JANUARY 2025 VOLUME 57 NO 1

THE SURGICAL TECHNOLOGIST

OFFICIAL JOURNAL OF THE ASSOCIATION OF SURGICAL TECHNOLOGISTS, INC.

Open Completion Proctectomy with Creation of J-pouch

AST Surgical Technology Conference will be so bright, you'll need to wear shades.

Get ready to soak up the sun, fun, friends, and Florida hospitality in beautiful Orlando. Registration opens February 1.

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Open Completion Proctectomy with Creation of J-pouch

Michaele L LePage, PhD, CST

A J-pouch, also known as an ileoanal pouch, is a surgically constructed internal reservoir that is made from the small intestine and is designed to store and pass stool after the removal of the colon and rectum. More simply, a J-pouch surgery is performed to construct a rectum. While individual patient circumstances can dictate specificities of the surgery, generally there are at least two and sometimes three separate surgeries involved. This can depend on the patient's nutritional status, hemodynamics and overall clinical status. This article will focus on the completion proctectomy and the actual construction of an ileoanal anastomosis.

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A New Year, A Renewed Commitment to Excellence

A MESSAGE FROM THE AST PRESIDENT DR JOE CHARLEMAN, CST, CSFA, FAST

PRESIDENT'S MESSAGE

Dear AST Members,

Happy New Year! As we welcome 2025, I want to express my heartfelt gratitude to each of you—dedicated surgical technology professionals who exemplify excellence in patient care, perioperative safety, and education.

The past year brought remarkable achievements for our profession and organization, and your unwavering support made it possible. As President of AST, I am proud of what we have accomplished together, including:

- Advancing education and fostering innovation
- Strengthening our professional community and supporting our state assemblies
- Enhancing board practices to promote transparency and communication
- Backing our new CEO with consistent support
- Developing new initiatives to improve educational resources for our membership

I am also pleased to share a new offer for 2025: At this year's national conference, members will have the option to purchase a **one-day pass,** available both in-person and virtually, to earn CE credits. This is part of our ongoing effort to make professional development more accessible to all our membership. The AST board & staff strive to make improvements and listen to our membership. Professional communication is needed, we need to hear from you on how we can improve. Also, at the national conference there will be survey kiosks for membership to communicate both the positive and the negative experiences with the organization. This way the AST board and the staff can collect data for improvement and allocate resources appropriately.

Returning in 2025: Hands-on preconference learning. Please stay tuned for the exciting opportunities we will be offering our members as we work with industry partners to bring you the latest techniques and technologies.

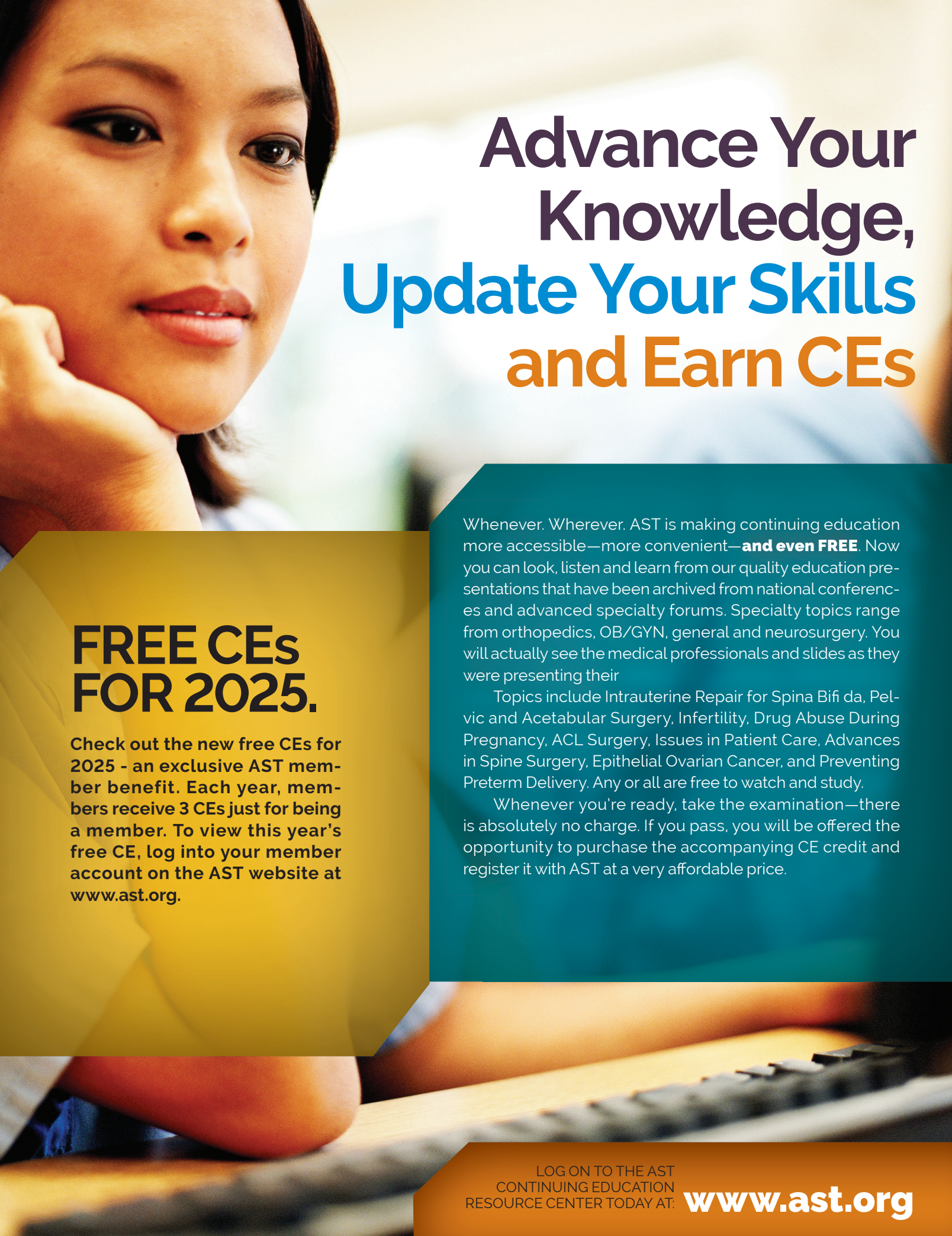
Looking ahead, 2025 promises to be a year of even greater opportunity. The AST board and staff remain steadfast in their commitment to supporting you by:

- Developing enhanced educational training programs
- Expanding advocacy efforts to advance our profession
- Improving events for educators and members
- Continuing to meet the needs outlined in our strategic plan

Save the Dates for Upcoming AST Events:

1. **Educators Conference:** February 21–22, 2025, in New Orleans, Louisiana (Leadership event on February 20). Register now at www.ast.org
2. **National Conference:** June 5-7, 2025, in Orlando, Florida with preconference opportunities June 4. Registration opens February 1, 2025.

On behalf of the AST leadership team, thank you for your dedication and trust. I wish you and your loved ones a year filled with health, happiness, and success. Let us make 2025 our best year yet!



Advance Your Knowledge, Update Your Skills and Earn CEs

FREE CEs FOR 2025.

Check out the new free CEs for 2025 - 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.

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

Topics include Intrauterine Repair for Spina Bifi da, 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**

AST News

AT A GLANCE

STUDENT SCHOLARSHIPS

STUDENTS! APPLY FOR A FOUNDATION FOR SURGICAL TECHNOLOGY SCHOLARSHIP

The Foundation for Surgical Technology is committed to helping surgical technology students pay for tuition or pay off their educational debt. If you have the desire and ability to pursue a career in the operating room and need financial assistance, you should apply for a scholarship.

Deadline

Scholarship applications are due by **March 1** annually. Scholarship award amounts range from year to year.

Eligibility

To be eligible for the Foundation's academic scholarships, you must demonstrate superior academic ability, have a need for financial assistance and be enrolled in an accredited program, thus making you eligible to sit for the national certification exam through NBSTSA.

Application

The Foundation's online scholarship application form must be completed in one sitting. Please be prepared with the following information before you begin:

- Your contact information, including mailing address and email address.
- The name and mailing address of your surgical technology program.
- Be prepared to write compelling answers to the following questions: Why you have chosen to become a surgical technologist? What your plans are after school?
- Two letters of recommendation from the following categories:
    - o One letter must come from a clinical coordinator, program director or clinical instructor.
    - o One letter must come from a surgical services professional (CST, CSFA, nurse, surgeon, etc). *If you are not yet in the clinical portion of your program, your second LOR may come from another role listed in the first category but not used in the first LOR.*

Additional Requirements

If you are awarded a scholarship, you must join your national professional organization, the Association of Surgical Technologists (AST), and submit your statement before being awarded your scholarship. Student member rates are $45. Scholarships are announced in May.

EVENTS

EDUCATORS! JOIN US IN NEW ORLEANS IN FEBRUARY FOR EDUCATORS CONFERENCE

At AST's 2025 Educators Conference your surgical technology peers will highlight the topics that matter the most. From classroom to clinicals, to leadership and networking, you'll be among professionals who understand exactly what you deal with day in and day out as you work hard to advance the profession and set the stage for future surgical technologists.

Join us for the 2025 Educators Conference in New Orleans! Situated in the charming French Quarter, it's a quick walk to Bourbon Street and a short jaunt to the Garden District.

Event date: February 21-22, 2025 with leadership event Feb 20

Location: New Orleans, InterContinental New Orleans, 444 St Charles Ave, New Orleans, LA 70130

Register at www.ast.org.

APPLY FOR FAST

APPLY FOR THE PROFESSION'S HIGHEST HONOR

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 all applications are due by April 15.

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.

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

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, but

- 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 as 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

Happy Anniversary!

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.

- New Mexico – 18 years

2024 State Election Recap

Josephine M. Colacci, Esq., AST DIRECTOR OF GOVERNMENT AFFAIRS

LEGISLATIVE NEWS

As the presidential election captured the attention of the entire nation, state legislatures remained quietly in the background. Since AST is focused on state legislation, let's dive into how state legislatures changed during the 2024 election.

Republicans will retain their control of the House, Senate, and Governor's office in 22 states which less than the previous two-year[1] cycle by 1. Democrats will control the House, Senate and Governor's office in 14 states which is less than the previous two-cycle by 3.[2] There were five states that had veto-proof majorities which means that the legislature could override the governor's vetoes in those states. These states no longer have veto-proof majorities: Montana, New York, North Carolina, and Vermont.[3] But, South Carolina and Iowa did pick up veto-proof majorities.[4]

Democrats lost having a majority of the House, Senate and Governor's offices in Michigan and Minnesota.[5] In Michigan, the Republicans now control the House, and the Minnesota House is now tied.[6] It should be noted that when bills are voted on and there is a tie vote, it will die on a tie. In Alaska, neither the Republicans nor the Democrats will hold a majority.[7]

How will the 2024 state elections impact our certification legislative efforts? It should not have a big impact on our legislative efforts because we have been successful in having Republicans and Democrats vote for our legislation. We have passed legislation in states that are controlled by Republicans and in states that are controlled by Democrats. Let's hope we are successful in 2025!

