

DELTA COLLEGE  
COUNSELING/ADVISING & CAREER SERVICES  
**DIAGNOSTIC MEDICAL SONOGRAPHER**

Salary Range: \$39,270 - \$77,520 annually

Personal Interests: Attention to detail, patience, and good judgment

Work Environment: Hospitals, clinics, physician's offices or imaging centers

**Description**

Sonographers work on the orders of a physician or radiologist. They are responsible for the proper set up and selection of the ultrasound equipment for each specific exam. They explain the procedure to patients, recording any additional information that may be of later use to the physician.

Ultrasound is a diagnostic imaging modality that uses high frequency sound waves to obtain anatomical images. High frequency sound is transmitted into the body through a handheld transducer. Sound is reflected from soft tissue, bone and fluid back to the transducer and then displayed on a video monitor and recorded. The images produced show the shape and position of internal organs, fluid accumulations, masses or fetal development.

When the patient is properly aligned, the sonographer applies a gel to the skin that improves the diagnostic image. The sonographer selects the transducer and adjusts equipment controls according to the proper depth of field and specific organ or structure to be examined. The transducer is moved as the sonographer monitors the sound wave display screen in order to ensure that a quality ultrasonic image is being produced. Sonographers must master the location and visualization of human anatomy to be able to clearly differentiate between healthy and pathological areas.

When a clear image is obtained, the sonographer activates equipment that

records individual photographic views or sequences as real-time images of the affected area. These images are recorded on computer disk, magnetic tape, strip printout, film, or videotape. The sonographer removes the film after recording and prepares it for analysis by the physician. In order to be able to discuss the procedure with the physician, if asked, the sonographer may also record any further data or observations that occurred during the exam.

**Working Conditions**

Sonographers usually work a 5-day, 40-hour week. They may be required to work overtime during emergencies. Some sonographers might be assigned rotating work shifts or be scheduled for 24-hour on-call duty.

Sonographers may work alone or with other technologists, nurses, aides and clerical staff in a medical laboratory or special examination rooms. They may also perform ultrasound examinations at the bedsides of critically ill patients.

**Education, Other Qualifications**

Hospitals, colleges, universities, technical schools and the armed forces offer instruction in diagnostic medical sonography. Certificates, two-year associate and four-year bachelor degree programs are offered. As a graduate of Delta College Diagnostic Medical Sonography program, you are eligible to take the national certification examination administered by the American Registry of Diagnostic Medical Sonographers.

Students should be aware of continuing education requirements that exist to keep sonographers at the forefront of current technology and diagnostic theory. They are required to maintain certification through continuing education classes, which vary from state to state

Sonographers need to be technically adept, and detail and precision minded. They also need to enjoy helping others while expressing empathy, patience and understanding in order to reassure patients. Clear communication, both verbal and written, is a plus for those entering into the health care field.

**Job Outlook**

Nationally, employment of diagnostic medical sonographers is expected to grow much faster than the average for all occupations through 2014 as the population grows and ages, increasing the demand for diagnostic imaging and therapeutic technology. The outlook for diagnostic medical sonographers in Michigan is expected to be about average for all occupations. However, competition for jobs is expected to increase.

Opportunities will be best in hospitals, as more hospitals expand their radiologic departments to include diagnostic sonographic services. Also, the growing acceptance of diagnostic medical sonography as a common part of obstetrical and gynecological care will increase employment in this field. Those trained in multiple disciplines will have best employment prospects.

**Earnings**

Nationally, median annual earnings of diagnostic medical sonographers were \$52,490 in May 2004. The middle 50 percent earned between \$44,720 and

\$61,360 a year. The lowest 10 percent earned less than \$37,800, and the highest 10 percent earned more than \$72,230. Median annual earnings of diagnostic medical sonographers in May 2004 were \$53,790 in offices of physicians and \$51,860 in general medical and surgical hospitals.

In Michigan, the annual salaries (May 2006) of Diagnostic Medical Sonographers were:

Area	Annual Average
Michigan	\$54,090
Detroit	\$55,450
Flint	\$49,150
Grand Rapids	\$57,780
Kalamazoo	\$55,880
Warren/Troy	\$56,850

Most diagnostic medical sonographers receive paid vacations and holidays; paid sick leave; life, accident, health and disability insurance; and pension plans.

**Related Occupations**

Radiological Technician, Biomedical Equipment Technician, Clinical Laboratory Worker, Electrocardiograph Technician, Electroencephalograph Technician.

Diagnostic Medical Sonographer profile.doc SC 10/07  
Sources: Occupational Outlook Handbook, MI Occupational Information System, Eureka, System of Interactive Guidance and Information, and Delta College Catalog.

Career Center, Room D132  
Bay City/Saginaw: (989) 686-9072  
Midland/Auburn: (989) 495-4000, Ext. 9072  
Frankenmuth, Birch Run, Reese & Vassar: (989) 758-3400, Ext. 9072  
<http://www.delta.edu/careercenter>

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