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# SURGICAL TECHNOLOGIST

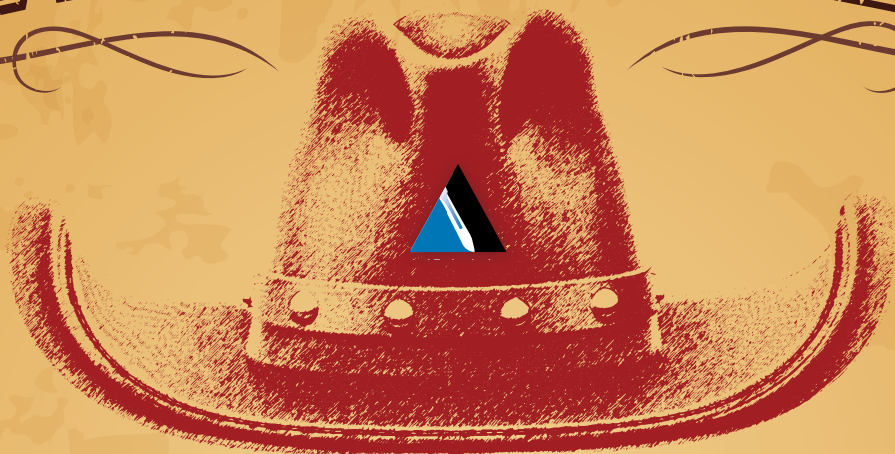
OFFICIAL JOURNAL OF THE ASSOCIATION OF SURGICAL TECHNOLOGISTS, INC.

The Case for  
Endoscopic  
Lumbar  
Laminotomy





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Technology Conference



**May 30 -  
June 1, 2024**

**Denver,  
Colorado**



# REWARD

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**JOURNAL DEADLINES** The deadline for editorial copy is 8 weeks prior to the cover date (eg, the deadline for the July issue is May 1).

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**The Case for Endoscopic Lumbar Laminotomy**

AMANDA DOWELL, CST

An endoscopic lumbar laminotomy is the removal of the bony knot. The pressure is also known as stenosis, which is Greek for “choking.” In essence, the lamina is choking the spinal cord. With standard spinal fusions, the patient can leave with a six-inch incision, if not larger, a long recovery time and higher risks of success. With endoscopic laminotomy procedures, there is a much smaller incision, less risks and minimal recovery time.

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# Organizational Highlights and Future Initiatives

JOSEPH CHARLEMAN, CST, CSEA, FAST, DBA

## PRESIDENT'S MESSAGE



The AST Educators Conference and Leadership Summit was held from February 15-17, 2024, in Orlando, and was a great success, much thanks to the AST Educational and Professional Standards Committee and the AST staff. Program directors and educators are the leadership for our students who are the future of surgical technology. The board and staff did an excellent job of engaging with membership and listening to their concerns, praises, and ideas.

Since the AST Educators Conference in February, the organization and the AST Board have been busy promoting and supporting surgical technologists and state assemblies. Here are some of the highlights:

The AST standing committees have also been engaged in supporting our membership and the state assemblies. Following the recommendations of past president Kevin Craycraft, the State Assembly Leadership Committee and the Bylaws, Resolutions and Parliamentary Committees collaboration has been successful in supporting the states. From January to March 11, 2024, SALC & Bylaws have supported 19 annual business meetings, 16 onsite workshops, and 2 webinars. At the request of the state assembly presidents, on May 4, I will be conducting a virtual town hall meeting with all the AST state assembly presidents to answer questions and concerns.

The Military Committee has been actively reaching out to military members and active-duty military and attending military bases to connect with and support our military members.

The Medical Mission Committee has successfully accomplished their medical mission to Dominican Republic from October 8-14, 2023. Since the committee's creation, AST has participated in 5 medical missions, including 32 surgical technologists and AST members. These missions have impacted over 800 patients and involved 350 surgical interventions. AST was honored for the organizations' and members' humanitarian efforts at Healing the Children NJ Annual Gala on October 29, 2023. The Medical Mission Committee

will be supporting an additional HTCNJ medical mission to Dominican Republic focused on ENT as well as partnering with Hearts in Motion to sponsor a medical mission trip to Guatemala focused on pediatrics, both in October 2024.

Also at AST Educators Conference, myself, AST's Vice President Peggy Varnado, and CEO Bill Teutsch met with the CEOs, presidents, and vice presidents of the National Board of Surgical Technology and Surgical Assisting (NBSTSA) and the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). All organizations reviewed and discussed hot-topic items concerning the profession, membership, and education of surgical technologists. In the future, more frequent collaboration meetings will be scheduled with the focus of the advocacy of our profession.

Our upcoming 2024 AST Surgical Technology Conference will be at the Sheraton Denver Downtown, May 30-June 1, 2024. Many thanks to the conference committee, military committee, and AST staff for all their hard work. One of the main focuses of the conference will be honoring our CEO Bill Teutsch for his many years of service and dedication to the organization. The organization and the profession would not be in the position it is without his leadership and guidance.

AST membership continues to grow thanks to the foundation set by our organization and the surgical technology program educators. The concerns of our membership and state assemblies must be constantly monitored and addressed. Communication and accessibility are key, and that is why I encourage board members to engage with our membership and encourage our fellow surgical technologists to serve and be part of their organization.

I will continue and strive to ensure transparency and communication so please share your ideas and concerns – through professional discourse we can improve the organization for our surgical technologists.

# Keeping It Sterile Since 1969



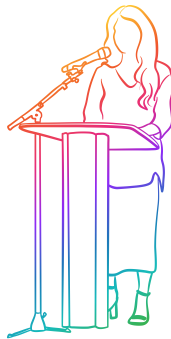
**The Association of Surgical Technologists has been fighting  
for surgical technologists for more than 50 years.**

# AST News

## AT A GLANCE

### CALL FOR SPEAKERS

AST is looking for speakers for our 2025 annual Surgical Technology Conference and Educators Conference. Know someone who would be a good fit for either event? Apply or encourage them to complete our speaker form on our website – [ast.org](http://ast.org) – Conference.



### 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.*

Call our Member Services team at 1-800-637-7433 for more information.

### CONTINUING EDUCATION CREDITS

#### Make it easy with CE packages!

In a time crunch or just want to get your CEs done all at once? Check out our latest CE credit packages.

- Package 18 - 16 CEs - \$26 – AST Guideline for Laundering Scrub Attire, AST Guideline for Wearing Jewelry, AST Guideline for the Use of Eye Protection During Invasive Surgical Procedures, AST Guideline for the Decontamination of Surgical Instruments, AST Guideline for Packaging Material and Preparing Items for Sterilization, AST Guideline for Normothermia in the Perioperative Patient, AST Guideline for Environmental Practices in the Operating Room, AST Guideline for Use of Mobile Information Technology in the Operating Room
- Package 19 - 9.5 CEs - \$13 – Video Package - Craniofacial Surgery; Cutting Edge of Laser Safety; MRI-guided Neurosurgery; Reconstructive Neurosurgery; Surgery for Prostate Cancer; Teamwork, Tourniquets, & Trauma; Updates in Transplant Surgery
- Package 20 - Preceptor Course - 5.5 CEs - \$10
- Package 21 - 10 CEs - \$10 – Surgical Management of Benign Tumors of the Heart; Breast Implants – Current Insights on a Common Medical Device; Ingestion of Sharp Foreign Objects: A Case Series; Day-case versus Inpatient Stapes Surgery for Otosclerosis; Surgery and Chronic Stress – Ultimately Leading to Major Health Risks; Laparoscopic Lavage and Drainage in the Management of Complicated Diverticulitis; Allograft Nephrectomy for Malignancy: Report of Seven Cases

- Package 22 - 17.5 CEs - \$28 – New Interventional Technologies Expand Treatment Options for Cardiovascular Disease; Perfusion: A Historical Perspective; Thoracic Trauma; Off-pump Coronary Artery Bypass Grafting ; Open Thoracotomy Approach to Bronchoesophageal Fistula Repair; Aortic Valve Replacement; Carotid Endarterectomy; Transcatheter Aortic Valve Replacement (TAVR); Abdominal Aortic Aneurysm Resection; Bilateral Femorol-Popliteal Artery Bypass Grafting – From Supine to Prone; Abdominal Aortic Aneurysm Repair; Cervical Mediastinal For Exploration Staging of Lung Cancer; Pulmonary Embolism: A Survivor’s Story; Pectus Carinatum: Pigeon Chest; Robotic Versus Thoracoscopic Lung Resection
- Package 23 - 15 CEs - \$24 – Alternatives to Blood Transfusions; A Crash Course in Microbiology: A Review of Pathogens and Disease; Taking Control of Infection Control; The Modern-Day C-section; A Facial Rejuvenation Short-scar Face-lift/Simple MACS; Adenocarcinoma of the Appendix; Single-site Laparoscopic Total Hysterectomy; Sterile Processing: The Other Side of Surgical Services; Mammoplasty to Treat Macromastia; Damage Control Surgery; Organ Procurement
- Package 24 - 9.5 CEs - \$14 – Orthopedic Surgery During the American Civil War; The Surgical Legacy of World War II, Part 1: Pearl Harbor, Preparation and Portability; The Surgical Legacy of World War II, Part 2: The Age of Antibiotics; The Surgical Legacy of World War II Part 3: Blood and Valor; The Surgical Need – 50 Years of Surgical Technology
- Package 25 – 5.5 CEs - \$10 – The Rise of Microbiology - The Rise of MRSA; The Spread of the Superbug; Dealing with Infectious Disease – Ebola
- Provide a description of your membership history— join date and any AST involvement.
- Upload official documentation of the mission program you have described.
- Upload official receipts documenting the costs incurred by the individual and all costs must be shown in dollars. All assistance is determined after the medical mission trip has occurred and the appropriate documentation has been provided. Upload supporting documents below.
- Upload two letters of recommendation, along with an article describing your experience for The Surgical Technologist journal and related photos.
- Write an article describing your experience for The Surgical Technologist and provide related photos before you will be reimbursed.