[1] https://www.ncsl.org/state-legislatures-news/details/ncsl-town-hall-takeaways-2024-state-election-results
[2] Id.
[3] Id.
[4] Id.
[5] Id.
[6] Id.
[7] Id.

Application for the 2024 State Assembly Leadership Achievement Award

Eligibility Period: January 1 — December 31, 2024
Entry Deadline: January 31, 2025

Active state assemblies represent the future strength and success of the Association of Surgical Technologists. The Association acknowledges and honors those state assemblies that exemplify exceptional leadership within their respective states.

- To recognize excellence in leadership and member development, communication, education and community relations
- To encourage quality state management
- To recognize with distinction and visibility that efforts and results of meaningful activities that build a strong state
- To benchmark standards

Qualifications and Rules

- Held one annual business meeting per year
- Held at least two workshops per year
- Annual & midyear reports submitted by deadline
- Correct number of BOD and rotation
- Create marketing activity
- Media coverage
- Student involvement
- Instructor involvement
- Public education
- Up to five (5) awards will be awarded per year

Application online at:

https://ffst.formstack.com/forms/2024saleadershipachievementawardapplication

Selection

All applications received in the AST national office by January 31, 2025, will be eligible for one of the five National AST Leadership Awards. A maximum of 5 points can be awarded for each category 1-10, 50 points maximum. Each entry is judged independently by the State Assembly Leadership Committee. Winners of the Leadership Award are determined by the cumulative total of points earned.

Your State's Reward

1. Every state assembly awarded the Leadership Award will receive recognition at the AST National Conference Open Ceremony.
2. Each state official on the state board will receive a pin representing "Winner of the State Assembly Leadership Achievement Award."
3. Each state winner receives recognition in a feature article about their state in The Surgical Technologist.
4. Each state who wins a Leadership Award will receive a pennant that announces the state as a winner of this prestigious award to display at state meetings.

Eligibility and Entry Preparation

- Any AST approved state assembly may submit an entry.
- Eligibility Period: January 1–December 31, 2024, submitted by the state assembly president.
- Entry Deadline: January 31, 2025 to stateassembly@ast.org.
- Application: https://ffst.formstack.com/forms/2024saleadershipachievementawardapplication
- Strongly recommended to include supporting documentation with the application, as this can provide valuable content and strengthen the overall submission.
- A new application must be submitted each year.
- A state may receive this award once every four years from the date the award was received.
- All entries will become the property of AST and will not be returned.

What are Bylaws, and Why Do They Matter to You?

Erin Baggett, CST, FAST, AST BYLAWS, RESOLUTIONS AND PARLIAMENTARY PROCEDURES COMMITTEE

Most of us easily recognize that nonprofit associations play a crucial role in serving the public interest, addressing community needs, and promoting social welfare. But did you know that AST is also a nonprofit organization, representing over 80,000 surgical technologists nationwide?

At the heart of nonprofit organizations are their bylaws, which serve as the foundational governance documents. Bylaws outline the rules and procedures that govern the operation of the organization, ensuring clarity, accountability, and consistency.

What are Bylaws?

Bylaws are a set of written rules that regulate the internal affairs of a nonprofit association. They define the organization's structure, including its purpose, membership, board of directors, meetings, and financial management.

1. AST uses two sets of bylaws: – the national AST bylaws and the state assembly bylaws – which mirror each other closely. Both works together to define how AST conducts business, and define the following items:
2. Purpose: These are our guiding principles for all activities and decisions.
3. Membership: This section identifies the types of AST membership and who is eligible to be a member. Additionally, the annual membership dues are set up here, as well as disciplinary procedures for members.
4. Finance: One of the most important segments of bylaws, the finance section spells out who is responsible for the AST budget, financial disclosure, audits, insurance, and check signing.
5. Nominations and Elections: The crucial guidelines for AST governance are found here, with procedures for nominations, elections, and eligibility of candidates.
6. Officers: This article outlines the offices of President, Vice President, Secretary, and Treasurer, at both the national and state levels. This includes eligibility of candidates, terms of office, duties of officers, and procedures for filling a vacancy of an office.
7. Board of Directors: This section defines the makeup for both national and state boards, including eligibility of candidates, terms of office, duties, board meeting guidelines, and procedures for filling a Director vacancy.
8. Meetings: Both national and state meeting procedures are outlined here, including definition and election of the national House of Delegates.
9. Committees: The important work of standing and special committees, both at the national and state levels, is described here, to include committee duties, terms of appointment, and committee member eligibility.
10. Amendments: The essential process of bylaws amendments is specified here with procedures for the House of Delegates consideration and voting.

Why Do Bylaws Matter to You?

All of this may seem like a lot of boring business to the average AST member. So why does it matter to you? There are several good reasons!

1. Legal Compliance: AST establishing and following its bylaws, both national and state, means that we as an

organization are following legal requirements. Most states require nonprofits to have bylaws as part of their incorporation process. So, our bylaws help you to know that AST is operating within the law.

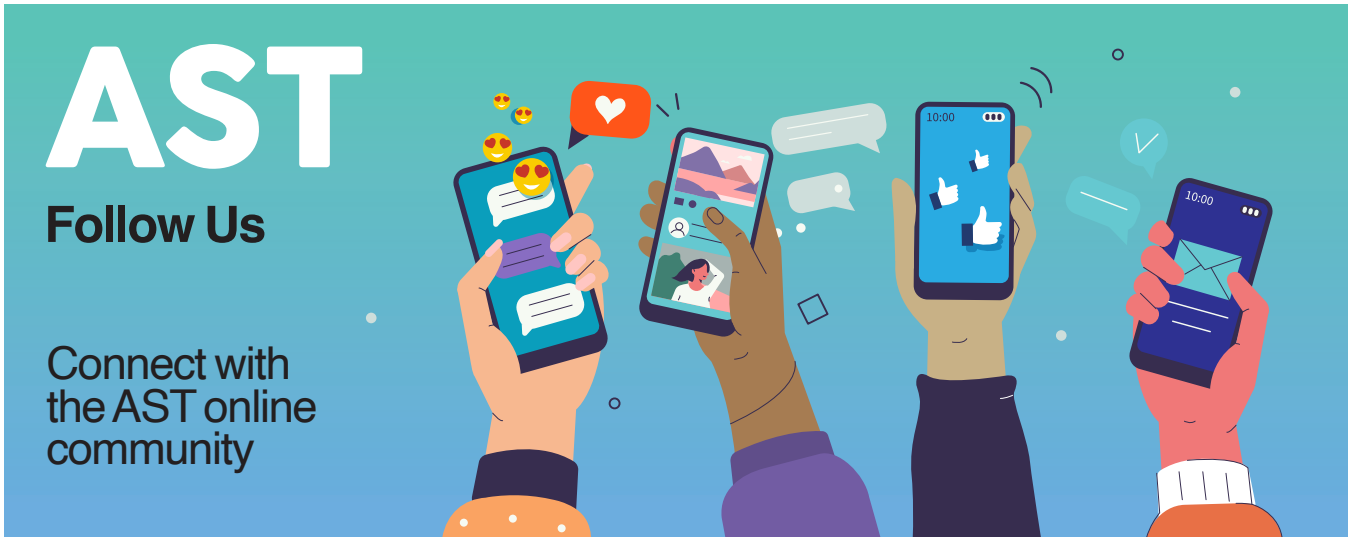
2. Clarity and Transparency: Bylaws create a clear structure for decision-making, helping to avoid conflicts and misunderstandings among members, elected boards, and AST staff. By spelling out exactly how we handle all these matters, AST is removing the guesswork about how business should be conducted.
3. Protection of Rights: Bylaws play a vital role in protecting the rights of members. By stipulating the process for voting on important issues, such as electing board members or approving budgets, this democratic process allows members to have a say in the organization's direction, thus empowering them to advocate for their interests.
4. Accountability and Governance: For members, bylaws establish a framework for accountability. This structure is essential for preventing abuses of power and ensuring that the organization stays focused on its mission. When members understand how the governance structure works, they can hold leaders accountable for their actions, fostering a culture of responsibility.
5. Adapting to Change: Our bylaws also offer a mechanism for adapting to change. The surgical technology profession is ever-changing, and our bylaws provide us with the procedures to amend and adapt to new challenges or opportunities.

Understanding what bylaws are and why they matter to us can only enhance our engagement in AST and our state assemblies. The bylaws give us an appreciation for what it takes to run an organization like AST, and how much of the work is carried out by volunteers. Now that you know more, ask yourself – am I engaging with AST and my state assembly enough? Can I do more to help further the great profession of surgical technology?

Learn more about the AST Bylaws

Learn more about the State Assembly Bylaws

Learn more about the AST Bylaws, Resolutions and Parliamentary Procedures Committee



A Professional Resolution

MARSHA LYLES, CST, CSFA, FAST, STATE ASSEMBLY LEADERSHIP COMMITTEE CHAIR

STATE ASSEMBLY

According to Simon Sinek, "Leadership is not about being in charge. Leadership is about taking care of those in your charge." People do not wake up one day and become leaders. It can take months even years to develop the skills needed to be a positive and influential leader. Leadership is the vital spark for an organization.

Happy New Year! 2025 is here and I believe we all are ready for a new year. As CSTs we know that we are resilient, both mentally and physically. We knew going into this profession that we could do what was asked of us in the face of the unknown. It is what we have always done, what we were taught to do, and we have once again persevered and look forward to a new year ahead. We are CSTs! We move forward and grow stronger. Individually we make ourselves better and smarter. All the things we knew we wanted to be when we began our journey into surgical technology. We continue to make our state assemblies stronger. In doing this we make our organization and our profession better. When we are strong, we are heard and that turns heads. I know that we have all complained about not being recognized, not being treated as professionals, and not being properly compensated. Well, it starts with each of you, and you need to start now. 2025 – what will your professional resolution be and can you promise to see it through? We can make a difference for ourselves thus opening the doors to recognition, professional treatment and respect and someday the compensation we deserve. My professional resolution for 2025 is to simply do and not try. No more trying to find the time, trying to find people to fill our seats on our state assembly board of directors, no more trying to make quorum and no more trying to drive our state assembly from the backseat. We all step up now. I am hoping that this small list of New Year's resolutions motivates every CST, student and facilitator in our organization. And I hope that there are many more resolutions added to your individual professional list as well as your state assembly list.

