

JANUARY 2023

THE

VOLUME 55 NO 1

SURGICAL TECHNOLOGIST

OFFICIAL JOURNAL OF THE ASSOCIATION OF SURGICAL TECHNOLOGISTS, INC.



Methods and
Considerations
for Autologous
Bone Graft
Processing

stryker

Powering the gold standard

Introducing

Bone Mill+™

with automated
tissue removal



Faster availability

41 minutes saved in manual bone processing¹

More than 2.5x faster than manual tissue removal¹

99x faster than manual milling¹

Consistent quality

15% higher quality rating of soft tissue removal than manual¹

Greater quantity

46% more Prep+ bone yield compared to manual cleaning*¹

**Advancing neurosurgery.
Transforming lives.**

800 253 3210
neurosurgical.stryker.com

strykerpoweringgold.com

*10 minute Bone Mill+ cycle vs 10 minutes of manual soft tissue removal
1. Engineering Notebook Record_D0000220921

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a patient and must refer to the instructions for use before using any Stryker product. Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: Bone Mill+, Prep+ and Stryker. All other trademarks are trademarks of their respective owners or holders.

D0000228869 Rev. AA
Copyright © 2022 Stryker

STATEMENT OF EDITORIAL PURPOSE The purpose of the *Journal* is to advance the quality of surgical patient care by providing a forum for the exchange of knowledge in surgical technology and by promoting a high standard of surgical technology performance.

BOARD OF DIRECTORS

Kevin Craycraft, CST, FAST	PRESIDENT
Peggy Varnado, CST, CSFA, FAST	VICE PRESIDENT
Jessica Elliott, CST, RN, FAST	SECRETARY
Dustin Cain, CST, FAST	TREASURER
David Alfaro, CST, FAST	DIRECTOR
Nicol Bates, CST	DIRECTOR
Joseph Charleman, CST, CSFA, CRCST, LPN, FAST	DIRECTOR
Katie Noyce, CST, CSFA, FAST	DIRECTOR
Tammy Pearson, CST, CSFA, FAST	DIRECTOR
Sherridan Poffenroth, CST, FAST	DIRECTOR
Alison Wilson, CST, FAST	DIRECTOR

Contact your Board:

Board@ast.org

AST STAFF

Bill Teutsch, CAE, FASAHP	CHIEF EXECUTIVE OFFICER
Kevin Frey, CST, FAST, MA	DIRECTOR OF CONTINUING EDUCATION
Vannessa Hannemann	DIRECTOR OF GOVERNMENT AFFAIRS
Jodi Licalzi, BA	DIRECTOR OF COMMUNICATIONS
Kelley Reppe, BA	DIRECTOR OF ACCOUNTING

GRAPHIC DESIGN AND PRODUCTION

Cheryl Patrick

EDITOR

Jodi Licalzi

THE SURGICAL TECHNOLOGIST (ISSN 0164-4238) is published monthly by the Association of Surgical Technologists, Inc., 6 West Dry Creek Circle, Suite 200, Littleton, CO 80120-8031. Telephone 303-694-9130. Copyright © 2023 Association of Surgical Technologists, Inc. No article, photograph, or illustration may be reproduced in whole or in part without the written permission of the publisher. Information contained herein is believed to be accurate; however, its accuracy is not guaranteed. Periodical postage is paid at Littleton, Colorado, and additional mailing offices. Correspondence to *The Surgical Technologist* can be sent to communications@ast.org.

ADVERTISING Contact: exhibits_advertising@ast.org. Acceptance of advertising in *The Surgical Technologist* in no way constitutes an endorsement by the Association of the product, organization, or service advertised. Similarly, mention of a commercial product by trade name, organization, program, or individual and that person's statements in any article does not constitute an endorsement by the Association of the product or sanction of the organization, program, or individual. The Association accepts health-related and recruitment advertising and reserves the right to decline ads at its discretion. While the Association takes every precaution against mistakes, it assumes no responsibility for errors or inaccuracies.

SUBSCRIPTIONS A one-year subscription is \$40 for nonmembers and \$55 (US funds) for foreign. Back issues are available for \$5 each (specify date of issue). Written requests for replacement issues will be honored up to 60 days after date of publication only. Please address all requests to the editor.

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

POSTMASTER Send address corrections to *The Surgical Technologist*, 6 West Dry Creek Circle, Suite 200, Littleton, CO 80120-8031.



Methods and Considerations for Autologous Bone Graft Processing

LISA O'SULLIVAN, BSc, PhD

With over two million bone grafting procedures performed annually worldwide – 500,000 of those in the United States alone – the demand for this surgical procedure continues to grow. As the healthcare sector experiences a severe skill shortage, protecting and retaining skilled staff is of the utmost importance for patient care, staff morale, and the bottom line. Understanding the implications of time, quality, safety, and costs in the operating room when it comes to autologous bone grafting is crucial to meeting surgical demand.

In This Issue

- 4** | The Foundation for Surgical Technology
Dustin Cain, CST, FAST, AST TREASURER
- 12** | Resolutions Lisa Day, CST, CSFA, FAST
- 13** | 2022 State Assembly Leadership Achievement Award
- 23** | Surgical Technologist Posters – Show Everyone Why You're Essential
- 34** | AST Anniversaries

In Every Issue

- 6** | AST News & Events
- 38** | Upcoming Programs – Find Your State Assembly Events



Connect with AST on LinkedIn and start growing your professional network!

The Foundation for Surgical Technology

DUSTIN CAIN, CST, FAST

BOARD MESSAGE



The AST Board of Directors would like to take a moment to say thank you to all of the surgical technologists who just survived the busy season. We know you worked long hours, missed time with your family, and hopefully got to enjoy a potluck, or pizza at minimum. Your dedication to your patients is insurmountable and we can never thank you enough.

Now I would like to tell you about one of the best projects I have ever had the privilege to be a part of: the Foundation for Surgical Technology. The Foundation was created in 1997 to provide scholarships to surgical technology students. In 2016, the NBSTSA joined forces with AST to support and help underwrite the Foundation. The Foundation Committee is made up of members from both AST and the NBSTSA – it is truly a joint effort. In 2022, the Foundation has awarded over \$400,000 to around 450 students and we are getting ready to give out even more scholarships in 2023.

Students can apply for a scholarship by going to www.ffst.org and clicking academic scholarships. Parts of the application may take some extra time to complete, so make sure to prepare for the March 1st deadline. If you are about to graduate, no worries. You will still be eligible to receive a scholarship as long as you are a student when you apply. Here are some helpful hints that the panel considers when reviewing your application:

- Have someone proofread your application. We are not English majors, but proper grammar goes a long way.
- We encourage you to brag about yourself. Tell us how you have gone above and beyond.
- We want details. Avoid answering questions with only one sentence or just one word.
- We receive over 100 applications per year so take a few minutes to tell us how you stand out from the rest.
- Provide your references with details about you and

what you are applying for. Make sure they know how much this scholarship means to you.

