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Optimizing Workflow:
The Surgical Technologist's
Guide to Efficient
Autologous Bone Graft
Preparation



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**Optimizing Workflow:
The Surgical Technologist's
Guide to Efficient Autologous
Bone Graft Preparation**

ANGELA ENOCHSON

An overview of the surgical technologist's role in autologous bone graft preparation, highlighting factors that influence workflow efficiency, consistency, and safety. The article examines challenges such as manual processing variability and cognitive load, and outlines how standardized practices, ergonomic setups, and automated systems can enhance graft quality, improve predictability, and support effective team coordination in the operating room.

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Combating Negativity While Promoting the Good in an Organization

RACHEL CLARK, CST, CSFA, ST-R, FAST, AST TREASURER

BOARD MESSAGE



Every organization has both positive and negative voices. Both can be loud. Both can be contagious. One can build momentum; the other can quietly erode it. The challenge is not silencing dissent—it is leading beyond it.

Negativity often thrives where progress is unclear. For those who have followed the recent criticism of the organization across our social media platforms, the commentary has not gone unnoticed. Every organization has individuals who focus on what is broken rather than what is working. While constructive criticism is healthy and necessary for growth, persistent negativity can poison morale, weaken trust, and overshadow genuine success.

At Association of Surgical Technologists (AST), we are addressing the concerns that have been raised. Productive conversations are underway with all involved parties to strengthen areas that need improvement and rebuild confidence where trust has been shaken. These processes take time. Conflict resolution is not an event—it is a deliberate, disciplined process rooted in dialogue, sound decision-making, and consistent follow-through.

Leaders who want others to see the good in an organization must address negativity without becoming defensive, dismissive, or discouraged. We are listening. But we also ask stakeholders to watch the progress as it unfolds. Organizations regain credibility not by declaring unity, but by demonstrating steady progress despite complexity.

When multiple organizations collaborate within a profession, shared goals must be clearly defined. Unity does not eliminate individual responsibility. Each partner must remain accountable to its commitments while contributing to the broader mission. Governance structures, bylaws, and strategic frameworks are being reviewed to ensure they reflect the evolving needs of our profession and uphold high standards of integrity.

Lead With Consistent Positivity, Not Forced Optimism

Leadership must model consistent positivity grounded in realism—not forced optimism that dismisses legitimate concerns. Authentic positivity acknowledges challenges while reinforcing shared purpose. It ensures stakeholders feel informed, respected, and assured—not managed. When people see tangible results, negative narratives lose influence. Purpose remains the strongest antidote to cynicism.

Make the Work Measurable

Progress must be visible. Leaders should regularly share outcomes, stories, and measurable data that demonstrate the organization's impact. For AST, this means celebrating advocacy victories at the state level, advancing certification standards, and strengthening the professional recognition of surgical technologists nationwide. Each state that achieves legislative progress or certification advancement represents more than a policy win—it represents safer operating rooms and higher standards of patient care.

Certification through the National Board of Surgical Technology and Surgical Assisting (NBSTSA) ensures that surgical technologists graduate from accredited programs and meet rigorous national standards. These are not abstract achievements; they are tangible protections for patients and validation for professionals.

In healthcare, our purpose is clear: *Aeger Primo—Patient First*. Every policy strengthened, every certification earned, and every professional standard elevated ultimately impacts a life on an operating table. Remembering that restores meaning and perspective.

Conclusion

Negative voices will always exist—but they do not define this organization's direction.

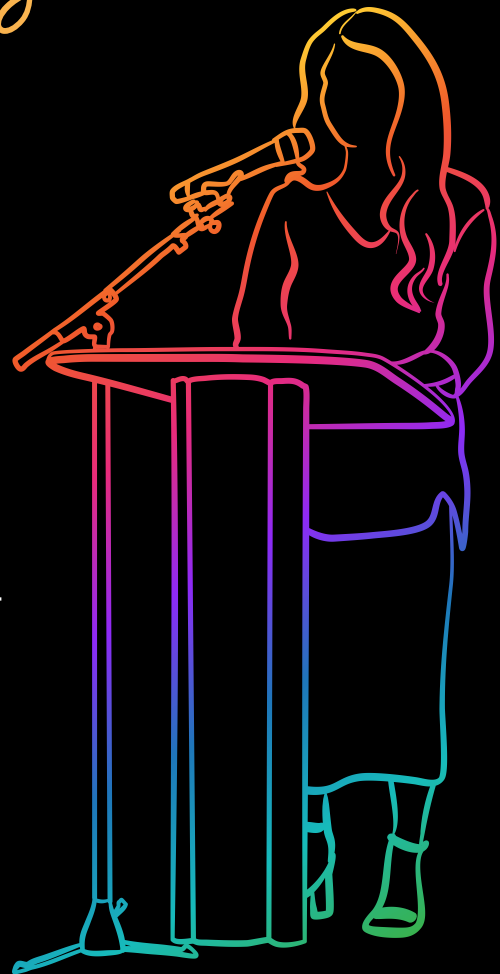
By remaining grounded in accountability, transparency, measurable progress, and steady leadership, AST shapes its own narrative. When criticism does not eclipse mission, morale is protected. More importantly, the integrity, credibil-

ity, and future strength of the surgical technology profession are preserved.

Progress may not be instant—but it is intentional. And it is moving forward.

SPEAK UP!

Call for speakers!



AST is currently seeking speakers for our clinical webinar series, AST Educators Event and our national conferences. Have a good topic you'd like to see presented or know of a peer or surgeon who would make a good presenter?

Complete our speaker application and help us provide relevant and timely information to surg techs around the nation!

Visit ast.org - Educators - Events to get started.

AST News

AT A GLANCE



SCHOLARSHIPS APPLY FOR FAST

Interested in being considered for the highest honor of the profession? This prestigious honor began in 2006 as an opportunity to recognize those individuals who have upheld the highest professional, ethical, and moral standards and traditions of the surgical technology profession, and whose professional activity has been devoted to the advancement of the profession toward improving the quality of surgical patient care.

Applications are available online and are due by April 15.

Before You Apply: Make sure to thoroughly read the selection criteria and gather all documents and information that are needed to complete the application prior to starting. Please plan ahead and allow for enough time to complete the application. If you close out of your window or browser before hitting submit, you will lose any details you have entered. Once you click submit, it will be submitted to the FAST Selection Panel. All required information must be completed before you are allowed to submit.

Selection Criteria: To see if you meet the criteria to

apply to become a FAST, visit www.ast.org – Members – Fellows of AST – and click on the link selection criteria.

To apply for FAST, visit www.ast.org – Members – Fellows of AST. You will need to use your login information to sign into your AST account. Then look for FAST and click on the application.

CONTINUING EDUCATION RESOURCES EARNING CE

The vast majority of all CE credits processed by AST for CSTs for CSFAs are earned through one or more of the ways listed below. **None of these are subject to a processing fee.**

- AST Distance CE (journal tests or CE packages)
- Hospital in-services
- Live lectures at AST state assemblies, national conference and others, such as ACS Congress
- College Courses
- Healthcare Manufacturer's Events. AST accepts CE credits that are offered at in-person events that have been planned and are sponsored and advertised by healthcare manufacturers - referred to as commercial interest organizations (CIO). However, in order for



STUDENTS – GET YOUR TEAM AND GET READY TO RUMBLE AT THE SCRUB BOWL!

Gather your crew and gear up for the ultimate showdown during the Student Scrub Bowl at the AST Surgical Technology Conference in Seattle, WA!

Rally your classmates, form your dream team, and put your tech knowledge to the test in this fast-paced, high-energy competition. Whether you're in it to win it or just for bragging rights, it's your time to shine.

Do you have what it takes to scrub in and throw down? Let the games begin and register today: https://fst.formstack.com/forms/scrub_bowl

the CE credits to be accepted by AST, the in-person program must be approved by AST and the program must be relevant to the practice of surgical technology or surgical first assisting. In-person events are stand-alone events, such as forums or hands-on workshops that are the sole responsibility of the CIO to plan and market as well as offer the CE credits, and are held at the location of the CIO's choice.

CE credit fees

These only apply to a very small percentage of credits earned through commercial providers due to the increased time and resources required to research and assess CE credits earned through those providers, particularly those CE credits offered by commercial businesses that contract with healthcare facilities, and now live events. There are no refunds given for AST online CE tests or CE credit packages.

Number of CE Credits	Processing Fee
* 1- 10	\$15
*11-20	\$30
*21-30	\$45
*31-40	\$60
*41-50	\$75
*51+	\$90

Members: See above for any additional fees for processing CE credits excluding AST tests.

Nonmembers: Nonmembers may be subject to a processing fee at the time of submission.

Money orders, personal checks, institutional checks, Visa, MasterCard and American Express are accepted. Checks payable to AST.

Qualifying CE Credits Checklist

- Are all your CE credits earned while an AST member?
- Are all CE credits earned within your current certification cycle established by the NBSTSA?
- Are all your CE credits relevant to the medical-surgical practice of surgical technology and surgical assisting?
- Have you submitted a CE Reporting Form? CE credits will be returned without a CE Reporting Form.
- Did you list each educational activity on the CE Reporting Form?
- Did you submit proper documentation for each education activity listed on the CE Reporting Form? Keep originals of documentation and submit copies.
- Is any applicable fee enclosed?

2 Ways to Submit Your CE Credits

- Mail to: AST, 6 West Dry Creek Circle, Ste 200, Littleton, CO 80120-8031
- Email scanned CE credits in PDF format to AST Member Services at memserv@ast.org. Do not mail credits that were previously emailed.

WAYS TO EARN CE

State Assembly Meetings

State assemblies provide CE during meetings, as well as serving as the grassroots organization in regard to state legislative efforts. Announcements of state assembly meetings are published in *The Surgical Technologist*, on the states' websites, and the AST site, www.ast.org, under the State Assembly tab. State assemblies also contact state members of upcoming meetings through email and mailings.

Submitting State Assembly CE Credits

- All state assemblies are required to complete the AST CE program approval prior to the date(s) of the meeting for the CE credits to be approved. The participant should verify that the meeting has been AST approved.
- The state assembly is required to provide a certificate of attendance to the participants even if "auto recorded."
- Member: Submit a copy of the certificate to AST for processing. The AST CE Reporting Form is not required to be submitted.
- Nonmember: Submit a copy of the certificate of attendance with the AST CE Reporting Form and \$200 nonmember processing fee.

College Courses

College courses that are relevant to the medical-surgical practice of surgical technology or surgical first assisting can be submitted to AST for CE credits.

- College courses MUST be completed with a minimum grade of "C."
- The courses MUST be completed at an institution that is accredited by an organization recognized by the US Department of Education.
- Surgical first assistant college courses submitted for CE credits MUST be completed at a CAAHEP-accredited surgical first assistant program.
- General nursing and physician assistant college courses that are not specifically related to the medical-surgical practice of surgical technology or surgical first

assisting will not be accepted for CE credits.

- Anatomy & physiology, microbiology, pathophysiology, and pharmacology must be advanced level college courses.

Determining the Number of CE Credits:

- College courses are awarded five CE credits for each semester hour completed. For example, a three-college-credit semester course: $3 \times 5 = 15$ CE credits.

Submitting College Courses for CE Credits

- Member and Nonmember: Submit an unofficial college transcript from the institution where the courses were completed with the AST CE Reporting Form – no exceptions.
- Nonmember: Include the \$200 nonmember processing fee.

Recommendation

- Provide a copy of the course descriptions from the current edition of the college catalog with the AST CE Reporting Form and transcript(s).
- The descriptions assist in determining the relevancy of the course(s) to the medical surgical practice of surgical technology or surgical first assisting.

Healthcare Facility Sponsored In-Services

Healthcare facility sponsored in-services can be submitted to AST for CE credits as long as they are relevant to the medical-surgical practice of surgical technology or surgical first assisting. Employers are NOT required to submit healthcare facility in-services to AST for approval.

- AST accepts annual mandatory CE in-services relevant to the medical-surgical practice of surgical technology or surgical first assisting. For example, fire safety.
- Healthcare facility orientation is NOT accepted for CE credits.
- If the employer sponsors or provides funds for an employee(s) to attend a conference, forum, seminar, symposium, or workshop, or complete any other type of CE activity sponsored by an organization other than the healthcare facility, the program MUST be AST approved for the CE credits to count toward certification renewal.
- BLS, ACLS, and PALS are accepted for CE credits. Every 50-60 minutes of activity = 1 CE credit.
 - BLS includes CPR and automated external defibrillator (AED) training.
- CE credits are NOT awarded for on-the-job training, healthcare facility orientation, or work experience that

the CST and CSFA completed as an employee of the healthcare facility providing the training.