1. **Member-Get-A-Member**
   For each active member you recruit you get 2 months' free membership. Recruit 2 members get 4 months free. This is so simple and easy everyone should be able to achieve this resolution. Make this your starting point.
2. **State Assembly Workshop Attendance**
   Every state assembly's provide workshops each year. Most are in person now. These workshops provide a great source for your CE credit requirements. Many of those CE credits are awarded as your advanced credits. The topics on the agenda are always focused on our jobs or students. Your state assembly board of directors and workshop committee spend innumerable hours planning those workshops. Hours are spent recruiting speakers, attaining a venue, planning a meal and snacks and begging sponsors and reps to come and help cover many of the costs associated with the workshop. Allowing each of your membership dues and workshop fees to go towards many beneficial programs, scholarships, delegation at national conference and possibly legislation for your states.
3. **Host a Live Workshop**
   Hosting a workshop is a great way to get your toes wet

when it comes to your state assembly. You will be part of a committee that will work side by side with you along with your entire state assembly board of directors. So often many towns and subsequently people are asked time after time to host a live workshop. It becomes a burden on resources when this becomes standard. Members often hope to have live workshops closer to their homes, especially when it comes to geographically larger states. I am the president of the Montana State Assembly, and I know all too well about geographical hurdles along with seasonal obstacles and low population. I hope that if larger states like Montana can find hosts for live workshops other states will be able to do so as well.

4. **Get Involved on Your State Assembly Board of Directors**

   Volunteering to run for an office or director with your state assembly will be one of the most educational and rewarding things you can do for your professional career as a member of AST. You will know what it takes to keep a state assembly running, how national delegation works and the importance of having full delegations, what it takes to plan a workshop, financial and budget requirements, and the struggles those may be presenting in states with low memberships. The countless hours your officers and directors volunteer to make sure each member gets what they fully deserve and desire from their state assembly. The importance of membership involvement is paramount in professional development and success as a state assembly. You will be the change you want to see for your state assembly. You will be driven to pass along to your state assembly membership much of this new information. Wanting each member to better understand how important active involvement is. Eventually you will be recruiting your peers, friends, facilitators, and students to be involved. When you begin to be involved with your state assembly and hold seats on the state assembly board of directors, you may decide to serve on national committees, national board of directors and eventually you may be running for president of AST.

I hope this year your professional resolution is for each of you to become more involved and more passionate about the job we love. The new year of 2025 starts with each of us. There is no more trying. There is doing. Be proud and make this year, 2025, the year of the Certified Surgical Technologist.

Open Completion Proctectomy with Creation of J-pouch

Michaele L LePage, PhD, CST

A J-pouch, also known as an ileoanal pouch, is a surgically constructed internal reservoir that is made from the small intestine and is designed to store and pass stool after the removal of the colon and rectum. More simply, a J-pouch surgery is performed to construct a rectum.

While individual patient circumstances can dictate specificities of the surgery, generally there are at least two and sometimes three separate surgeries involved. This can depend on the patient's nutritional status, hemodynamics and overall clinical status. For the purposes of this discussion, we will assume three surgeries are necessary. The first surgery is to remove the colon. The second surgery, specifically the completion proctectomy (removal of the remainder of the rectum) and the actual construction of an ileoanal anastomosis, will be the focus of this article. A third final surgery is performed to reverse a temporary diverting loop ileostomy after healing of the J-pouch surgery is completed.

INDICATIONS

Ileoanal reservoir constructive surgery is commonly performed on individuals who have a history of ulcerative colitis (a form of inflammatory bowel disease) who are status post total colectomy with stoma/end ileostomy or on patients with a history of familial adenomal polyposis (FAP) who are status post total colectomy with stoma/end ileostomy. An additional indication for surgery on patients who otherwise qualify is the desire to discontinue use of the ostomy.

LEARNING OBJECTIVES

- Identify the anatomy that is affected by a completion proctectomy and creation of ileoanal pouch surgery
- Explain the proper bowel technique that certified surgical technologists must use for this procedure
- Discuss what is required for successful anastomosis
- List what conditions or diseases cause the need for a completion proctectomy and creation of a J-pouch
- Review what concerns the certified surgical technologist must anticipate for this procedure

PROPER BOWEL TECHNIQUE

Since this is a discussion about bowel surgery, it is of paramount importance that the certified surgical technologist adheres to the principles of bowel technique, namely ensuring that contaminated instruments are separated to prevent infection. Creating a surgical anastomosis of portions of bowel will require opening of the bowel and it is essential that the certified surgical technologist create a contamination zone to place instruments that become "dirty" as a part of this process. Clean and sterile instruments must be used when moving from bowel manipulation to other sterile areas to prevent cross-contamination (Maspero & Hull, 2023). Certified surgical technologists are vital in adhering to these protocols and should ensure that glove changes for the entire team are required at points during the surgical operation.

OPEN COMPLETION PROCTECTOMY WITH A DIAGNOSIS OF CREATION OF ILEOANAL POUCH SURGERY

The surgical technologist and circulating nurse should utilize surgeon preference cards to ensure proper armamentarium in the OR. Instruments, sponges, needles and any other soft materials should be counted according to facility policy prior to the patient entering the operating room. The patient is then placed under anesthesia according to the facility's protocol.

It should be noted that in some cases, the colorectal surgeon may elect to have the patient undergo cystoscopy with bilateral ureteral stent placement in order to facilitate ureter identification intraoperatively during the abdominal surgery. In this case, the certified surgical technologist should have a separate cystoscopy table set up. After successful stent placement and subsequent Foley catheter insertion by the surgeon, the cystoscopy table can be torn down. The certified surgical technologist will then rescrub and don a new gown and gloves for the abdominal completion proctectomy procedure.

Prior to commencing the abdominal surgery, the surgeon will remove the stoma bag from the patient and discard it in a biohazard bag. Adhesive remover wipes will be utilized to clean the surrounding skin. A grounding pad should be applied in anticipation of monopolar electrosurgical pencil use. The patient will be placed in the lithotomy position and will be prepped and draped per surgeon preference and hospital policy. During the draping, the surgeon will cover the stoma with a Raytec sponge, and the certified surgical technologist should make note to the RN circulator for counting purposes.

A midline or Pfannenstiel incision is performed by the surgeon. Because this is the second surgery as described above, extensive lysis of adhesions and repair of expected intraabdominal injuries are repaired. An Alexis wound protector or Bookwalter retractor is utilized for optimal visualization.

The surgeon will direct attention towards "taking down" the prior end ileostomy stoma in anticipation of creating a new pouch. Bipolar energy in the form of Ligasure Impact or Enseal versus Kelly clamps with 0 Vicryl ties may be utilized to dissect mesentery. A GIA linear stapler and subsequent reload is utilized for this purpose with resultant specimen of ileostomy trim. As discussed above, the certified surgical technologist should adhere to protocols regarding proper bowel technique throughout with a designated area to place contaminated instruments.

The surgeon will dissect down to the rectum and mesorectum. During this process, the bilateral ureters will be identified by recognizing vermiculation and care taken to avoid damag-

WHAT IS IT?

Inflammatory bowel disease (IBD): A chronic condition characterized by inflammation of the digestive tract. It primarily includes two disorders, namely Crohn's disease and ulcerative colitis. While Crohn's disease can occur anywhere in the digestive tract, it most often affects the end of the small intestine (the ileum). Ulcerative colitis, on the other hand, is restricted to the colon and rectum. Symptoms include abdominal pain, diarrhea, fatigue and weight loss. While the exact cause of IBD is unknown, it is believed to involve a combination of genetic, environmental and immune factors.

Familial adenomal polyposis (FAP): A rare inherited disorder characterized by the development of hundreds to thousands of polyps in the lining of the colon and rectum. Said polyps begin to appear in adolescence or early adulthood and increase in number over time. If left untreated, FAP nearly always leads to the development of colorectal cancer by age 40 or 50.

ing the ureters. The surgeon will need to ensure enough length of the small intestine to allow J-pouch creation and will monitor the progress throughout this stage. Of note, there are three essential elements that must be met in order to ensure a successful anastomosis. Namely, there must be no tension between the connecting intestinal parts; there must be no torsion of the connecting intestinal parts; and lastly, there must be adequate blood supply. Of note, the surgeon may choose to utilize indocyanine green dye with a laparoscopic camera with 0-degree scope to assist in ensuring adequate blood supply to the intestines.

The surgeon may perform rectal digitation to help determine adequate length of intestine to anus and the surgical technologist should be prepared to assist the surgeon with glove changes each time the surgeon performs a rectal exam. A Satinsky or other non-crushing vascular clamp is placed above the rectum just prior to the transection (completion proctectomy). A TA-30 stapler is utilized for this purpose.

The surgeon will again ensure the small bowel is able to reach the anal canal while creating a J-shape without tension or torsion. At this point, a side-to-side anastomosis is created using a GIA-100 stapler with reload are utilized to create a pouch that measures 15-18 cm in length. The surgeon may test the pouch with a saline filled Asepto syringe. An EEA stapler of the surgeon's choice should be opened at this point in anticipation of ultimate end-to-end anastomosis. Package will include both the stapler as well as an anvil. A purse-string stitch with 0 or 2-0 Prolene on an SH needle is then used around the open edges of the newly created pouch in anticipation of end-to-end anastomosis. The anvil of the stapler will be inserted with purse string tightened. The surgeon will ensure hemostasis and may use the Bovie monopolar cautery or Metzenbaum scissors to ensure the tissue is prepared for optimal stapler operation.

At this point, the surgeon will move to between the patient's legs in order to perform the ileal created pouch anastomosis. Both the surgeon and the assistant surgeon will ensure proper stapler placement and will have multiple checks prior to the actual firing of the stapler. After firing the stapler, the surgeon will use a hemostat to remove the proximal and distal anastomotic doughnuts from the stapler anvil to check that they are both intact with specimens sent to pathology.

After anastomosis, a leak test is then performed to ensure patency of the newly created J-pouch using the flexible sigmoidoscope. Of note, the appearance of the pouch appears to look like "owl eyes" because of the side-to-side anastomosis that created the reservoir. Post leak test, the surgeon will break and rescrub to don new gown and gloves.

Successful Anastomosis Requires:

No tension in the connected lengths of the intestine
No torsion or twising in the connected lengths of intestine
Adequate blood supply to connected lengths of intestine

To facilitate exudate and excess fluid removal status post-surgery, a #19 Blake drain is placed in the pelvis. A diverting loop ileostomy will be created to be utilized until the newly created ileoanal pouch heals. A rod and umbilical tape may be utilized in the creation of diverting ileostomy. Of note, umbilical tape is considered a countable item.

After creating a diverting loop ileostomy, the surgeon may irrigate the surgical wound and the entire surgical team changes gloves. The surgical wound closure can then begin. Depending on facility policy, a closing instrument set with a separate Mayo stand may be used for this purpose. Again, meticulous attention to bowel technique as discussed above is essential to reduce the risk of postoperative infection.