Student scholarships are just one part of the Foundation. The Foundation also offers medical mission scholarships, Constellation Awards for educators, and military scholarships. The medical mission scholarships are available to members who have served on a medical mission. The Foundation will reimburse you for expenses accrued during your trip. Even if you have been on an AST-sponsored medical mission, the Foundation will reimburse you for expenses that AST didn't cover.

Constellation Awards are presented to surgical technology educators. The deadline has already passed for 2023 awards as they will be presented at the upcoming Educator's Conference in Savannah. The application for the 2024 awards will open soon.

Military scholarships are provided to military members so they can attend the AST's national conference. The Foundation has a hard time providing these scholarships as our military members can move frequently in their service to our country. Help us spread the word to any military member you know and have them apply. We would love to provide them with the experience of conference.

In closing, I must take a moment to thank all of the people that make the Foundation possible. Many volunteers have spent countless hours reviewing applications, fundraising, revising applications, promoting the Foundation, and even donating to the cause. The AST Board of Directors, the NBSTSA Board of Directors, and even the board of directors from state assemblies continuously support the Foundation through their gracious donations. Thank you! If you would like to consider donating to the Foundation, please go to www.ffst.org.

***All applications must meet requirements that are not published in this article and can be found at www.ffst.org.*

2023 CALL FOR CANDIDATES

AST is seeking the services of dedicated individuals interested in becoming part of AST's leadership including national officers and members of AST national committees. In 2023, there will be six vacancies on the AST Board of Directors. Candidates for the Board of Directors, including the offices of President, Vice President and Treasurer, will be elected by the House of Delegates at the AST Surgical Technology Conference in Chicago, May 25-27, 2023.

President - Two-Year Term

Vice President - Two-Year Term

Treasurer - Two-Year Term

Board of Director - Two-Year Term

Board of Director - Two-Year Term

Board of Director - Two-Year Term

Interested candidates should review the eligibility requirements on the AST website and complete their CV and Consent by January 15, 2023.

Contact Charlotte Stranahan, administrative coordinator, at cstranahan@ast.org or 800-637-7433, ext 2501 with questions.

Consent to Serve applications are due January 15, 2023.



AST News

AT A GLANCE

EVENTS

EDUCATORS! IT'S NOT TOO LATE TO REGISTER FOR OUR EDUCATORS CONFERENCE IN SAVANNAH



At AST's 2023 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.

When you join us in Savannah, you'll earn at least 15 CEs*, connect with like-minded professionals and have multiple opportunities to engage with industry partners, socialize with friends - new and old - and be inspired by new technology, new solutions and a camaraderie that only this group understands.

You'll be able to indulge in the history and charm of the city while taking in its period architecture and immaculate gardens, which is the perfect cure for the winter blues. Explore its cobble-stoned squares, city parks dotted with oak trees and Spanish moss and sample its legendary regional cuisine. Add in an event designed just for you - our surgical technology educators - and it's bound to be an event to remember while you take some time for yourself to reflect and recharge.

Marriott Savannah Riverfront
100 General McIntosh Boulevard
Savannah, GA 31401

February 10-11, 2023

- Registration rate - AST members: \$275
 - Room Rate: \$198 plus taxes (single/double occupancy)
 - To receive the group rate, reservations need to be made before January 19, 2023 or until the room block is full.
 - To make a hotel reservation, visit the AST site or call.
 - Parking - \$30 per day
- Register today by visiting our website.



GET READY FOR CHICAGO! AST'S 53RD SURGICAL TECHNOLOGY CONFERENCE

Chicago

May 25-27, 2023

Sheraton Grand Chicago Riverwalk

We can't wait to host you for our annual national conference in the great city of Chicago! With our event hotel right on the river, and 1 mile from Navy Pier and top-rate res-

taurants and shopping, it's the perfect location to earn CE, learn from nationally ranked surgeon speakers, network with new and old friends alike, explore new and advancing technologies presented from attending partners and celebrate with AST's social events.

More information and registration coming in February!

SCHOLARSHIPS

STUDENTS! APPLY FOR A FOUNDATION FOR SURGICAL TECHNOLOGY STUDENT 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.

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 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 – 16 years



WRITE FOR US!

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

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

How to Get Started

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

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

Things to Remember:

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

**Don't delay! Become an author today.
Write to us at communications@ast.org**

AST EDUCATORS CONFERENCE

Register Now!

Mark your calendars and get ready to be swept away in southern charm when we head to Savannah in February.

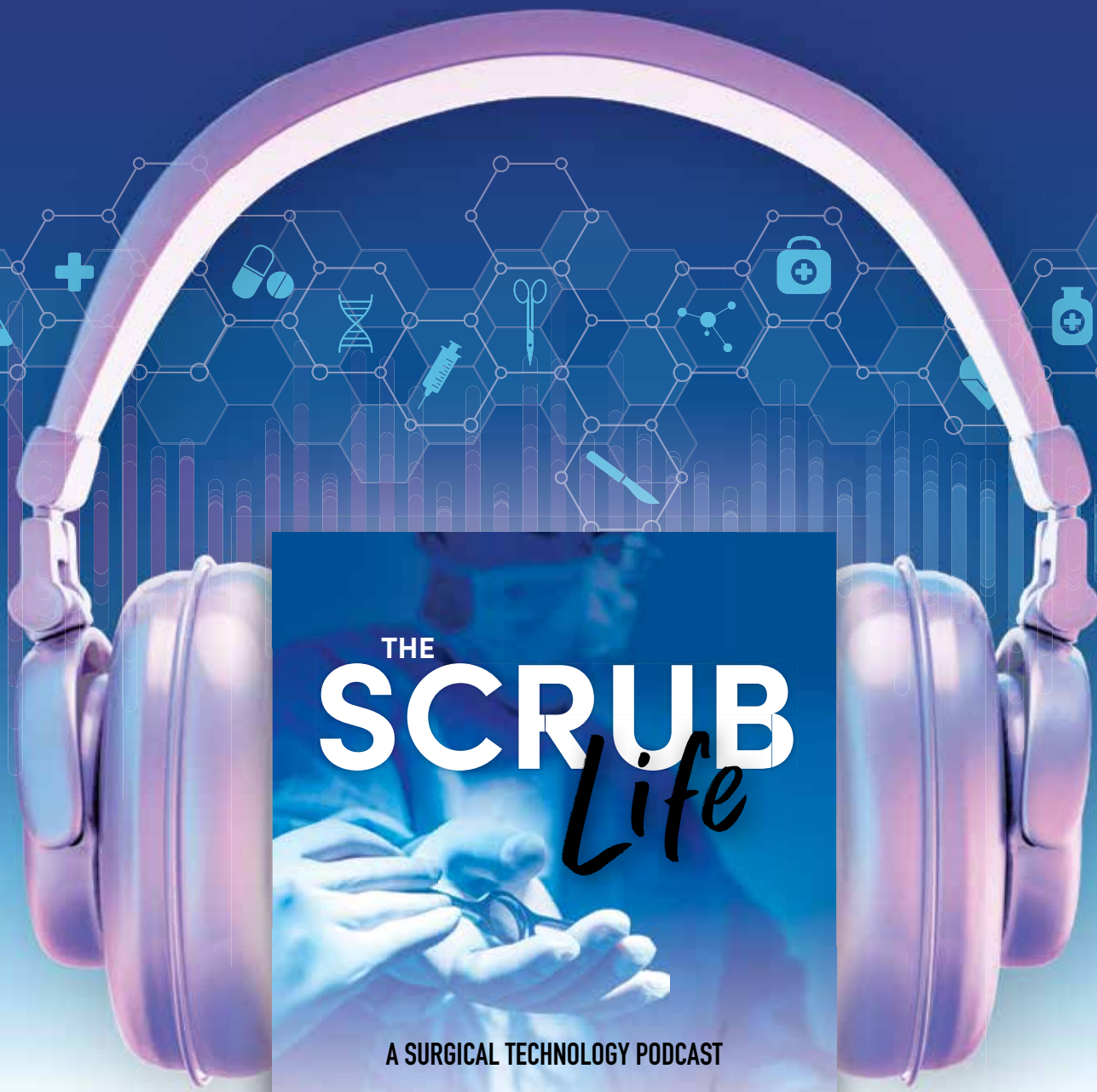
February 10-11, 2023
Savannah Marriott Riverfront

