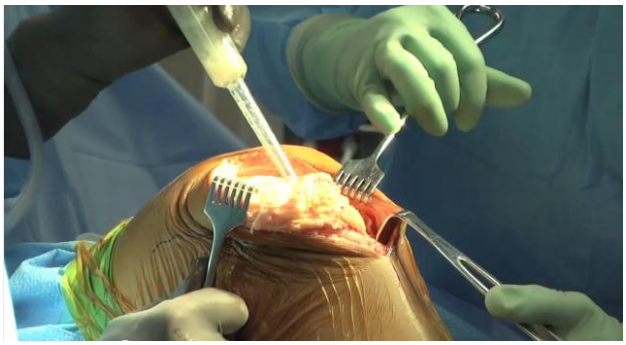
S 2058 Surgical Technologist Certification

The Massachusetts surgical technologist certification legislation, S 2058, sponsored by Senator Brewer and several other members of the General Court, accomplishes the following:

- Requires that newly-practicing surgical technologists be appropriately educated demonstrated through completion of a 12-24 month accredited educational program in surgical technology.
- Requires newly-practicing surgical technologists be certified by a nationally-accredited certifying organization through passage of the national board exam;
- Exempts surgical technologists practicing as of July 1, 2013 (grandfather clause);
- Exempts licensed health care practitioners;
- Exempts graduates of military surgical technology programs;
- Exempts surgical technologists in the service of the federal government;
- Allows a 12-month grace period for surgical technology program graduates to achieve certification;
- Provides a waiver to surgical facilities unable to employ enough qualified surgical technologists to meet demand;
- Allows surgical technologists to assist in circulating duties under the supervision of an operating room circulator; and
- Provides relevant definitions of members of the surgical team and surgical facilities.



This patient safety legislation addresses the alarming increase in harmful surgical site infections, preventable medical errors and related health care costs. Surgical technologists stand elbow-to-elbow with surgeons during operative procedures. They are the experts in the operating room on sterility and are instrumental in identifying and preventing surgical site infections and other surgical error. Yet, Massachusetts does not require surgical technologists to meet any minimum educational or certification standards. Reduction of preventable surgical errors and surgical site infections not only positively impacts patient outcomes; it also reduces medical costs shouldered by patients, private insurance, Medicare, MassHealth and Commonwealth Care.

Operating Room Professionals Support Education and Certification for Surgical Technologists

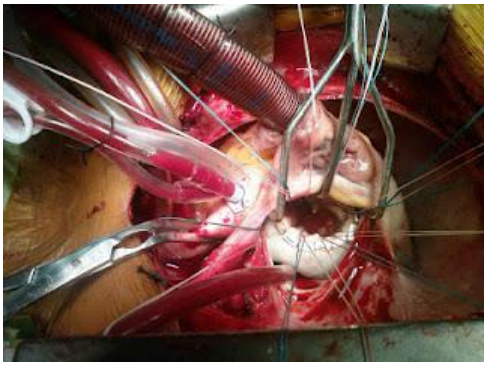
The American College of Surgeons strongly: 1.) supports adequate education and training of all surgical technologists; 2.) supports the accreditation of all surgical technology educational programs; and 3.) supports examination for certification of all graduates of accredited surgical technology educational programs. For a complete statement, visit this link: http://www.facs.org/fellows_info/statements/st-47.html. S 2058 also aligns with the principles of the national Council on Surgical and Perioperative Safety.

This policy has support from general surgeons, pediatric surgeons, oncology surgeons, plastic and reconstructive surgeons, neurosurgeons, vascular and endovascular surgeons, urologists, OB/GYNs, anesthesiologists, registered nurse circulators, operating room managers, hospital risk management personnel and directors of hospital surgical service departments.

Even though surgical technologists are supervised by surgeons, surgeons need competent team members, because surgeons must focus on the patient, and simply cannot divide their focus to ensure other surgical team members are not making mistakes. Surgery is extremely fast-paced and each team member has their own responsibilities. Surgeons must be able to focus on the patient, not the surgical technologist. Even though surgical technologists are supervised, not all mistakes may be seen (surgical technologists are in the operating room alone at times and surgeons are often working with the patient while the surgical technologist carries out tasks behind him or her), and not all mistakes that are seen can be mitigated. Many surgical errors have grave consequences.