For wound closure, the fascia is closed with #1 PDS thereby closing the peritoneal cavity. Closing counts between RN circulator and certified surgical technologist takes place per facility policy. The skin is closed per surgeon preference and final count is performed. Surgical dressings are then applied to the incisions. The wound should be covered with fresh surgical towels in anticipation of stoma maturation. The diverting loop ileostomy then can be matured with 3-0

> Creating a surgical anastomosis of portions of bowel will require opening of the bowel and it is essential that the certified surgical technologist create a contamination zone to place instruments that become "dirty" as a part of this process.

Tumor thrombus level
GIA (gastrointestinal anastomosis) Linear Stapler: Places a double row of staples in a straight line with a blade that cuts between the rows.
TA (thoracoabdominal) stapler: Places two staggered rows of staples; no blade is present.
EEA (end-to-end anastomosis) stapler: A circular shaped stapler designed to create an end-to-end connection between two sections of the digestive tract.

Chromic on an SH needle. The stoma appliance is cut with curved Mayo scissors and applied over the freshly matured ileostomy. Of note, the stoma appliance is not sterile and thus the scissors should not be returned to the back table.

Assuming no postoperative complications or wound healing issues, surgeons generally wait at least three months prior to considering permanent diverting ileostomy reversal.

A J-pouch can enhance a patient's quality of life tremendously since it eliminates the need for a stoma. This requires a holistic approach, of course, with proper postoperative care, regular follow-ups, and lifestyle adjustments. Patient education about diet as well as adequate hydration and bowel management is essential to help patients adapt to their "new normal." Finally, psychological support during all phases of surgery as well as postoperatively is essential to improve patient satisfaction and overall sense of well-being.

AUTHOR'S BIO

Michaele L. LePage, CST, PhD. originally earned her surgical technology certification back in 1989 and has always been in the medical field. As the lead surgical technologist specializing in colorectal surgery at the prestigious Cleveland Clinic, she plays a crucial role in supporting complex surgical procedures. With extensive experience and a commitment to excellence, she has had the privilege of working with world-renowned colorectal surgeon, Dr. Steven Wexner, and has continually expanded her knowledge in this highly specialized field – something she still enjoys learning about every single day. Outside of work, she finds balance through her love of reading, her love of sports (especially football), acrylic painting, and caring for her beloved pets (better known as the LePage zoo).

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Open Completion Proctectomy with Creation of J-pouch

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1. What is the primary purpose of a J-pouch surgery?
a. To remove the colon only
b. To construct a new rectum using the small intestine
c. To repair a hernia
d. To create an external ostomy bag

2. Which condition is not an indication for J-pouch surgery?
a. Ulcerative colitis
b. Familial adenomatous polyposis (FAP)
c. Crohn's disease in the small intestine
d. Status post total colectomy with stoma

3. Which surgical tool is typically used to create the side-to-side anastomosis in J-pouch surgery?
a. GIA-100 stapler
b. TA-30 stapler
c. Ligasure Impact
d. Bipolar energy scalpel

4. What is the key consideration when performing an anastomosis between the small intestine and the anus?
a. Ensuring minimal blood flow to the pouch
b. Ensuring no torsion or tension and adequate blood supply
c. Avoiding the use of surgical clamps
d. Ensuring the presence of the colon

5. Which stapler is used for the rectum transection in the J-pouch surgery?
a. GIA-100 stapler
b. TA-30 stapler
c. Enseal stapler
d. EEA-33 stapler

6. What diagnostic tool may be used during J-pouch surgery to confirm blood supply to the intestines?
a. CT scan
b. MRI
c. Indocyanine green dye with a laparoscopic camera
d. Ultrasound

7. What is the primary purpose of the temporary diverting loop ileostomy created in J-pouch surgery?
a. To allow immediate bowel movements through the pouch
b. To reduce the need for future surgeries
c. To divert stool while the J-pouch that you 000 no there heals
d. To permanently divert bowel movements to an external pouch

8. What is a key complication that can arise if there is tension or torsion in the newly created J-pouch?
a. Infection
b. Pouchitis
c. Anastomotic failure
d. Herniation

9. What is the "leak test" performed after the creation of the J-pouch?
a. A blood test to check for infections
b. A procedure using a flexible sigmoidoscope to check the pouch for leaks
c. A test using CT scans to check the integrity of the pouch
d. A urine test to check kidney function

10. What is the approximate length of the J-pouch once it is created during the surgery?
a. 5-7 cm
b. 10-12 cm
c. 15-18 cm
d. 20-22 cm

OPEN COMPLETION PROCTECTOMY WITH CREATION OF J-POUCH
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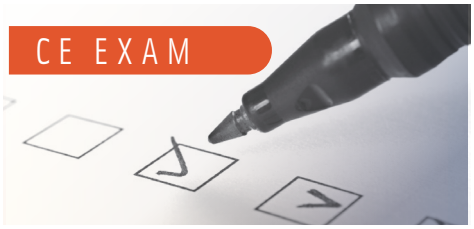

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A Brief Review of Ventriculoatrial and Ventriculopleural Shunts

Thirumal Yerragunta, Vijaya Sekhar Manda[1], Vamshi Krishna Yerramneni, Ram Nath Reddy Kanala

Abstract:

Introduction: Alternate approaches such as ventriculoatrial (VA) or ventriculopleural (VPL) procedures still have a place in the surgical armamentarium for patients with recurrent ventriculoperitoneal (VP) shunt failures related to defective absorption, infections, or frequent malfunctions.

Methods: We reviewed the literature and our experience with these techniques, and offered suggestions for safely performing these operations. Historical perspectives were also included to facilitate an improved understanding of the technical developments.

Results: Our findings and the available medical literature suggest VA and VPL options are safe and effective alternatives for managing the complex patient with hydrocephalus. Potential issues and complications were discussed along the technical advances for a safer operation.

Conclusion: The VA and VPL options should be considered for patients with recurrent VP shunt issues. They are safe and effective options for managing complex hydrocephalus patients.

Key Words:

Atruim, complex hydrocephalus, pleural space, shunt complications, ventriculoatrial shunt, ventriculopleural shunt

Key Message:

Ventriculoatrial and Ventriculopleural shunts remain effective alternatives for patients with recurrent ventriculoperitoneal shunt failures. Percutaneous insertion techniques (Seldinger method or trocar insertion) have refined the operations, and these alternative shunt procedures should be considered in managing complex hydrocephalus.

Although ventriculoperitoneal (VP) shunts have remained the mainstay of hydrocephalus management, alternate options are sometimes necessary. Recent technological advances have made VP shunts more durable and consequently, experience with the less commonly used shunts is becoming scarce. Alternate approaches such as ventriculoatrial (VA) or ventriculopleural (VPL) procedures still have a place in the surgical armamentarium, and their use will be reviewed here.

Historically, VA shunts have always enjoyed good functional outcomes, although they required multiple revisions due to growth in children and other complications. The chronic low pressure in the atrium along with cardiac activity somehow improves a shunt function and many patients have identified long-term benefits by this physiologic phenomenon. These are excellent alternate sites for patients with abdominal issues, poor absorption,[1,2] or other reasons such as peritoneal tuberculosis,[3] where the peritoneum cannot be utilized as a primary option for distal shunt placement.

Brief history and evolution of the VA shunt

The neurosurgery historical review suggests that few other surgical procedures have undergone so many modifications as the CSF diversion technique.[4] The concept of VA Shunt to divert CSF into venous or lymphatic system was first proposed by Gartner,[5] almost a decade before the first VP shunt in 1905 by Kaush. Pudenz observed in his animal experiments that placing the distal catheter tip in internal jugular vein (IJV) or superior vena cava (SVC) resulted in catheter blockage and vein occlusion due to capsule formation at the tip.[6] Thus, the placement of

catheter tip at right atrium had been standardized and in 1957, Pudenz introduced the VA shunt technique.[7] To access the right atrium, although various routes like external jugular vein,[8] transverse sinus,[9] or subclavian vein[10] had been described, the IJV became the choice for many surgeons due to infrequent complications.

The percutaneous access to the IJV for VA shunt insertion was first proposed by Sorge *et al*.[11] who used special instruments for the Seldinger's technique. Other surgeons later performed this procedure using various available sheaths and catheters to cannulate the IJV or subclavian vein to place the distal shunt tube into the right atrium.[10,12,13]

Preoperative evaluation

As the distal drainage of CSF is into the heart via the venous system, it is imperative that the patency of IJV and SVC be properly assessed preoperatively. Patients with a history of previous or current central venous line placement, history of pulmonary hypertension, or inherent cardiac abnormality should be evaluated with color doppler and 2D Echo.

Surgical considerations

The IJC vein is preferred over SCV due to anatomic advantage and fewer complications. Due to favorable venous anatomy, the right IJV is preferred over left unless contraindicated. Only the distal shunt insertion procedure will be reviewed here.

The patient is positioned supine, preferably on a radiolucent table with head turned to opposite side with mild extension of neck. Surgeon, assistant, and scrub nurse are ergonomically positioned to allow the fluoroscope during the placement of distal catheter.

For a VA Shunt, the distal catheter can be introduced into right atrium via an open method with IJV exposure or more commonly by using the percutaneous Seldinger's technique.

The original technique is suggested using the facial vein if large enough and easily accessible to insert the distal tubing (alternatively the IJV can be used, especially in small children). In an open method, the IJV is exposed after a vertical incision at the medial side of sternocleidomastoid muscle and catheter introduced after a small stab incision into the IJV. The distal catheter is then secured to the vein using a 6-0 Prolene suture in a purse string fashion.

In the percutaneous method, the right IJV is punctured at the cricoid level with an introducer needle at 30–40° angle to skin targeting the ipsilateral nipple. This is done while simultaneously palpating the carotid at superior apex of the sternocleidomastoid (SCM) muscle triangle. In case of altered anatomy due to previous surgeries or irradiation, ultrasound guidance is advised. The guidewire is inserted through the needle to approximately T6–T8 vertebral level (which corresponds to mid atrium) under fluoroscopic guidance with close monitoring of ECG or trans esophageal echocardiogram when available. A stab wound is made for the dilators. The introducer needle removed keeping the guide wire *in situ*. The serial dilators of the hemodialysis catheter are used to enlarge the track that is prepared over the guide wire. The dilator is removed, keeping the guide wire in place, and lastly, a peel-away sheath of 10-12 F (Mahurkar Chronic Carbothane catheter kit, Covidien, Mansfield, Massachusetts, United States) size is introduced over the previous dilator. The guide wire and the inner dilator are removed, leaving an open channel for passage of the distal catheter (brought to this site from above). The catheter is measured and cut to the approximate length for reaching the D6 spinal level. A heparin flush can be given in to the IJV before placement of the catheter. The distal tube is gently passed into the peel-away sheath with a simultaneous fluoroscopy and ECG tracking. After confirmation of proper distal tip placement, the outer sheath is gently peeled off while securing the catheter *in situ*.