Come see why it's called one of the world's friendliest cities while expanding your professional development and network with the best educator group in the country!



Visit the AST site to view the full agenda and to register.

ON AIR



Listen to episodes featuring all facets of the surgical technology profession on Apple Podcasts, Google Play or anywhere else you listen to podcasts.



For more information, visit <https://thescrublifepodcast.wordpress.com/>





Advance Your Knowledge, Update Your Skills and Earn CEs

FREE CEs FOR 2023.

Check out the new free CEs for 2023 - 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 information. Each presentation is coded by specialty.

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

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

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

www.ast.org

Resolutions

LISA A DAY, CST, CSFA, FAST, CHAIR

STATE ASSEMBLY



When contemplating the topic this month, I reflected on what January signifies to me, finding that I was examining my own attitudes on a personal and professional level. January is the month of beginnings. “Out with the old and in with the new”... the proverbial rhetoric that goes along with the start of every new year.

But we also must ask ourselves honestly, what exactly does that mean? Why do we make resolutions? Are they goals, or are they promises to ourselves? Why do so many resolutions fail? Do we indeed leave the past behind and embrace new opportunities? Do we set ourselves up to be better and do better, or do we hang on to the old “we’ve always done it this way” attitude and resist when changes occur in our lives? We are guilty of hanging on to the past, as it is easier and safer than charging into the unknown. We are afraid of difficulties and failure, and its authentic human nature to be self-preserving and to like the feeling of being comfortable. But as we know all too well, that does not work in our profession. As healthcare providers, we must accept advancements and changes, as medicine can never be stagnant and will always continue to evolve. We must embrace, learn, and grow with changes, and we must be able to transfer that same energy of movement into our attitudes and behaviors in all aspects of life.

With the new year upon you, ask yourself how you embrace changes, what do you contribute, and how you are making a difference? How do you rate and gauge your own professional presence? Are you a surgical technologist or surgical assistant only when you are within the walls of the OR? Or do you carry the pride and heart of this profession in all aspects of your life? Are you a willing participant who strives to be effective and help to move

your career for you? And lastly, are these questions that can translate to goals for your new year?

In about every discipline in healthcare, there is an organization that stands for those in that profession. The Association of Surgical Technologists is our professional organization and is only as strong as its membership and the contributions that those members make. WE are AST. We are enthusiastic members who form the state assembly leadership teams, committees, the national board, and all those in between, all who support the mission of AST by spending countless volunteer hours working towards the common goal of professional promotion, advancement, and the safety of our surgical patients. We continuously fight to protect our credentials, our positions, and roles, and we continue to fight for one another, and all for our patients.

On behalf of all those who share the passion for our profession and organization, we encourage you to bring your thoughts and ideas forward, immersing yourself in the goal of being a part of the profession's growth. If you do not agree with something, position yourself to work towards changes. Challenge yourself to make a meaningful and attainable New Year's resolution. Instead of asking what is being done for you, answer yourself with the simple question of what can I do? Attending your state assembly meetings, volunteering to host, or even presenting a topic at a workshop are all things that will enhance your own presence in your profession. (Did you know that you can earn extra CE's by being a presenter?) Be involved in the elections, run for an open position, or if you do not feel confident or want to learn more, at least be a voice that decides who you want to represent you. Be there to vote! You might be amazed at the rewards you gain with the networking and collaboration achieved through joining forces and being involved.

Here's to new beginnings and revived efforts. We wish you the best in the new year and look forward to seeing old friends and fresh faces in 2023.



2022 State Assembly Leadership Achievement Award

APPLY TODAY!

For application visit stateassembly.ast.org
Assistance at stateassembly@ast.org or 303.325.2516

Active state assemblies are the future of the Association of Surgical Technologists' strength and success. The Association of Surgical Technologists gives special recognition to those state assemblies that demonstrate outstanding leadership within their 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

When your state meets the above criteria, fill out the eligibility form at stateassembly.ast.org and submit your completed application to the AST National Office at stateassembly@ast.org.

Selection

All applications received in the AST national office by January 31, 2023, will be eligible for one of the five National AST Leadership Awards. 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.
- * Entry form must be completed by the state president for the period of January 1 – December 31, 2022.
- * Entry interactive form must be typed, handwritten reports not accepted.
- * Additional information to support qualification strongly recommended, submit with application.
- * 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.
- * Winners of the Leadership Award will be determined by the cumulative total of points earned.

Entry Deadline: entries must be received by January 31, 2023 to stateassembly@ast.org



Methods and Considerations for Autologous Bone Graft Processing

LISA O'SULLIVAN, BSc, PhD

With over two million bone grafting procedures performed annually worldwide – 500,000 of those in the United States alone – the demand for this surgical procedure continues to grow. As the healthcare sector experiences a severe skill shortage, protecting and retaining skilled staff is of the utmost importance for patient care, staff morale, and the bottom line.

Understanding the implications of time, quality, safety, and costs in the operating room when it comes to autologous bone grafting is crucial to meeting surgical demand and reducing the risk of surgical technologist burnout.

Overall, automation of autologous bone processing by devices such as Bone Mill+™ and Prep+™ can increase OR personnel availability by removing a time-consuming manual task, thereby allowing them to reengage with the surgical team. This provides a more standardized solution, resulting in a reliable and predictable processing time. In this period of skill shortage, protecting and retaining skilled staff can be achieved by eliminating a potentially hazardous risk through sharps injury and avoiding costly follow ups.

AUTOGRAFT BONE TISSUE: THE GOLD STANDARD FOR GRAFTING

Bone grafting is the process of transplanting bone material to repair or replace complex bone tissues during surgical procedures, such as spinal fusion and orthopedic reconstruction.