- Example: A CST is completing on-the-job training in learning the first scrub role to be a member of the healthcare facility's cardiovascular team. This training is distinct from attending healthcare facility sponsored in-services as described above.

Submitting In-Service CE Credits

- A healthcare facility certificate of attendance, official healthcare facility transcript, or sign-in sheet with an authorized signature (for example, a surgery department supervisor, clinical educator, or other individual authorized by the employer).
- The documentation must also include the name of the healthcare facility, indicate it is an in-service, title of in-service, date of in-service, number of CE credits, and signature of the CST or CSFA attendee. The documentation must be submitted with the AST CE Reporting Form.

MEMBER BENEFITS

Being a member of AST really does have its benefits! Not only are you part of the largest organization that is focusing on surgical technologists, you benefit from:

- Automatic transfer of CE credits to the National Board of Surgical Technology and Surgical Assisting (NBSTSA).
- Automatic recording of CE credits earned through AST online offerings and earned at AST events such as the national conference.
- Submittal of CE credits at any time during your membership so you don't lose the valuable certificates of completion/attendance.
- Maintenance of your CE credit certificates for 5 years.
- Annual CE credit letter – a tally of how many credits you earned throughout the year.
- Low membership fee. AST has kept the low fee a priority while other associations have raised its membership fees.
- Cost savings when registering for AST events, such as the national conference and Educators Event.
- State-specific legislative efforts driven by AST National to further along the profession.
- Legislative updates and support for your state.
- Access to the Map of State Laws.
- Discounted CE opportunities that are offered by AST, including CE Credit Packages.

- Having a say when it comes to your state's assembly board. Active members get to vote for their state assembly Board of Directors.
- Communications including *The Surgical Technologist*, monthly e-newsletters, AST social media sites, including special professional groups on LinkedIn, Facebook and more.
- Leadership opportunities to serve on state assembly and national boards as well as state and national committees.
- Scholarship opportunities for students, educators and CSTs.
- The AST Career Center, where you can post your resume and obtain information on job openings.

DISCOUNTS

MEMBER-GET-A-MEMBER

Earn two or more months of FREE membership with the Member-Get-A-Member program. Recruit colleagues and AST will extend your membership by the appropriate number of months. Here's how:

- Recruit a valid new member at the one-year membership rate of \$80.
- Make sure that each person you recruit provides AST with your name and your AST member number when filling out their application.
- After AST receives the recruited member's application, we will extend your membership by two months for each person you recruit.
- Recruit two members at the \$80-level, and we'll extend your membership by four months! The more people you recruit, the longer your membership gets extended. *Bonus membership months are not applicable to members who recruit themselves, students or retired/disabled members. No substitutions will be permitted. Your membership must be current to receive the bonus months. Potential members MUST supply your name and your AST member number in order for you to receive bonus membership months. If a person's membership has lapsed for more than a year, they are considered a new member.*

Reach out to our Member Services team at 1-800-637-7433 for more information.

MILESTONES



Congratulations to the following state assemblies as they celebrate anniversaries this month! AST appreciates your hard work, dedication and all your years of service for making our state assemblies the backbone of this organization.

- Alaska – 11 years
- Arizona – 22 years
- Idaho – 24 years
- Illinois – 25 years
- Iowa – 22 years
- Kansas – 22 years
- Maine – 20 years
- Michigan – 26 years
- Missouri – 26 years
- New Hampshire / Vermont – 19 years (combined state assembly)
- New York – 26 years
- Pennsylvania – 24 years
- Wisconsin – 26 years

Me vs. We: How to Be Professional While Maintaining Your Individuality

LORI NEWMAN, MA, CST, FAST
State Assembly Leadership Committee

STATE ASSEMBLY



As part of a healthcare team, the Certified Surgical Technologist has an essential role. Working as part of the surgical care team, we get to perform our unique role within the larger team. This allows us to utilize our individual talents in the

structure of the group. But being an independent individual in a team setting can lead to some friction.

Aside from the nature of the team structure of the operating room, the workplace in general is especially challenging today. For the first time in history, we have five generations in the workforce. This can create conflict due to differing approaches to technology, various styles of communication, views on work/life balance, and life experience, to name a few. There may be different visions of what “professional” means. Professionalism can allow for different ideals and ways to express yourself, but it generally means reliability, accountability, respect for others, clear communication, and appropriate behavior for the environment.

Another challenge of working on a team is maintaining a sense of individualism while living up to a professional standard. The types of personalities that are drawn to working in surgery tend to be assertive, decisive, and direct, all with a strong sense of how to best accomplish things. This makes for a dynamic and effective caregiver, but when a team is comprised of independent, assertive people, it can lead to some conflicts. Balancing individual personality and professionalism requires an intentional approach. The foundation of this is developing trust through respect, competence, accountability, and effective communication. This will then allow for authentic self-expression and can lead to the warm, caring relationships that are seen amongst high-functioning teams. We can still be ourselves, but consider the situation. We can

be the “version of me that fits this moment,” not an entirely different person. We can adapt without losing ourselves. Different environments call for different tones, and we can adjust without pretending to be someone else. Because surgical teams rely heavily on collaboration and work closely in high-pressure situations, it is essential to be an effective team member and to balance your own ideas with those of the group.

As someone who has been part of my state assembly for a long time and worked with several state assembly boards as a State Assembly Leadership Committee representative, I have observed that the same challenges in the OR apply as well. These boards are comprised of volunteers who are willing to serve and lead. They step up to ensure that the CSTs in each state are represented in our national association and in the public sphere. They also work to increase recognition, security of our role through legislation, and ensure safe patient care through continuing education opportunities. The same dynamic CSTs who tackle problems in the OR are tasked to work together as a state assembly board. Similar to the OR, it takes effort and intention to work as an effective team of professionals. As a representative of the State Assembly Leadership Committee, I will always suggest and encourage members to become more involved in their state assemblies. This is an excellent way to apply your talents and energy, grow as professionals, and apply the same principles of professionalism.

But, even with all the reasons why it can be challenging to work as a cohesive team, we must always remember why we do what we do. “*Aeger Primo*” - the patient first. It is our AST motto, but even more, it should be our approach to every day in the operating room. It means that we put ego and opinion aside and do what is right for every patient, every time. If we all hold ourselves to a higher standard by being considerate and civil to each other, we will be able to avoid the pitfalls of conflict. This will not only lead to better patient outcomes but will make our interactions more enjoyable and fulfilling.

Associations are built by volunteers.

With more than 500 volunteers elevating our mission for
the highest standards in surgical patient safety,

AST says THANK YOU

to all of you who have committed your time, energy
and leadership to push our mission forward.



Happy National Volunteer Appreciation Week | April 19 - 25, 2026



The Three Pillars of Governance

AMANDA CARRASCO, MS, BS, AAS, CST,
BYLAWS, RESOLUTIONS, AND PARLIAMENTARY COMMITTEE



BYLAWS, RESOLUTIONS, AND PARLIAMENTARY COMMITTEE



Introduction

Effective governance in the Association of Surgical Technologists (AST) rests on three mutually reinforcing pillars: bylaws, resolutions, and parliamentary procedure. For AST members, these pillars are especially important

because every member belongs to a state assembly, and each assembly operates within the framework of AST's national bylaws. Together, these elements protect member rights, guide leaders, and ensure that member input is translated into meaningful action. When aligned, they safeguard fairness, continuity, compliance, and member voice—outcomes that support patient-centered excellence and the advancement of the surgical technology profession (AST, 2024; Robert's Rules of Order, 2020).

Bylaws: The Foundational Framework

Bylaws are like the rulebook or “constitution” for every AST state assembly. They explain how the organization works, including who can be a member, the roles of officers, how elections happen, how meetings are run, how money is handled, and how committees operate. They even cover how rules can be changed or how the group could be dissolved. Because every member belongs to a state assembly, these bylaws link each person to the bigger structure of AST.

State assembly bylaws are based on AST national bylaws and must follow them. The national bylaws act as the main guide for the entire Association, making sure all state assemblies work the same way and follow the

same standards.

For surgical technologists, these bylaws also tie governance to professional practice. They explain who can vote or serve in leadership roles, based on having current certification from the National Board of Surgical Technology and Surgical Assisting (NBSTSA). This ensures leaders are qualified, supports professional skills, and helps maintain public trust in the profession.

Keeping Bylaws Current

Even the best bylaws need regular checkups to stay useful. For the Association of Surgical Technologists (AST), reviewing them every two to three years ensures they match the national rules, keep up with new technology, and meet members' needs. This includes things like sending notices by email, running meetings smoothly, and using safe ways to vote in person.

Regular reviews help prevent confusion, unfair practices, or legal issues. They also make everyone's roles and responsibilities clearer. Clear rules for making changes and keeping good records make it easier for new leaders to step in and keep things running smoothly.

By keeping bylaws up to date, AST shows it is organized, fair, and committed to being accountable to its members.

Resolutions:

Resolutions are one-way members can share ideas, speak up about concerns, and help decide what the organization should focus on next. A good solution explains the problem first and then clearly states what action is being taken.

All resolutions must follow AST's rules and cannot go against the organization's bylaws, policies, or leadership structure. They also must follow voting rules and membership guidelines.

Handling resolutions the right way means giving members time to read them before meetings, allowing everyone a fair chance to speak, keeping accurate records of votes, and making sure approved decisions are put into action. This helps members understand what was decided and builds trust in the process.

Most resolutions focus on improving education, supporting surgical technologists, strengthening advocacy efforts, and following national standards. Using AST guidelines—such as those for patient safety, professional conduct, and certification—helps ensure that decisions reflect the values and expectations of the profession.

The Parliamentarian: Neutral Expert and Guardian of Order

If you have ever attended a national conference and attended a business meeting, you may have noticed someone seated next to the president on stage. Have you ever wondered who that person is? That individual is our consulting parliamentarian.

The parliamentarian helps make sure that enough members are present to vote (quorum is met), that voters (elected delegates by their state members) are eligible, and that meeting rules are followed. They assist the board with complex motions, help keep discussions fair, support the planning of election, and vote to protect both majority (state delegates) and member voices.

How the Pillars Interlock

When bylaws, resolutions, and parliamentary guidance work together, the Association of Surgical Technologists runs more smoothly and earns the trust of its members. Bylaws provide the basic rules, such as who can vote, how leaders are chosen, and how meetings are run.

Resolutions allow members to share ideas and help guide the organization's goals. The parliamentarian will help make sure these rules are followed and that meetings are fair and organized. This prevents mistakes that could cancel or delay important decisions (AST, 2024; Robert's Rules of Order, 2020).

If any part of this system becomes weak—such as outdated bylaws, confusing resolutions, or poor guidance on meeting rules, the organization can face arguments, delays, and problems following its own policies. Keeping these three areas balanced helps protect both AST and its members.