Sometimes, peel-away sheaths are not available or the dilators are of a smaller diameter that will not allow passage of the distal catheter (i.e., Chabbra shunt (Surgiwear, India) that has an outer diameter of 7.5 F). In such instances, the distal catheter tube is measured and divided from the neck stab wound and advanced into the atrium over the stand alone guide wire (after dilator removal). The proximal and distal tubing are finally joined over a connector and secured.

The final position of the tube is confirmed again with the fluoroscope after repositioning the neck to the neutral position. If the catheter tip is not visible properly, a contrast agent can be administered via the catheter to improve visualization.

Final hemostasis is verified and the wounds are closed, with pressure padding applied over the cervical stab wound for a day.

Postoperative evaluation

A chest x-ray should be done postoperatively to document the position of the catheter tip and to rule out a pneumothorax. Postoperatively, ECG should be monitored closely for 1–2 days for cardiac arrythmias and if they persistently occur, the distal catheter can be withdrawn by 1–2 cm.

Complications

Complications after a VA shunt operation may be early or delayed [Table 1]. Early complications can be arrhythmias, pneumothorax, thrombosis, endocarditis, or pulmonary thromboembolism.[14] Venous thrombosis usually responds to low molecular weight heparin with or without the need for shunt revision. Sepsis with endocarditis needs urgent removal of the shunt system with appropriate culture sensitive antibiotics with simultaneous external ventricular drainage. Pulmonary thromboembolism is managed with low molecular weight heparin after removal of the shunt.

Table 1: Early and late complications after a VA shunt operation

Complications of VA Shunt	
Early complications	**Delayed complications**
Bleeding	Outgrowing the shunt
Arrhythmias	Shunt nephritis
Venous thrombosis	Shunt occlusion
Endocarditis and sepsis	Pulmonary thromboembolism
Pneumothorax	Delayed intracranial hemorrhage
Wound infection	Cor Pulmonale

Delayed complications such as shunt tip migration in growing children, shunt nephritis, delayed shunt occlusion due to venous thrombosis or shunt tip occlusion, or chronic pulmonary micro thromboembolism leading to life-threatening cor pulmonale.[15]

Shunt migration is one of the most common complications in VA shunt and requiring an elective revision in more than two-third of the patients.[16] In children where VA shunt is done before the cessation of growth spurt, chest x-ray every 2–3 years may give us an early clue of shunt migration. Shunt-related glomerulonephritis is a rare, reversible immune complex-mediated infection leading to end-stage renal disease. This complication may occur within a month or be diagnosed several decades later. Most patients will require antibiotic therapy with shunt removal, and will generally have a favorable outcome.[17,18] VA Shunt malfunction due to any of the above causes will present with features of raised intracranial pressure (ICP) and should be immediately noted and the cause must be addressed.

The ventriculopleural shunt

The pleural cavity is an excellent option for patients who are otherwise not good candidates for peritoneal or other distal placements.[19] Although rarely used today, this operation offers long-term successful shunt function for many individuals, and can be considered in children as young as 4–5 years of age. As such, the neurosurgeon should familiarize himself or herself with this technique and its nuances. Interestingly, the pleural cavity also has a vacuum that allows improved shunt function in certain cases. In addition, this cavity can accommodate extra tubing to allow for a child's growth.[20] Most patients tolerate a shunt within the pleural space, and the large surface usually accommodates the typical amount of CSF output in the hydrocephalic patient (after the initial period of adjustment to the new challenge).

Brief history and evolution of VPL shunt

Ventriculopleural (VPL) shunting for hydrocephalus was first introduced by Heile in 1914.[21,22] Hoffman, *et al*.[20] (1983) gave support to this option and provided a nice historical review, citing an initial attempt to drain CSF into the thoracic duct and pleural cavity by Ingraham and Sears. They chronicled other refinements by Ransohoff in 1954 and 1963, and Fein and Rovit, Venes (1979). With the advent of the VA shunt, this technique has lost some of its original popularity, although it remains an excellent option for challenging cases. The worldwide experience with VPL is limited in the literature but historically this technique has enjoyed a positive benefit for the patients in most instances.[22-25]

At King George Hospital, part of Andhra Medical College, Visakhapatnam, India (a tertiary care facility), only one VPL shunt was performed out of 112 shunt operations over the past 3 years. This speaks to the rarity of this surgical option in most centers and is offered for a patient who has exhausted most other options for effective shunting.

Technique

The proximal insertion technique is the same as others, and entering the pleural cavity is most easily done using a trocar. An open technique is also feasible but may be more cumbersome and time-consuming.

The pleural space is accessed after distal tunneling using a stabbing session and a trocar is used above the rib (to avoid the vascular and neural bundle on the lower side). The anesthesiologist requested not to ventilate the patient during penetration, and the area is continuously irrigated so as to avoid a large pneumothorax. A positive pressure Valsalva maneuver is performed by the anesthesia team to expel any excess air from the pleural cavity prior to removing the trocar. Approximately 25–30 cm of distal tubing can be easily inserted into the pleural cavity even in small children (this length helps keep the shunt in the pleural space, decreasing the possibility of external migration).

An immediate postoperative x-ray is obtained to assess the tube placement and free air in the pleural cavity. The patient will need to be followed up for several days for clinical issues (i.e., breathing difficulties) and radiographic deterioration (i.e., increasing plural effusion). The amount of pleural fluid buildup typically increases over the next few days prior to improved absorption.

Not every patient can readily absorb CSF output and the cavity needs to be 'primed' over a few weeks. During the initial phases of placement, the patient needs to observed closely for enlarging pleural effusions that sometimes require periodic thoracentesis. The patient will almost always maintain a small amount of pleural fluid that can be verified by x-rays, especially in the lateral decubitus position.

Rarely, the patient cannot tolerate the device and another distal insertion site might need to be considered. Pneumonia occurring close to the catheter may extend into the pleural space, leading to pleurisy or fibrosis. Loculated fluid collections may occur, causing issues with fluid absorption or symptoms of shunt malfunction.[26,27]

Surgical consideration (open technique)

An incision is made over sixth intercostal space and the pleura is entered at the upper border of the rib to avoid injury to neurovascular bundles that lie inferiorly. The intercostal muscles are dissected with a curved hemostat and the pleura is exposed. Positive pressure is performed by the anesthetist during pleural penetration and distal shunt insertion. Entry into the chest cavity is accomplished with a small mosquito hemostat along with the distal shunt tubing.

Approximately 25–30 cm of tubing is gently and freely advanced into the pleural cavity while the area is irrigated to minimize air entry. The wounds are closed after confirming that there are no air or CSF leaks. Rarely, additional deep sutures are required if a pleural opening is made.

An immediate 2-view chest x-rays are taken to asses distal tube placement and amount of free air in the chest cavity. Serial films are required (using lateral decubitus positioning) to evaluate CSF accumulation and the patient is followed closely for respiratory issues. Enlarging pleural effusions sometimes require periodic thoracentesis.

Complications

Complications after VPL shunt surgery include infections, CSF over drainage, catheter obstruction, distal catheter retraction,

Table 2: Early and late complications after a VPL shunt operation

Complications of VPL Shunts	
Early complications	**Delayed complications**
Bleeding	Pleural effusion
Pneumothorax	Shunt nephritis
Wound infection	Distal occlusion
Pleural effusion	Fluid loculation
	Outgrowing the shunt

and symptomatic and asymptomatic pleural effusions Table 2. In rare instances, loculations or focal abscesses/empyema may occur after a bout of pneumonia infecting the foreign body in the pleural space. The possibility of scarring and pleurisy with a pain syndrome may occur, but relatively unusual.[15,23,22]

Key points regarding VPL shunts

1. The pleural cavity should be without any fibrosis or adhesions and the lung should be free from any underlying pathologies.
2. Children with small chest and decreased pleural cavity may not accommodate or absorb CSF adequately. The patient should be above 5 years of age having good volume of pleural cavity.
3. Due to the negative pleural pressure, there may be over drainage of CSF resulting either slit ventricle syndrome or large pleural effusion.[28] Lower end with anti-syphon valve may overcome this.[29]
4. The distal tubing in the pleural cavity may irritate the pleura and produce pain. There are no studies regarding ideal tubing length, although it is known that short 9 (less than 10 cm) may migrate out of the pleural space.
5. The patients must be thoroughly screened pre- and post-operatively for pulmonary and pleural reserves. Inadvertent injury to lung should be evaluated with post procedure chest x-rays.
6. Entry into pleural space by trocar insertions is an alternative for open procedure 2.[30,31]

The failure rates may be equal as that of VP shunts, because similar mechanisms causing inadequate absorption may play a role in both sites, resulting in persistent pleural effusions and causing symptoms. In such cases, pleural shunt removal may be necessary.

Discussion and Conclusion

Among the various time-tested procedures for CSF diversion, the VP shunt remains the gold standard. In select cases and because of technical advances, the minimally invasive endoscopic third ventriculostomy (ETV) operation has emerged as a better alternative. However, in few situations where both VP and ETV procedures have failed, other options need to be explored to minimize the morbidity. For such patients, VA and VPL shunts remain an excellent alternative (along with others such as ventriculo-subgaleal or ventriculo-gall bladder options).

The VA shunts are considered an excellent alternate for patients with abdominal issues like impaired absorption, peritoneal tuberculosis, and the like. Improved shunt function has made this a reliable alternative for many surgeons. However, the major drawbacks of infection, chronic lung/kidney issues or multiple revisions in the pediatric population remain as major concerns of this procedure.

The VPL shunts are an effective alternative to overcome some of these challenges. The revision rate is low and for the most part, the operation is similar to a conventional shunt. Only the distal end insertion into pleural cavity by a trocar or conventional open method are different. This is relatively a simple technique, but the surgeon should be careful about lung contusion or development of a large pneumothorax. Patients often require to improve CSF absorption from the pleural space, and in some cases become symptomatic with respiratory issues.

In spite of few such challenges, the VA and VPL shunts still remain effective alternatives for patients with recurrent VP shunt failures related to defective absorption, infections, or frequent malfunctions. Especially with technical advances of percutaneous insertion (Seldinger method for VA and trocar insertion for VPL), the standardized procedures have become less cumbersome and more effective. They should be added to the surgeon's options for managing patients with complex hydrocephalus.

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Conflicts of interest

There are no conflicts of interest.