Bone graft material options today include the following:

- Autograft – Patient’s own bone tissue
- Allograft – Human donor bone tissue
- Xenograft – Bone tissue from another species
- Synthetic – Engineered bone tissue

With over a century of successful clinical utilization, autograft, also known as autologous bone, is considered the “gold standard” of bone-grafting material. Autogenous bone is the only graft material that fulfills all three components of the tissue regeneration triad: osteogenesis, osteoinduction, and osteoconduction.¹ It is also biocompatible, which means that bone harvested from the patient’s own body has no risk of rejection or disease transfer. Autologous bone naturally contains viable cells such as osteoprogenitor cells, as well as essential molecular components like bone morphogenetic proteins (BMPs). Furthermore, autologous bone can provide a calcium scaffold required to support the new bone growth.

Autologous bone can be harvested as a tricortical graft for structural support or as a vascularized bone graft for restoration of large bone defects or avascular necrosis. A variety of sites can be used for bone-graft harvesting. The decision as to which harvest site to use is made on a case-by-case basis and depends on several factors. These factors include anatomic proximity, the volume of graft desired,

the need for structural graft, and the intrinsic biology of the donor site. The most common donor sites are the anterior and posterior iliac crest of the pelvis.^{2,3}

Allograft, which is harvested from a donor person or cadaver, can also be used, and is typically acquired through a bone bank. Unlike autografts, allografts do not form new

Bone grafting is a widely used form of tissue transplantation, second only to blood transfusion.

bone because they lack viable cells and cannot provide the osteogenic properties of autografts. Instead, the allograft works as a bridge that allows natural bone to grow through its surface. Over time, natural bone replaces the donor bone.⁴ Immunological reactions from an allograft may interfere with the process and can lead to graft rejection. Additionally, they carry the added risk of transmitting bacterial and viral diseases.⁵

Overall, autograft is considered superior to allograft because of its excellent and cost-effective combination of biologic and mechanical properties. Autologous bone grafts continue to be an important tool in the management of certain bone defects or nonunions. In one study compar-

Table 1
Manual vs Automated Processing - Average time

	Manual			Automated Processing		
	Clean	Mill	Overall	Clean	Mill	Overall
Average Manual Time – (Mins)	27	14	41	10	0.14	10.14
Standard Deviation (Mins)	±14	±9	±23	±0	±0.01	±0.06

Table 1: Average time ± StDev (Mins) taken to clean and mill 25g porcine bone across 16 participants compared with Automated Processing

ing bone graft treatment in 182 patients with long-bone non-union, the autograft populations showed a significantly shorter union time with fewer surgical revisions and significantly lower postoperative infection rates.⁶

THE GROWING DEMAND FOR BONE GRAFTS AMID CRITICAL STAFF SHORTAGES

Bone grafting is a widely used form of tissue transplantation, second only to blood transfusion. Worldwide, there are over two million bone grafting procedures performed each year, 500,000 of which are performed the United States alone.^{7,8}

The rising incidence of bone and joint disorders along with a rapidly growing geriatric population are fueling the demand for orthopedic surgeries that use bone grafts. During the COVID-19 pandemic, elective surgeries, including most orthopedic procedures, were postponed or canceled, which resulted in even higher demand as COVID-19 restrictions and infection rates diminished.⁹

In addition to procedure backlogs, the global health-care system has been ravaged by mass resignations and staff shortages, also stemming from the recent pandemic crisis.¹⁰ Healthcare staff are experiencing heavy workloads and are at risk of burnout, a known contributor to turnover.¹¹ Each turnover percentage point change translates to approximately \$270,000 lost or saved per hospital.¹² The rates of burnout are consistently linked with one's role.¹³ Although COVID-19 has exacerbated this burnout risk, post pandemic reporting has remained higher than was pre-pandemic numbers. In studies related to burnout, targeting issues such as PPE concerns and meaningful breaks could have a real impact on levels of work-related burnout.^{10,13,14}

Hospitals are under increasing pressure with increased volumes of surgeries required and reduced availability of experienced and qualified staff. As of January 2022, 19-21% of hospitals in the United States reported criti-

Figure 1

Manual vs Automated Processing - Average time

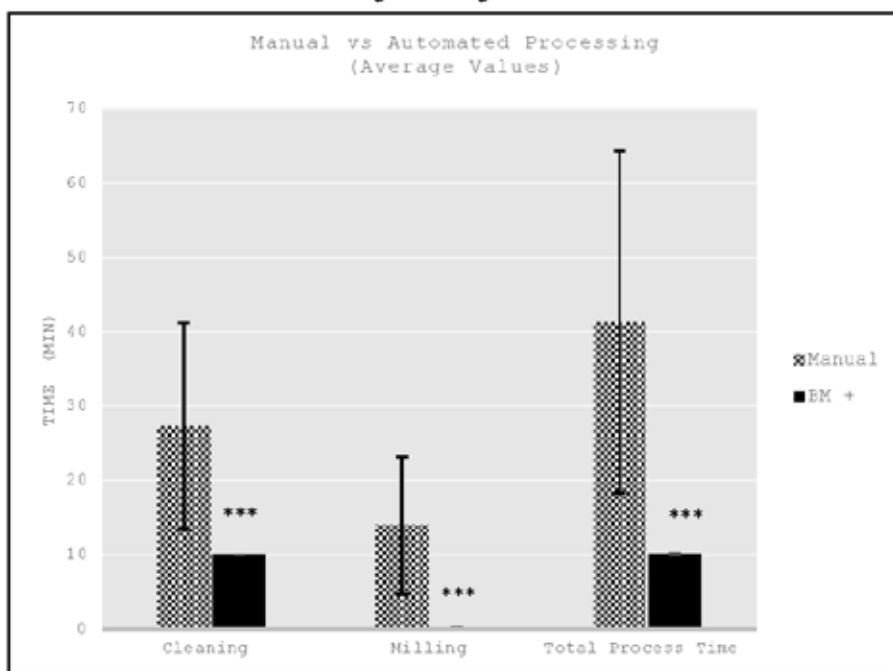


Figure 1: The bar graph representation (mean \pm StDev) of average time (Mins) taken to clean and mill 25g porcine bone across 16 participants compared with Automated Processing*** Statistically significant $p < 0.0001$

cal staff shortages, with some states reporting percentages of hospitals with critical staff shortages as high as 52%.¹⁵ University of Pittsburgh Medical Center is a well-respected national referral center for many surgical specialties. In May 2021, the organization implemented a five-phased approach to ensure that it could continue to provide essential surgical care when its surgical technologist and operating room (OR) nurse vacancy rate reached 30%. The institution's phased approach decreased OR availability by 15%, compensating for the 30% reduction in surgical services staff members.¹⁵

TECHNIQUES FOR PREPARING AUTOLOGOUS BONE FOR IMPLANTATION

To achieve the desired bone fusion, or osteogenesis, there must be a "clean" bone-to-bone contact surface between the host bone and the bone graft. Therefore, retrieval and processing of the autologous bone requires the extracted autologous bone to be cleaned and processed by in the OR. In this procedure, any residual connective tissue must be removed and then the bone milled into smaller particles before reimplantation into the patient. There are two methods that may be

used during the autograft bone preparation process: manual and automated.