Conclusion

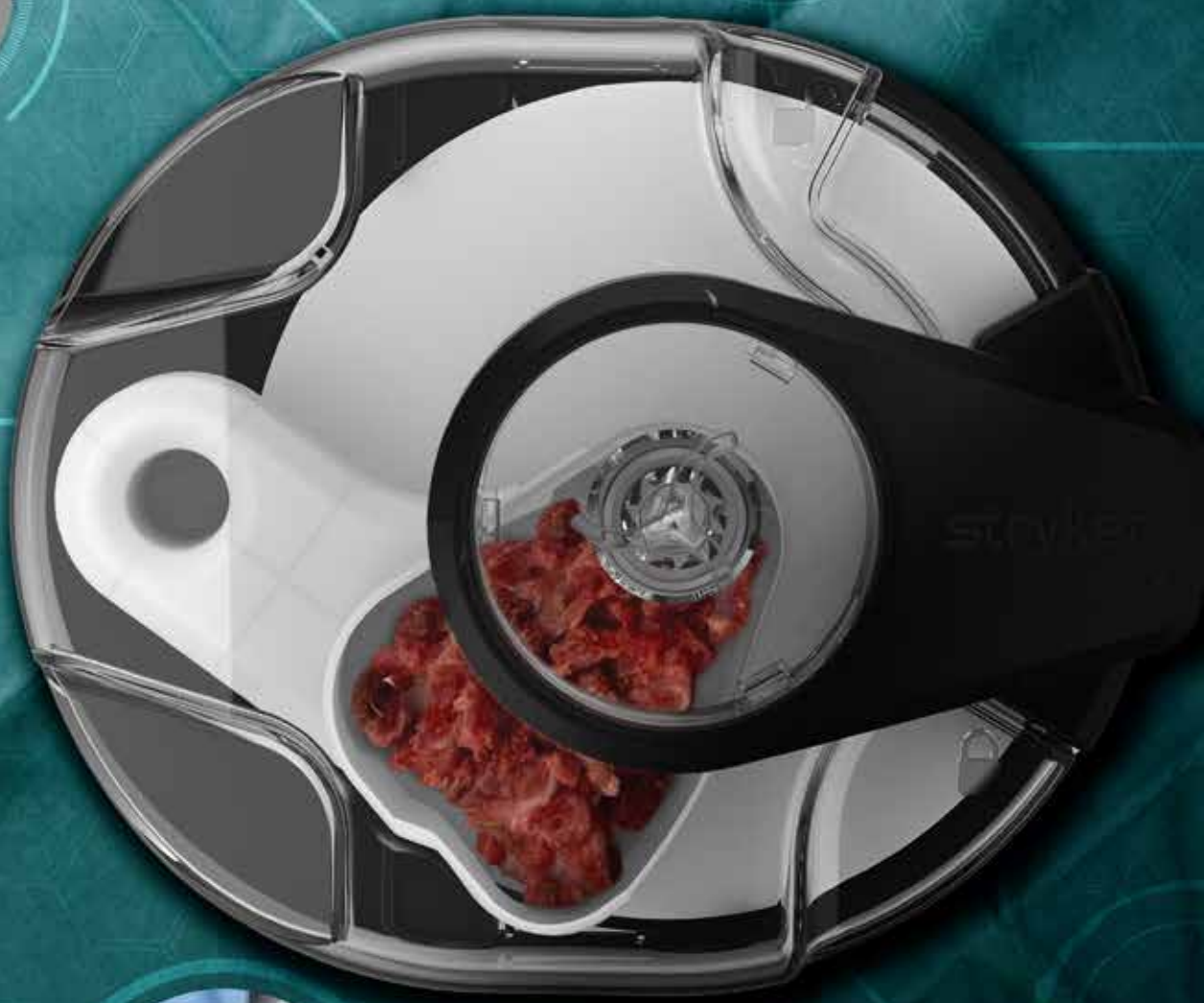
Bylaws provide the structure, resolutions give direction, and the parliamentarian helps protect fairness and order. Rooted in the AST national bylaws and supported by clear policies and procedures, these tools allow all members to take part in how the organization is guided and led.

When these pillars are treated as living tools—reviewed regularly, explained clearly, and used consistently—AST benefits from organized meetings, strong leadership, effective advocacy, and better support for CSTs and patient care.

Every member is encouraged to attend either a state and/or national business meeting, a bylaws forum, and other governance sessions. All members are welcome, voices are heard and respected, and every vote makes a difference. Participation helps shape the future of our profession. As members of AST, we share the responsibility to stay informed, get involved, and uphold these standards to strengthen our organization (AST, 2024; AST, 2023; Robert's Rules of Order, 2020)

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Optimizing Workflow: The Surgical Technologist's Guide to Efficient Autologous Bone Graft Preparation

ANGELA ENOCHSON

With over two million orthopedic procedures involving bone grafting performed annually worldwide, autologous bone graft preparation represents one of the most frequently performed yet often overlooked tasks in orthopedic surgery.¹ For surgical technologists, the responsibility of processing harvested bone into implant-ready material carries significant implications for surgical outcomes, operating room efficiency, and patient safety. In an era marked by critical workforce shortages and mounting pressure to optimize operating room utilization, understanding how to streamline this essential task has never been more important.

BACKGROUND

Autologous bone, which is tissue harvested from the patient's own body, remains the gold standard for bone grafting procedures.² It is the only graft material that fulfills all three components of the tissue regeneration triad: osteogenesis, osteoinduction, and osteoconduction.² Unlike allograft from donors, autologous bone carries no risk of immunological rejection or disease transmission, making it the preferred choice for spinal fusion and orthopedic reconstruction. Over the past several decades, spinal fusion utilization has shown an upward trend, increasing the importance of efficient graft preparation and handling in the operating room.³

Surgical technologists play a critical role in preparing autologous bone for reimplantation. The process requires removing residual connective tissue and milling harvested bone into particles of appropriate size. These tasks are traditionally performed manually using periosteal elevators, rongeurs, curettes, and other sharp instruments. Research has shown that manual processing times vary significantly based on individual skill and efficiency, with wide variability depending on the surgical technologist.⁴ Studies also suggest that surgical technologists may underestimate their

LEARNING OBJECTIVES

- ▲ Understand the critical role of surgical technologists in autologous bone graft preparation
- ▲ Recognize the impact of efficient bone processing on surgical outcomes and operating room efficiency
- ▲ Describe the advantages of autologous bone grafting in orthopedic procedures
- ▲ Identify workflow optimization strategies for bone graft preparation
- ▲ Discuss how consistency and reliability in bone processing affects surgical workflow
- ▲ Evaluate methods to enhance safety during bone graft preparation

actual processing time, a tendency that can be amplified when bone preparation occurs in parallel with other intraoperative tasks.⁴ This variability may create unpredictable case durations in an environment where operating room time costs approximately \$46 per minute when adjusted to current dollars.⁵

A critical but often unrecognized contributor to variability in autologous bone graft preparation is cognitive load rather than technical skill. Bone processing rarely occurs as a single, uninterrupted task; instead, surgical technologists perform it in parallel with instrument passing, sterile field management, anticipation of surgeon needs, and ongoing team communication. Even experienced surgical technologists must frequently shift attention between competing intraoperative priorities, increasing susceptibility to interruption, time compression, and variability in manual task execution.

In this context, inconsistency in preparation time or graft quality should not be interpreted as a reflection of individual competence, but rather as a predictable outcome of performing precision manual work under high cognitive demand. Workflow strategies that reduce attentional burden, whether through task standardization, role clarity, or automation, therefore address a fundamental human-factors constraint inherent to the operating room environment. This aligns with established human-factors research demonstrating that divided attention and interruption increase variability in manual task performance, particularly in high-stakes environments such as the operating room.⁶

Automated bone processing systems such as Bone Mill+™ with Prep+™ offer an alternative approach, converting manual tissue removal and milling into standardized, automated tasks. These systems can help address the variability inherent in manual processing while reducing physical demands on surgical technologists.

Recent survey data underscore the operational impact of this variability, with the majority of practitioners reporting notable variation in graft preparation when different team members perform the task – even as most rate consistency in preparation time as important to OR efficiency.⁷ This challenge may be compounded by ongoing staffing shortages: in an American College of Healthcare Executives survey, 87% of hospital CEOs cited technician shortages as a workforce concern, and many facilities have turned to contract labor such as agency or traveling staff to help fill gaps.⁸ In this environment, standardized approaches to bone graft preparation have become

essential, not only to support surgical planning but also to integrate rotating team members while maintaining quality outcomes.

This CE article examines practical strategies for optimizing autologous bone graft preparation, focusing on workflow efficiency, processing consistency, and surgical technologist safety.

PRE-OPERATIVE PLANNING AND OR SETUP

Effective autologous bone graft preparation begins well before the first incision. Surgical technologists play a pivotal role in establishing an optimized operating room environment that supports efficient bone processing while maintaining sterility and safety standards. Survey data reinforces the importance of this preparatory work.⁷ Limited space in the sterile field (56%) and coordination challenges (56%) top the list of workflow obstacles surgical technologists identify – issues that deliberate pre-operative planning can address before they create intraoperative friction.⁷

Essential equipment for autologous bone processing includes bone harvesting instruments (rongeurs, curettes, osteotomes), automated bone milling devices, sterile collection basins, and irrigation supplies. The Association of Surgical Technologists guidelines recommend that furniture included in the sterile field be positioned a minimum of 12 inches away from the wall and other non-sterile furniture/equipment.⁹ The Association of periOperative Registered Nurses guidelines further emphasize reducing nonessential movement around the sterile field and positioning equipment within the airflow curtain to minimize contamination risk.¹⁰

When automated bone processing systems are utilized, strategic placement within the sterile field is critical. Notably, 44% of surgical technologists – compared to just 7% of surgeons – identify strategic equipment placement as a key efficiency strategy, highlighting this as a distinctly surgical technologists-visible lever for workflow optimization.⁷ Automated systems should be placed on the back table or on a dedicated Mayo stand, where the surgical technologists can operate them without compromising their ability to anticipate the surgeon's needs. This arrangement helps minimize unnecessary reaching, repositioning, and traffic around the sterile field while preserving clear access for the surgeon and assistant.^{9,10}

Prior to each procedure, a systematic verification checklist ensures equipment readiness and functionality.

This includes confirming that automated systems are properly assembled, power sources are connected and functioning, and all disposable components are within expiration dates and intact. The World Health Organization Surgical Safety Checklist framework provides a model for integrating equipment verification into standard pre-operative protocols, with studies demonstrating significant reductions in surgical complications when consistently implemented.¹¹ The U.S. Bureau of Labor Statistics notes that surgical technologists are responsible for preparing the operating room by setting up instruments and equipment and confirming proper function before surgery.¹²

Coordination with the surgical team during pre-operative briefings allows surgical technologists to clarify anticipated bone harvest timing and volume requirements. Understanding the planned fusion levels in spinal procedures, for example, enables appropriate preparation of processing capacity. Single-level lumbar fusions typically require 10-15 cc of processed bone graft, while multi-level procedures may require 30 cc or more.¹³ This advance knowledge allows surgical technologists to anticipate whether multiple processing cycles will be needed and plan workflow accordingly. When the environment is standardized, i.e., equipment positioned, readiness verified, expectations aligned, processing steps become easier to execute consistently, supporting predictable timing throughout the case.

TEAM COORDINATION AND COMMUNICATION

Effective coordination between surgical technologists and the broader operating room team is fundamental to efficient autologous bone graft procedures. Poor communication and unclear roles have been linked to inefficient collaboration, reduced performance, and increased errors, while suboptimal teamwork contributes to a significant proportion of preventable surgical complications.¹⁴

Survey findings reveal that coordination and timing present significant challenges during bone graft preparation, with surgical technologists reporting this concern at notably higher rates (56%) than surgeons (27%).⁷ This disparity likely reflects the surgical technologists' unique position managing multiple concurrent responsibilities while maintaining sterile field integrity and anticipating surgeon needs.

Parallel task management – performing bone preparation while simultaneously supporting other procedural demands – is common practice, as reported by approximately half of both surgical technologists (52%) and surgeons (47%).⁷ However, this multitasking approach creates inherent coordi-

ination complexities. One survey respondent described balancing manual graft preparation with instrument passing while ensuring quality bone is ready when the surgeon needs it as a skill “difficult to master for newer techs.”⁶ This experience reflects research findings that clear role designation and team stability enhance both accountability and surgical performance.^{14,15}

Despite the recognized importance of timing coordination, only 40% of respondents reported having clear timing protocols in place for bone graft preparation.⁷ Standardized communication protocols have demonstrated improvements in critical information transfer during staff changes, with one initiative increasing completion of critical handoff elements from 34% to over 95%.¹⁶

Automation offers a practical solution to these coordination challenges. Devices with predictable, consistent processing times enable surgical technologists to communicate reliable timeframes to the surgical team, facilitating better case planning and reducing the cognitive burden of managing variable manual processing while attending to other intraoperative responsibilities.

ACHIEVING CONSISTENT, RELIABLE RESULTS WITH AUTOMATED BONE PROCESSING

When different team members perform the same task, results can vary significantly. In the survey, 74% of respondents reported experiencing moderate-to-significant variation in bone graft preparation outcomes when different team members performed the task (Figure 1).⁷ This variability extends beyond quality to timing: an earlier survey found that surgical technologists often underestimate their manual bone processing time by approximately 14 minutes, which may make it difficult for surgical teams to plan procedures accurately.⁴

For surgical workflow, predictability matters as much as speed. Among surveyed practitioners, 69% rated consistency in bone graft preparation time as extremely or very important to their workflow.⁷ When preparation times fluctuate unpredictably, the entire surgical team must adjust, potentially affecting case scheduling, surgeon readiness, and overall operating room efficiency.