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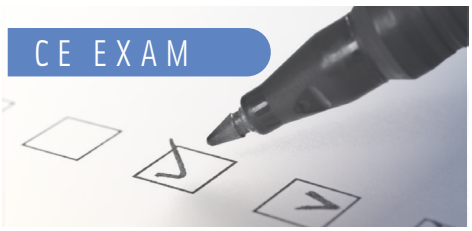

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A Brief Review of Ventriculoatrial and Ventriculopleural Shunts

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1. **Which of the following physiological functions of the heart contribute to a positive outcome of a ventriculoatrial (VA) shunt?**
   - **A.** Left ventricle high pressure
   - **B.** Right atrium low pressure
   - **C.** Right ventricle low pressure
   - **D.** Left atrium high pressure

2. **Which vein is the preferred choice for surgeons to access the atrium?**
   - **A.** Left external jugular
   - **B.** Left internal jugular
   - **C.** Right external jugular
   - **D.** Right internal jugular

3. **What type and size of suture should the CST have available for the surgeon to secure the distal portion of the VA catheter to the vein when the open method is utilized?**
   - **A.** 6-0 Prolene
   - **B.** 5-0 Vicryl
   - **C.** 7-0 Nylon
   - **D.** 8-0 Monocryl

4. **What level is the guidewire inserted through the needle when the percutaneous method for a VA shunt is utilized?**
   - **A.** T1 – T3
   - **B.** T3 – T5
   - **C.** T6 – T8
   - **D.** T7 – T9

5. **What size French peel-away sheath should the CST confirm is available for use when the percutaneous method for a VA shunt is performed?**
   - **A.** 4 - 6
   - **B.** 7 - 9
   - **C.** 10 - 12
   - **D.** 13 - 15

6. **Which of the following is the most common complication of a VA shunt?**
   - **A.** Migration
   - **B.** Venous thrombosis
   - **C.** Cor pulmonale
   - **D.** Glomerulonephritis

7. **What length of distal tubing in centimeters is required for insertion into the pleural cavity?**
   - **A.** 9 - 13
   - **B.** 14 - 18
   - **C.** 19 - 24
   - **D.** 25 - 30

8. **Which intercostal space is the incision made for an open procedure for ventriculoperitoneal (VP) shunt placement?**
   - **A.** Second
   - **B.** Fourth
   - **C.** Sixth
   - **D.** Eighth

9. **A patient should be more than ___ years of age to have an adequate pleural cavity when a VP shunt is placed.**
   - **A.** 2
   - **B.** 3
   - **C.** 4
   - **D.** 5

10. **What solution should the CST have ready when the surgeon wants to flush the internal jugular vein before placing the catheter during a VA shunt placement?**
    - **A.** Lactated ringers with antibiotic
    - **B.** Heparinized saline
    - **C.** 0.9% sodium chloride
    - **D.** Sterile water

A BRIEF REVIEW OF VENTRICULOATRIAL AND VENTRICULOPLEURAL SHUNTS
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Charles Drew, MD: "Father of the Blood Bank"

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MEDICAL MARVELS

Charles Drew, MD (1904 – 1950), is considered the "Father of the Blood Bank." As a surgeon and researcher, he established many of the modern-day practices of blood preservation and plasma infusion. He was the leader in the first effort at large-scale blood donation and collection in New York with the Blood for Britain program at the beginning of World War II and then nationally through the American Red Cross. Howard University urgently recruited him to be the Chair of the Department of Surgery and Chief of Surgery at the Freeman's Hospital in Washington, DC, where he educated many African American surgeons. His tragic death at the age of 46 contributes to the story of his life as one of the leading figures in U.S. medical history.

Dr. Drew was born on June 3, 1904, in Washington, DC, of an African American carpet layer and a mother who was a teacher. Even at the early age of 12 he exhibited a sense of responsibility by managing a crew of six newspaper delivery boys. He was an excellent athlete in football and track in high school and college. While attending Amherst College in 1922 he lettered as a freshman in football and by his junior year was recognized as a top athlete in football and track which would, by tradition, have led to his being appointed as captain of both teams. However, unsurprisingly due to the times, because he was African American, captain of the football team was denied; however, he was elected as captain of the track team.

Upon graduation from Amherst in 1926, he taught biology and chemistry at Morgan College in Baltimore, Mary-

land, as well as coached the football and track teams for two years to earn money to attend medical school. He was offered the opportunity to attend Harvard Medical School, but they wanted to delay his admission for a year. Consequently, he attended McGill University in Quebec, Canada, in which it has been surmised his choice was based on the character of Canadian schools as having a non-discriminating environment. He graduated second in his class in 1933 and completed a one-year residency in medicine at Montreal General Hospital where he studied shock and resuscitation.

Wanting further training in surgery in the US his options were limited to the Freedman Hospital in Washington, DC, and Meharry Medical College in Nashville, Tennessee, because of his race. He was accepted at the Freedman Hospital and after one year applied for and accepted a position as an instructor of pathology at the Howard University College of Medicine in 1935. A year later he was also appointed as an assistant in surgery and resident at Freedman's, followed by an appointment as assistant surgeon in 1937-1938.

When in Montreal, Dr Drew had the opportunity to study fluid resuscitation and shock and in 1939 was recruited by John Scudder, MD, to establish an experimental blood bank. Together, they researched blood preservation and transfusion therapy. Dr Drew discovered that plasma could be stored without refrigeration and would not deteriorate during transportation, and therefore, serve as an excellent substitution for whole blood without having to worry about blood type. Dr Scudder described Drew's work as a "masterpiece." Their research became of utmost importance with the advent of World War II and Britain's need for medical supplies to include blood and plasma when the Battle for Britain occurred in July 1940. The Blood Transfusion Betterment Association, formed by a group of New York Hospitals, met with British medical authorities and the Blood for Britain program was established.

The call for volunteer blood and plasma donors went out in August 1940 and by October 10,000 appointments had been made at eight different hospitals with shipping to England to begin in November. However, it became apparent in September that a medical director was needed, and the obvious choice was Dr Drew as the recognized authority on blood preservation and use of plasma.

When the US became involved in the fighting, the American Red Cross (ARC) was named at the organization to assist with expanding the blood collection program and Dr Drew was named the director of the first ARC blood bank at Presbyterian Hospital. The National Research Council (NRC) named him as assistant director for blood procurement and among his many innovations he created the first blood mobile van for blood collection and refrigerated storage. However, the US was still amid discrimination. The national program of blood donation inevitably led to the question of the racial identify of the donor. The Blood for Britain program labelled units of plasma by race as well as did other blood banks both in the north and south and eventually the ARC. Because of these practices, Dr Drew resigned his positions with the ARC and NRC.

Dr Drew's career continued by being named as the professor and head of the department of surgery at Howard University and chief surgeon at Freedman's Hospital. In 1948, his first class of surgical residents passed the certification examination of the American Board of Surgery (ABS). However, despite all his achievement, he continued to face discrimination. The District of Columbia chapter of the American Medical Association would not accept him for membership making him ineligible to be a member of the national organization. He also refused to join the American College of Surgeons because the organization at the time did not accept other qualified African American Surgeons.

Despite these setbacks, he was recognized by others for his accomplishments. He served as a consultant to the Surgeon General regarding surgical facilities in Europe after WW II. The National Association for the Advancement of Colored People gave their highest award, the Spingarn Medical, in recognition of his work on blood preservation and plasma infusion.

In the early morning hours of April 1, 1950, Dr. Drew and three other physicians started driving to Tuskegee, AL to attend an annual physician's meeting. Upon his turn to drive, he fell asleep at the wheel and the car went off the road overturning several times. He suffered crushing injuries to the head, chest, and leg. He was taken by ambulance to Alamance General Hospital in Burlington, Alabama, where it was eventually confirmed that he received excellent care from white physicians who worked hard to preserve his life including giving IV infusions. He died two hours later because of the extensive injuries, particularly to

the chest. A myth arose that he had been turned away from a white-only segregated hospital that was further emphasized in a *Time* magazine article and in the TV show M*A*S*H (season 2, episode 9). However, it was later confirmed by physicians who investigated the incident that this was not the case. He was 46 and left behind a wife and four children.

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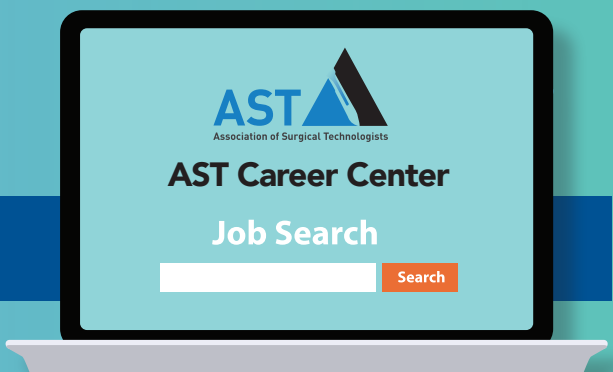

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Catheryn P. Hart..... IL
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Sharon Lee Surma, CST..... FL
Deborah J. Swain, CST, FAST ..... KY
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Jean Allison Wade, CST.....NC
Elizabeth Ann Weese.....AR

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Kathy Ann Bittner, CST ..... IN
Ruben Campbell, CST..... IN
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Louise W. Terranova, CST ..... FL
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Lisa B. White, CST..... IN

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Susan L. Coe .....NY
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Beverly Jo Crady, CST, CSFA..... KY
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Tammara Verduin, CST ..... TX
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Karen Marie Mills, CST .....MN
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Penny Lee Boyce, CST.....MN
Eileen Crigler, CST, CSFA ..... FL
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Nadine Davis..... KY
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Victoria French, CST ..... MO
Cynthia Fuentes, CST, CSFA, FAST. TX
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51+ YEARS

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Dorothea Spangler Cooper, CST,
FAST, LPN ..... PA
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Jeanne M. Morrison, CST .....GA
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Patricia Lee Sooter, CST, FAST .... TX
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Global Health Officials Discuss the Implications of Antimicrobial Resistance (AMR)

OF INTEREST IN THE MEDICAL ARENA

In September 2024 international health officials met at the United Nations to discuss the global threat and challenges presented by AMR. The proposed approach represents a dramatic change in previous tactics to control AMR with an emphasis on promoting access to antibiotics for economically disadvantaged countries while still controlling their use in higher income countries.

According to the United Nations, AMR pathogens kill approximately 1.3 million people worldwide per year.[1] A recent analysis published in *The Lancet* estimates that over a million deaths were attributable to AMR and using a statistical model, the researchers projected that more than 39 million people could die from AMR infections over the next 25 years.[2] Even though the number of deaths from AMR in children under five years of age has significantly decreased from 1990 to 2021, the number of deaths in adults over the age of 70 increased by over 80%.[2] This is especially concerning with the rapidly aging population.

In a report published by the Center for Global Development, the researchers estimate that AMR infections could cause a $1.7 trillion reduction in economic output because of lost productivity by 2050. Additionally, the researchers reported that AMR health costs would increase to $325 billion by that same year if current infection rates continue in the low- and lower-middle-income countries.[3] The effects of this would have serious effects on the world economy.