## WRITE FOR US Calling All Writers!

We are always looking for new CE authors and surgical procedures that detail the latest advancements in the surgical arena. We'll also help you every step of the way, AND you'll earn CE credits by writing a CE article that gets published! Here are some guidelines to kick start your way on becoming an author:

- An article submitted for CE must have a unique thesis or angle and be relevant to the surgical technology profession.
- The article must have a clear message and be accurate, thorough, and concise.
- It must be in a format that maintains the Journal’s integrity of style.
- It must be an original topic (one that hasn’t been published in the Journal recently).

Ready to get started? Email us at [communications@ast.org](mailto:communications@ast.org).

## MILESTONES Happy Anniversary!

Congratulations to the following state assembly as it celebrates 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.

- Tennessee - 24 years

## APPLY FOR A MEDICAL MISSION SCHOLARSHIP

Did you serve on a medical mission during the first couple months of this year, prior to the global pandemic? If so, you may be eligible to apply for a medical mission scholarship.

### Eligibility

To be eligible for a mission scholarship you must:

- Be an active AST member with currency.
- Complete and submit the Mission Medical Application and the Medical Mission Verification Form by December 31 of the year of your mission.



# 2024 Proposed Bylaws Amendment

## **Amendment #1:**

This proposed amendment to the National Bylaws was approved by the Board of Directors in October 2022 for presentation to the House Delegates in May 2023.

Current AST National Bylaws:

### **ARTICLE IX**

#### **Board of Directors**

##### *Section 2. Eligibility of Directors*

B. A candidate for the Board of Directors shall have served at least one complete term on a national committee, whether standing or special (ad hoc), the NBSTSA, the ARC/STSA, or a complete two-year term as a director in a state assembly within the last 8 years.

Proposed Amendment to AST National Bylaws:

### **ARTICLE IX**

#### **Board of Directors**

##### *Section 2. Eligibility of Directors*

B. A candidate for the Board of Directors shall have served at least one complete term on a national committee, whether standing or special (ad hoc), the NBSTSA, the ARC/STSA, or a complete two-year term as director an executive officer in a state assembly within the last 8 years.

## **Amendment #2:**

This proposed amendment to the National Bylaws was approved by the Board of Directors in April 2022 for presentation to the House Delegates in May 2023.

Current AST National Bylaws:

### **Article VIII**

#### *Section 4. Delegate representation*

##### A. State Assemblies

3. The names shall be submitted to national headquarters at least sixty days prior to the national conference. Any forms received after that deadline must be presented during designated hours at the national conference.

Proposed Amendment to AST National Bylaws:

### **Article VIII**

#### *Section 4. Delegate representation*

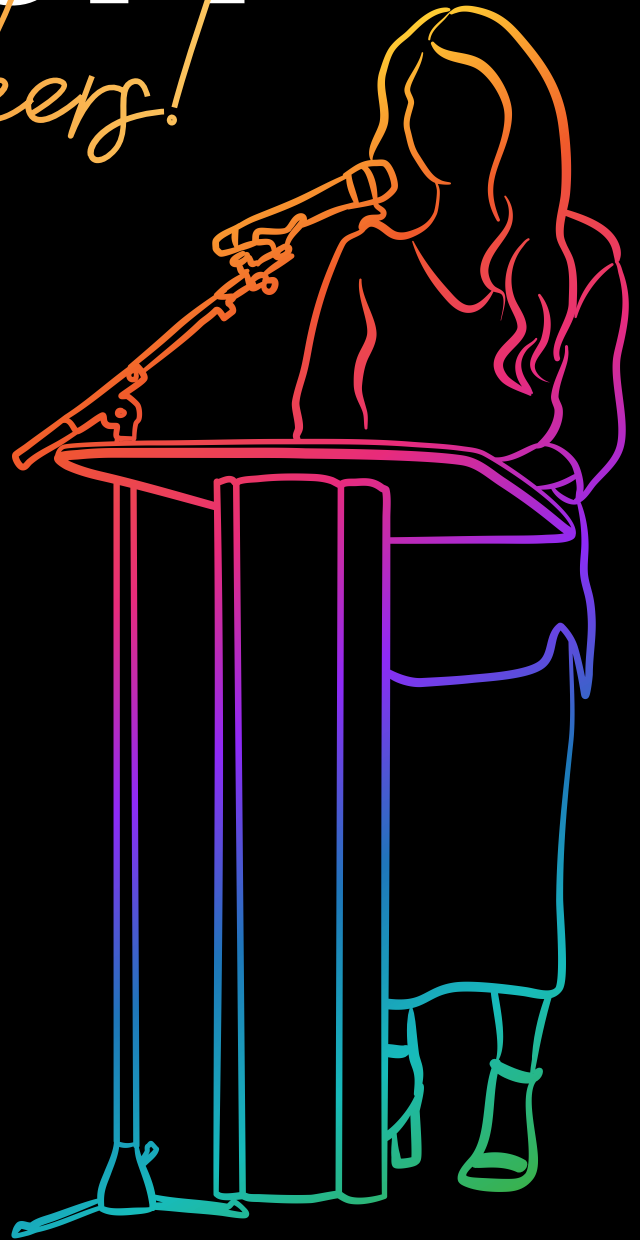
##### A. State Assemblies

3. The names shall be submitted to national headquarters at least sixty day prior to the national conference within five (5) business days of the state assembly annual business meeting. Any forms received after that deadline must be presented during designated hours at the national conference.



# SPEAK UP!

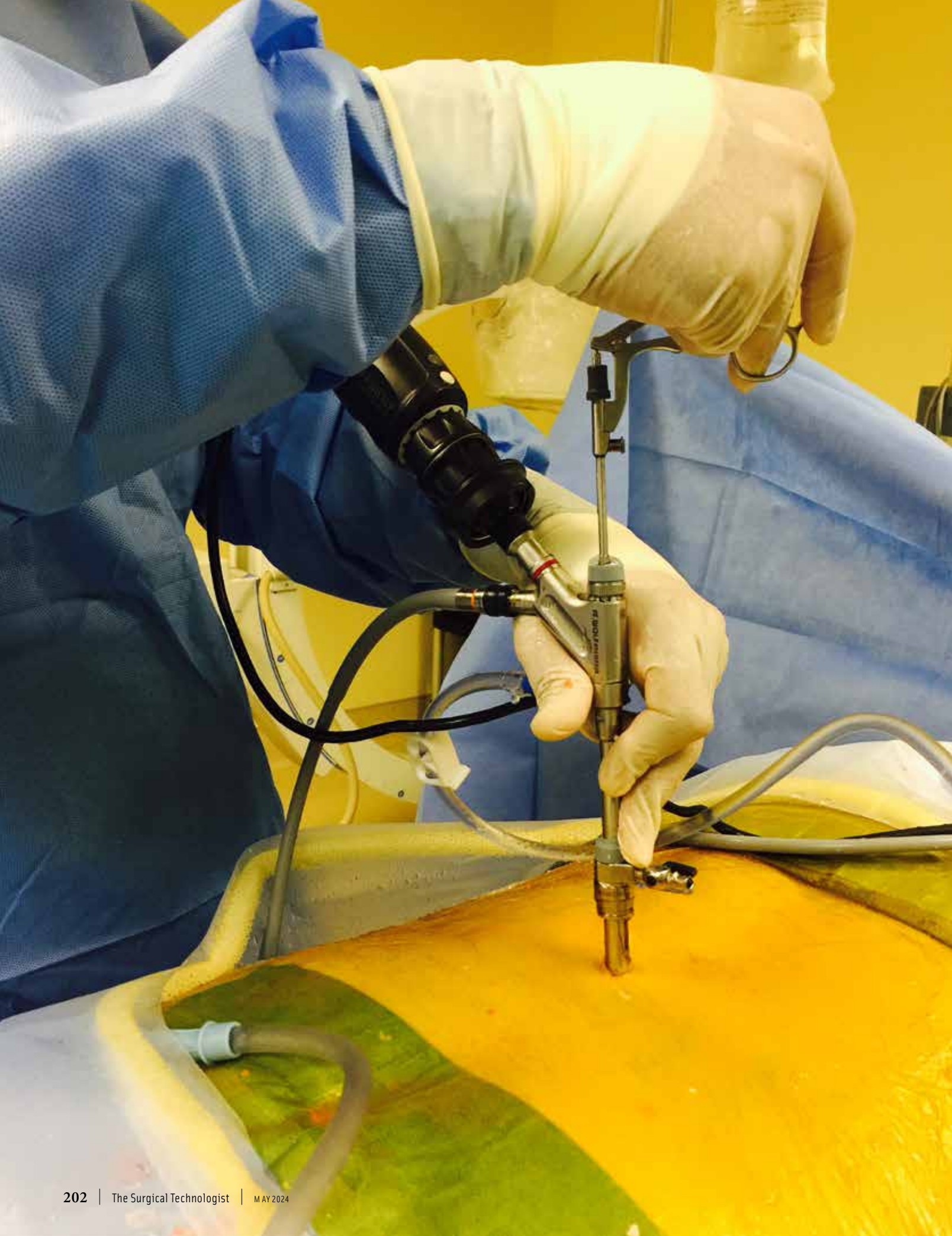
*Call for speakers!*



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](http://ast.org) - Educators - Events to get started.**



# The Case for Endoscopic Lumbar Laminotomy

AMANDA DOWELL, CST

An endoscopic lumbar laminotomy is the removal of the bony knot. The pressure is also known as stenosis, which is Greek for “choking.” In essence, the lamina is choking the spinal cord. With pressure being placed on the cord, the patient can feel pain, numbness, and cramping in the legs. The level for surgery is determined not only by an MRI, but also by where the pain radiates to in the legs. The most common levels of stenosis are L3-S1.

**S**pinal stenosis is most common in men and women over 50 years old. Younger people who were born with a narrow spinal canal or who injure their spines may also get spinal stenosis. Reasons for stenosis include aging, osteoarthritis, tumors, and calcium deposits on the ligaments that run along the spine.

## ENDOSCOPIC LAMINOTOMY VERSES SPINAL FUSION

With standard spinal fusions, the patient can leave with a six-inch incision, if not larger. The back is cut open, and muscle, ligaments, and tissue are removed. The laminotomy is performed, and rods and screws are inserted for stability. Spinal fusions also have high risks such as blood clots and infection not only of the large surgical area but also within the bladder or kidney. Blood loss, heart attack or strokes during surgery is also common. After the surgery, the patient generally

## LEARNING OBJECTIVES

- ▲ Compare endoscopic lumbar laminotomy versus spinal fusion
- ▲ Detail the benefits of an endoscopic lumbar laminotomy
- ▲ Recall the anatomy of the spine
- ▲ Evaluate the steps the CST provides during an ELL
- ▲ Review the set up and equipment needed for this procedure

remains hospitalized for two to three days. The improvement in back pain and function continues up to two years after spine fusion surgery.