Automated bone processing systems address variability by delivering standardized, repeatable results regardless of who operates the equipment. In a comparative study, automated tissue removal consistently completed processing in 10 minutes with virtually no variation (± 0.06 minutes), while manual processing averaged 41 minutes with a stan-

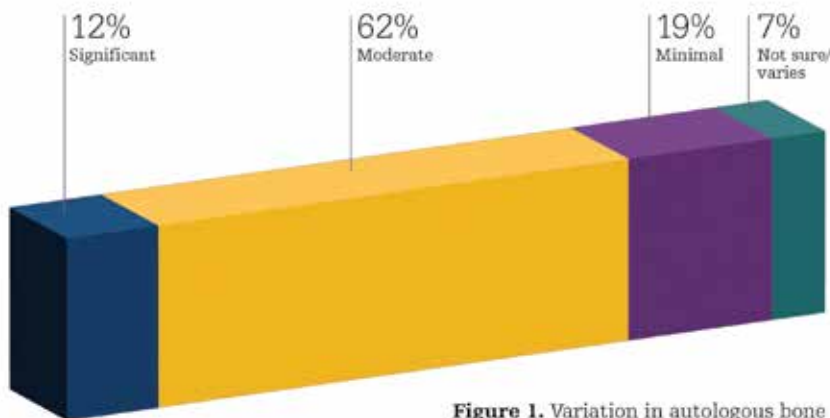


Figure 1. Variation in autologous bone graft preparation when different team members perform the task⁴ (N=42)

dard deviation of ± 23 minutes.⁴ This consistency allows surgeons to reliably plan for a known processing window rather than building in unpredictable buffer time.

Quality outcomes also become more predictable. When independent evaluators rated bone cleanliness on a 10-point scale, automated samples scored 15% higher on average than manually processed bone. Notably, 33% of manually cleaned samples scored below 4.8, indicating inconsistent quality that could affect graft performance.⁴

Among practitioners who have adopted an automated system, 87% report that it has reduced variability in their bone processing workflow (Figure 2).⁷ This aligns with broader research on operating room standardization, which has demonstrated that implementing standardized processes can reduce clinical variation.¹⁵

To achieve optimal results with automated bone processing systems, surgical technologists should follow manufacturer guidelines for bone loading quantities.

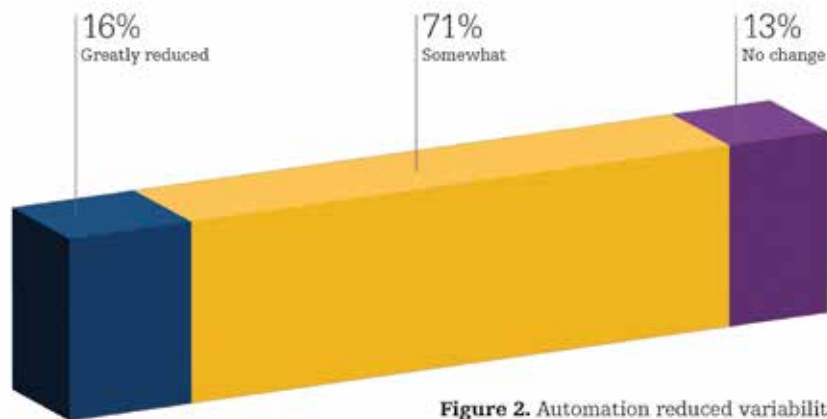


Figure 2. Automation reduced variability in bone graft preparation⁷ (N=38)

Automated tissue removal systems can process up to 25 grams of bone per cycle using a 10-minute run cycle. With a transparent cartridge design, the system can allow visual monitoring of the cleaning process without interrupting the cycle, and cleaned bone can then be milled in a single 8.4-second pass into the surgeon's specified particulate size.¹⁷

ACHIEVING PREDICTABLE, EFFICIENT PROCESSING TIMES

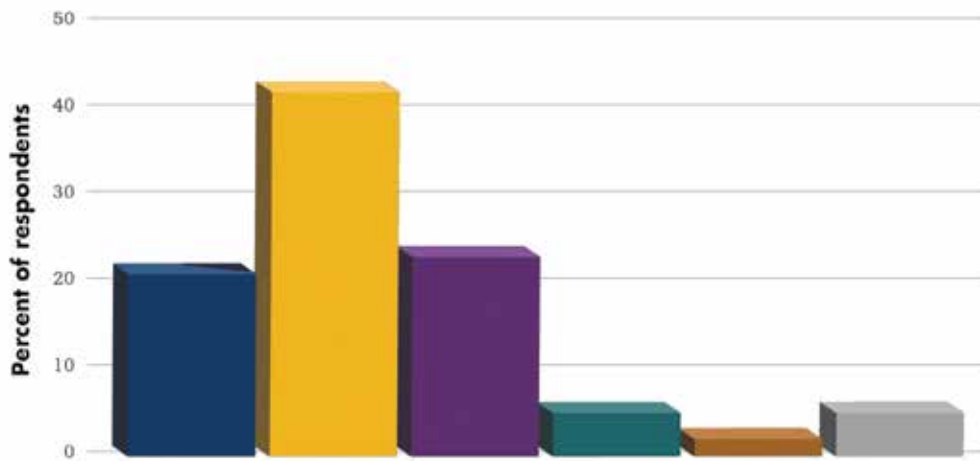
Efficiency in the operating room depends not only on surgical skill but also on the predictability of each procedural step. For surgical technologists responsible for autologous bone graft preparation, processing time variability presents a significant challenge to operating room scheduling, resource allocation, and team coordination.

Manual bone graft processing introduces significant time variability. Research shows manual bone cleaning requires an average of 27 minutes (± 14 minutes), with total manual processing time averaging 41 minutes (± 23 minutes).⁴ The survey of orthopedic spine surgeons and surgical technologists echoed this variability, with respondents reporting preparation times ranging from under 10 minutes (21%) to over 20 minutes (29%) (Figure 3).⁷

Automated processing systems can address these inefficiencies through standardized cycles. Automated tissue removal operates on a fixed 10-minute cycle with virtually no variation, while automated milling completes in seconds. This represents a 75% reduction in total processing time.⁴ This predictability has direct implications for surgical planning.

Unpredictable surgical duration poses significant scheduling challenges. Analysis of over 14,000 surgical cases found that 11 of 13 specialties systematically underestimated surgical times, with orthopedic procedures averaging almost 23 minutes longer than predicted.¹⁸ The Sermo survey findings reinforce this concern: nearly three-quarters of respondents reported moderate-to-significant variation in how grafts are prepared when different team members perform the task, yet

Figure 3. Self-Reported Time to Prepare Autologous Bone Graft[®] (N=42)



69% rated consistency as “extremely” or “very” important (Figure 1).⁷

Given that operating room time is valued at approximately \$46 per minute,⁵ even modest improvements in predictability yield substantial benefits. Research indicates standardized processes can reduce operating room time by 6-22% per case, which translates to a cost savings of 38.1%.¹⁹

These efficiency gains translate into tangible operational benefits. Reliable processing times enable more accurate case scheduling; optimized scheduling approaches can increase the percentage of surgeries starting within target windows from 28.65% to 32.13%.²⁰ Among the survey respondents with automation experience, 87% reported reduced variability, with 37% of surgical technologists noting better coordination with surgical timing (Figure 2).⁷ Predictable workflows also support better communication and role clarity. When processing times are consistent, teams can coordinate handoffs more effectively, which is particularly valuable during staff shortages when teams include rotating personnel.¹⁷

By reducing processing variability, standardized bone graft preparation enables more accurate surgical scheduling, better resource allocation, and enhanced team coordination – all of which support the surgical technologist’s essential role in delivering efficient patient care.

BEST PRACTICES FOR WORKSPACE SETUP AND TECHNIQUE

Surgical technologists face significant occupational health risks, with research showing they have among the highest rates of injuries and illnesses of all occupations.²¹ Studies of perioperative personnel reveal that 84% experience

lower back pain, 74% report shoulder problems, and 29% suffer hand-wrist disorders – conditions directly relevant to the repetitive manual tasks involved in bone graft processing.^{22,23} These concerns are reflected in the survey: one-third of surgical technologists identified physical strain and fatigue as a challenge during bone graft preparation, and 59% cited safety protocols and injury prevention as a priority training need.⁷

Thoughtful workspace organization and ergonomic technique can help mitigate these risks while improving efficiency. Three areas merit particular attention:

1. Workspace organization

Positioning the Mayo stand and back table within the surgical technologists’ immediate reach supports economy of motion and maintains focus on the sterile field during bone graft preparation. The Association of Surgical Technologists guidelines for establishing the sterile field recommend that furniture be positioned to minimize unnecessary movement while maintaining appropriate distances from non-sterile surfaces and high-traffic areas.⁹ Designating a specific area on the back table for the automated processing system and its components that is separate from other instrumentation helps prevent cross-contamination and supports efficient task completion. This intentional arrangement reduces the need to search for supplies mid-procedure and supports the parallel processing workflow that allows bone preparation to occur simultaneously with ongoing surgical tasks.

2. Ergonomic considerations

The American College of Surgeons emphasizes that poor ergonomics significantly increases musculoskeletal injury risk and impacts performance quality in the operating room.²⁴ When positioning equipment, it is crucial to maintain neutral body postures and avoid prolonged reaching, twisting, or static positions that contribute to fatigue during long cases. Automated bone processing eliminates the repetitive hand motions associated with manual cleaning and milling, which may cause hand fatigue in the majority of surgical technologists performing these tasks manually.⁴ Among the Sermo survey respondents, 33% of surgical technologists reported that automation reduced physical strain during graft preparation.⁷

3. Quality assessment technique

Before transferring processed bone to the surgical field, visually inspect the material through the transparent cartridge to verify adequate soft tissue removal and appropriate particle size. Research demonstrates that automated processing produces 15% higher cleanliness ratings compared to manual methods, with consistent results across users regardless of experience level.⁴ This standardization is particularly valuable in environments with rotating staff, as it reduces performance variability that can affect graft quality.

INTEGRATION INTO EXISTING WORKFLOWS

Successful bone graft preparation extends beyond individual technique to encompass how processes integrate within broader operating room workflows. Standardized protocols, clearly defined roles, and structured training enable consistent outcomes even when staffing varies. This is a critical consideration given ongoing workforce challenges in surgical settings.^{25,26}

Effective workflow integration requires adapting bone processing activities to specific procedural contexts while maintaining consistent execution standards. Research demonstrates that involving clinical stakeholders in workflow design and using simulation-based assessment before implementation improves team coordination and reduces handover times.^{27,28} This collaborative approach proves particularly valuable when integrating new equipment or protocols into established surgical routines.

Role clarity supports seamless integration. Survey data indicate that designating a specific team member responsible for graft preparation is a strategy employed by

approximately half of surgical teams, with surgeons showing particular emphasis on this approach.⁷ Formalizing such role assignments through standard work documentation helps ensure consistent execution regardless of which personnel are scrubbed for a given case.

Building on clearly defined roles, structured training programs build the foundation for reliable workflow integration across team members. Competency-based education approaches, including clearly defined performance expectations and milestone assessments, support consistent skill development.²⁹ Survey findings reinforce this priority: surgical technologists identify step-by-step processing techniques, time management and workflow coordination, and equipment setup and troubleshooting as key areas where additional training would improve preparedness.⁷

Mentorship extends initial training into ongoing professional development. Research identifies multiple domains where mentoring relationships benefit surgical personnel, including skill development, career guidance, and burnout prevention.³⁰ Senior surgical technologists play a valuable role in guiding less experienced colleagues through complex cases, helping translate standardized protocols into practical application.

Beyond initial training and mentorship, sustaining workflow optimization requires mechanisms for ongoing refinement. The Plan-Do-Study-Act cycle provides a structured framework for testing and implementing incremental improvements.³¹ Participation in quality improvement initiatives extends individual efforts into broader organizational learning.

Survey data suggest a perception gap regarding influence over workflow standardization: while many surgeons report that surgical technologist suggestions receive consideration, a substantial proportion of surgical technologists perceive their influence as limited.⁷ This difference highlights an opportunity for constructive engagement. Rather than relying solely on informal input, surgical technologists can leverage practical tools, such as setup checklists, timing documentation, and outcome tracking, to demonstrate the value of standardized approaches and contribute meaningfully to workflow reliability.

KEY TAKEAWAYS

Surgical technologists are central to efficient autologous bone graft preparation, with their contributions directly impacting surgical workflow, team coordination, and patient outcomes. The strategies presented in this article

provide a framework for optimizing this essential task amid ongoing workforce challenges and increasing procedural demands.

Several key principles can guide surgical technologists in enhancing their bone graft preparation practices:

Pre-operative planning and operating room setup

Effective bone graft preparation begins with thorough pre-operative planning. Strategic equipment positioning, such as placing automated systems on the back table or dedicated Mayo stand, minimizes unnecessary movement while maintaining surgeon accessibility. Systematic verification checklists and coordination during pre-operative briefings ensure equipment readiness and clarify anticipated bone volume requirements, enabling surgical technologists to plan processing workflow accordingly.