The new approach focuses on prevention through higher vaccination rates and improving access to AMR antibiotics in low- to lower-middle income countries, while continuing to control their use in higher-income countries. As stated by Dr. Ramanan Laxminarayan, economist and epidemiologist, founder and director of One Health Trust and director of the WHO's Collaborating Center for Antimicrobial Resistance, "Millions of people around the world have never even taken an antibiotic because they can't afford them. We're trying to move away from the issue of resistance, which is hard for the public to understand, and more to entitlement, which is that everyone should have access to an effective antimicrobial."[4]

However, a major roadblock in the production of new antibiotics is the skewed world of pharmaceutical companies' economics. Many pharmaceutical companies have withdrawn from the business of developing new antibiotics because that is not where the profit lies.[4] The drug market is focused on discovering and marketing more lucrative drugs that are taken for a longer period by patients to treat chronic conditions such as diabetes, thus establishing a stable revenue. An antibiotic is only taken for a few days or weeks while much of it takes up room on the pharmacy shelves.

An example of resolving this is given by the pharmaceutical company Shionogi, a company well known in the past for its pioneering antibiotics. Shionogi partnered with the nonprofit organization Global Antibiotic Research & Development Partnership (GARDP) and the Clinton Health Access Initiative to manufacture and bring to the market the new antibiotic cefiderococol that is effective in treating resistant bacterial infections, hospital acquired pneumonia, and complex urinary tract infections.[4] The drug received U.S. FDA approval in 2019.[4] Dr. Manica Balasegaram, GARDP's executive director, stated, "I see AMR as a low-hanging opportunity to really demonstrate tangible action between countries, and between the public and private sector, using solutions we've already been discussing for a long time."[4]

References:

1. Travers E. Invisible killer: What is antimicrobial resistance? *U.N. News*, 2024. https://news.un.org/en/story/2024/09/1154891#:~:text=Antimicrobial%20resistance%20(AMR)%20is%20an,million%20other%20fatalities%20every%20year.
2. The Lancet Respiratory Medicine. Antimicrobial resistance: A global health emergency. *Elsevier, Ltd.*, 2024. https://doi.org/10.1016.52213-2600(24)00331-X.
3. McDonnell A. Countryman A, Laurence T, Gulliver S, Drake T, Edwards S, Kenny C, Lamberti O, Morton A, Shafira A, Smith R, Guzman J. Forecasting the fallout from AMR: Economic impacts of antimicrobial resistance in humans. *Center for Global Development*, 2024. https://www.cgdev.

org/publication/forecasting-fallout-amr-economic-impacts-antimicrobial-resistance-humans.
4. Jacobs A. The global threat of antibiotic resistance. *New York Times*, 2024. https://www.nytimes.com/2024/09/26/health/united-nations-drug-resistance-antibiotics.html

Study Reveals *S. aureus* Connected to Surgical Site and Bloodstream Infections

According to the findings of a study published in August 2024 issue of *Open Forum Infectious Diseases*, nasal *Staphylococcus aureus* (SA) is associated with SA post-operative surgical site and bloodstream infections. The study included 5,004 patients from 33 hospitals in ten European countries and 12 types of surgery were included in the study. 2,491 patients were male and 2,513 were female. 67.3% of the patients were confirmed to be SA carriers with a median age of 65 years. 100 SA postoperative surgical site or blood infections were identified with the researchers confirming an association between surgical site or blood infection and SA carriage at any site as well as nasal SA carriage.

The World Health Organization (WHO) recommends nasal decolonization for cardiothoracic and orthopedic procedures applying intranasal mupirocin 2% ointment with or without chlorhexidine gluconate bodywash. According to Jan Kluytmans, MD, professor of medical microbiology at the University Medical Center, Utrecht University in Utrecht, Netherlands and lead author of the study, "However, it is not widely practiced, and although that was not a surprise to me, I think it's really disappointing to see that proven effective strategies are not being practiced." He continued by saying that some may have a concern regarding the potential for antibiotic resistance, but studies have shown when decolonization is used in the short-term resistance has not been an issue.

A strength of the study is its numbers making it the largest prospective study yet conducted with a focus on SA carriage in surgical patients. According to Heather Evans, MD, professor of medicine at The Medical University of South Carolina and current President of the Surgical Infection Society, many healthcare facilities test for MRSA, but usually not SA. She said, "This is a very interesting and compelling study that makes us rethink that, and maybe it isn't even worth testing to see if you have *S. aureus*, maybe we should just be putting betadine in everyone's nostrils when they come to the operating room."

Reference:

Kling J. *S. aureus* in nose linked to blood and surgical site infections. *Medscape Medical News*, 2024. https://www.medscape.com/viewarticle/s-aureus-nose-linked-blood-and-surgical-site-infections-2024a1000he1.

Bioabsorbable Electrical Stimulation Suture – May Speed Up Wound Healing

A recent study published in *Nature Communications* reported the development of a bioabsorbable electrical stimulation (ES) suture (BioES-suture) that was tested on rats with effective results. Synthetic absorbable sutures usually cause minimal tissue reaction and are biocompatible, but they are not known to shorten the time it takes for the tissues to heal. Research has shown ES contributes to wound healing by stimulating the growth factor production and cell proliferation as well as supports the movement of potassium and sodium ions between the tissues. CSTs are familiar with the transcutaneous electric nerve stimulation (TENS) units that are used to suppress postoperative pain by stimulating the sensory nerve fibers.

The BioES-suture consists of a core material composed of poly-lactic-co-glycolic (PLGA) nanofibers and polycaprolactone fibers that form the power generating unit twisted onto a magnesium filament that is the electrical energy harvesting unit. Biocompatibility tests were performed confirming the suture is non-toxic and the electrical capabilities were tested as well for safety. Performing *in vitro* degradation testing the research team reported the core and electrode fibers degraded within 14 days, but there was no degradation of the BioES-suture after 24 weeks.

During *in vitro* testing placing suture into rat leg musculature with BioES-suture, the test results indicated that BioES-suture converted body movements into steady electrical impulses. Additional testing showed accelerated wound regeneration and improved tissue migration as compared to the rat groups that received bioabsorbable suture and no-suture (control group). Other discoveries included collagen deposition mimicking the proliferation phase (phase 2) of first intention (primary union) wound healing, and improved healing outcomes as compared to conventional suture material with significantly reduced bacterial counts in culture.

In general, the research team showed that the BioES-suture can generate an internal electric field converting body movements into ES, encourage cell proliferation and migration, and contribute to preventing a surgical site infection.

Reference:

Sun Z, Jin Y, Luo J, Li L, Ding Y, Luo Y, Qi Y, Li Y, Zhang Q, Li K, Shi H, Yin S, Wang H, Hou C. A bioabsorbable mechanoelectric fiber as electrical stimulation suture. *Nature Communications,* 2024. https://doi.org/10.1038/s41467-024-52354-x.

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ALABAMA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 8, 2025
Title: Marching Into Excellence
Online Registration at: alabamaastinfo.org
Location: Brookwood Baptist Medical Center, 2010 Brookwood Medical Center Dr, Birmingham, AL 35209
Contact: Abigail Jones, 7839 County Road 1, Daleville, AL 36322, 334-389-1250, abigailcarter8614@gmail.com
CE Credits: 6

ARIZONA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 1, 2025
Title: Wild Wild West
Online Registration at: azsaofast.org
Location: Honor Health - Network Support Services Center (NSSC), 2500 W Utopia Road, Phoenix, AZ 85027
Contact: Cecilia Sheridan, azsa.assembly@gmail.com
CE Credits: 4

ARKANSAS STATE ASSEMBLY

Program Type: Workshop
Date: March 8, 2025
Title: Spring Forward with Surgical Precision
Online Registration at: ar.ast.org
Location: National Park College-Student Commons, Bldg Rms 122-124, 101 College Dr, Hot Springs, AR 71913
Contact: Tamara Morgan, 479-414-6720, tamara.morgan@uafs.edu
CE Credits: 6

COLORADO/WYOMING STATE ASSEMBLY

Program Type: Webinar (approved only Colorado/Wyoming State Assembly members)
Date: February 2, 2025
Title: Two Sweet Credits
Contact: Julie Beard, 720-256-5863, information@coloradoast.com
CE Credits: 2

Program Type: Webinar (approved only Colorado/Wyoming State Assembly members)
Date: April 26, 2025
Title: April Showers
Contact: Julie Beard, 720-256-5863, information@coloradoast.com
CE Credits: 3

Program Type: Webinar (approved only Colorado/Wyoming State Assembly members)
Date: July 30, 2025
Title: Working Wednesday
Contact: Julie Beard, 720-256-5863, information@coloradoast.com
CE Credits: 2

CONNECTICUT STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: February 8, 2025
Title: Hartford Hospital's Multidisciplinary Surgical Conference
Location: Hartford Hospital, 560 Hudson St, Hartford, CT 06106
Contact: Jonathan Brown, PO Box 581, Monroe, CT 06468, 203-650-9936, presidentctast@gmail.com
CE Credits: 6

GEORGIA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 8, 2025
Title: Knowledge in Bloom
Online Registration at: ast-gasa.com
Location: Gwinnett Technical College, 5150 Sugarloaf Pkwy, Lawrenceville, GA 30043
Contact: Erin Baggett, PO Box 109, Auburn, GA 30011, 678-226-6943, gasawebmaster@gmail.com
CE Credits:7

INDIANA STATE ASSEMBLY

Program Type: Workshop
Date: March 1, 2025
Title: ISA Spring Conference 2025
Location: Ivy Tech Community College Terre Haute, 8000 S Education Dr, Terre Haute, IN 47802
Contact: Lora Hofmann, PO Box 421673, Indianapolis, IN 46242, 812-201-9563, lhofmann1@ivytech.edu
CE Credits: 6

IOWA STATE ASSEMBLY

Program Type: Workshop
Date: April 5, 2025
Title: IASA Spring 2025 Workshop
Online Registration at: ia.ast.org
Location: Western Iowa Tech Community College, 4647 Stone Ave, Sioux City, IA 51106

Contact: Tim Danico, 1331 Sierra Dr NE, Apt 14, Cedar Rapids, IA 52402, 319-540-6008, ttimothy-danico@uiowa.edu
CE Credits: 8

NEW JERSEY STATE ASSEMBLY

Program Type: Workshop
Date: April 5, 2025
Title: NJAST Spring Workshop
Location: Robert Wood Johnson University Hospital, 1 Robert Wood Johnson Pl, New Brunswick, NJ 08901
Contact: Kristen Price, PO Box 218, Ridgefield Park, NJ 07660, 908-310-3238, njast3@icloud.com
CE Credits: 6

NEW MEXICO STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 1, 2025
Title: Spring Ahead Conference, Business Meeting & Elections
Location: UNMH North Campus; Domenici Center Auditorium, 1001 Stanford Dr NE, Albuquerque, NM 87193
Contact: Ruth Borah, PO Box 66496, Albuquerque, NM 87193, 848-391-3661, ruth.kerrjusinski@gmail.com
CE Credits: 5

NORTH CAROLINA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 1, 2025
Title: NCSA Spring Workshop
Location: Duke Health Raleigh Campus, 3400 Wake Forest Road, Raleigh, NC 27609
Contact: Brittany Toth, PO Box 902, Mooresville, NC 28115, 507-720-1892, ncsaast@gmail.com
CE Credits: 6