Endoscopic laminotomy procedures use endoscopes. Endoscopes used for spine surgery are typically the size of a pencil (7-10mm). The endoscope is inserted into the body through a small incision that is just big enough for the endoscope to fit through. Since the tube is directed straight to the affected area, muscles, ligaments, and tissue are virtually undisturbed. The laminotomy is done immediately upon entering the spine. The risk of infection is extremely low, as antibiotics are run continuously with irrigation during the entire procedure. With the irrigation, bleeding is all but nonexistent. The patient generally is up and walking within a couple of hours after surgery and goes home the same day. The improvement in back pain and function are immediate, and most preoperative symptoms are alleviated upon leaving the surgery center.

## ANATOMY OF THE SPINE

Vertebrae are the 33 individual bones that interlock with each other to form the spinal column. The vertebrae are divided into regions: cervical (7), thoracic (12), lumbar (5), sacrum (5 fused into 1), and coccyx (4 fused into 1). Only the top 24 bones are moveable; the vertebrae of the sacrum and coccyx are fused. The vertebrae in each region have different features that help them perform their own functions.

The main function of the cervical spine is to support the weight of the head (around 10 pounds). The seven cervical vertebrae are numbered C1 to C7. The neck has the highest range of motion because of two vertebrae that connect to the skull. The first vertebra is a ring-shaped vertebra called the atlas. The atlas connects directly to the skull. This joint allows the head to shake up and down or make the “yes” motion. The second vertebra is the peg-shaped vertebra called the axis. The axis has a knot called the odontoid that the atlas pivots around. This joint allows for the side-to-side or “no” motion of the head.

The thoracic, or mid-back’s, function is to hold the rib cage and protect the heart and lungs. The 12 thoracic vertebrae are numbered T1 to T12. The range of motion in the thoracic spine is limited.

The lower back is called the lumbar. The main function of the lumbar spine is to bear the weight of the body. The five lumbar vertebrae are numbered L1 to L5. These vertebrae are much larger to absorb the stress of lifting and

The spinal cord only reaches the upper part of the lower back. Below that the tiny, contained nerve rootlets descend loosely spread out – like a horse’s tail – and are protectively enclosed in a long case. However, sometimes the lamina puts pressure on the spinal sac or nerve roots.

carrying heavy objects.

The sacrum connects the spine to the hip bones. There are five sacral vertebrae, which are fused together. Along with the iliac bones, they form a ring called the pelvic girdle.

The four fused bones of the coccyx or tailbone provide a place of attachment for ligaments and muscles of the pelvic floor.

Ligaments and muscles connect the bones and keep them aligned. The spinal column provides the main support for the body, allowing the body to stand upright, bend, and twist. Protected deep inside the bones, the spinal cord connects the body to the brain, allowing movement of arms and legs. The spine is a combination of bones, flexible ligaments and tendons, large muscles and highly sensitive nerves. The length of the spinal column has a large central canal through which the spinal cord descends, and holes to each side of the canal to allow the spinal nerves to escape at each level. The spinal cord only reaches the upper part of the lower back. Below that the tiny, contained nerve rootlets descend loosely spread out – like a horse’s tail – and are protectively enclosed in a long case. However, sometimes the lamina (the knot on the backside of the vertebral body) puts pressure on the spinal sac or nerve roots.

## PATIENT POSITIONING

The patient is intubated in the supine position on the stretcher used to bring them into the OR. Once the patient is asleep, they are flipped over into the prone position on a radiolucent table. A Kambin Radiolucent Spinal Frame is used to elevate the patient’s midsection, so the back is flat. This frame also helps to stabilize the chest and abdomen

## EQUIPMENT

Kambin frame

Headrest

C-arm fluoroscopy and monitor

Cautery machine

0.9% sodium chloride irrigation tower

Suction

Drill machine

Monitor for endoscope

## SUPPLIES

Ioban drape

Irrigation tubing

Suction tubing

Chest/breast drape

Mayo cover

Yankauer

2 5cc syringes with 25 x 1" needle filled with 0.25% bupivacaine with epinephrine

3-0 nylon suture

#11 Blade

Raytech sponges

C-arm cover

Medicine basin

22 x 3.5" needle

## INSTRUMENTS

Pituitary rongeur

2mm, 3mm, and 4mm Kerrison rongeurs

45-degree up-biting grasper

Basket punch

Curette

Chisel

Penfield dissector

9.4-mm dilator

Endoscope

10.5-mm tubular retractor



In endoscopic spinal surgery there are few complications. The most common is nerve or spinal cord injury. However, this only occurs in 1 out of 5,000 patients.

while lying in the prone position. The head is secured by a prone headrest.

### PREPPING AND DRAPING

Once the patient is properly positioned on the table, the circulator preps with ChloroPrep then waits the allotted three-minute dry time. The prep area is from around T4 to the tailbone and from table to table. The Certified Surgical Technologist will drape four sterile towels in a box around the intended incision. Next, the CST will place a chest/breast drape over the patient. The final item to drape is an Ioban drape. The Ioban used has a clear pocket all of the way around it, which catches the fluid used to irrigate.

### SURGICAL PROCEDURE

The CST will place a C-arm drape over the arm and allow the circulator to move the machine into position. Once the surgeon has found the general location, he will use a 22 gauge x 3.5" needle to determine the exact location of operation. The stylet will be removed and then 0.25% bupivacaine with epinephrine is injected into the area. An #11 blade is used to make a .3 mm-.4 mm incision and Iris scissors are used to dissect down. A 9.4mm dilator is inserted and used as a guide for the tubular retractor with fluid adaptor. Once the tube is placed, the CST will give the endoscope to the surgeon. Attached will be the light cord, irrigation tubing, and endoscopic camera. The CST will hold a 4x4" gauze so the scope can be white balanced. Once white balancing has been tested, the 4x4" will be moistened so the straight bipolar can be tested. At this point, the surgeon will place the scope into the 10.5 mm tubular retractor.

The pituitary rongeur is used to remove ligamentum flavum, which is an elastic tissue that runs from the axis to the sacrum. The ligamentum flavum connects the lamina and fuses with the facet joint. Ligamentum flavum translates into yellow ligament. This is because it looks yellow due to the collagen found in the flavum. Over one's life span, ligament loses elastin causing the flavum to push into the spinal canal. The CST will clean the flavum and lamina off the rongeur each time the surgeon removes it from the tubular retractor.

Once the ligamentum flavum has been removed and the bone is reached, a drill is used to dig past the lamina. Also, a 4 mm 90° Kerrison rongeur, 45° up-biting grasper, basket punch, and chisel with mallet can be used to remove lamina. When the surgeon thinks he has removed enough flavum

and lamina, a blunt dilator, aka, Penfield dissector, is used in conjunction with fluoroscopy to see how much progress has been made. If all looks well, the surgeon will check to make sure the nerve rootlets are intact and that the spinal cord has palpations. If not, more drilling and removal of the lamina is performed. The endoscope is removed along with the tubular retractor. The CST makes a small tear in the Ioban around the incision and dries the area with clean 4x4" gauze. At this time the CST passes the 3-0 nylon suture. Since the incision is so small, only two to three sutures are placed. The drapes are removed, and the CST will cover the incision with sterile 4x4" gauze and soft cloth surgical tape.

### POST-OPERATIVE

The patient will be transferred to recovery via a stretcher after extubation. The patient will be monitored until they are able to become aware of their surroundings. Their feet and legs will be checked for movement, and then the patient will be moved to the edge of the bed with assistance. The patient will be required to take several steps to reach a wheelchair. Upon reaching the wheelchair the patient will be taken to the restroom to void. After this is achieved, and the patient is oriented enough to leave, they will be discharged. The process from extubation to discharge usually lasts between two and three hours.

### FOLLOW-UP CARE

Two weeks after the procedure, the patient will return to the office for a follow up visit. The stitches will be removed, and the incision is checked. Reflex and vital signs are also checked.

### COMPLICATIONS

In endoscopic spinal surgery there are few complications. The most common is nerve or spinal cord injury. However, this only occurs in 1 out of 5,000 patients. Injuries to nearby anatomical structures are rare. Since irrigation is run during the entire case and the surgical field is better visualized, abnormal bleeding is all but nonexistent. Dural tears and spinal fluid leaks occur in about 1% of endoscopic spinal surgeries. This can lead to a headache lasting two to three days but will heal itself.

### RECOVERY

As with any surgery, recovery is one of the biggest worries for the patient. In traditional open spinal surgery, it

takes approximately three to six months before a patient can begin to assess the impact of surgery. In endoscopic spinal surgery, the recovery time is two to three weeks.