MANUAL CLEANING AND MILLING

To manually scrape the bone, a variety of instruments, including periosteal elevators, rongeurs, curettes, and cautery tools are employed. Manually cleaning autologous bone can be time-consuming, requires physically repetitive motions, and is dependent on the individual's skill and efficiency.¹

In a recent study evaluating the quantity and quality of bone material cleaned and milled by experienced surgical technologists using manual and automated processing, it was observed that most manual preparation time for autologous bone is expended with the removal of excess soft tissue.¹⁶

On average, 60% of overall autologous bone processing time—approximately 27 minutes—was dedicated to cleaning. Consistency on timing varied substantially across the participants, with the time spent ranging between 6 and 57

minutes. Cleanliness varied, with three out of the 10 manually cleaned samples rated with a score of less than or equal to 4 out of a possible 10. (Figure 2)

During manual cleaning and manual milling by OR personnel, safety events were observed and recorded. Half of the participants experienced glove puncture, with two participants experiencing multiple events (glove puncture twice in one session). When surveyed, all participants self-reported hand fatigue while cleaning bone manually, 75% self-reported hand fatigue due to manual milling, and 31% had previously experiencing injury while manually cleaning bone.

TIME, SAFETY, AND COST CONSIDERATIONS

As previously mentioned, staff vacancy rates have reduced OR availability time in some hospitals by up to 15%. Reducing time associated with manual tasks increases staff availability. Rather than focusing on manual autologous bone processing tasks, surgical techs have the freedom to work smarter, reengage with additional intraoperative assis-

Figure 2
Manual vs Automated Clean



Figure 2: Photographic examples of 25g porcine bone sample following removal of soft tissue. (A) Automated Clean Sample (B & C) Manually process by expert scrub techs.

minutes, ± 14 minutes. After cleaning, the bone samples moved directly to manual milling, which required 17 ± 13 minutes. The variability across participants was ± 20 minutes for overall processing (Figure 1, Table 1).

In the aforementioned study, automated bone cleaning consistently took 10 minutes, whereas automated milling only took 8.4 seconds.¹⁷

During the study, the quality of soft tissue removal was also assessed on a 10-point scale. The levels of overall qual-

tance, and continue to support their OR team. This also means that up to 40 minutes of surgical tech time can be recouped. Unnecessary clinical variation leads to increased costs, as seen in many surgical procedures. Key factors in elevated costs are extended operating-room time and failure to standardize the coordination of care.¹⁸ Surgeons can now rely on a consistent time of 10 minutes to fully process up to 25 g of autologous bone while planning surgery and can recoup up to 30 minutes per level of harvested bone preparation.¹⁷

Time is a high-value commodity in the OR. Given that surgical care accounts for nearly one-third of all U.S. healthcare spending and the OR – valued at \$36 to \$37 per minute – is the second most expensive part of surgical care, every minute counts.¹⁹ Stanford has shown the value down to 1 second, where a “move on 2” (moving the patient to the operating table on the count of 2 rather than 3) saved an average of \$12,000 in OR costs per year.²⁰

One of the more serious risks to healthcare workers’ well-being is injury sustained at work. Improving PPE and removing risk of injury is a core component to establishing a safe work environment according to OSHA guidelines.²¹ Sharps injuries, defined as “. . . skin penetrating stab wounds caused by a sharp instrument and accidents in a medical setting,”²² are a leading cause of accident sustained by healthcare workers and have been described as an “important public health concern.”²³

Safety is a major concern in the manual process. Over the course of the study by Ersozlu et al, 50% of the participants had experienced one or more glove punctures, and

In a recent study evaluating the quantity and quality of bone material cleaned and milled by experienced surgical technologists using manual and automated processing, it was observed that most manual preparation time for autologous bone is expended with the removal of excess soft tissue.

31% had experienced fatigue or injury while performing the cleaning task manually in an OR environment.

It is well accepted that intact gloves act as a protective barrier against blood-borne pathogens such as HIV, hepatitis B, and hepatitis C during surgery. Glove perforation is frequent but often unrecognized by surgical personnel. One study showed that of the 242 glove punctures, 176 (72.7%) were not noticed by the operative team members and were only detected after the operation.²⁴

Not only does the risk of exposure to infectious disease need to be considered, but the psychological impact can also result in long-term issues that affect the wellness of skilled staff in several ways. Reports show that post-traumatic stress disorder, anxiety, depression, insomnia, and loss of appetite may result from sharps injury.^{25,26}

The aggregate direct and indirect cost of a sharps injury was calculated to be between \$650 and \$750, encompassing laboratory fees, prophylactic treatment, and lost productivity. The costs increased when HIV-infected patients were identified, driving the amount up to \$2,456. These figures are conservative, as the review did not include the cost of treating an occupational infection, litigation, or compensation. From 2012 to 2017, the National Health Service in the United Kingdom paid out over £4,000,000 to 1,213 claimants.^{27,28}

In a value-based health care environment struggling with adequate skilled staffing, the impacts of time, quality, safety, and burnout in the OR must be priority considerations when determining the best method for autologous bone processing. Automated bone cleaning and milling is a solution to meeting the current challenges.

For information about the indications and intended use of the Bone Mill+™ and Prep+™, visit www.strykerpoweringgold.com

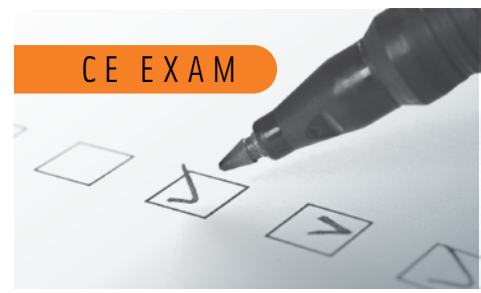
Full disclosure: The article described herein may have been supported in whole or in part by Stryker.

REFERENCES

- 1 Schmidt, A. H. (2021). Autologous bone graft: Is it still the gold standard? *Injury*, 52, S18–S22. <https://doi.org/10.1016/j.injury.2021.01.043>
- 2 Pape, H. C., Evans, A., & Kobbe, P. (2010). Autologous bone graft: Properties and techniques. *Journal of Orthopaedic Trauma*, 24(Suppl. 1). <https://doi.org/10.1097/BOT.0B013E3181CEC4A1>
- 3 Robinson, B. T., Metcalfe, D., Cuff, A. V. et al. (2018). Surgical techniques for autologous bone harvesting from the iliac crest in adults. *The Cochrane Database of Systematic Reviews*, 2018(4). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6494601/>
- 4 Bauer, T. W., & Muschler, G. F. (2000). Bone graft materials. An overview of the basic science. *Clinical Orthopaedics and Related Research*, 371(371), 10–27. <https://doi.org/10.1097/00003086-200002000-00003>
- 5 Oryan, A., Alidadi, S., Moshiri, A. et al. (2014). Bone regenerative medicine: Classic options, novel strategies, and future directions. *Journal of Orthopaedic Surgery and Research*, 9, 18. <https://doi.org/10.1186/1749-799X-9-18>
- 6 Flierl, M. A., Smith, W. R., Mauffrey, C., Irgit, K., et al. (2013). Outcomes and complication rates of different bone grafting modalities in long bone fracture nonunions: A retrospective cohort study in 182 patients. *Journal of Orthopaedic Surgery and Research*, 8(1). <https://doi.org/10.1186/1749-799X-8-33>
- 7 Campana, V., Milano, G., Pagano, E., et al. (2014). Bone substitutes in orthopaedic surgery: From basic science to clinical practice. *Journal of Materials Science. Materials in Medicine*, 25(10), 2445. <https://doi.org/10.1007/S10856-014-5240-2>
- 8 Sohn, H. S., & Oh, J. K. (2019). Review of bone graft and bone substitutes with an emphasis on fracture surgeries. *Biomaterials Research*, 23(1). <https://doi.org/10.1186/S40824-019-0157-Y>