OHIO STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: April 11-13, 2025
Title: Best in the Midwest
Location: Renaissance Columbus Westerville-Polaris Hotel, 409 Altair Parkway, Westerville, OH 43082
Contact: Michael Pickering, 614-439-3428, ohioast@gmail.com
CE Credits: 15

PENNSYLVANIA STATE ASSEMBLY

Program Type: Workshop
Date: March 29, 2025
Title: Spring Workshop
Location: Lackawanna College - Angeli Hall, 501 Vine St, Scranton, PA 18509
Contact: Dominique Bekanich, 501 Vine St, Scranton, PA 18509, 570-709-4470, bekanichd@lackawanna.edu
CE Credits: 6

SOUTH CAROLINA STATE ASSEMBLY

Program Type: Workshop
Date: March 15, 2025
Title: Surgical Shenanigans: St. Patrick's Day Workshop
Online Registration at: scsaast.org
Location: Greenville Technical School, Building 102 Student Success Center, 506 S Pleasantburg Dr, Greenville, SC 29607
Contact: Katrina Williams, 1131 Java Road, Florence, SC 29505, 843-615-7454, katrinawilliams89@yahoo.com
CE Credits: 9

TENNESSEE STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 1-2, 2025
Title: 25 Years of Excellence
Location: Vanderbilt University Medical Center, 1211 Medical Center Dr, Nashville, TN 37232
Contact: Ellen Wood, 1344 Copperstone Lane, Knoxville, TN 37922, 865-283-5901, ellenwoodtnast@gmail.com
CE Credits: 12

TEXAS STATE ASSEMBLY

Program Type: Workshop
Date: January 25, 2025
Title: Education by the Sea!
Online Registration at: texasstateassembly.org/event-details/port-arthur-workshop
Location: Lamar College-Carl A. Parker Multipurpose Center, 1800 Lakeshore Dr, Port Arthur, TX 77640
Contact: Jaime Lopez, PO Box 152982, Arlington, TX 76015, 432-638-2269, txsastateassembly@gmail.com
CE Credits: 8 Live

Program Type: Annual Meeting/Elections
Date: March 1-2, 2025
Title: Best Little Workshop in Texas Online Registration at: texasstateassembly.org/event-details/best-little-workshop-in-texas-2025
Location: Radisson Hotel-Fort Worth, 2540 Meacham Blvd, Fort Worth, TX 76106
Contact: Jaime Lopez, PO Box 152982, Arlington, TX 76015, 432-638-2269, txsastateassembly@gmail.com
CE Credits: 15 Live

VIRGINIA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 22-23, 2025
Title: VCSA Spring Business Meeting, Elections and Workshop
Online Registration at: vcsaofast.org
Location: Inova Fairfax Medical Center, 3300 Gallows Road, Falls Church, VA 22042
Contact: Lisa Day, 13284 Firefly Road, Culpeper, VA 22701, 540-422-9471, ldaycsfa@gmail.com
CE Credits: 10

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.

ALABAMA
Birmingham
March 8, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

ARIZONA
Phoenix
March 1, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

CONNECTICUT
Hartford
February 8, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

GEORGIA
Lawrenceville
March 8, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

NEW MEXICO
Albuquerque
March 1, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

NORTH CAROLINA
Raleigh
March 1, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

OHIO
Westerville
April 11-13, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

TENNESSEE
Smyrna
March 1-2, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

TEXAS
Fort Worth
March 1-2, 2025
Annual Meeting
2025 BOD Elections
& 2025 Delegate
Elections

VIRGINIA
Falls Church
March 22-23, 2025
Annual Meeting
2025 BOD Elections
& 2025 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 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 or 800.637.7433, ext. 2547.

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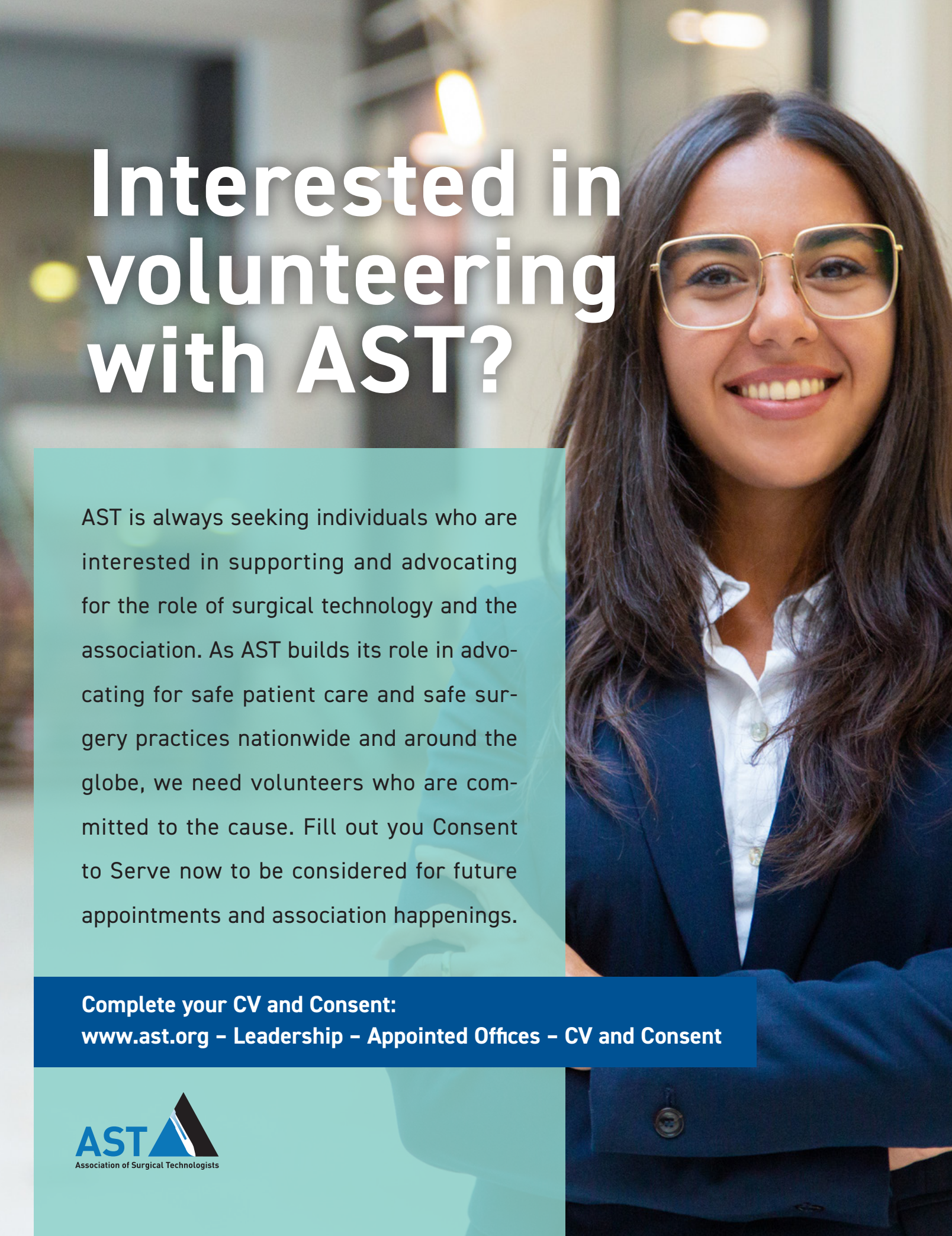
The Association of Surgical Technologists has been fighting for surgical technologists for more than 50 years.



Interested in volunteering with AST?

AST is always seeking individuals who are interested in supporting and advocating for the role of surgical technology and the association. As AST builds its role in advocating for safe patient care and safe surgery practices nationwide and around the globe, we need volunteers who are committed to the cause. Fill out you Consent to Serve now to be considered for future appointments and association happenings.

Complete your CV and Consent:
www.ast.org – Leadership – Appointed Offices – CV and Consent

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ADVOCATE FOR YOURSELF.

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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.

AST Position Statement on Accreditation, Certification, Official Title of Profession, and On-the-Job Training

American College of Surgeons Statement on Surgical Technology Training and Certification

Council on Surgical & Perioperative Safety Statement in Support of CST

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.

Parotidectomy with Facial Nerve Dissection 1 CE

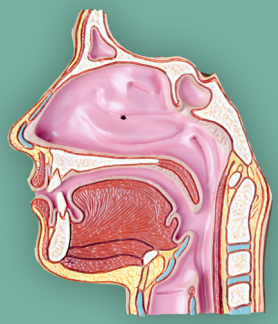
Radiostereometric Analysis in Orthopaedic Surgery 1 CE

The Modern-Day Caesarean Section 1.5 CEs

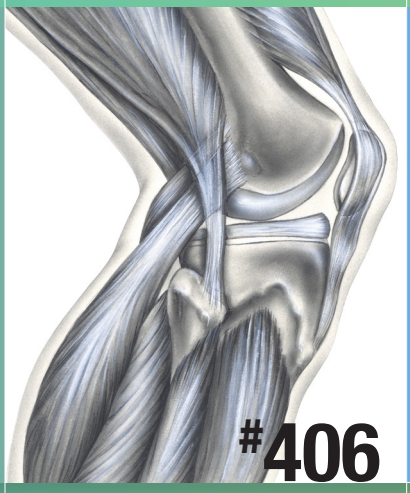
The Economic Argument for Using Safety Scalpels 2 CEs

Emergency Department Visits and the Public Health 2 CEs

Staged Rapid Source Control Laparotomy in Emergency General Surgery 1 CE



Functional Endoscopic Sinus Surgery with Image-Guided Navigation 1 CE



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** or fax requests to 303-694-9169
or call Member Services at 800-637-7433.

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Nonmembers $10 per CE, plus $400 Nonmember Fee

OPPORTUNITIES

Surgical Rib Fixation 1 CE

Butterfly Graft in Functional Rhinoplasty 1 CE

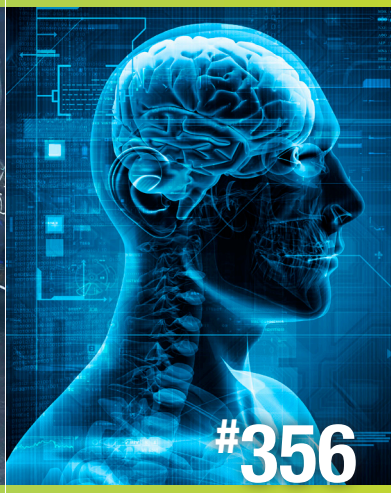
Micromotion at the Tibial Plateau in Total Knee Arthroplasty 1.5 CEs

Disc Battery Ingestion in Pediatric Patients

Partial Nephrectomy 2 CEs

Emotional Intelligence and the Surgical Technologist 2.5 CEs

Cervical Arthroplasty 1.5 CE



Treating Glioblastoma Multiforme 1 CE

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