Consistency through standardization

With 74% of practitioners reporting moderate-to-significant variation when different team members perform bone graft preparation, standardization has become essential.⁷ Automated processing systems deliver consistent results regardless of operator experience level, reducing total processing time by 75% while producing cleanliness ratings 15% higher than manual methods.⁴ This predictability enables better surgical planning and supports integration of rotating staff. The need is evident: only 40% of surgical teams currently have clear timing protocols in place for bone graft preparation.⁷

Safety and ergonomic considerations

Research confirms that surgical technologists face significant occupational health risks, with studies showing hand fatigue affects virtually all technicians performing manual bone processing.⁴ Thoughtful workspace organization and ergonomic technique help mitigate physical strain, while automation eliminates the repetitive motions that contribute to musculoskeletal disorders.²⁴ Among survey respondents using automated systems, one-third reported reduced physical strain during graft preparation.⁷

Training and continuous improvement

Structured training, mentorship from experienced colleagues, and participation in quality improvement initiatives extend individual skill development into organizational learning. By documenting outcomes and demonstrating the value of standardized approaches, sur-

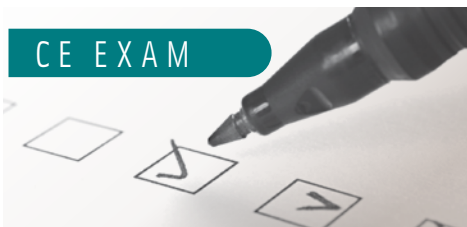
gical technologists contribute meaningfully to workflow reliability and continuous improvement in their facilities.

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Optimizing Workflow: The Surgical Technologist's Guide to Efficient Autologous Bone Graft Preparation

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1. **Autologous bone is considered the “gold standard” graft material primarily because it:**
 - a. is less expensive than allograft.
 - b. eliminates the need for sterile technique.
 - c. provides osteogenesis, osteoinduction, and osteoconduction.
 - d. requires no processing prior to implantation.
2. **A key responsibility of the surgical technologist in autologous bone graft preparation is to:**
 - a. perform the bone harvest incision.
 - b. remove residual connective tissue and mill bone into appropriate particle sizes.
 - c. interpret post-op imaging for fusion assessment.
 - d. select the fusion levels for the surgeon.
3. **According to research cited in the article, how much time variability exists in manual bone cleaning compared to automated tissue removal?**
 - a. Manual cleaning averages 27 minutes (± 14 minutes); automated processing takes 10 minutes (± 0.06 minutes)
 - b. Manual cleaning averages 15 minutes (± 5 minutes); automated processing takes 20 minutes (± 2 minutes)
 - c. Manual cleaning averages 10 minutes (± 2 minutes); automated processing takes 5 minutes (± 1 minute)
 - d. Manual and automated processing times are essentially equivalent
4. **According to the Association of Surgical Technologists guidelines for establishing the sterile field, furniture should be positioned a minimum of how far from the wall and other non-sterile furniture/equipment?**
 - a. 6 inches
 - b. 12 inches
 - c. 18 inches
 - d. 24 inches
5. **Survey data revealed that surgical technologists identify which factor as a key efficiency strategy at notably higher rates than surgeons (44% vs. 7%)?**
 - a. Designating a specific team member for graft preparation
 - b. Strategic equipment placement
 - c. Pre-operative briefing attendance
 - d. Using standardized checklists
6. **Which pair of workflow obstacles did surgical technologists most commonly identify in the survey (each cited at 56%)?**
 - a. Instrument shortages and surgeon preference variability
 - b. Limited sterile field space and coordination challenges
 - c. Power failures and irrigation supply issues
 - d. Lack of implant availability and poor lighting
7. **What percentage of survey respondents reported experiencing moderate-to-significant variation in bone graft preparation outcomes when different team members performed the task?**
 - a. 40%
 - b. 56%
 - c. 74%
 - d. 87%
8. **The article states that operating room time costs approximately:**
 - a. \$10 per minute.
 - b. \$25 per minute.
 - c. \$46 per minute.
 - d. \$100 per minute.
9. **What percentage of survey respondents using automated bone processing systems reported reduced variability in their bone processing workflow?**
 - a. 59%
 - b. 69%
 - c. 74%
 - d. 87%
10. **For pre-op planning, the article notes that single-level lumbar fusions typically require approximately:**
 - a. 1–5 cc processed bone graft.
 - b. 10–15 cc processed bone graft.
 - c. 20–25 cc processed bone graft.
 - d. 40–50 cc processed bone graft.

OPTIMIZING WORKFLOW: THE SURGICAL TECHNOLOGIST'S GUIDE TO EFFICIENT AUTOLOGOUS BONE GRAFT PREPARATION

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You must have a credit card to purchase test online. We accept Visa, Mastercard, and American Express. Your credit card will only be charged once you pass the test and then your credits will be automatically recorded to your account.

Log on to your account on the AST homepage to take advantage of this benefit.



SEATTLE

AST SURGICAL TECHNOLOGY CONFERENCE

Sunday, May 31 – Tuesday, June 2, 2026 | Seattle, Washington

The Summit – Seattle Convention Center, 900 Pine St, Seattle, WA 98101

Join us at the AST Surgical Technology Conference in Seattle for an inspiring and energizing experience designed specifically for surgical technology professionals. Conferences like this provide a valuable opportunity to connect with peers from across the country, exchange ideas, and strengthen the professional community that supports excellence in patient care. You'll gain insight into the latest surgical technology techniques, emerging trends, and best practices through expert-led sessions and hands-on learning opportunities that can immediately impact your work in the OR.



Beyond the conference, Seattle offers plenty to explore. Visit the iconic Space Needle for stunning city views, stroll through Pike Place Market to experience local food and culture, or enjoy fresh seafood along the waterfront. Coffee lovers can also take advantage of the city's vibrant café scene. We look forward to welcoming you to a conference experience that combines professional growth with the energy and beauty of The Emerald City.



NEW SETUP THIS YEAR

Sunday, May 31 – Tuesday, June 2, 2026

Seattle, Washington

Conference Location: The Summit – Seattle Convention Center, 900 Pine St, Seattle, WA 98101

Group Hotel: The Westin Seattle, 1900 5th Ave, Seattle, WA 98101

Room block closes on Tuesday, May 5, after which hotel rates will increase. Book today!



Iconic Seattle Experiences

Space Needle – Go up for panoramic views of the city, Mount Rainier, and Puget Sound.

Seattle Great Wheel – A relaxing way to see the waterfront, especially at sunset.

Pike Place Market – Watch the fish toss, explore local shops, and grab fresh seafood or pastries.

Chihuly Garden and Glass – Stunning glass art right next to the Space Needle.



Coffee hopping – Try local favorites like Storyville, Victrola, or Elm Coffee (beyond Starbucks).

Seafood – Don't miss salmon, chowder, or Dungeness crab.

Food tours – Especially around Pike Place or Capitol Hill.



REGISTRATION IS OPEN!

	Regular	After 4/30 - onsite
Member	\$425	\$500
Student	\$150	\$200
Student - NM	\$195	\$245
Non-member	\$580	\$620
Retired/Disabled	\$225	

MILITARY members - We salute you!
\$75 OFF regular member registration rate!

Neighborhoods & Culture

Capitol Hill - Lively area with shops, nightlife, and great restaurants.

Fremont - Funky, artsy, and home to the famous Fremont Troll.

Ballard Locks - Watch boats pass through and (seasonally) see salmon swim upstream.

Museum of Pop Culture (MoPOP) - Music, sci-fi, and pop culture in a striking building.

Nature & Outdoor Activities

Capitol Hill - Discovery Park - Forest trails, beaches, and lighthouse views.

Kerry Park - One of the best skyline photo spots.

Waterfront walk or ferry ride - Take a ferry to Bainbridge Island for views and a charming town.

Sports & Entertainment

- Catch a Seahawks, Mariners, or Sounders game.
- Enjoy live music—Seattle's scene is legendary.
- Comedy shows, theater, and concerts are easy to find year-round.

Local Tips

- Dress in layers—weather can change quickly.
- Public transit and walking work well downtown.
- Don't let light rain stop you—it's part of the Seattle vibe.



Step into the OR like never before with our Surgical Technologist Escape Room—a fast-paced, immersive experience where precision, teamwork, and critical thinking are the keys to success. Participants must solve clinically inspired puzzles, identify emergent protocol processes, follow sterile technique, and respond to realistic surgical scenarios—all against the clock. Perfect for students, educators, and CST, this interactive challenge turns essential surgical tech skills into an unforgettable, high-energy adventure. Can your team scrub in, think fast, and save the patient?



Sunday, May 31, 2026 | 5 CEs



Joseph Cuschieri, MD, FACS

Chaos to Control: The Art of the Trauma Laparotomy

Chaos to Control: The Art of the Trauma Laparotomy explores how surgical technologists play a pivotal role in transforming high-acuity trauma operations from moments of crisis into coordinated, life-saving care. Using real-world trauma scenarios, this session walks participants through the rapid preparation of the operating room, essential instrumentation for emergent abdominal surgery, and the stepwise progression of a trauma laparotomy from incision to closure.



Chigozirim Ekeke, MD

The SHARP Method™: A Surgeon's Framework for Introducing New Techniques and Managing Intraoperative Emergencies

The SHARP Method™ is a decision-making framework developed from your thoracic oncology and complex chest wall surgery experience. The acronym—Scan, Halt, Assess, Respond, Perfect—translates surgical protocols achieving reliability into a repeatable mental model for high-stakes environments. The session addresses two critical OR scenarios:

- systematically adopting new surgical techniques and
- maintaining clarity during intraoperative emergencies.



Dana Grafft, CST, FAST

Mona Bourbonnais, CST, FAST

Beyond the Back Table: Building a Safer Surgical Workforce through Education, Certification, and Apprenticeship Models

Behind every successful surgery should be a team built on trust, skill, and rigorous training. In this session, we'll explore how formally educated surgical technologists are vital to ensuring patient safety and procedural success. We'll highlight the crucial role of education in aseptic technique, collaboration, and adapting to evolving OR demands—showcasing how investing in strategic alliances with accredited programs and structured onboarding empowers your entire surgical team to put the patient first.





Julie Sosa, MD, MA, FACS, MAMSE, FSSO

Innovation and Change in Endocrine Surgery Operating Rooms

This session will detail the changes in endocrine surgery (parathyroid, adrenal, thyroid) practice that translate into innovation and new approaches in the operating room or different practice settings. Among the topics that will be addressed are minimally invasive parathyroidectomy, parathyroid gland autofluorescence, posterior retroperitoneoscopic adrenalectomy, radiofrequency ablation and evidence-based guidelines for the management of thyroid cancer that were published in 2025. The presentation will also highlight how the national shift toward ambulatory setting endocrine surgery affects the procedure and the OR team.



Nicole Presa, CST, QHMP-CS

Beyond Technique: The Emotional Skills That Prevent OR Mistakes

The Operating Room is one of the most technically demanding environments in healthcare. Yet research consistently shows that a significant portion of surgical errors stem not from a lack of skill but from communication breakdowns, emotional overload, unresolved tension, and momentary lapses in attention. Surgical technologists work at the center of a high-pressure system, where emotional intelligence (EQ) becomes not just a “soft skill,” but a critical component of patient safety. This session explores how emotional intelligence directly impacts error rates in the OR, particularly during high-stress cases, unexpected complications, and moments of interpersonal conflict.



Tasce Bongiovanni, MD, MPP, MHS, FACS

Robotics in Acute Care Surgery; The Good, the Bad, the Future

This presentation examines how robotic technology is being used in acute care surgery today, outlining its key advantages, its practical and clinical limitations, and the innovations that may shape its future role. Attendees will gain a balanced view of the opportunities and challenges as robotics continues to evolve in emergency surgical care.



Alyssa Ellis, CST, CSFA

Where Precision Meets Passion: Precepting Technique

Learn about which precepting techniques help change the OR culture in a positive effect while recognizing how to deter and anticipate while being more efficient with less steps.

Monday, June 1, 2026 | 6 CEs



Elina Quiroga, MD, MPH, FACS

Management of Traumatic Vascular Injuries

A focused overview of how traumatic vascular injuries are managed, highlighting key principles in diagnosis and intervention. The summary also examines current treatment approaches for vascular injuries more broadly, including the recognition and management of iatrogenic vascular complications that arise during medical procedures.



Jorge Soledad, MD, MPH

Gynecologic Oncology Surgery 101: What Every Surgical Technologist Should Know

This presentation introduces the essential principles of gynecologic oncology surgery that every surgical technologist should understand. It outlines common procedures, key anatomical considerations, and the technologist's critical role in ensuring safety, efficiency, and optimal patient outcomes in the gynecologic oncology operating room.



