

Surgical Technologist

Surgical technologists are allied health professionals working with surgeons and other medical practitioners providing surgical care to patients in a variety of settings as integral members of the health care team.



History

The profession of surgical technology was developed during World War II, when there was a critical need for assistance in performing surgical procedures and a shortage of qualified personnel to meet that need. Individuals were specifically educated to assist in surgical procedures and to function in the operative theater.

The Association of Surgical Technologists (AST) was organized in July 1969, with an advisory board of representatives from the American College of Surgeons (ACS), the Association of Operating Room Nurses (AORN), the American Hospital Association (AHA), and the American Medical Association (AMA).

In December 1972, the AMA's Council on Medical Education adopted the recommended educational standards for this field, and the Accreditation Review Committee on Education in Surgical Technology (ARC-ST) was formed. The ARC-ST is jointly sponsored by the AST and ACS. The standards were recently approved in 2004. A subcommittee of ARC-ST has been formed to review surgical assistant programs.



Career Description

Surgical technologists work under the supervision of the surgeon to ensure that the operating room or environment is safe, equipment functions properly, and operative procedure is conducted under conditions that maximize patient safety.

Surgical technologists possess expertise in the theory and application of sterile and aseptic technique combined with the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

In the scrub role, the surgical technologist handles the instruments, supplies, and necessary equipment during the surgical procedure. The surgical technologist understands the procedure being performed and anticipates the needs of the surgeon. The surgical technologist has the necessary knowledge and ability to ensure quality patient care during the operative procedure, and is always vigilant in the maintenance of a sterile field.

The surgical technologist checks supplies and equipments needed for the surgical procedure. The surgical technologist scrubs, gowns, and gloves himself/herself and sets up the sterile table with the necessary instruments, supplies, equipment, and medications/solutions. After other members of the surgical team have scrubbed, the surgical technologist will gown and glove them. The surgical technologist performs appropriate counts with the circulator prior to the operation and before the incision is closed. The scrub surgical technologist helps in draping the sterile field and passes instruments to the surgeon and maintains the highest standard of sterile technique during the procedure. The surgical technologist prepares sterile dressings; cleans and prepares instruments for terminal sterilization; assists other members of the team with terminal cleaning of the room; and assists in prepping the room for the next patient.

In the circulating role, the surgical technologist assists in obtaining additional instruments, supplies, and equipment necessary while the surgical procedure is in progress. The circulating surgical technologist monitors conditions in the operating room and constantly reassesses the needs of the patient and surgical team. The circulating surgical technologist obtains necessary sterile and nonsterile items; opens sterile supplies; checks the patient's chart; identifies the patient; verifies the type of surgical procedure with consent forms; and brings the patient to the assigned operating room. The circulating surgical technologist also transfers the patient to the operating room table; assesses comfort and safety measures; assists anesthesia personnel; positions the patient using the appropriate equipment; applies electrosurgical grounding pads, tourniquets, monitors, etc. before the procedure begins; and prepares the patient's skin prior to draping by the surgical team. The circulating surgical technologist performs appropriate counts with the scrub surgical technologist prior to the operation and before the incision is closed. The circulating surgical technologist also anticipates any additional supplies needed during the procedure; keeps accurate records throughout the procedure; properly cares for specimens; secures dressings after closure of the incision; helps transport the patient to the recovery room; and assists in cleaning the room and preparing it for the next patient.

In the second assisting role, the surgical technologist assists the surgeon and/or first assistant during the operative procedure by carrying out technical tasks other than cutting, clamping, and suturing of tissue. The second assisting surgical technologist may hold retractors or instruments as directed by the surgeon; sponge or suction the operative site; apply electrocautery to clamps on bleeders; cut suture material as directed by the surgeon; connect the drain to the suction apparatus; and apply dressings to the closed wound.



Employment Characteristics

The majority of surgical technologists work in hospitals, principally in the surgical suite, but also in emergency rooms and other settings that call for knowledge of and ability in maintaining asepsis, such as material management and central service. A number of surgical technologists work in a wide variety of settings and arrangements, including outpatient surgicenters, private employment by physicians, or as self-employed technologists.

Workers in hospitals and other institutional settings are usually expected to work rotating shifts or to accommodate on-call assignments to ensure adequate staffing for emergency surgical procedures during evening, night, weekend, and holiday hours. Otherwise, surgical technologists follow a standard hospital workday.



Salary

Salaries vary depending on the experience and education of the individual, the economy of a given region, the responsibilities of the position, and the working hours. May 2008 data from the US Bureau of Labor Statistics (BLS) show that wages at the 10th percentile were \$27,510, \$38,740 at the 50th percentile (median), and \$54,300 at the 90th percentile (www.bls.gov/oes/current/oes292055.htm).

For more information, refer to www.ama-assn.org/go/hpsalary.



Employment Outlook

According to BLS projections, employment of surgical technologists is expected to grow 25% between 2008 and 2018, much faster than the average for all occupations, as the volume of surgeries increases. The number of surgical procedures is expected to continue to rise as the population grows and ages. Older people, including the baby-boom generation, which generally requires more surgical procedures, will continue to account for a larger portion of the US population. In addition, technological advances, such as fiber optics and laser technology, have allowed an increasing number of new surgical procedures to be performed and have allowed surgical technologists to assist with a greater number of procedures.



Educational Programs

Length. Programs range from nine to 24 months.

Prerequisites. High school diploma or equivalent.

Curriculum. Accreditation standards require didactic instruction and supervised clinical practice. Subject areas include:

- Medical terminology, professional ethics, and legal aspects of surgical patient care
- Anatomy and physiology, microbiology, anesthesia, and pharmacology
- Sterilization methods and aseptic technique
- Instruments, supplies, and equipment used in surgery
- Surgical patient care and safety precautions
- Operative procedures and biomedical sciences
- Supervised clinical practice in the operating room must include commonly performed procedures in general surgery, obstetrics and gynecology, ophthalmology, otorhinolaryngology, plastic surgery, urology, orthopedics, neurosurgery, thoracic surgery, and cardiovascular and peripheral vascular surgery.



Inquiries

Careers/Curriculum

Association of Surgical Technologists
6 West Dry Creek Circle, Suite 200

Littleton, CO 80120

(800) 637-7433 or (303) 694-9130

www.ast.org

Certification/Registration

Inquiries regarding certification as a Certified Surgical Technologist (CST) or Certified First Assistant (CFA) may be addressed to:

National Board for Surgical Technology and Surgical Assisting
(formerly Liaison Council on Certification for the Surgical Technologist)

6 West Dry Creek Circle, Suite 100

Littleton, CO 80120

(800) 707-0057

www.nbtsa.org

Program Accreditation

Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with:

Accreditation Review Committee on Education in Surgical Technology and Surgical Assisting

6 West Dry Creek Circle, Suite 110

Littleton, CO 80120

(303) 694-9262

www.arcst.org

Note: Adapted in part from the Bureau of Labor Statistics, US Department of Labor, *Occupational Outlook Handbook, 2010-2011 Edition*, Surgical Technologists, at www.bls.gov/oco/ocos106.htm.