*Photos courtesy of Dr Marion R McMillan of Synergy Spine Center*

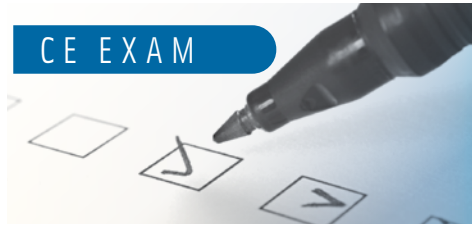


#### ABOUT THE AUTHOR

Amanda Dowell, CST, graduated cum laude from her surgical technologist program in February 2014 and has been employed with Synergy Spine Center in Seneca, South Carolina since April 2014. She has advanced to Lead CST and OR Supervisor. Amanda lives on beautiful Lake Keowee in South Carolina with her husband. For more information and videos about spinal surgery, please visit [SynergySpineCenter.com](http://SynergySpineCenter.com)

#### REFERENCES

1. Ma, C. B. (2013, 04 16). Spinal Fusion. Retrieved 11 17, 2023, from Medline Plus: <http://www.nlm.nih.gov/medlineplus/ency/article/002968.htm>
2. McMillan, D. M. (n.d.). Spinal Stenosis. (D. S. Miller, Interviewer)
3. MD, M. M. (2011, 09 29). Spinal Stenosis Interview. Retrieved 11 22, 2023, from Synergy Spine Center: [https://www.youtube.com/v/BZFTvdNknPo%26fs=0%26rel=0%26autoplay=0%26loop=0%26egm=0%26border=0%26color1=0x2b405b%26color2=0x6b8ab6%26hd=1%26showsearch=0%26showinfo=0%26iv\\_load\\_policy=3%26cc\\_load\\_policy=0%26disablekb=0](https://www.youtube.com/v/BZFTvdNknPo%26fs=0%26rel=0%26autoplay=0%26loop=0%26egm=0%26border=0%26color1=0x2b405b%26color2=0x6b8ab6%26hd=1%26showsearch=0%26showinfo=0%26iv_load_policy=3%26cc_load_policy=0%26disablekb=0)
4. Richard Fessler, K. K. (2012, 01 23). Lumbar Spinal Stenosis Treated Using Minimally Invasive Microsurgical Techniques. Retrieved 11 15, 2023, from Spine Universe: <http://www.spineuniverse.com/conditions/spinal-stenosis/lumbar-spinal-stenosis-treated-using-minimally>
5. Sherman, J. (2000, 10 22). Postoperative Care for Spinal Fusion Surgery. Retrieved 11 17, 2023, from spine-health: <http://www.spine-health.com/treatment/spinal-fusion/postoperative-care-spinal-fusion-surgery>
6. What Is Spinal Stenosis? (2009, 06). Retrieved 11 16, 2023, from National Institute of Arthritis and Musculoskeletal and Skin Diseases : [http://www.niams.nih.gov/Health\\_Info/Spinal\\_Stenosis/spinal\\_stenosis\\_ff.asp#b](http://www.niams.nih.gov/Health_Info/Spinal_Stenosis/spinal_stenosis_ff.asp#b)



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For questions please contact Member Services - [memserv@ast.org](mailto:memserv@ast.org) or 800-637-7433, option 3.  
Business hours: Mon-Fri, 8:00a.m. - 4:30 p.m., MT

# The Case for Endoscopic Lumbar Laminotomy

#487 MAY 2024 1 CE CREDIT \$6

1. Endoscopes used for spine surgery are typically the size of what?
  - a. Spoon
  - b. Pencil
  - c. Ruler
  - d. Brush
2. How many regions are the vertebrae divided into?
  - a. 3
  - b. 4
  - c. 5
  - d. 6
3. The \_\_\_\_\_ vertebrae are numbered C1 to C7:
  - a. Cervical
  - b. Lumbar
  - c. Sacrum
  - d. Coccyx
4. The sacrum connects the spine to the \_\_\_\_?
  - a. Ribs
  - b. Hip bones
  - c. Tailbone
  - d. Neck
5. Which position is the patient once they are under anesthesia?
  - a. Supine
  - b. Trendelenburg
  - c. Lateral
  - d. Prone
6. Which instrument is used to remove ligamentum flavum?
  - a. Kerrison rongeur
  - b. Up-biting grasper
  - c. Pituitary rongeur
  - d. Chisel
7. The most common complication is nerve or spinal cord injury, which occurs in 1 out of \_\_\_ patients?
  - a. 5,000
  - b. 15,000
  - c. 30,000
  - d. 50,000
8. How many individual bones make up the vertebrae?
  - a. 19
  - b. 26
  - c. 33
  - d. 42
9. With standard spinal fusions, incisions can be \_\_\_ or larger.
  - a. 3 in
  - b. 4 in
  - c. 5 in
  - d. 6 in
10. Along with the iliac bones, which vertebrae forms a ring called the pelvic girdle?
  - a. Lumbar
  - b. Coccyx
  - c. Sacral
  - d. Cervical

## THE CASE FOR ENDOSCOPIC LUMBAR LAMINOTOMY #487 MAY 2024 1 CE CREDIT \$6

AST Member No. \_\_\_\_\_

My address has changed. The address below is the new address.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Check enclosed  Check Number \_\_\_\_\_

\_\_\_\_\_

	a	b	c	d
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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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.





# WRITE FOR US!

We are always looking for CE authors and surgical procedures that haven't been written about or the latest advancements on a commonplace surgery. You don't have to be a writer to contribute to the Journal. We'll help you every step of the way, AND you'll earn CE credits by writing a CE article that gets published! Here are some guidelines to kick start your way on becoming an author:

- 1 An article submitted for a CE must have a unique thesis or angle and be relevant to the surgical technology profession.
- 2 The article must have a clear message and be accurate, thorough and concise.
- 3 It must be in a format that maintains the Journal's integrity of style.
- 4 It must be an original topic (one that hasn't been published in the Journal recently.)

## How to Get Started

The process for writing a CE can be painless. We are here to assist you every step of the way and make sure that you are proud of your article.

- Write to [communications@ast.org](mailto:communications@ast.org), and state your interest in writing, and what topic you would like to author.
- Submit an outline of your proposed topic for review. Once the outline is returned to you for approval, begin writing your manuscript. Getting your outline approved will save you time and effort of writing a manuscript that may be rejected.
- Submit your manuscript, as well as any art to illustrate your authored topic. You will be notified upon receipt of receiving the manuscript and as well as any changes, additions or concerns.

## Things to Remember:

- **Length:** Continuing education articles should run a minimum of 2,000 words and a maximum of 5,000 words.
- **References:** Every article concludes with a list of ALL references cited in the text. All articles that include facts, history, anatomy or other specific or scientific information must cite sources.
- **Copyright:** When in doubt about copyright, ask the AST editor for clarification.
- **Author's Responsibility:** All articles submitted for publication should be free from plagiarism, should properly document sources and should have attained written documentation of copyright release when necessary. AST may refuse to publish material that they believe is unauthorized use of copyrighted material or a manuscript without complete documentation.

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# ON A MISSION



## Life-Changing Moments: CST Recalls Her Journey to Help Others ‘Smile’ in Guatemala

**KAREN L CHAMBERS, CST, FAST, MHA/Ed**

Let me begin with a little bit about me before surgical technology. Although I was born in the USA, at a very young age (my mom having been recently divorced), she took my older brother and I to Italy on a huge boat (too long ago to remember). I was raised in Napoli, Italy, until the age of 15, then returned to the states and was thrown into a very unfamiliar world, unfamiliar language, and a very different culture. Not coming from any kind of wealth, I could not pursue a college education. So, I worked at various jobs, until finally settling within the emergency healthcare system in NYC, and thereafter, becoming a Certified Surgical Technologist.

My journey and association with the Smile Train began back in 2010, the year I discovered on the internet this amazing organization called the Smile Train. It was a moment that will stand still in time that the “Smile Train” organization existed! Being a CST and former paramedic, the yearning for knowledge of what happens after the emergency, after we dropped off in the ER, and what happens after the surgical procedure takes place, was always at the forefront of my mind.

Discovering the Smile Train, placed a smile on my face (pun intended). This organization’s motto is “How We Change the World One Smile at a Time.” Their founding DEIBA (diversity, equity, inclusion, belonging, and accessibility) has been at the heart of Smile Train’s model of





supporting surgery and other forms of essential care.

Smile Train is the world's largest organization focused on cleft lip and palate surgery. Over the last 20-plus years, they have supported safe and quality cleft care for more than 1.5 million children and will continue to do so until every child in need with a cleft has access to the care they deserve.

Smile Train partners with local organizations such as Tess Unlimited, (more about Tess later), in country medical professionals such as Dr. Chinchilla, an orthodontist in Guatemala, (more about Dr. Chinchilla later), to sponsor cleft treatments for patients in their own communities. Their model makes them more effective than other mission-trip based organizations, as their patients can receive care 365 days a year, so every person can get the help they need.

Smile Train's local staff and in-country volunteers raise awareness about clefts and the services that Smile Train sponsors through media campaigns, visits to neighboring communities, health worker outreach, and word of mouth. Families learn that clefts can be treated at no cost at a local partner hospital.

Smile Train empowers local medical professionals around the world to provide patients with life-changing cleft care that they would not otherwise have been able to access.

In addition to surgery, their local medical partners provide essential care, such as speech therapy, emotional support, nutrition services, and orthodontic care, to ensure that children can lead full and productive lives.

In 2010, Eastwick College, with President Mr. Thomas Eastwick, the amazing surgical technology faculty, and students, decided to celebrate each year's National Surgical Technologists Week in September, by hosting a fundraising event to support the Smile Train. To date we have raised funds for 232 Smiles!

Not only did these annual events support the Smile Train, but it also provided much needed awareness to the profession of a Certified Surgical Technologist in each of our student communities. Our student body is one consisting of many cultures, many neighborhoods, many towns all within New York City, New Jersey, Connecticut, and Pennsylvania; therefore, a win-win scenario.

Having participated in a Journey of Smiles in 2019, it was on my bucket list to give my time and take part in at least one

more journey. In late 2022 the opportunity arose to participate in a journey of Smiles to Guatemala in January 2023. Sadly, due to some health challenges, I was not capable of participating. The new goal was to become healthy enough so that if the opportunity presented itself, I would be fully capable of participating.



Smile Train is the world's largest organization focused on cleft lip and palate surgery. Over the last 20-plus years, they have supported safe and quality cleft care for more than 1.5 million children ...

I received an email from the Smile Train informing me there was going to be a trip to Guatemala in February 2024; coincidentally the AST Educator's Conference was also scheduled in February of 2024; and guess what? AST began on February 14 and ended on February 17, and Journey of Smiles begin on February 18 and ended on February 22. It was just meant to be.

A couple of weeks prior to the Journey, a Zoom meeting was scheduled where I had the opportunity to meet the other people who would be traveling to Guatemala as well. It became so exciting to know that we would be traveling on this Journey as donors to assist so many families. There

was Seth, Judy, Elizabeth, Diana, Grant (who was born with cleft lip and palate), Becca, Ruby, Sue and from The Smile Train Ariana, Memo, Andrea, Iva, Tess and myself.

### THE JOURNEY

Arrival at the small airport in Guatemala City was chaotic to say the least. Lent had just begun yesterday, and families were congregated at the airport to pick up loved ones to celebrate the first Sunday of Lent. Think of New Year's Eve at Times Square in New York City, except that many people in a space a quarter of the size. Once we all arrived, we were transported to our hotel which was only 30 miles away; however, due to the small roads, with cars, motorcycles, Tuk Tuks, and more, it took us more than 2 and a half hours to reach our destination.