Clinton Morrison, MD, FACS

Reengineering the Human Skull: Current Management of Infant Craniosynostosis

Genetics, embryology, diagnosis and management of infant craniosynostosis including the team-based approach to care including multidisciplinary specialists will be presented as discussions include operative interventions from minimally invasive to maximally invasive approaches including preoperative care.





Nabil Hamam, CST

Intra-Operative Emergencies: The Surgical Technologist's Critical Role

This dynamic educational session places surgical technologists at the center of high-stakes, real-time operating room emergencies. Designed to strengthen clinical confidence and sharpen critical thinking, this presentation explores the pivotal role CSTs play when routine procedures suddenly become life-threatening events.



Jose Christiano, MD, FACS

Gender-Affirming Mastectomy and Surgical Technology

The session will delve into the evolution of gender-affirming mastectomy in our institution and how it correlates with surgical technology.



Chris Blevins, MBA, BS, CST, FAST

Maximizing Workforce Potential: The Impact of Clinical Relationships in Surgical Technology

This presentation will highlight the strategic importance of cultivating strong partnerships with surgical technology programs to optimize staffing in hospital and ambulatory facilities. By treating clinical rotations as a critical recruitment tool, hospitals can assess student readiness, cultural fit, and potential for long-term success before employment. Using data analytics to track key performance indicators (KPIs), organizations can streamline orientation, reduce turnover, and maximize productivity.





Pete Napolitano, MD

Critical Events in the OR: Turning Mayhem to an Organized Team Response, Lesson Learned from Deployed Theater

We will define four key areas highly reliable organizations focus on to develop effective teams. We will define the roles/responsibilities OR team members utilize to foster efficient communication. We will list effective tools learned from deployed surgical teams that make a difference in patient outcomes and prevent errors.



Hiren Patel, DO

Adult and Pediatric Brain Tumors: No Image Guidance, No Problem!

Surgeons, CSTs, and CSFAs in resource poor environments sometimes have to get creative when the power goes out, there is no back up instrumentation available, and there is no help. Attendees will learn how to manage challenges without the traditional bells and whistles.



Matthew Sweet, MD, MS

Contemporary Aortic Surgery - Utilizing Both Open and Endovascular Techniques

This presentation will summarize the open and endovascular techniques being used to treat patients with complex aortic aneurysms. Focus will be placed on the treatment of thoracoabdominal aortic aneurysms with highlights demonstrating the various approaches being used in contemporary aortic surgery.



Melissa Coleman, MD, MEd

Advances in Thoracic Surgery

Review current techniques and innovations in Thoracic Surgery while exploring the cutting-edge technology transforming patient outcomes. From minimally invasive and robotic-assisted approaches to enhanced recovery protocols and advanced instrumentation, this session highlights the latest advancements shaping the field.



Not All Surgical Teams Are

EQUAL

When patient lives are at stake, education and certification **are non-negotiable.**

SAFE SURGERY TOGETHER POWERED BY EDUCATION, EXPERTISE, AND TEAMWORK

The workforce solution already exists - and always has. The Association of Surgical Technologists endorses accredited education and national certification to ensure the highest quality of surgical care.

	(OTJ/NON-CERTIFIED) TECHNICIAN	CERTIFIED SURGICAL TECHNOLOGIST
EDUCATION	No formal education, online only or OTJ	Minimum accredited 2-year degree
CERTIFICATION	None, limited, or not nationally recognized	Nationally recognized certification
COMPETENCY	Variable, no standard	Validated exam & ongoing CE
PATIENT SAFETY	Inconsistent, limited response, higher risk	Expert in asepsis, the sterile field & critical response
WORKFORCE STABILITY	Temporary "fix"	Long-term, career committed

KEY QUESTIONS FOR HEALTHCARE LEADERS

Educational Standards: Why lower the bar when proven standards already exist?

Workforce Sustainability: Are we solving a shortage long-term - or just applying unsustainable patches?

Ethical Responsibility: Unqualified or undertrained staff in surgical roles increase the risk of preventable errors—*endangering patients and those whose licenses oversee them*. How do we ethically or legally defend that?

Strategic Alignment: Why shift surgical duties to already short-staffed, overextended personnel or non-OR professionals?

Financial Impact: What are the real risks and costs of infections, errors, and turnover?

Protect quality. Protect safety. Protect patients.



Scan for team resources

FAST

Join excellence.
Become a Fellow.



FAST applications due April 15.
www.ast.org – Members – Fellows of AST



Research & Writing: Becoming a Published CST

Cortney Hartman, MBA, CST, FAST

BEYOND THE MAYO



You've seen it all in the OR — the unexpected complications, the innovations that change practice, the moments of teamwork that save lives, and the crazy case that shows up later in your dreams. How often do

those experiences make their way beyond the four walls of the operating room? For many certified surgical technologists (CSTs), the idea of publishing or presenting research feels intimidating, reserved only for physicians or academics.

The reality is that CSTs have valuable insights to share. Our vantage point in the operating room is unique, and our expertise in instrumentation, aseptic technique, and surgical workflow gives us a voice that deserves to be heard. By contributing to research and writing, CSTs not only advance their own careers but also elevate the profession as a whole.

Why Publish?

Publishing is more than adding a line to your curriculum vitae (CV). It's about:

- **Sharing Knowledge:** Lessons you've learned can improve patient safety, efficiency, or training for others.
- **Advancing the Profession:** Each CST publication highlights the depth of our expertise and secures our place in the broader healthcare conversation.
- **Personal Growth:** Writing develops communication skills, critical thinking, and confidence.
- **Career Opportunities:** Being published can open doors to speaking engagements, leadership roles, or academic positions.

When CSTs contribute to the literature, we collectively

strengthen recognition of surgical technology as a profession that's not just clinical but also scholarly.

First Steps: Start Small

The idea of writing a full research paper can feel overwhelming. The good news is you don't have to start there. Small, manageable projects can build your confidence and portfolio:

- **Journal Articles:** Share a unique patient scenario, complication, or innovative solution. Write about your favorite surgery and what you wish you knew as a new graduate. *The Surgical Technologist* is always looking for volunteer writers, and this is an easy way to earn continuing education credits.
- **Poster Presentations:** A visual summary of a project or concept, often presented at conferences. Posters have recently been showcased at the AST Surgical Technology Conference, AST Educators' Conference, and AccredX.
- **Book Reviews or Commentary:** Reflect on recent literature and how it applies to CST practice.

Every contribution counts, and every published piece adds to your credibility.

Poster Presentations: A Gateway to Publishing

One of the most accessible ways to begin is through poster presentations at AST national conferences or state assembly meetings. Posters allow you to share an idea visually, without the pressure of delivering a full lecture.

Steps to Create a Poster:

1. **Choose a Topic:** Consider challenges or innovations you've encountered. Examples: instrument tracking improvements, new programs you've started, or student teaching strategies.
2. **Research & Organize:** Gather supporting evidence from journals, textbooks, or your own experience.
3. **Design Clearly:** Use large fonts, bullet points, and visuals like charts or photos (HIPAA-compliant).

4. **Practice Explaining It:** Be ready to talk through your poster with attendees.

Poster presentations not only build confidence but also put your name in front of peers, leaders, and potential mentors.

Writing for Journals

When you're ready to write a manuscript, journals like *The Surgical Technologist* (AST's official publication) are excellent starting points. Here's how to approach the process:

1. **Select a Topic:** Focus on relevance — what do CSTs need to know? This could include new surgical techniques, safety initiatives, or professional development.
2. **Check Author Guidelines:** Each journal has specific requirements for length, references, and format.
3. **Draft Clearly:** Use simple, professional language. Structure your article with an introduction, body, and conclusion.
4. **Cite Sources:** Support your points with references from credible sources (PubMed, textbooks, AST materials).
5. **Seek Peer Review:** Ask a fellow CST, mentor, or educator to review before submission.

Don't let fear of rejection hold you back. Editors want diverse voices — and CST perspectives are underrepresented.

Collaboration Opportunities

Writing doesn't have to be a solo activity. Collaboration can ease the workload and broaden the impact:

- Partner with a CST, surgeon, nurse, or educator to co-author.
- Join a research committee at your hospital or through AST.
- Team up with colleagues to document a quality improvement project.

Collaborating not only divides tasks but also strengthens your network.

Skills to Develop as a Writer

To succeed in publishing, CSTs can benefit from strengthening certain skills:

1. **Critical Thinking:** Analyzing situations and identifying lessons worth sharing.
2. **Literature Review:** Learning how to search databases for supporting evidence.
3. **Academic Writing Style:** Writing professionally, avoiding jargon, and maintaining objectivity.

4. **Time Management:** Balancing writing with clinical responsibilities.

Fortunately, these skills are teachable. Consider taking short workshops in writing, research methods, or presentation skills.

Overcoming Common Barriers

Many CSTs hesitate to publish due to common concerns:

- **"I'm not an expert."** If you've solved a problem in the OR, you have expertise worth sharing.
- **"I'm not a strong writer."** Writing improves with practice. Editors often provide feedback to help you.
- **"I don't have time."** Start small with posters or short pieces, and build gradually.
- **"No one will read it."** Every publication, no matter how small, can inspire or inform someone else.

Remember: publishing is not about perfection, it's about contribution.

Success Stories

Across the country, CSTs are making their voices heard through research and writing. Some present posters at national conferences, then turn them into full-length journal articles. Others contribute technique tips that become widely shared resources. Still others partner with surgeons to publish in multidisciplinary journals.

Each contribution chips away at the myth that CSTs are "just support staff." Instead, it reinforces the truth: CSTs are knowledgeable, innovative professionals.

Closing Thoughts

The operating room is a classroom like no other — every day offers lessons worth sharing. By taking those lessons beyond the Mayo stand and into print, CSTs elevate both their own careers and the entire profession.

Your story matters. Your insights matter. Whether it's a poster presentation, a short article, or a research paper, publishing is within your reach.

The next time you think, "*Someone should write about this,*" consider that someone could be you.



**4TH
Edition**

The New Edition

The Surgical Technologist Certifying Exam Study Guide is Here!

For just \$65, get the only AST-endorsed study guide for the national surgical technologist certifying exam!

What's Inside:

- ALL NEW questions and answers!
- Access to 4 additional practice tests!
- And more!

Order online at **ast.org**.

Non-Metallic Mallet

Designed by Justin Duke, MD

Designed to be used when adjustments are needed for implants

The non-metallic material insures that no metal is transferred to the implant.



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New!

Direct Anterior Approach Instrument Set

A General Use Set of Innomed Instruments for Direct Anterior Approach Total Hip Arthroplasty

Complete Set #6500-01
Also Available Individually



Set includes (2) #6120 and (1) of the other instruments shown



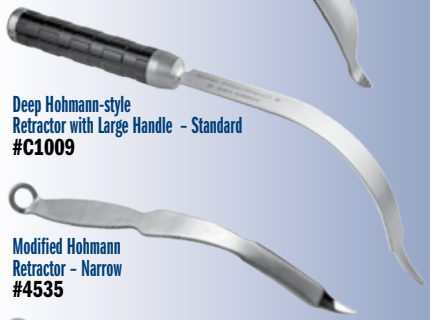
Single Prong Acetabular Retractor - Standard #6570



Mueller-type Femoral Neck Elevator - Standard #3415



Cobra Retractor - Standard with Sharp Tip #6129



Deep Hohmann-style Retractor with Large Handle - Standard #C1009



Modified Hohmann Retractor - Narrow #4535



Cobra Retractor - Narrow #6120



Bent Hohmann Retractor - Narrow with Extra Long Handle #7110-01



Bone Hook - Large #5920



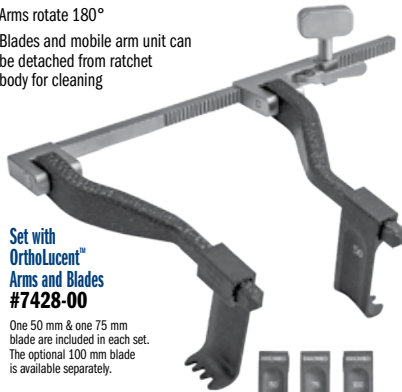
Rivero Extra Grip Femoral Head Remover with Zimmer Hall Quick-connect #3706

Stainless Steel Ratchet Frame with Arms and Blades Sets

Designed for self-retaining wound exposure, the arms and blades of the OrthoLucent™ version are radiolucent and can be kept in place while using image intensification or taking an x-ray

The OrthoLucent arms and blades are made of a strong, lightweight carbon fiber PEEK composite material, which is radiolucent, helps to prevent from marring component surfaces, and can be steam sterilized.