- 9 Bone grafts and substitutes market size, share & trends analysis report by material type (allograft, synthetic), by application (spinal fusion, foot & ankle, joint reconstruction), by region, and segment forecasts, 2022–2030. (2021). Retrieved November 14, 2022, from <https://www.grandviewresearch.com/industry-analysis/bone-grafts-substitutes-market>
- 10 Maunder, R. G., Heeney, N. D., Hunter, J. J., et al. (2022). Trends in burnout and psychological distress in hospital staff over 12 months of the COVID-19 pandemic: A prospective longitudinal survey. *Journal of Occupational Medicine and Toxicology*, 17(1). <https://doi.org/10.1186/s12995-022-00352-4>
- 11 Kelly, L. A., Gee, P. M., & Butler, R. J. (2021). Impact of nurse burnout on organizational and position turnover. *Nursing Outlook*, 69(1), 96–102. <https://doi.org/10.1016/j.outlook.2020.06.008>
- 12 Saba, J., Hullinger, R., & McCoy, T. H. (2022, June 15) *Designing hospitals that promote staff wellbeing*. Retrieved October 21, 2022, from <https://hbr.org/2022/06/designing-hospitals-that-promote-staff-wellbeing>
- 13 Gemine, R., Davies, G. R., Tarrant, S., et al. (2021). Factors associated with work-related burnout in NHS staff during COVID-19: A cross-sectional mixed methods study. *BMJ Open*, 11, 42591. <https://doi.org/10.1136/bmjopen-2020-042591>
- 14 American Society of Anesthesiologists. (2022, January 29). *Thoughtful approach to reducing OR time for elective surgeries helps address significant pandemic-induced staffing shortages safely*. Retrieved October 21, 2022, from <https://www.asahq.org/about-as/newsroom/news-releases/2022/01/thoughtful-approach-to-reducing-or-time-for-elective-surgeries>
- 15 Mathias, J. (2022, January 11). *More than 19% of US hospitals critically understaffed*. OR Manager. Retrieved October 21, 2022, from <https://www.ormanager.com/briefs/more-than-19-of-us-hospitals-critically-understaffed>
- 16 M3 Design. (n.d.) *Stryker bone mill case study | Medical device product development*. Retrieved October 21, 2022, from <https://www.m3design.com/case-study/powered-bone-mill/>
- 17 Stryker Bone Mill+ vs. Manual Processing study/survey, D0000232616
- 18 Ardoin, D., & Malone, J. (2019, March 26). *Reducing clinical variation to drive success in value-based care (part 1)*. Healthcare Financial Management Association. Retrieved October 20, 2022, from <https://www.hfma.org/topics/operations-management/article/reducing-clinical-variation-to-drive-success-in-value-based-care0.html>
- 19 Childers, C. P., & Maggard-Gibbons, M. (2018). Understanding costs of care in the operating room. *JAMA Surgery*, 153(4). <https://doi.org/10.1001/jamasurg.2017.6233>
- 20 Brodsky, J. B. (1998). Cost savings in the operating room. *Anesthesiology*, 88(3), 834–834. <https://doi.org/10.1097/0000542-199803000-00041>
- 21 Occupational Safety and Health Administration. (n.d.). *Safety and health topics / Healthcare / OSHA*. Retrieved November 14, 2022, from <https://www.osha.gov/healthcare/standards>
- 22 Centers for Disease Control and Prevention (2015, February 11). *About the workbook | Sharps safety*. Retrieved October 21, 2022, from <https://www.cdc.gov/sharpsafety/resources.html>
- 23 Pathak, R., Kahlon, A. S., Ahluwalia, S. K., Sharma, S., & Bhardwaj, R. (2012). Needle stick injury and inadequate post exposure practices among health care workers of a tertiary care centre in rural India. *International Journal of Collaborative Research on Internal Medicine & Public Health*, 4(5).
- 24 Ersozlu, S., Sahin, O., Ozgur, A. F., Akkaya, T., Tuncay, C. (2007). Glove punctures in major and minor orthopaedic surgery with double gloving. *Acta Orthopaedica Belgica*, 73(6), 760–764. <https://europepmc.org/article/med/18260490>
- 25 Moayed, M. S., Mahmoudi, H., Ebadi, A., & Nia, H. S. (2016). Stress and fear of exposure to sharps in nurses. *Iranian Journal of Psychiatry and Behavioral Sciences*, 10(3), 3813. <https://doi.org/10.17795/IJPBS-3813>
- 26 Hambridge, K. (2022). The psychological impact of sharps injuries sustained by medical students. *British Journal of Hospital Medicine*, 83(1). <https://doi.org/10.12968/hmed.2021.0385>
- 27 Gallagher, J. (2020). Have legislative interventions impacted the incidence of needlestick injuries? *Irish Medical Journal*, 112(10), 1023. <http://hdl.handle.net/10468/9949>
- 28 Hambridge, K., Endacott, R., & Nichols, A. (2020). The financial cost of sharps injuries. *British Journal of Health Care Management*, 26(11), 270–274. <https://doi.org/10.12968/bjhc.2020.0052>

D0000234255



Earn CE Credits at Home

You will be awarded continuing education (CE) credits toward your recertification after reading the designated article and completing the test with a score of 70% or better. If you do not pass the test, it will be returned along with your payment.

Send the original answer sheet from the journal and make a copy for your records. If possible use a credit card (debit or credit) for payment. It is a faster option for processing of credits and offers more flexibility for correct payment. When submitting multiple tests, you do not need to submit a separate check for each journal test. You may submit multiple journal tests with one check or money order.

Members this test is also available online at www.ast.org. No stamps or checks and it posts to your record automatically!

Members: \$6 per credit
(per credit not per test)

Nonmembers: \$10 per credit
(per credit not per test plus the \$400 nonmember fee per submission)

After your credits are processed, AST will send you a letter acknowledging the number of credits that were accepted. Members can also check your CE credit status online with your login information at www.ast.org.