That evening we all met for dinner to discuss the itinerary for Monday, Tuesday, Wednesday, and Thursday. As always there was so much to do so little time,

but we were all determined to make it work. The Smile Train team had it down to a science and we were ready to begin.

### ITINERARY

- Monday: Visit Tess Unlimited and Patient Home Visit
- Tuesday: Visit Sonrisas 502 partner visit and lunch with young adults, who have been patients since youth; evening Guatemalan traditional cooking class by the rural Guatemalan museum staff
- Wednesday: Visit to Iximche' Ruins



The author with the Smile Train in Guatemala.

### THIS IS TESS UNLIMITED

Tessa de Goede de Ordonez is the founder of Tess Unlimited. After her studies in hotel management, at 20 years old she was finished with school. She left with her backpack to South America, traveled to other countries and volunteered for a few years.

In 2008 she ended up in Guatemala, mainly with the aim of improving her Spanish speaking skills. However, she fell in love with Guatemala, the country, the people, and her now husband since 2010 (her salsa teacher). During her stay she began volunteer work in a hospital with children born with cleft lip and palate. With a mother as a maternity nurse, she was already familiar with cleft lip and palate. Since the mothers are not allowed to stay with the children when they are in the hospital, it was her job to feed, bathe and dress them. She immediately fell in love with these children, with their beautiful wide smiles and sparkling eyes.

During this time, she was searching for what she wanted in life and decided to investigate who provided care for these children. She found that there was not a single organization that helped these children, and it broke her heart. She was

determined to do something for these children in the future. Returning to the Netherlands, she began a foundation, created a website, and shared the information of her plans to return to Guatemala for a year and set up a project there to help these children, return to the Netherlands, and manage it from there.

Things turned out a little differently, now 15 years later, she and her husband live and work full time in Guatemala, with children suffering from cleft lip and palate that she fell in love with so many years ago. Tessa built a small hospital and clinic, along with a home for young moms to be accommodated prior preoperatively with their child, and post operatively with their child until discharge home.

At Tess Unlimited we saw the facility; in comparison to the USA, it services more children than we do in such a small space. There are pictures, toys, activities, an operating room, and recovery room. But they all consider themselves so fortunate and rich with what they receive. Our visit there became quite emotional. We played with some of the children and moms, some

smiled, some cried, some were uneasy, and there was much joy in the air. As we began to leave Tess Unlimited, there were babies with their mom's downstairs, and it is this where time came to a halt, my heart skipped a beat, and words could never explain what I felt.

As I was holding a little boy who had yet to meet the

rooms, no windows, dirt roads all up or downhill, no stairs, no rails, no washers, no dryers, but they are smiling. We met the little girl who was admitted to Tess Unlimited malnourished and at that time they thought she would be pass at any moment. Then to see her in her mother's arms, healthier and having had the initial repairs truly is a miracle.



To make this a little more relatable, this mom was only 42 and had 12 children, one which was deceased, and the other 11 are all between the ages of 1 month old to 20. Cleft lip and palate have occurred in five of her children, and as explained by the professionals we met, it is common due to the high incidence of incest within the families. In Guatemala specifically, many children born with cleft lip and palate may succumb to death, since they are malnourished due to lack of education for the moms, and therefore, they are not capable of surviving without the proper nutrition.

criteria for surgery, he was not smiling, he was just there in my arms, and no matter what I could not get him to smile (3 months old). Memo, our photographer, said something, and the smile was captured in a photograph. Although with the cleft quite prominent, his smile made me smile and cry all at the same time, and the entire room we all cried tears of joy.

Following the visit with Tess, we headed for the home visit. They were not kidding when they informed us that these families live in the mountains. When we look at a mountain, and see homes embedded within the mountain, there are no bikes, or cars, only your feet to walk you to them. Rural is fancy in comparison to how little they have. However, they are happy, smiling, inviting, kind, welcoming, and humble. Their homes have no stoves, no bath-

This is where the

Smile Train steps up along with organizations such as Tess Unlimited, and they provide the necessary care for these children so they may live healthier lives.

### DR. CHINCHILLA'S MIRACLES

Visiting Dr. Chinchilla's orthodontic practice was impressive. The office space consists of a few chairs facing floor to ceiling windows looking over Guatemala City. Filled with fun things for children, TV screens with shows make it quite inviting to the patients (the children). Many don't understand that following the surgical procedures – there are years of more procedures, speech therapy, orthodontic care, ENT care, and therapy – to help these children and moms to adapt to the “what's to come” in the future.

We were fortunate to not only meet two little brothers,

between the ages of 6-9, both patients of Dr. Chinchilla and his wife (she is an orthodontist as well), who walked in and were so happy to see the doctors. They sat in the chairs, they did what they had to do, and left with a smile.

Dr. Chinchilla shared a little of what he does with my group, since I was the only one with any surgical background, other than Grant's mother, since both Grant and her second son were born with cleft lip and cleft palate. He shared with us the course of treatment he performs, along with the bone grafting technique he has innovated and has presented at various South American conferences. It has not been shared with the USA as of this visit.

Additionally, we were graced by a visit from three young ladies who have been Dr. Chinchilla's patients since they were 3 or 4 years old. One of them continues to work at her dad's welding plant, one of them is in school pursuing law, and the other is also in college. They all are so appreciative of what the Smile Train has availed them in collaboration with their country's partners.

As the visiting day concluded, we could not help but reflect upon how fortunate we all are for what we have. To be grateful and thankful for the smiles we can carry each day. Everyone expe-

... it is my wish to share with all my colleagues in surgical technology, that "we make a difference." Our mission as professionals has been, and always shall be the "mission." Missions teach people that there's more to the world than what one's previously seen.



riences adversity; however, what this visit demonstrated more than anything, is if you truly wish for change, then you can make the change. If you have nothing, then nothing is everything. The very next day we traveled to the Iximche Ruins, and the traditions of the Mayan culture spoke loudly to all of us as we all admired former temples, landscapes and traditions that have transposed through history.

At the conclusion of our trip, we all gathered for one last meal together, and each had a moment to share what had impacted each of us on this Journey of Smiles, so I reached out to my fellow travelers and asked for their thoughts:

*“Traveling with the Smile Train and the organized group was one of the most rewarding experiences of a lifetime. Being able to visit the clinics, the families, and the children, I cannot express enough what important work the Smile Train is doing. It is humbling and heartwarming to see the children, how happy they are after going through the surgeries and the outcome is so rewarding. This is a once in a lifetime experience and I wish everyone could have this opportunity. I will always cherish this experience and the group that attended were so very special.” Elizabeth Jender*

*“Throughout our time with the Smile Train Guatemala, I was struck by the abundant affection and kindness patients received at the care centers we visited and from the medical professionals we spoke with. These men and women were talented and dedicated, but they also respected the unique potential for trauma that surgery poses for young children. From the initial operation through years of dental follow up care, the process is made to feel personal, familial, and as playful as possible. Medical visits include toys and hugs and often other children to play with. Through the medical professionals and facilities, the Smile Train supports, we witnessed how the young and even the very youngest of patients, their personhood so tender and easily damaged, were respected and protected, and their lives made whole.” Judith Pucci*

*“One may have an image of children with cleft and palate problems. After our journey to Tess Unlimited and visited her amazing joyful productive small clinic/hospital, my visions were completely changed. I was filled with joy and emotions. Tess stated on her last Facebook posts that they just did 11 surgeries in 2 days! Our hearts were filled with love from the Mayan Children that benefited from Tess’s clinic/hospital. A memory that will stay with me for the rest of my life.” Sue Hoover*

As I sit here today since I experienced this amazing journey, it is my wish to share with all my colleagues in surgical technology, that “we make a difference.” Our mission as professionals has been, and always shall be the “mission.” Missions teach people that there’s more to the world than what one’s previously seen. It teaches us there to put others before ourselves and the true meaning of selflessness. Somehow, it even makes you think about your higher purpose. (Maslow’s Hierarchy – Self Actualization).

*My wish for you is that you continue.*

*To be who and how you are*

*To astonish a mean world with your acts of kindness*

*To allow humor to lighten the burden of your tender heart.*

*To mind the people that each is as good as the other and that no one is beneath nor above you*

*To remember your own.... years and look with favor upon the lost and the least and the lonely*

*To put the mantle of your protection around the bodies of the old and defenseless*

*To plant a virtual kiss of concern on the cheek of the sick and the aged and inform, and count that as a natural action to be expected.*

*To let gratitude bet the pillow upon which you kneel.*

*To dare to love deeply and by doing so you and your work will be able to continue eternally.*

*May the work of your hands and the strength of your spirit be blessed, as we all Continue ...”*

*Maya Angelou*





**Interested in serving on a medical mission?  
Check out our Medical Missions page with details and resources,  
and start planning your pathway to assist those in need.**

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*Everything You Need to Know About*  
**EARNING CE CREDITS**



**T**he Association of Surgical Technologists (AST) is the national professional organization for surgical technologists. AST's primary purpose is to ensure that surgical technologists have the knowledge and skills to administer patient care of the highest quality by setting standards for education, supporting state and federal legislative efforts, and providing quality continuing education opportunities.

Listed below are all the ways you can earn CE credits to help you maintain your credential and expand your professional exploration.



## AST CE ONLINE LIBRARY THREE FREE ONLINE CE CREDITS PER YEAR

Log in to the AST site to complete and earn three free credits per calendar year toward recertification.

## AST MEMBER CE PACKAGES

Take advantage of AST's CE packages available on the AST site. The packages are available at a substantial AST member discount.

## SUBMITTING ONLINE CE CREDITS

By paying online through your CE shopping cart, the CE credits post to your AST credit history within 24-48 hours after payment.

- You do **NOT** need to submit the certificate of completion or an *AST CE Reporting Form* if you are submitting and paying for online CE credits.
- **No refund** is given for AST online CE tests or packages, and they **cannot** be applied to another certification cycle.
- **Available 24/7 at [www.ast.org](http://www.ast.org).**

## AST NATIONAL SURGICAL TECHNOLOGY CONFERENCE

**Member:** CE credits are automatically recorded in your AST CE file. A CE credit conference confirmation letter is mailed four to six weeks post-conference for your personal records.

