measures visual acuity. The assistant may give the Ishihara color vision test that detects color deficiencies.

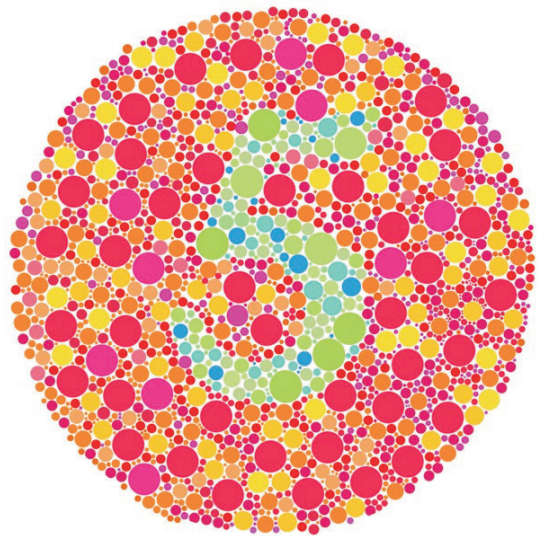
## ORTHOPEDECS

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**Orthopedics** is the branch of medicine that deals with the prevention, diagnosis, and treatment of disease and disorders of the muscles, bones, and joints. Orthopedic assistants may assist with range-of-motion evaluations, muscle strength evaluations, and casting procedures for broken bones.

The purpose of a range-of-motion evaluation may be to determine how to decrease pain, swelling, and stiffness after an injury or in the treatment of arthritis. A muscle strength evaluation may be used to study loss of hand strength caused by carpal tunnel syndrome, nerve injury, or tendon injuries.

A cast holds a broken bone in place while the bone heals. Orthopedic assistants may be needed to calm frightened patients who are in pain, while casts are being applied. Orthopedic assistants may apply a sling to immobilize an injury—most often a fractured or dislocated arm or shoulder—or instruct a patient with a foot or leg injury in the safe use of walking with crutches.



**FIGURE 3.** The Ishihara color vision test was designed by Dr. Shinobu Ishihara (1879 to 1963), a professor at the University of Tokyo, to detect color deficiencies in vision. The test shows a pattern of differently colored dots. Within each pattern is a number. A person without a color deficiency sees the number among the dots.

## OTORHINOLARYNGOLOGY

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**Otorhinolaryngology** is the branch of medicine that deals with the diagnosis and treatment of diseases and disorders of the ears, nose, and throat. Otorhinolaryngology assistants may irrigate ears, administer eardrops, and assist with hearing tests. Ear irrigation uses water to flush out dried earwax from the ear canal.

Otorhinolaryngology assistants may assist with hearing tests that gauge a patient's hearing loss. A common test is the audiogram. It tests the patient's threshold of hearing sounds at different frequencies, a broad range of which are important for understanding speech.

## PEDIATRICS

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**Pediatrics** is the branch of medicine that deals with the prevention, diagnosis, and treatment of diseases and disorders affecting infants, children, and teens up to the age of 18. Pediatric assistants perform such preparatory procedures on patients as taking head circumference measurements of infants, documenting children's measurements on growth charts, and conducting vision screenings.

## PULMONOLOGY

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**Pulmonology** is the branch of medicine that deals with the diagnosis and treatment of diseases and disorders of the respiratory system, the lungs, and the respiratory tract. Pulmonology assistants may administer tuberculosis (TB) skin tests, give Spirometric tests, and take throat and sputum cultures.

- ◆ In a TB skin test, a bacterium is injected just below the skin of the inside forearm to determine if a patient exhibits an immune response. A response will occur if a patient has TB or if the patient has been exposed to it.
- ◆ Spirometric tests measure lung function, specifically the amount of air exhaled and inhaled. The test is administered by having the patient breathe into a mouthpiece connected to a spirometer. The results are helpful in diagnosing asthma, pulmonary fibrosis, cystic fibrosis, and emphysema.
- ◆ A throat culture is administered to test for Strep throat. A sputum culture identifies microorganisms responsible for a variety of diseases, including TB, bacterial pneumonia, and chronic bronchitis.

## UROLOGY

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**Urology** is the branch of medicine that deals with diagnosis and treatment of diseases and disorders of the urinary tract and the urogenital system. Urology assistants may catheterize patients for procedures or for specimen collection, educate male patients on testicular self-exams (e.g., skin changes or unusual lumps or bumps, which can be the first signs of testicular cancer), and collect specimens.

A catheterized urine culture is a laboratory test that detects germs in a urine sample. Urology assistants place the catheter, a lubricated thin rubber tube, through a patient's urethra into the bladder. After the urine has drained into a sterile container, the assistant removes the catheter. Urine specimens are a source of measuring health and are an important tool for clinical diagnosis. Uncontaminated specimens are sent to a laboratory for analysis.

### Summary:

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As a medical assistant, you will be able to choose from a vast number of medical fields that need specialists. When you understand the functions of each specialty, you can choose the one that best suits your interests and abilities. Beyond learning techniques and skills, you often will be required to calm patients and help educate them about self-examinations and medications.

## Checking Your Knowledge:

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1. What two specialties teach their patients self-examination, and why are self-examinations important?
2. Why is geriatrics a growing area of medicine?
3. All the branches of medicine you have studied deal with diagnosis and treatment of diseases and disorders. List five types of medicine that also deal with prevention of disease and disorders.
4. What are the two types of tests a pulmonology medical assistant may administer?
5. What is a Holter monitor, and what is the purpose of this device?

## Expanding Your Knowledge:

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Volunteer at a hospital or an outpatient treatment center to observe and participate in the practice of various specialties to better decide where your skills and interests can best be utilized. Keep a journal of your experiences, and reflect on them later to determine if the job is a match for you.

## Web Links:

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### Medical Assistants

<http://www.bls.gov/oco/ocos164.htm>

### Medical Assistant Careers

<http://www.medicalassistantcareers.org/>

### Salary

[http://www.aama-ntl.org/resources/library/salary\\_survey.pdf](http://www.aama-ntl.org/resources/library/salary_survey.pdf)

### Types of Careers

[http://www.ehow.com/about\\_5621728\\_types-can-medical-assistants-do\\_.html](http://www.ehow.com/about_5621728_types-can-medical-assistants-do_.html)