- ▶ Arms rotate 180°
- ▶ Blades and mobile arm unit can be detached from ratchet body for cleaning



Set with OrthoLucent™ Arms and Blades #7428-00

One 50 mm & one 75 mm blade are included in each set. The optional 100 mm blade is available separately.

50 mm Blade #7427-02

75 mm Blade #7427-03

Optional 100 mm Blade #7427-04

OrthoLucent Parts



Set with Stainless Steel Arms and Blades #7429-00

One 50 mm & one 75 mm blade are included in each set. The optional 100 mm blade is available separately.

50 mm Blade #7429-02

75 mm Blade #7429-03

Optional 100 mm Blade #7429-04

Stainless Steel Parts



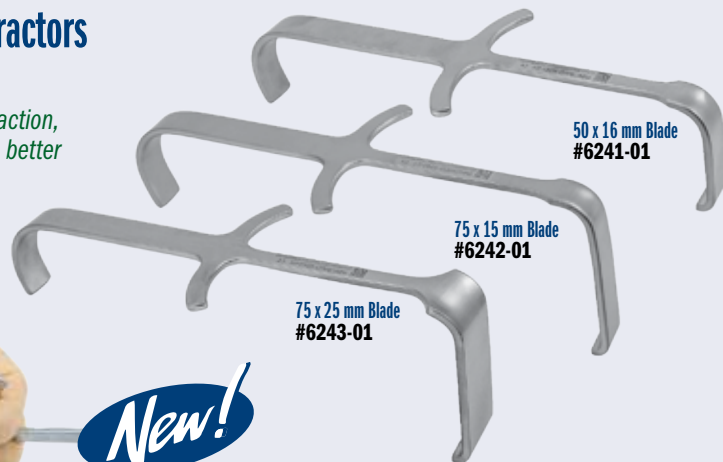
Meyerding Type Retractors with Contour Grip

Designed for soft tissue retraction, the contour grip allows for a better grip and less fatigue

Features a non-glare finish.



New!



50 x 16 mm Blade #6241-01

75 x 15 mm Blade #6242-01

75 x 25 mm Blade #6243-01

Chung T-Handle Retractors

Designed by Raymond Chung, MD



Designed with a T-handle for easier holding and to help reduce finger and thumb fatigue

New!
HANDLE ROTATED 90°

Standard Shaft



Sharp Rake Standard Shaft #1159

Extended Shaft



Sharp Rake Extended Shaft #1159-01



Blunt Rake Standard Shaft #1161



Blunt Rake Extended Shaft #1161-01



Senn Standard Shaft #1162



Senn Extended Shaft #1162-01

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Dr. Mary Edwards Walker: Surgeon, Feminist, Suffragist, Civil War Prisoner of War

AST Staff

MEDICAL MARVELS



“I don’t wear men’s clothes; I wear my own clothes.”¹

Growing Up, Teaching, and Medical School

Dr. Walker was born in Oswego, New York, raised by her progressive parents Alvah and Vesta Walker along with five sisters and a brother on a farm.² Her parents were “freethinkers”, radical abolitionists who supported gender equality and dress reform.³ The children were raised to question everything in life and to advocate for women’s equal rights. Working on the farm began Dr. Walker’s transition to a lifetime of nonconformity by wearing shirts and trousers because they were more comfortable and made common sense when completing chores.

Education was emphasized by her parents who started the first free school in Oswego to allow their daughters and son to receive an equal education.² After completing her parent’s school, Dr. Walker, along with two older sisters, attended Falley Seminary in Fulton, NY.⁴ Upon graduation, she worked as a teacher in Minetto, NY, despite always having the goal of being a physician. She continued working as a teacher, saving enough money to pay for medical school.

Dr. Walker was accepted by Syracuse Medical College, graduating with a Doctor of Medicine degree in 1855.^{1,3} She was the second woman in the U.S. to graduate from the college as a medical doctor after Elizabeth Blackwell.^{2,3} Soon after graduation she married a fellow medical student, Albert Miller. She broke the current traditions of that time during the wedding ceremony by refusing to state “obey the husband” when exchanging vows, wore a short skirt and trousers, and kept her last name.¹ The couple set up a medical practice in Rome, NY, but it failed because patients refused to be treated by a female physician. The marriage also did not last with the couple separating in 1859 and it took Dr. Walker ten years of fighting for a divorce before it was granted.⁴ No



Figure 1 Mary E. Walker, MD (11/26/1832 – 2/21/1919)
pictured with her Medal of Honor

matter the circumstances she encountered in both her personal and professional life, Dr. Walker continued to defy the traditional dress of women by wearing trousers with suspenders under a knee-length dress and eventually dispensed wearing the knee-length dress and only wore pants. She argued that corsets and dresses were uncomfortable, inhibited her mobility to properly treat patients, and the movement of the dresses was unsanitary, spreading dirt and dust.¹

Civil War Years

At the beginning of the Civil War in 1861, Dr. Walker traveled to Washington, D.C. to join the Union Army. When denied a commission as a medical officer, she worked as an unpaid volunteer surgeon at the U.S. Patent Office Hospital in Washington, D.C. (See box).¹ In 1862, she moved to Virginia to treat wounded soldiers near the front lines of Fredericksburg, VA and Chattanooga, TN, working as an unpaid field surgeon.² Throughout the war she continued to wear shirts and trousers of which the other physicians continually complained. Neverthe-

less, in September 1862, she became the first female U.S. Army surgeon having been commissioned as a “Contract Acting Assistant Surgeon (civilian)” by the Army of the Cumberland.^{1,2,4} It was at this time she also organized the Women’s Relief Association to assist women who were visiting wounded husbands or other family members in Washington, D.C. Dr. Walker raised funds from local suffrage groups to rent a house and convert into a women’s lodging facility where she also lived.⁴

U.S. Patent Office Hospital

The old U.S. Patent Office was temporarily used as a hospital for wounded Union soldiers, barracks, and morgue. The construction of the building began in 1836 and was completed in 1868.⁵ It was the fourth key federal building constructed in Washington, D.C. In 1962 the U.S. Congress handed over the building to the Smithsonian Institution and after much interior renovation, it was opened to the public in 1968.⁵

During the Civil War many of the large public structures were repurposed to contribute to the needs of the war including the U.S. Capitol building, where basement ovens were used to bake bread daily for the city’s soldiers.⁶ The U.S. Patent Office building was no exception. From March to April 1861, the West Hall was established as temporary barracks for the First Rhode Island Regiment (Figure 2). The soldiers slept in three-tier wooden bunk beds that were situated alongside delicate glass displays that contained patent models.⁶ After the Rhode Island troops left the building, temporary hospital wards were set up in the top three floor halls with hundreds of beds to accommodate the unexpected high number of wounded from the battles of Manassas, Antietam, and Fredericksburg.⁶ The hospital was formally designated Indiana Hospital, but most people referred to it as the Patent Office Hospital which stuck with it through all the years.⁶

President Lincoln and First Lady Mary Todd Lincoln often visited the soldiers, as well as the not yet well-known poet, Walt Whitman. He arrived in Washington, D.C. in 1862 searching for his brother George, who had been wounded during the Battle of Fredericksburg.⁶ After finding his brother, Whitman was moved by the sight of all the wounded soldiers at the various hospitals in Washington, D.C., including the Patent Office Hospital. He remained as a volunteer, visiting wounded soldiers bringing food and clothing and assisting with writing letters to be mailed home.⁶ Prior to the hospital closing in early 1863, Whitman wrote many press articles, and the following is an excerpt from an article about the Patent Office Hospital, published on February 23, 1863:⁶

I must not let the great Hospital at the Patent Office pass away without some mention. A few weeks ago, the vast area of the second story of that noblest of Washington buildings was crowded close with rows of sick, badly wounded and dying soldiers. ... I go sometimes at night to soothe and relieve particular cases. Two of the immense apartments are fill'd [sic] with high and ponderous glass cases... Between these cases are lateral openings perhaps eight feet wide...and in these were placed the sick; besides a great long double row of them up and down through the middle of the hall. Many of them were very bad cases, wounds, and amputations. Then there was a gallery running above the hall, in which there were beds also.



Figure 2 U.S. Patent Office During the Civil War

While serving in this capacity with the 52nd Ohio Infantry, she often crossed the battle lines entering the Confederate side to treat troop casualties and civilians. During a trip across the lines in April 1864, Dr. Walker was arrested by Confederate soldiers for allegedly spying, which she denied.¹ She was sent to the notorious Castle Thunder prison in Richmond, VA, where civilian prisoners, captured Union spies, and political prisoners were held. The prison was listed as having a capacity of 1,400 people, but over 3,000 prisoners, approximately 100 of them being women, were packed into the facility where diseases such as dysentery and smallpox ran rampant.⁷ The prison also had a reputation for extreme brutality under the command of Captain George W. Alexander.³ On April 22, 1864, the *Richmond Sentinel* newspaper reported the following regarding Dr. Walker's arrival:⁷

The female Yankee surgeon captured by our pickets a short time since, in the neighborhood of the army of Tennessee, was received in this city yesterday evening, and sent to the Castle in charge of a detective. Her appearance on the street in full male costume, with the exception of a gipsy [sic] hat,... She gave her name as Dr. Mary E. Walker, and declared that she had been captured on neutral ground. She was dressed in black pants and black or dark talma or paletot. She was consigned to the female ward of Castle Thunder, there being no accommodations at the Libby for prisoners of her sex.

In a letter Dr. Walker assured her mother that she had a clean bed and adequate food, but that was not entirely true when, upon being released from the prison during a prisoner exchange with other medical personnel on August 12, 1864, she only weighed 60 pounds.⁸

After her release, she accepted the appointment as "surgeon-in-charge" to become head of a hospital for female Confederate prisoners in Louisville, KY. This did not last long because of the constant conflicts with staff who were not amenable to working with woman physician.⁴ She requested a transfer in March 1865 and during the last days of the war served at the Louisville Women's Prison Hospital and at an orphanage in Clarksville, TN.^{2,4}

In June of that year she left the government service entirely.

Based on recommendations by Major Generals William Tecumseh Sherman and George Henry Thomas, President Andrew Johnson awarded the Medal of Honor for Meritorious Service to Dr. Walker on November 11, 1865, the only woman to ever receive the medal.^{1,3} In 1917, the medal was stripped from her, along with 910 other recipients that included Buffalo Bill, by the U.S. Congress, stating it was an award for military personnel who had engaged in combat (the Presidential Medal of Freedom was not yet in existence).³ She refused to return the medal and wore it in public the rest of her life.³ On June 10, 1977, President Jimmy Carter and the U.S. Department of Army had her Medal of Honor reinstated after family members had been petitioning the government for several years.^{3,9}

Suffragette and Women's Rights

Throughout her life she was harassed and ridiculed for how she chose to dress in men's clothing and later in life, wearing a top hat. In 1970, while visiting New Orleans, she was arrested because she was dressed as a man. She was released from custody when officers of the court recognized her. This was one instance of several in being arrested for wearing men's clothes.

Dr. Walker was active in the fight for suffrage and women's rights. In 1871, she attempted to register to vote but was refused. She argued with other women suffragettes that there was no need for the U.S. Congress to pass an amendment allowing women to vote because the U.S. Constitution already granted women the right. Her opinions put her at odds with other famous suffragettes such as Susan B. Anthony who saw her extreme views detrimental to the women's rights movement.

As the years went by, Dr. Walker struggled to make a living. After the war ended, she was given a small disability pension for the muscular atrophy she suffered while in prison.^{1,2} She repeatedly tried to establish her own medical practice that failed because male physicians continually disparaged her abilities as a physician. In 1883, she briefly worked in the mailroom of the federal government's Pension Office but was fired for insubordination.⁴ After a few more challenging years, she returned to the family farm in 1890 and remained there the rest of her life. In typical rebellious fashion, Dr. Walker opened "Adamless Eve" in Oswego, a commune designed to provide a supportive environment for women who were also considered radical activists.⁴ The commune was located near a sanitarium she ran for tuberculosis patients.

In 1917, after suffering injuries from a fall on the U.S. Capi-

tol steps from which she never fully recovered, Dr. Walker died two years later at the farm.⁴ Unfortunately, remembered more for her eccentricities than her brave contributions during the Civil War, she was buried in a black suit.⁴

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Association for the Advancement of Medical Instrumentation Announces U.S. Food and Drug Administration's Recognition of Recently Revised AAMI Standards

OF INTEREST IN THE MEDICAL ARENA

The U.S. Food and Drug Administration (FDA) maintains an online database, the Recognized Consensus Standards: Medical Devices, that provides an up-to-date list of voluntary consensus standards that the FDA recognizes. The FDA updates the database (<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfstandards/search.cfm>) to confirm the decision to recognize a standard(s) even prior to when formal recognition occurs by publication in the Federal Register.