**Nonmember:** A CE credit conference confirmation letter is mailed four to six weeks post-conference to maintain in your personal records. Your conference registration fee includes one-year of AST membership.

## AST MONTHLY JOURNAL – *The Surgical Technologist*

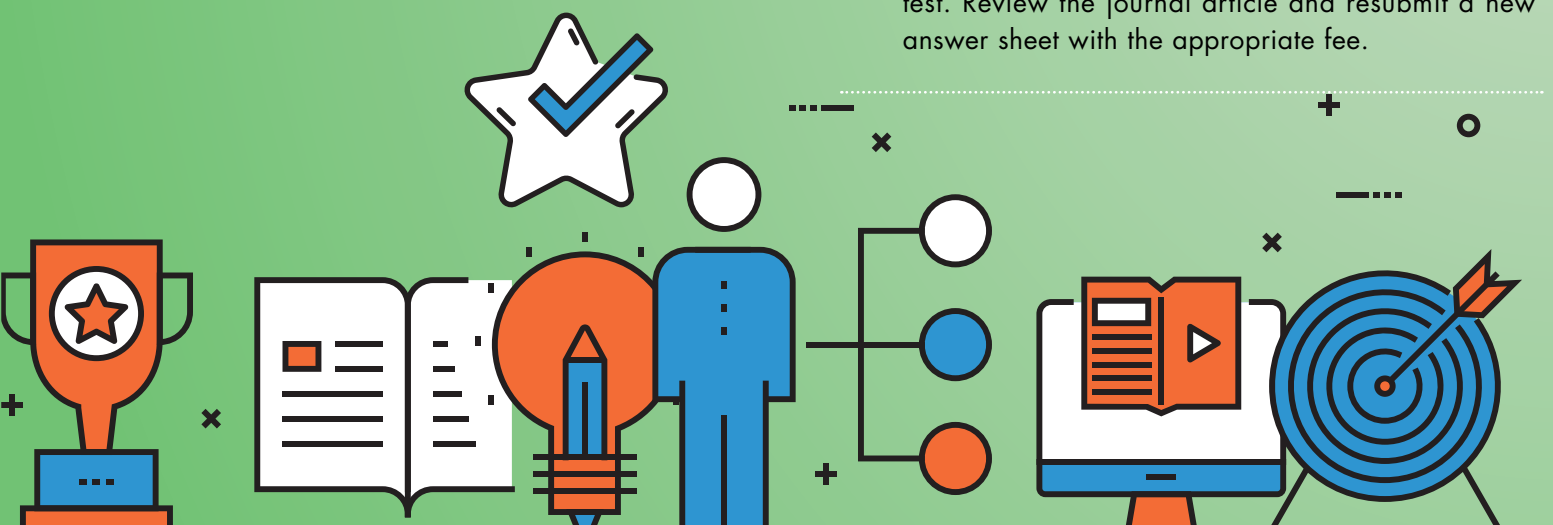
The CE article featured in AST's monthly journal provides up-to-date information concerning a relevant surgical topic, as well as, the ability to earn one or more CE credits. There is no expiration date on the articles and tests may be submitted from the first CE article published in 1980 to the present.

### Submitting Journal CE Credits

- Submit the answer sheets to AST with the appropriate payments. Make a copy of the answer sheets for your records.
  - **Member:** \$6 per CE credit, not per test. **NOTE:** If the test is 1.5 CE credits, the fee is \$9. If the test is 2 CE credits, the fee is \$12. If the test is 3 CE credits, the fee is \$18, etc.
  - **Nonmembers:** \$10 per CE credit, in addition to the \$400 nonmember processing fee.
  - Do **NOT** submit separate checks for each journal test. Multiple journal tests can be submitted and paid with one check or money order.
  - Printed on the journal test answer sheet is the month, year, test number, and number of CE credits the test is worth. For example: 1, 2, or 3 CE credits. If it is an older test that doesn't show the number of CE credits, the test is worth 1 CE credit.
  - You do **NOT** need to submit the *AST CE Reporting Form* with the journal tests.

### Reasons Journal Tests are Returned:

- Overpayment
- Payment is not included
- Duplicate: The test(s) were previously submitted and CE credits recorded
- Failed test: A minimum of 70% must be scored on the test. Review the journal article and resubmit a new answer sheet with the appropriate fee.



## 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](http://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 \$400 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 \$400 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*.

### OTHER ENDURING MATERIAL

Enduring material is self-directed learning in which the CST or CSFA independently completes CE activity that is AST approved.

- The enduring material must be AST approved to earn the CE credits. The CST or CSFA is responsible for researching if a CE enduring material offered by a business or organization is AST approved.
- Businesses and organizations that would like to offer CE to the CST and CSFA are required to submit their CE offerings to AST for review and possible approval.
- AST does **NOT** accept enduring material CE offered by healthcare manufacturers.
- Types of enduring materials include CE articles that requires completing the post-article exams that are offered hard-copy or electronically, viewing recorded lectures that includes completing a post-lecture exam that are offered on CD, DVD, online, or other electronic means.

### SUBMITTING ENDURING MATERIAL CE CREDITS

Upon completion of an AST approved enduring material offered by another business or organization, the CST and CSFA must submit a copy of the certificate of completion provided by the business or organization with the *AST CE Reporting Form*. The business or organization does **NOT** directly report the CE credits to AST.

For additional information, please see the AST CE Policies for the CST and CSFA at [www.ast.org](http://www.ast.org).

## PROFESSIONAL ORGANIZATIONS

AST accepts the CE credits offered at live events, (for example: conferences, forums, symposiums, and workshops) that are sponsored by ACCME-accredited organizations and if the event is approved to offer *AMA PRA Category 1 Credit(s)*<sup>TM</sup>, CE credits are accepted if an organization's live event is approved to offer *AMA PRA Category 1 Credit(s)*<sup>TM</sup> by another ACCME accredited organization. Additionally, CE credits are accepted for live events approved by the ADA-CERP and JCAHPO.

### Submitting Professional Organization CE Credits

- The professional organization should provide a certificate of attendance that is signed by an individual designated to represent the organization.
- The certificate should include the name of the organization, title of event, date(s) of event, name or signature of the CST or CSFA, and number of CE credits.

**Member:** Include a copy of the certificate with the *AST CE Reporting Form*.

**Nonmember:** Include a copy of the certificate with the *AST CE Reporting Form* with the \$400 nonmember processing fee.

## SURGICAL MISSION

CSTs and CSFAs who perform their job duties as a member of a surgical team that performs surgeries during a surgical mission can earn CE credits.

- One time per certification cycle, the CST or CSFA may submit a surgical mission trip to AST for CE credits.
- One time per certification cycle, 10 CE credits are awarded, no matter the length of the mission
- The *AST Surgical Mission Verification Form* must be completed by the CST or CSFA, including an authorized signature of mission team leader. Incomplete forms will be returned.

## WRITING FOR HEALTH-RELATED PUBLICATIONS

The CST or CSFA, who authors a CE article, may be awarded CE credits due to the research that is necessary to write the article.

- When writing a CE article to be published in a journal or magazine, the article must be a health-related publication.
- The publisher must have a peer-review process in place to determine if the article meets the publishing standards of the journal or magazine.
- CE credits will only be awarded for the initial publication of an article.
- Four CE credits are awarded per 2,000 type-written words. Partial CE credits are awarded in increments of 500 words: for example, 2,500 words equals 1.25 CE credits. The word count does **NOT** include the title of the article, headings, post-article CE exam, reference page, or bibliography.



## SUBMITTING PUBLICATIONS FOR CE CREDITS

- *The Surgical Technologist*: The CE credits will be automatically entered for CSTs and CSFAs that write a CE article for the AST journal.
- Other publications: CST or CSFA must submit an official, published copy of the article that has his/her name printed as the author, name of the journal or magazine, date of publication, and volume number with the *AST CE Reporting Form*.

## INSTRUCTION OF HEALTH PROFESSIONALS

- CSTs or CSFAs who provide a CE lecture may be awarded CE credits.
- This applies to providing a CE lecture at an AST-sponsored event, such as the National Surgical Technology Conference or Surgical Technology Educators Conference, healthcare facility in-services, or serving as an instructor at an AST-approved CE program or workshop, such as a state assembly meeting or wound closure workshop.
- CE credits are **not** awarded for providing lectures or lab/clinical demonstrations when it is a part of the CST's or CSFA's job duty: ie, educators, medical sales representatives, and preceptors.
- **Awarding CE Credits**
  - The lecture or workshop **MUST** last a minimum of 30 minutes.
  - CST and CSFA presenters and instructors receive 2 CE credits for the initial preparation of a topic.
  - For example: If a lecture lasts 45 minutes, the CST or CSFA presenter would be awarded 2.75 CE credits.
  - However, if the lecture is repeated at a future program, CE credits are only awarded for the length of the lecture.
- **Submitting CE Credits for Presentation or Instruction**
  - **AST sponsored programs**, such as conferences: The CST or CSFA presenter **MUST** be a member of AST to be eligible to present. The CST or CSFA is **NOT** required to submit documentation as proof of giving a CE lecture or serving as a workshop instructor. AST will automatically enter the CE credits in the individual's CE file.

- **Other programs**: CSTs and CSFAs that present a CE lecture or serve as an instructor at a non-AST sponsored program, such as a state assembly meeting, must submit a copy of the program agenda with the *AST CE Reporting Form*. The program agenda **MUST** include the name of the presenter, title of the presentation or workshop, and length of activity.

## WHY CE CREDITS ARE NOT ACCEPTED

CE credits that are not accepted can present a challenge in recertifying if there is not sufficient time left to earn additional CE credits before the expiration date of the credential. **As previously mentioned, it is encouraged to submit CE credits six months prior to the certification expiration date.** This allows time to earn additional CE credits within the certification cycle if CE credits were not accepted and avoid taking the NBSTSA national certification examination to renew the credential. The following are some of the more common reasons for CE credits not being accepted.

### CE Credit Value NOT Met

- If a CST or CSFA attends a lecture or program, or views a recorded CE lecture that is less than 30 minutes. (One CE credit equals 50-60 minutes of activity.)
- Partial CE credits are accepted by AST; however, the CE activity must last a minimum of 30 minutes.
- After 30 minutes, CE credits are accepted in 15-minute increments.