As one surgeon attested: "Competent surgical technologists increase patient safety. **A well-trained surgical technologist has help keep me out of trouble in more than one instance. The extra set of trained eyes can be critical when we are doing precise and delicate surgery around nerves and vessels.** Qualified surgical technologists save time. My surgical technologists, when properly educated and trained can do many tasks during a case that helps free me up to do other parts of the surgery simultaneously. Sometimes this division of tasks can save hours in a long case. **This in turn again impacts patient safety because a patient is under anesthesia for a shorter period of time.** Qualified surgical technologists improve surgical team coordination. I rely on my surgical technologist to be the team coordinator during my block time. We have a "huddle" before the day starts and review the cases in detail. The surgical technologist in-between cases is making sure that the proper equipment is available and in working order. I cannot emphasize enough how valuable the surgical technologist is in this regard. The whole team needs to be well trained and committed to patient safety. ***Having documented these needs, I can also attest unequivocally to the fact that poorly trained surgical technologists, in general those who have "come up through the ranks," learned through on the job training, and who have little formal instruction and no certification produce the opposite results*** **- a decrease in patient safety and loss of time. Properly trained surgical technologists are there for the safety, quality, and efficiency of the work."**

The Profession



Surgical technologists assist with surgical procedures by preparing the operating room and surgical equipment, instruments and supplies using sterile technique. Skillful pre-surgery technique protects patients from life-threatening surgical site infections, malfunctioning equipment and unneeded delays during the procedure. During procedures, they are the professional next to the surgeon and the patient, helping the surgeon with equipment throughout the surgery. The surgical technologist must be able to anticipate the needs of the surgeon because every moment a patient is in surgery the risks related to anesthesia and bleeding increase. The surgical technologist is trained to handle and minimize exposure to hazardous materials, communicable diseases and bloodborne pathogens. Surgical technologists manage specimens during surgical procedures such as cancer, skin grafts and organ and manage diagnostic equipment, lasers and suction apparatus. The surgical technologist is the professional in the operating room charged with the responsibility of maintaining the integrity of the sterile field and preventing surgical site infections. Surgical technologists are also co-responsible for counts and preventing foreign retained objects.

Certified Surgical Technologists Reduce Health Care Costs

Requiring certification of surgical technologists reduces health care costs. The surgical technologist is the professional in the operating room charged with the responsibility of maintaining the integrity of the sterile field, preventing surgical site infections. The sterile field refers to surfaces that sterile objects, such as surgical instruments, may contact. The sterile field includes the area immediately around a patient that has been prepared for a surgical procedure. Protecting the sterile field involves carrying out specific procedures using sterile technique.

Surgical site infections pose a significant problem and are the second most common health care-associated infection in the United States. Health care-associated infections are of such national concern that in 2009, the American Recovery and Reinvestment Act directed $50 million in stimulus funding to state efforts to reduce health care-associated infections.

Surgical site infections and health care-acquired infections significantly drive health care costs. **Hospital infection is estimated to cost $473 million annually in Massachusetts.**[1] Health care-

[1] Smith, S. (2007, August 9). Hospital infection may cost $473 million annually in Massachusetts. *The Boston Globe*.

acquired infections incur an estimated $28 to $33 billion in excess healthcare costs each year.[2] **The cost is an estimated $25,546 per surgical site infection**, and surgical site infections result in an estimated 13,088 deaths nationally per year.[3] Again, reduction in surgical site infections would save lives and reduce medical costs borne by patients, MassHealth, Commonwealth Care and Health Safety Net.

Facilities using certified surgical technologists have lower surgical site infection costs. Empirical data and studies analyzing surgical technologists' contributions to patient outcomes are rare, due largely to the fact that the profession is unregulated at present. Most studies involving adverse medical and surgical events are not publicly available, making analysis difficult. Nonetheless, some data are available. Data reveal that facilities utilizing only credentialed surgical technologists reduced the costs associated with extended **stays due to surgical site infection by 11%.**[4]

In addition, Bureau of Labor Statistics data reveal requiring certification does not increase the salaries of surgical technologists. The average annual income of surgical technologists correlates strongly with the cost of living in each state.

Certified surgical technologists protect patients and reduce the costs associated with surgical site infections. Certified surgical technologists also reduce adverse events, such as foreign retained objects. Adverse surgical events were 32% less frequent in hospitals that require certification for all employed surgical technologists according to analyses of publicly-available Minnesota Adverse Health Events Reporting data.