3 WAYS TO SUBMIT YOUR CE CREDITS

Mail to: AST, Member Services, 6 West Dry Creek Circle Ste 200, Littleton, CO 80120-8031

Fax CE credits to: 303-694-9169

E-mail scanned CE credits in PDF format to:
memserv@ast.org

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

Methods and Considerations for Autologous Bone Graft Processing

#469 JANUARY 2023 1 CE CREDIT \$6

1. **Autografts are bone tissue from:**
 - a. An engineered source
 - b. Another species
 - c. A human donor
 - d. The patient
2. **The most common donor sites are:**
 - a. Anterior iliac crest of the pelvis
 - b. Superior iliac crest of the pelvis
 - c. Posterior iliac crest of the pelvis
 - d. Both a and c
3. **True or false: Bone grafting is a widely used form of tissue transplantation, second only to blood transfusion.**
 - a. True
 - b. False
4. **How many bone graft procedures occur in the US annually?**
 - a. 250,000
 - b. 500,000
 - c. 750,000
 - d. 1 million
5. **On average, autologous bone processing time takes:**
 - a. Approximately 21 minutes
 - b. Approximately 15 minutes
 - c. Approximately 27 minutes
 - d. Approximately 32 minutes
6. **An allograft is bone tissue from:**
 - a. A human donor
 - b. The patient
 - c. From another species
 - d. Engineered components
7. **The decision as to which harvest site to use is made on a case-by-case basis and depends on several factors including:**
 - a. Anatomic proximity
 - b. The volume of graft desired
 - c. The need for structural graft
 - d. All of the above
8. **True or false: Autogenous bone is the only graft material that fulfills all three components of the tissue regeneration triad.**
 - a. True
 - b. False
9. **Unlike autografts, allografts do not form new bone because:**
 - a. They lack viable cells.
 - b. They cannot provide osteogenic properties.
 - c. Both a and b
 - d. Neither a and b
10. **How many methods are there to prepare the autograft bone process?**
 - a. 1
 - b. 2
 - c. 3
 - d. 4

METHODS AND CONSIDERATIONS FOR AUTOLOGOUS BONE GRAFT PROCESSING #469 JANUARY 2023 1 CE CREDIT \$6

AST Member No. _____

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

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____

☐ Check enclosed ☐ Check Number _____

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

Make It Easy - Take CE Exams Online

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

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

Connect with the
AST online community

AST Like us on
Facebook





SMOOTH OPERATOR

It takes a **surgical technologist** to make things go right.



From prep to counts to safety protocols, a surgical technologist is critical for the safety of the patient. Learn more about the profession of surgical technology and meet some of the influential surgical technologists advancing the profession by scanning the QR code. [#surgicaltechnologists](#) [#smoothoperators](#) [#patientsafety](#) [#essential](#)



SCAN ME

AST
Association of Surgical Technologists

ast.org

* This photo is for marketing purposes only. Please refer to AST Guidelines for proper standards on gowning and gloving, maintaining a sterile environment and more.

SMOOTH OPERATOR

It takes a *surgical technologist* to make things go right.

From prep to counts to safety protocols, a surgical technologist is critical for the safety of the patient. Learn more about the profession of surgical technology and meet some of the influential surgical technologists advancing the profession by scanning the QR code. #surgicaltechnologists #smoothoperators #patientsafety #essential



ast.org

* This photo is for marketing purposes only. Please refer to AST Guidelines for proper standards on gowning and gloving, maintaining a sterile environment and more.



Interested in serving on a medical mission?
AST will be opening applications in January for the 2023 AST-sponsored
medical mission to the Dominican Republic September 16-23, 2023.

For more details regarding the trip and for the application in January,
visit www.ast.org - About Us - Medical Missions

YOUR NEW JOB IS IN SIGHT

AST's Career Center can help you:

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



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





AST IS HIRING!

Continuing Education Coordinator

As the coordinator of continuing education, you will be managing the approval of continuing education as well as assisting with creating interactive continuing education products that contribute to increasing the level of participation by CSTs. Your success will expand AST's ability of helping CSTs to complete continuing education that contributes to maintaining their highly sought-after skills in providing quality patient care. Additionally, you will be involved in research projects that the department is responsible for completing and planning events.

What We Are Looking For

To be considered for this role, here are the skills we are looking for.

- At least five years of experience as a practitioner.
- Proficient with Microsoft Office, particularly Excel and Word.
- Good verbal and written communication skills with a thorough knowledge of English, grammar, punctuation, and spelling.
- Ability to coordinate multiple projects in an organized and effective manner with a strong attention to details and meeting deadlines.
- Excellent personal and verbal communication skills for interacting with the AST membership, boards, committees, and staff.
- Solid research skills that include the ability to gather and collate information about a topic and present in such a manner to be easily interpreted.

Skills Preferred But Not Required

- Associate degree or higher.
- Experience in surgical technology education such as an adjunct instructor for an accredited program, Clinical Educator at place of current employment, or preceptor.
- Ability to perform item writing (develop questions) for continuing education products (CE packages and recorded lectures).

Job Responsibilities (not all inclusive)

As the Continuing Education Coordinator, you will have the opportunity to meet the strategic needs of the organization while learning and progressing in the job position.

- **Assist** the FAST Selection Panel in coordinating the annual FAST Award.
- **Author** CE articles and recorded lectures exams.
- **Communicate** and **interact** with AST members and other healthcare professionals daily through phone conversations and email on various inquiries.
- **Coordinate** the approval of continuing education.
- **Independently** complete research projects where you can display self-sufficiency and creativity, but also professionally accept positive feedback and advice.
- **Recruit** speakers to present at AST events including the Surgical Technology Educators Conference and Annual National Conference and assist with planning the events.
- **Travel** with the AST team to run the events.

Other Requirements

- Required to be a member of AST.
- Required to have current CST credential.
- Must be vaccinated against COVID-19 as well as received the influenza (flu) shot and provide proof of vaccinations.
- This is a full-time position that requires the CST to live in Colorado and be able to work at the AST office in Littleton, CO. There is the opportunity once progress has been shown in the position and initiative that builds AST's confidence that the employee can be relied upon to complete their work that a hybrid work schedule can eventually be considered.

Summary of AST's Benefits Package

At AST, we ask a lot of our employees, which is why we give so much in return. In addition to your competitive annual salary of \$55,000 - \$60,000, generous PTO and sick leave, 10 paid holidays per year, and simplified employee pension plan beginning with the third year of employment, and educational assistance.*

Interested?

Email a cover letter and resume – only documents sent by email will be accepted by **January 6, 2023** to Kevin B Frey, CST, MA, AST Director of Education, at kfrey@ast.org.

* For more information on the benefits AST provides, and the job posting in its entirety, check out the position listing on AST's LinkedIn page.

AST Anniversaries



Congratulations and thank you to all the practitioners who are named on the following pages. They have been members of AST for 30 or more years, as of January 1, 2023, and we are proud to recognize their commitment to this organization and this honorable profession.

You can find the entire list of members who have hit 20+ years on our website.