### CE Credits NOT Earned During Current Certification Cycle

- CE credits **MUST** be earned during the current certification cycle.
- CE credits are accepted based on the date of completing the CE activity, **NOT** when the CE activity was purchased or date submitted to AST.

### CE Activity is NOT Approved by AST

- CE credits were earned by completing a CE activity or attending a CE event that is **NOT** AST approved.

### CE Reporting Form NOT Submitted with CE Credits

- CE credits were submitted without a completed *CE Reporting Form*. The form is available on the AST site, [www.ast.org](http://www.ast.org).



- Each CE activity, with the exception of AST-sponsored CE, must be listed on the reporting form. Forms that state “see other pages” or “see transcript” will be sent back.

### Documentation NOT Included with the *CE Reporting Form*

- Documentation verifying completion of CE listed on the *CE Reporting Form* is NOT included when submitted to AST.
- With the exception of AST sponsored activities and state assembly meetings, copies of verification documentation must be included with the *CE Reporting Form*.
- Accepted documentation includes:
  - certificate of attendance or completion
  - attendance sign-in sheet for healthcare facility in-services (see previous information regarding healthcare facility sponsored in-services for details).

Documentation that is **NOT** accepted includes:

- tests,
- paid receipts,
- announcements of events
- program agenda/brochure

### CE Activity is NOT Relevant

- CE credits are returned if it is determined the activity is **NOT** relevant to the medical-surgical practice of surgical technology or surgical first assisting.

### Previously Completed CE Submitted Again

- Previously completed CE that was submitted to AST and processed, **CANNOT** be resubmitted for CE credits and will NOT be accepted.
- An exception is made for BLS, ACLS, and PALS. Each time the CST or CSFA renews one of those certifications it can be submitted for CE credits.

### Nonmember Fee NOT Included

- The nonmember CE processing fee of \$400 is **NOT** included when CE credits are submitted.





## FOUNDATION *for* SURGICAL TECHNOLOGY

### **What is The Foundation for Surgical Technology?**

The Foundation is a 501c3 organization comprised of representatives from the Association of Surgical Technologists (AST) and the National Board of Surgical Technology and Surgical Assisting (NBSTSA). This type of organization also means any donation you give to the Foundation is tax deductible.

### **Who does The Foundation support?**

- ✦ The Foundation provides scholarships to the following:
- ✦ Students
- ✦ Educators
- ✦ Military personnel
- ✦ and CSTs who have helped others by serving on medical mission trips

### **When are the annual deadlines for the scholarships?**

- ✦ Students scholarships - March 1
- ✦ Military scholarships - March 1
- ✦ Constellation (Educator) Awards - December 1
- ✦ Medical mission reimbursement - December 31

**Learn more at [www.ffst.org](http://www.ffst.org) and give today!**

# ADVOCATE FOR YOURSELF.



**You advocate for your patients – no question. Now it’s time to advocate for the critical role you play as a key member of the surgical team and how important your role is to patient safety.**

AST developed a toolkit specifically for surgical technologists to use when you're explaining just how crucial is it that certified surgical technologists earn education from an accredited program thus making them eligible to sit for the national certifying exam and earn the distinguished CST credential. Scan the QR code to access documents, AST position statements and other resources you need to keep advocating for the profession.



**The Workforce Shortage: A Message from AST**



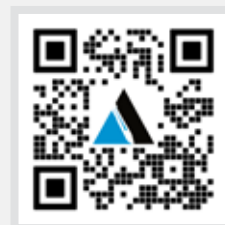
**CSTs Many Lifesaving Roles**



**AST Encourages Healthcare Facility Leaders to Support Local, Accredited Surgical Technology Educational Programs**



**Recommendations for CSTs, Program Directors, and State Assemblies when Addressing On-the-Job Training with a Healthcare Facility**





AST SURGICAL TECHNOLOGY CONFERENCE

# DENVER

MAY 30 - JUNE 1, 2024



**J**oin us in our home city in May as we come together to promote the surgical technology profession, highlight the latest and greatest surgical techniques and connect you to supporting organizations from across the country.

Denver, known for its craft breweries and scenic views is a great place to come and explore. Enjoy a ball game just blocks away from the hotel or go on a historic Denver walking tour where you're learn about the Wild Wild West and the history and tales of gold, underground banks, and the spirits that haunt them.

Enjoy the nice spring weather with endless outdoor patios, and great live music or explore the vibrant neighborhoods surrounding downtown including RiNo and LoHi.





## THURSDAY, MAY 30TH, 2024

5 CEs

### FS101

11:30 – 12:20 pm

**Yanik Bababekov, MD**

*Pushing the boundaries of DCD liver transplant*



### FS102

11:30 – 12:20 pm

**Daniel Weaver, MD**

*The eyes have it: The vital roles of the CST in ophthalmic surgery*



### FS103

12:30 – 1:20 pm

**Gabrielle Whitmore, MD**

*Minimally invasive gyn: management of fibroids*



### FS104

12:30 – 1:20 pm

**Fraser Leversedge, MD**

*Surgical techniques and other considerations for nerve surgery*



### FS105

1:30 – 2:20 pm

**Brett Reece, MD**

*Evolution of cerebral protection in aortic arch surgery*



### FS106

1:30 – 2:20 pm

**Ann Kulungowski, MD**

*The team approach for pediatric surgery*



### FS107

2:30 – 3:30 pm

**Thomas Bak, MD**

*Surgical abdominal transplant; past, present, and future*



### FS108

2:30 – 3:20 pm

**Michael Handler, MD**

*Updates in pediatric and fetal neurosurgery*



# FRIDAY, MAY 31, 2024 5 CEs

## FS201

Noon - 12:50 pm

### Jason Rhodes, MD

*Technology for the disabled child: Treatments for cerebral palsy*



## FS202

Noon - 12:50 pm

### Josephine Colacci, Esq.

*AST government affairs updates*



## FS203

1:00 - 1:50 pm

### Marci Bowers, MD

*Transgender surgery*



## FS204

1:00 - 1:50 pm

### Gary Onik, MD

*Intratumoral immunotherapy - The next great breakthrough in immune-oncology*



## FS205

2:00 - 2:50 pm

### Andrea Bischoff, MD

*Pediatric colorectal surgery: When an amazing CST meets a great surgeon, magic happens*



## FS206

2:00 - 2:50 pm

### Rachel Reitan, MD

*The important role of the CST in GYN surgeries*



## FS207

3:00 - 3:50 pm

### Muhammed Aftab, MD

*Contemporary approaches to the brain protection with hypothermic circulatory arrest in aortic arch surgery*



## FS208

3:00 - 3:50 pm

### Jodi Widner, MD

*Decision making for lumpectomy vs mastectomy-when axillary staging is needed*



## FS209

4:00 - 4:50 pm

### Veronica Alaniz, MD

*Congenital anomalies of the reproductive tract*



## FS210

4:00-4:50pm

### Angela Downes, MD

*Basics of spine surgery and why we do what we do*



# SATURDAY, JUNE 1, 2024

# 5.5 CEs

## FS301

10:10 – 11:00 am

**Rachel Frank, MD**

*Joint preservation of the knee*



## FS302

10:10 – 11:00 am

**Vikas Patel, MD**

*Motion preservation technologies in spine surgery*



## FS303

10:10-11:00 am

**Malinda Elammari, CST**

*A CST guide to understanding sterile packaging*



## FS304

11:10 am - Noon

**Christodoulos Kaotzanis, MD**

*Gender affirming surgeries*



## FS305

11:10 am - Noon

**Fabio Grassia, MD**

*Epilepsy surgery and use of robotic surgery in epilepsy*



## FS306

11:10 am - Noon

**Megan Dunegan, CST, CSFA**

*How to maintain excellent surgical conscience throughout your career*



## FS307

12:10 – 1:00 pm

**Julian Winocour, MD**

*Breast reconstruction and lymphedema surgery*



## FS308

12:10 – 1:00 pm

**Jason Yu, MD**

*Reconstructive surgery: The other side of plastics*



## FS309

12:10 – 1:00 pm

**Eboni Saurage, EdD, MS, BSHS, CST**

**Cortney Hartman, CST**

*Advancing your career beyond the Mayo*



## FS310

1:10 – 2:00 pm

**Akshay Chauhan, MD**

*Broader application of robotic platform in training in GI surgery*



**FS311**

1:10 – 2:00 pm

**Nicholas Westfall, MD**

*Urology-TBA*



**FS312**

1:10 – 2:00 pm

**Arnisa Wilson, CST**

*Work-life balance, burn-out, and finding peace in the profession*



**FS313**

2:10 – 3:00 pm

**Jeniann Yi, MD**

*Advanced surgical techniques for endovascular aortic aneurysm repair*



**FS314**

2:10 – 3:00 pm

**Bennie Lindeque, MD**

*How orthopedic oncology differs from orthopedics*



**FS315**

2:10-3:30pm

**Peggy Varnado, CST, CSFA, FAST, AST Vice President,  
and other AST Leaders**

*Embracing the call to lead: A deep dive into surgical technology leadership  
and how to jump in!*





## MEET OUR KEYNOTE

Jennifer Arnold, MD, MSc, FAAP, a pediatrician, neonatologist, medical school professor, and expert in medical simulation at Boston Children's Hospital. She is a newly minted member of Harvard's faculty and recently became the namesake of the Dr. Jennifer Arnold Endowed Professorship in Medical Simulation and Innovative Education at Johns Hopkins All Children's Hospital. She's also a wife, the mother of two kids with medical complexities, and has personally overcome extraordinary physical and health obstacles. Dr. Arnold, along with her husband Bill and their children Will and Zoey, created more than a decade of television with their show, *The Little Couple*, which ran for 14 seasons before ending during COVID.



Dr Jen is a social media star with a decade of highly-rated reality television experience who has also written a NYT best-seller (*Life is Short, No Pun Intended*). Dr. Jen loves science. All of it, from the human aspects to the most technical, because she herself has benefited from it.

Dr Jen will kick off our conference as she is AST's 2024 Keynote. Catch her session at 9 am Thursday, May 30.