Patient Safety

S 2058 is directed at achieving patient safety and preventing surgical site infections. This legislation ensures all newly-practicing surgical technologists graduate from a 12- to 24-month accredited program to earn a certificate or Associate's Degree and pass the certification exam. This provides patients with assurance that all surgical technologists have the minimum level of knowledge required to enter the field. Proper education and training of certified surgical technologists protects patients, and inadequately trained surgical technologists pose harm to patients.

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[2] U.S. DHHS Steering Committee on Healthcare Associated Infections. (2009). *Action Plan to Prevent Healthcare Associated Infections.* Washington, D.C.: U.S. Department of Health and Human Services.

[3] Stone, P., Braccia, D., & Larson, E. (2005). Systematic Review of Economic Analysis of Health-Care Associated Infections. *American Journal of Infection Control* , 33: 501-509.

[4] www.vapricepoint.org

Prior to surgery, surgical technologists are responsible for setting up the operating room and the sterile field. Surgeries are delayed when a surgical technologist lacks the knowledge and ability to prepare for an emergency surgery for a patient rushed to the emergency room, or when a new procedure is needed due to a patient emergency, *e.g.,* an emergency hysterectomy during a cesarean section. Surgical technologists are also responsible for setting-up and checking equipment, aiming to prevent mid-surgery malfunctions. Poor performance by surgical technologists can also cause external and internal third-degree burns and many malpractice cases naming surgical technologists involve burns to the legs, thighs, and internal burns from too-hot equipment (hot due to recent sterilization) that the patient cannot feel because he or she in under anesthesia. Surgical technologists are also responsible for managing equipment, such as lasers, suction apparatus, diagnostic equipment and working with the surgical team to be sure equipment not actively in use is on standby. Equipment left on can fuel surgical fires, a high-risk in operating rooms due to the presence of oxygen and flammable material. The US Food and Drug Administration recently launched a surgical fire prevention initiative due to the excessive rate of preventable surgical fires occurring in operating rooms, such a trachea fires. Surgical technologists also manage specimens such as cancer specimens, skin grafts and organs. If cancer specimens are compromised, the patient may not be as readily diagnosed or treated or might require a second surgery. When surgical technologists mishandle skin grafts, patients must have grafts done in a second location, leading to pain and scarring in a second location.

Surgical technologists are often the only other person in the sterile field besides the surgeon. Surgical technologists must also know how to perform many tasks simultaneously using sterile technique. Surgical technologists are the surgeon's second set of hands. Surgical technologists are frequently simultaneously removing items from the sterile field, loading sutures at break-neck speed, preparing multiple instruments for the next series of steps in the surgery and monitoring equipment all while using sterile technique for each step. Surgical technologists impact the pace of the surgery, which is important because every minute a patient is under anesthesia the risk for excess bleeding and adverse events increases. Surgical technologists are also responsible for the counts of supplies and instruments that were inserted into the patient

Surgical technologists set-up and maintain the sterile back table, including equipment, instruments and other surgical supplies. Each surgery involves hundreds of instruments. Certain surgeries, such as joint replacements, involve more than 1,000 instruments.

during surgery to ensure they are extracted to prevent foreign retained objects, which can cause death in some cases, and in others, extreme pain and organ scarring, even after the foreign retained objects are discovered and removed.

The other potential for harm by a surgical technologist is not as clear and easily recognizable due to the invisible nature of infectious organisms, yet the surgical technologist's most important role is to prevent costly surgical site infections, as discussed above. The surgical technologist is the guardian of the sterile field and is the person in the operating room who is responsible for identifying and correcting all breaks in asepsis.

Support S 2058

This legislation has gained wide support throughout the State of Massachusetts. Patients assume that all surgical personnel caring for them are properly educated, yet surgical technologists are the only surgical team members not required to meet minimal education requirements. Patients are shocked to learn surgical technologists currently do not have any minimum educational or certification requirements. Passage of this legislation will obviate this alarming disparity.

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The Massachusetts State Assembly of the Association of Surgical Technologists greatly appreciates the ongoing support for the legislative sponsor and co-sponsors!

S 2058 is sponsored by Senator Stephen Brewer and co-sponsored by:

Senator Frederick Berry
Senator Gale Candaras
Senator Harriette Chandler
Senator Benjamin Downing
Senator Michael Knapik
Senator Anthony Petruccelli
Senator Richard Ross
Representative James Arciero
Representative Gailanne Cariddi
Representative Carolyn C. Dykema
Representative Thomas A. Golden, Jr.
Representative David Paul Linsky
Representative Harold P. Naughton, Jr.
Representative Angelo J. Puppolo, Jr.
Representative Jeffrey Sanchez