The Association for the Advancement of Medical Instrumentation (AAMI) announced in March 2025 that the FDA recognized three of AAMI's recently revised documents that were subsequently added to the list in the Recognized Consensus Standards: Medical Devices. The documents are:

- ANSI/AAMI ST24:2024, *General purpose ethylene oxide sterilizers with automated process control and ethylene oxide sterilant sources intended for use in health care facilities*,
- ANSI/AAMI ST58:2024, *Chemical sterilization and high-level disinfection in health care facilities*, and
- AAMI TIR17:2024, *Compatibility of materials subject to sterilization*.

The ANSI/AAMI ST58 underwent a comprehensive revision that included reorganizing the document. ANSI/AAMI ST24 had not been revised for more than twenty years. The 2024 edition includes standards addressing FDA accepted ethylene oxide (EtO) sterilization systems that were not included in the previous edition.

As a member of AAMI's Protective Barriers Committee that is responsible for maintaining the standard ANSI/AAMI PB70:2022, *Liquid barrier performance and classification of protective apparel and drapes intended for use in health care facilities*, AST supports the AAMI standards and recognition by the FDA. When Certified Surgical Technologists or Certified Registered Central Service Technician have questions regarding medical

devices including packaging for sterilization and sterilization methods, AST recommends consulting the AAMI standards.

Reference

Visnovsky D. FDA recognizes newly revised AAMI sterilization, ethylene oxide guidance. *AAMI Array*. March 26, 2025. Accessed February 2, 2026. <https://array.aami.org/content/news/fda-aami-sterilization-recognized-consensus-standards>

Bariatric Surgery May Help Many Patients Attain a Healthy Life if Certain Criteria are Met

In 2022, the American Society for Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) updated the criteria for eligibility of metabolic and bariatric surgery.¹ The criteria states that a patient is eligible for bariatric surgery if they have a body mass index (BMI) greater than 35 or a BMI between 30 and 34.9 with an obesity-related comorbidity.¹ Most healthcare insurers require a potential patient to undergo a psychological evaluation, only untreated mental illness or current substance abuse issues are the main contraindications. The joint guideline also confirmed that patients with diabetes are eligible for bariatric surgery and undergoing surgery is the most effective treatment for type 2 diabetes.¹ Most patients that have been diagnosed with diabetes for less than five years will experience complete remission with those who have had diabetes for a longer period of time having a good chance of being able to better control the diabetes.

The two most common bariatric procedures are the sleeve gastrectomy and Roux-en-Y gastric bypass. Studies have shown that the majority of patients do not gain back weight after undergoing either procedure.^{2,3} A significant long-term study involving 21,837 woman and male patients who were assigned into either a surgery or non-surgery category showed that mortality after surgery

versus non-surgery decreased by 29%, 43%, and 72% for cardiovascular disease, cancer, and diabetes, respectively.² Other benefits provided for patients who undergo a procedure include improvement in obstructive sleep apnea and hypertension, and a decrease in the risk for 13 obesity-related cancers including breast, colon, gallbladder, liver, and pancreatic cancers.⁴

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2. Adams TD, Meeks H, Fraser A, et al. Long-term all-cause and cause-specific mortality for four bariatric surgery procedures. *Obesity (Silver Spring).* 2023;31(2):574-585. doi:10.1002/oby.23646
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UPCOMING PROGRAMS



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ARKANSAS STATE ASSEMBLY

Program Type: Workshop
Date: April 11, 2026
Title: Bloom Where You Scrub-ARSA Spring Workshop
Location: Arkansas State University-Newport, 7648 Victory Blvd, Newport, AR 72112
Contact: Tamara Morgan, PO Box 10301, Fort Smith, AR 72917, 479-414-6720, arkstateassembly@gmail.com
CE Credits: 6 Live approved by AST

ARIZONA STATE ASSEMBLY

Program Type: Workshop
Date: September 19, 2026
Title: Bring the Heat
Registration: <https://www.azsaofast.org/>
Location: HonorHealth NSSC, 2500 W Utopia Road, Phoenix, AZ 85027
Contact: Teresa Sochacki, azsa.assembly@gmail.com
CE Credits: 4 Live Planned

COLORADO/WYOMING STATE ASSEMBLY

Program Type: Webinar (approved only for Colorado/Wyoming State Assembly members)
Date: April 25, 2026
Title: April Showers
Contact: Julie Beard, 720-256-5863, information@coloradoast.com
CE Credits: 3 Live Planned

GEORGIA STATE ASSEMBLY

Program Type: Workshop
Date: September 12, 2026
Title: 25th Anniversary Celebration
Registration: <https://www.ast-gasa.com/fall-2026-meeting>
Location: Brenau Downtown Center, 301 Main Street SW, Gainesville, GA 30501
Contact: Erin Baggett, PO Box 109, Auburn, GA 30011, 678-226-6943, gasawebmaster@gmail.com
CE Credits: 7 Live Planned

IDAHO STATE ASSEMBLY

Program Type: Webinar (approved only for Idaho State Assembly members)
Date: April 18, 2026
Title: The Womb Where It Happens
Contact: Dani Hammer, 208-283-3693, daniroesler5@gmail.com
CE Credits: 4 Live Planned

IOWA STATE ASSEMBLY

Program Type: Workshop
Date: April 18, 2026
Title: IASA Spring Workshop
Registration: ia.ast.org
Location: WinnMed - formerly Winneshiek Medical Center, 901 Montgomery St, Decora, IA 52101
Contact: Tim Danico, 319-540-6008, timothy-danico@uiowa.edu
CE Credits: 8 Live Planned

Program Type: Annual Meeting/Elections
Date: October 10, 2026
Title: Fall 2026 Workshop and Business Meeting
Registration: ia.ast.org/
Location: Mary Greeley Hospital, 1111 Duff Ave, Ames, IA 50010
Contact: Joyce Ortega, 515-954-8332, jaortega@dmacc.edu
CE Credits: 7 Live Planned

KENTUCKY STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: April 10-11, 2026
Title: Spring Conference
Registration: <https://www.ticketleap.events>
Location: Southcentral Kentucky Community & Technical College, 1845 Loop Dr, Bowling Green, KY 42101
Contact: Stephanie Smith, 937-657-6685, stephlt18@yahoo.com
CE Credits: 10 Live Planned

MARYLAND/DELAWARE STATE ASSEMBLY

Program Type: Workshop
Date: April 4, 2026
Title: Maryland/Delaware State Assembly Spring 2026 Workshop
Location: The Johns Hopkins Hospital, 1800 Orleans St, Baltimore, MD 21287
Contact: Jerome Upchurch, 215-518-2138, mddestateassembly@gmail.com
CE Credits: 6 Live approved by AST

MASSACHUSETTS STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: April 25, 2026
Title: 25th Anniversary Celebration
Location: St John of Damascus, 300 West St, Dedham, MA 02026
Contact: Kristen Urbanek, 617-257-5384, rdsox805@yahoo.com
CE Credits: 4 Live Planned

MICHIGAN STATE ASSEMBLY

Program Type: Webinar (approved only for Michigan State Assembly members)
Date: April 18, 2026
Title: Spring Ahead with Surgery
Registration: msaast.weebly.com
Contact: Renona Gauthier, 248-891-3989, michiganassemblyofast@gmail.com
CE Credits: 3 Live Planned

MINNESOTA STATE ASSEMBLY

Program Type: Workshop
Date: April 18, 2026
Title: MNSA 2026 Spring Workshop
Registration: mnast.mn/events
Location: Methodist Hospital, 6500 Excelsior Blvd, St Louis Park, MN 55426
Contact: Jolianne Mohler, 763-458-2764, mnast2016@outlook.com
CE Credits: 7 Live Planned

NEW HAMPSHIRE/VERMONT STATE ASSEMBLY

Program Type: Workshop
Date: April 4, 2026
Title: NH/VT Spring Conference
Location: Wentworth-Douglass Hospital, 789 Central Ave, Dover, NH 03820
Contact: Kendall Addison, 603-534-0453, keo225kendall@gmail.com
CE Credits: 6 Live Planned

NEW JERSEY STATE ASSEMBLY

Program Type: Workshop
Date: April 18, 2026
Title: NJ State Assembly Spring Workshop 2026
Location: St Joseph's Wayne Medical Center, 224 Hamburg Turnpike, Meyer Conference Room, Wayne, NJ 07470
Contact: Wouter Smits, PO Box 218, Ridgefield Park, NJ 07660, 973-703-0939, njast3@icloud.com
CE Credits: 6 Live Planned

NEW YORK STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: October 2-4, 2026
Title: NYAST Fall Conference, Business Meeting, and Elections
Location: Renaissance Albany Hotel, 144 State St, Albany, NY 12207
Contact: Alisia Pooley, 315-575-0403, boardnyast@gmail.com
CE Credits: 12 Live Planned

OHIO STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: April 17-19, 2026
Title: The Best in the Midwest Workshop and Conference

Location: Renaissance Hotel, 409 Altair Pkwy, Westerville, OH 43082
Contact: Heather Buchan, ohioast@gmail.com
CE Credits: 15 Live Planned

RHODE ISLAND STATE ASSEMBLY

Program Type: Workshop
Date: April 11, 2026
Title: Evolution of Vascular Surgery
Location: New England Institute of Technology, 1 New England Tech Blvd, East Greenwich, RI 02818
Contact: Christine Madeira, 401-474-7892, rhodeislandast@gmail.com
CE Credits: 4 Live Planned

TENNESSEE STATE ASSEMBLY

Program Type: Workshop Cruise
Date: October 2-5, 2026
Title: CE's at SEA
Location: Carnival Glory, 1492 Charles M. Rowland Dr, Cape Canaveral, FL 32920
Contact: Ellen Wood, 865-283-5901, ellenwoodtnast@gmail.com
CE Credits: 6 Live Planned

Program Type: Annual Meeting/Elections
Date: March 6-7, 2027
Title: CEs in the Hub City
Location: Jackson-Madison County Hospital, 620 Skyline Dr, Jackson, TN 38301
Contact: Ellen Wood, 865-283-5901, ellenwoodtnast@gmail.com
CE Credits: 12 Live Planned

WEST VIRGINIA STATE ASSEMBLY

Program Type: Workshop
Date: April 18, 2026
Title: Getting into Robotics by WVAST Spring Workshop 2026
Registration: <https://lp.constantcontactpages.com/ev/reg/r539dbg>
Location: WVU Medicine Healthcare Center, 327 Medical Park Dr, Bridgeport, WV 26330
Contact: Angela Douglas, 304-641-8703, adouglas_48@yahoo.com
CE Credits: 6 Live Planned

WISCONSIN STATE ASSEMBLY

Program Type: Workshop
Date: April 11, 2026
Title: Elevating CST Practice Beyond the Back Table
Registration: wisconsinast.org
Location: Thedacare Regional Medical Center-Appleton, 1818 N Meade St, Appleton, WI 54911
Contact: Merette Abad, 262-751-0210, merette.abad@gmail.com
CE Credits: 6 Live Planned

STATE ASSEMBLY ANNUAL BUSINESS MEETINGS

Members interested in the election of officers & the business issues of their state assembly should ensure their attendance at the following meetings.

IOWA

Ames
October 10, 2026
Annual Meeting
2026 BOD Elections
& 2027 Delegate
Elections

NEW YORK

Albany
October 2-4, 2026
Annual Meeting
2026 BOD Elections
& 2027 Delegate
Elections

KENTUCKY

Bowling Green
April 10-11, 2026
Annual Meeting
2026 BOD Elections
& 2026 Delegate
Elections

OHIO

Westerville
April 17-19, 2026
Annual Meeting
2026 BOD Elections
& 2026 Delegate
Elections

MASSACHUSETTS

Dedham
April 25, 2026
Annual Meeting
2026 BOD Elections
& 2026 Delegate
Elections

TENNESSEE

Jackson
March 6-7, 2027
Annual Meeting
2027 BOD Elections
& 2027 Delegate
Elections

Program Approvals: Submit the State Assembly Program Date Request Form A1 no less than 120 days prior to the date(s) of the program for AST approval. The form must be received prior to the first (1st) of the current month for program publication in the next month of the AST monthly journal, *The Surgical Technologist*. The Application for State Assembly CE Program Approval A2 must be received at least thirty (30) days prior to the date(s) of the program for continuing education credit approval. An application submitted post-program will not be accepted; no program is granted approval retroactively.

Contact stateassembly@ast.org
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