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## GET SOCIAL ... OR JUST COME FOR THE GRUB

- **Welcome Reception**

530-6:30 pm | Wednesday, May 29

AST welcomes you to our home state with a salute to all our favorite practitioners and for all your hard work. Join us for a reception as you get settled in the Mile High City.

- **Opening Night Party – Wild Wild West**

7-9:30 pm | Thursday, May 30

Whether you want to show off your line-dancing, country-smackin' cowboy boots (and dance skills!), your best saloon garb or you'd rather take a modern Western approach and come fitted in your best camping getup, join us as we celebrate being in the Wild Wild West. (Horses not for purchase.)

- **Closing Night Reception**

5-6:30 pm | Saturday, June 1

Say howdy to all your new and old friends alike as we giddy up from the wonders of the West and prepare for the wonder of Disney (Orlando 2025).



# UPCOMING PROGRAMS



**AST MEMBERS:** Keep your member profile updated to ensure that you receive the latest news and events from your state. As an AST member you can update your profile by using your login information at [www.ast.org](http://www.ast.org). You may also live chat at [www.ast.org](http://www.ast.org) or contact Member Services at [memserv@ast.org](mailto:memserv@ast.org) or call 1-800-637-7433. AST business hours are Monday-Friday, 8 am - 4:30 pm, MST.

## CALIFORNIA STATE ASSEMBLY

**Program Type:** Workshop

**Date:** July 27, 2024

**Title:** Northern Exposure Location: Stanford Newark Campus, 7600 Gateway Blvd, Newark, CA 94560

**Contact:** Jessica Ramirez, 408-910-2146, [jessica22ten@yahoo.com](mailto:jessica22ten@yahoo.com)

**CE Credits:** 5

**Program Type:** Annual Meeting/Elections

**Date:** October 12, 2024

**Title:** Certified Surgical Technologist "Leap into the Future"

**Location:** UCLA Santa Monica Medical Center Auditorium, 1250 16th St, Santa Monica, CA 90404

**Contact:** Sabrina Arreaga, 818-288-6917, [ca.sastateassembly@gmail.com](mailto:ca.sastateassembly@gmail.com)

**CE Credits:** 7

## COLORADO/WYOMING STATE ASSEMBLY

**Program Type:** Webinar (approved only Colorado/Wyoming State Assembly members)

**Date:** September 7, 2024

**Title:** Getting Groovy

**Contact:** Julie Beard, 700 North Colorado Blvd, Denver, CO 80206, [information@coloradoast.com](mailto:information@coloradoast.com)

**CE Credits:** 3

**Program Type:** Annual Meeting/Elections

**Date:** October 26, 2024

**Title:** Getting into Some Spooky Business

**Location:** TBA

**Contact:** Julie Beard, 700 North Colorado Blvd, Denver, CO 80206, [information@coloradoast.com](mailto:information@coloradoast.com)

**CE Credits:** 5

## GEORGIA STATE ASSEMBLY

**Program Type:** Workshop

**Date:** September 14, 2024

**Title:** West Georgia Autumn Workshop

**Location:** West Georgia Technical College - Murphy Campus, 176 Murphy Campus Blvd, Waco, GA 30182

**Contact:** Erin Baggett, 678-226-6943, [gasawebmaster@gmail.com](mailto:gasawebmaster@gmail.com)

**CE Credits:** 8

## MICHIGAN STATE ASSEMBLY

**Program Type:** Annual Meeting/Elections

**Date:** September 28, 2024

**Title:** Forever Changing with MSA

**Location:** Fischer Hall, 613 S Main St, Frankenmuth, MI 48734

**Contact:** Renona Gauthier, [michiganassemblyofast@gmail.com](mailto:michiganassemblyofast@gmail.com)

**CE Credits:** 5

## MONTANA STATE ASSEMBLY

**Program Type:** Annual Meeting/Elections

**Date:** September 7, 2024

**Title:** MTSA Annual Business Meeting/Elections and Workshop

**Location:** Benefis Health System, 1101 26th St South, Great Falls, MT 59405

**Contact:** Marsha Lyles, 406-670-8376, [mnmcst@yahoo.com](mailto:mnmcst@yahoo.com)

**CE Credits:** 6

## NORTH CAROLINA STATE ASSEMBLY

**Program Type:** Workshop

**Date:** October 26, 2024

**Title:** NCSA Fall Workshop

**Location:** Novant Health New Hanover Regional Medical Center, 2131 S 17th St, Wilmington, NC 28401

**Contact:** Brittany Toth, 6911 McNeely Road, Waxhaw, NC 28173, 507-720-1892, [ncsaast@gmail.com](mailto:ncsaast@gmail.com)

**CE Credits:** 7

## 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.

### CALIFORNIA

Santa Monica  
October 12, 2024  
Annual Meeting  
2024 BOD Elections  
& 2025 Delegate  
Elections

### COLORADO/WYOMING

TBA  
October 26, 2024  
Annual Meeting  
2024 BOD Elections  
& 2025 Delegate  
Elections

### MICHIGAN

Frankenmuth  
September 28, 2024  
Annual Meeting  
2024 BOD Elections  
& 2025 Delegate  
Elections

### MONTANA

Great Falls  
September 7, 2024  
Annual Meeting  
2024 BOD Elections  
& 2025 Delegate  
Election

**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 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](mailto:stateassembly@ast.org) or 800.637.7433, ext. 2547.

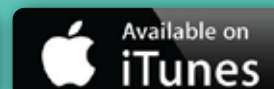
# Studying for the CST Exam? There's an App for That!



The only AST-authored study guide app is unmatched, giving you more than 1,300 questions to study and review right in the palm of your hands.

The app includes six tests that preps you for taking the CST examination sponsored by the National Board of Surgical Technology and Surgical Assisting.

Study with confidence whenever and wherever you are!



# YOUR NEW JOB IS IN SIGHT

## AST's Career Center can help you:

Find and apply to hundreds of jobs for surgical technologists, surgical assistants and surgical technology educators

- Post your resume and create a profile so recruiters can find you quickly
- Save your search criteria and sign up to be notified when new jobs are posted
- Watch instructional videos on resume writing, networking, behavioral interviewing and more
- Read "10 Tips for Salary Negotiations" and other helpful articles to better your career

## Ready for the next step in your career?

Positions available include Surgical Technologist 2 and Surgical Technologist 3 with up to \$20,000\* sign-on bonuses!

Visit AST's career site today to view the latest postings and apply!

*\*Sign-on bonuses vary from positions and institutions. Applicants should clarify with recruiters regarding their offerings and options.*

<http://careercenter.ast.org/jobseekers/>





# Advance Your Knowledge, Update Your Skills and Earn CEs

**NEW!**  
**FREE CEs  
FOR 2024.**

Check out the new free CEs for 2024 - an exclusive AST member benefit. Each year, members receive 3 CEs just for being a member. To view this year's free CE, log into your member account on the AST website at [www.ast.org](http://www.ast.org).

Whenever. Wherever. AST is making continuing education more accessible—more convenient—and even FREE. Now you can look, listen and learn from our quality education presentations that have been archived from national conferences and advanced specialty forums. Specialty topics range from orthopedics, OB/GYN, general and neurosurgery. You will actually see the medical professionals and slides as they were presenting their information. Each presentation is coded by specialty.

Topics include Intrauterine Repair for Spina Bifida, Pelvic and Acetabular Surgery, Infertility, Drug Abuse During Pregnancy, ACL Surgery, Issues in Patient Care, Advances in Spine Surgery, Epithelial Ovarian Cancer, and Preventing Preterm Delivery. Any or all are free to watch and study.

Whenever you're ready, take the examination—there is absolutely no charge. If you pass, you will be offered the opportunity to purchase the accompanying CE credit and register it with AST at a very affordable price.



LOG ON TO THE AST  
CONTINUING EDUCATION  
RESOURCE CENTER TODAY AT:

[www.ast.org](http://www.ast.org)

# CONTINUING EDUCATION

Choose any nine articles and we will be happy to send them out free of charge. Return the answer sheets provided with the appropriate processing fee—only \$6 per credit (not per test) for members, \$10 per credit (not per test) for nonmembers. AST automatically records the returned CE credits for AST members.



#386

Parotidectomy with Facial Nerve Dissection

1 CE



#364

Radiostereometric Analysis in Orthopaedic Surgery

1 CE



#340

The Modern-Day Caesarean Section

1.5 CEs



#381

The Economic Argument for Using Safety Scalpels

2 CEs



#403

Emergency Department Visits and the Public Health

2 CEs



#415

Staged Rapid Source Control Laparotomy in Emergency General Surgery

1 CE



#382

Functional Endoscopic Sinus Surgery with Image-Guided Navigation

1 CE



#406

PJACT: Treating Articular Cartilage Defects

1 CE



AST has even more continuing education opportunities available in print and online. We will be adding more continuing education credits on a continual basis, and the lists that are published in the Journal will be rotating on a quarterly basis so that we can provide more CE credits in a range of specialties.



Other articles, as well as archived conference and forum presentations, are easily accessible on the AST Web site, <http://ceonline.ast.org>. And there are three free CE opportunities for AST members to earn continuing education credits online—be sure to check them out.

To order please visit: <http://ceonline.ast.org/articles/index.htm> or contact Member Services at [memserv@ast.org](mailto:memserv@ast.org) or fax requests to 303-694-9169 or call Member Services at 800-637-7433.

Returned CE tests cost:  
Members \$6 per CE  
Nonmembers \$10 per CE, plus \$400 Nonmember Fee

# OPPORTUNITIES



#405

Surgical Rib Fixation

1 CE



#365

Butterfly Graft in Functional Rhinoplasty

1 CE



#425

Micromotion at the Tibial Plateau in Total Knee Arthroplasty

1.5 CEs



#389

Disc Battery Ingestion in Pediatric Patients



#383

Partial Nephrectomy

2 CEs



#431

Emotional Intelligence and the Surgical Technologist

2.5 CEs



#416

Cervical Arthroplasty

1.5 CE



#356

Treating Glioblastoma Multiforme

1 CE

## ORDER FORM

Member  Nonmember

Membership No. \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Telephone \_\_\_\_\_

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# REGISTRATION OPEN!

## AST SURGICAL TECHNOLOGY CONFERENCE

# DENVER

## MAY 30 - JUNE 1, 2024