30+ YEARS ANNIVERSARIES

Bonnie Jean Abram, CST, CSFA ... TX	Robert G. Bush, CST, CSFA AZ	Annie Jean Dowdell-Crooks, CST ... GA	Robert Thomas Hardebeck, CST ... CA	Jorge Luis Lopez, CST, CSFA TX
Donna Lynn Abshier, CST IN	Terri Lynn Caldwell, CST TN	Nancy Theresa Doyle, CST PA	Michele A. Hart, CST IN	William F. Ludwick, CST OH
Sherry Ladonna Adams, CST ... OK	Lisa Ann Campbell, CST MD	Vicki Fipps Dudley, CST NC	Jennifer C. Hassevoort, CST MI	Gary Mabey, CST, SA-C ID
Tammy B. Allhoff, CST, CSFA MS	Pamela Smith Carden, CST CT	Kellie Ann Dunn, CST PA	Tammy Hatcher, CST GA	Suzanne A. Maddox, CST AL
Brenda Sue Allison, CST GA	Debbie G. Carey, CST CA	Shelly Denise Earnhardt, CST.. NC	Angela J. Helm, CST, CSFA IN	Mitchell Dean Malicoate, CST .. TX
Michele Andrade, CST FL	Paula Carter, CST TX	Rosemary Easley, CST TX	Catherine Ann Hemauer, CST ... IL	Sharena Francis Malsom, CST. MN
Elizabeth Joan Antonio, CST FL	Jill Louise Christianson, CST, CSFA . MN	Vicky Eccleston, CST FL	Teresa L. Hemmelgarn, CST OH	Christopher Thomas Marano, CSFA .. MD
Trent Elliot Armstrong, CST, CSFA... AZ	Debra Ciuppa, CST NJ	Adam Jude Eitapence, CST, CSFA SC	Linda Lucy Hernandez, CST TX	Paul R. Marshall, CST FL
Rachel Ann Arneson, CST MN	Janel L. Clark, CST CA	Gregory Allen Elton, CST IA	Suzanne Josette Hessler, CST ... FL	Tonja R. Martindale, CST PA
Shawn Dell Asdell, CST OH	Susan J. Clements, CST MI	Kristi Constantine Exsterstein, CST LA	Rebecca K. Hodson, CST IN	Claudio Eleazar Martinez, CST . NV
Tina Marie Ayer-Hebert, CST . ME	Armando Cobos, Jr., CST TX	Mary Anne Farber, CST NC	Darlene Kay Hoefel, CST WA	Rosemarie Mastrandrea, CST.. NY
Maria D. Barnes, CST IN	Frances Darlene Cole-Myers, CST, CSFA KY	David Wayne Farmer, CST ID	Gail Lynn Hoffman, CST IL	Mary Jo Mathewson, CST, CSFA . OH
Anna Leah Barnett NC	Valerie A. Collins, CST, CSFA GA	Deanna Lynn Fehrenbacher, CSTKS	Frances Holland, CST OH	Kimberly Ann Matson, CST WA
Julie Anne Barron, CST, CSFA ... MN	Teresa June Comer, CST, CSFA IN	Julie Ann Fjerstad, CST MN	Donna Brown Holmes, CST, CSFAMS	Elke Landry McBride, CST TX
James Clinton Bell, Jr., FAST, SA-C . CO	Sally A. Connaughton, CST, CSFA TX	Mitchel R. Fosmire, CST FL	Tina Denise Hoover, CST KY	Cindy Anne McDowell, CST, CSFA IN
Teresa Anne Bellew, CST KY	Candy L. Conway, CST, CSFA KY	Gemma Fournier, CST, FAST, RN NY	Todd Michael Hudson, CST ME	Sheila M. McDowell, CST SC
Susan Louise Bernard, CST AK	Christine Marie Cook, CST AR	Joseph Paul Gaboury, CST WI	Robin Kerrin Irvin, CST PA	Rhonda L. McHenry, CST IN
Bobby D. Bierman, CST FL	Kathleen Ann Cook, CST, RN, CNOR . TX	Jennifer Rebbecca Garrison, CST, CSFA NE	Tony V. Johnson, CST, CSFA KY	Nelma Renee McMellon, CST . MS
Michelle Lynn Bonnema, CST. MN	John William Cooper, Jr., CST, CSFA ME	Margaret Mary Gencarelli, CST. NJ	Tonya Lea Jones, CST IN	Wolfrederick Harwart McMichael, CST, CSFA GA
Debbie Borek, CST WA	Theresa M. Cooper, CSFA, CSA... VA	Michele Marie Gentile, CST TN	Jodi Lynn Keene, CST IN	Wanda Ivette Medina, CST NY
Harley L. Bown, Jr. OH	Gregory Tyrone Copeland, CST GA	Lyn Amor Gentry, CST KY	Kelly Pauline Kelley KS	Leander A. Metcalf, CST AZ
Michele B. Boyd, CST, CSFA NC	Sorin Silviu Cotuna, CST TX	Carmen Jean Giles, CST MN	Melissa Kay King, CST TX	Irma Meyer, CST ID
Lawrence C. Boynton, CST, CSFA. IN	Joanna E. Cowart, CST FL	Miriam E. Gonzalez, CST FL	Athena King-Duncan, CST GA	Sheila Rena Mike, CST VA
Belinda K. Brazear, CST, CSFA ... OK	Sharon Tetila Cox, CST CA	Auldaite Stecile Gooding, CST FL	Leigh Ann Kinney, CST IN	Kenneth Randall Miller, CST TX
Mary Alice Brewer, CST, CSFA AR	Robert Gary Crawford, CST, CSFA ID	Joyce Y. Greenwood, CST TX	Maureen Korber, CST, CSFA NC	Donna Eiler Moon, CST OH
Tammie Lee Bridegroom-Henning, CST OH	Jody F. Crowell, CST NY	Tobi Lannette Gregory, CST OK	Pamela Sue Koster, CST MN	Michael W. Moore, CSFA KY
Jennifer Dean Briley-Fordyce, CST GA	Beth Anne Curry, CST, CSFA OH	Rachel Ellen Gresk, CST WI	Evangelia Koumanidis, CST NY	Michael Anthony Mosby, CST, CSFA .. TN
Jerry Wayne Broome, Jr., CST .. TN	Nita Marie Darland, CST IL	Chad William Gretencord, CST, CSFA IN	Rebecca Lee Kruse, CST KS	Andrea Mostyn, CST NJ
Mignon Monque Brown, CST TX	Kelly Lynn Davis, CST OH	Dona Lynne Griffin, CST OK	Glenda Faye Lafferty, CST PA	Donna Marie Mueller, CST MN
Winifred E. Brown, CST TX	Kevin Michael Davis FL	Mark Richard Groene, CST TX	Maria Lafferty, CST NY	Elizabeth Mulherin, CST, CSFA .. AR
Aretha Lynette Brown-Rudolph, CST OH	Gina Lynn De Mers, CST, CSFA... MT	Lisa Ann Gross FL	Maria Monique Lankford, CST . AR	Earl F. Myers, III, CST, CSFA PA
Brenda L. Bruce, CST IN	Jacqueline Ann DeCaprio, CST, SA-C FL	Robert John Grove, CST, CSFA ... VA	Merry P. Lankford, CST NJ	Tina Maria Neal, CST IL
Susan Wynn Burkey, CST, CSFA MO	Angela Laigh Delage, CST ND	Jeretta Marie Haire, CST KY	Janet Kochanowicz Lareau, CSTMA	Mark Nevins, CST OR
Patti Elizabeth Burns, CST CT	Jose DeLeon, CST CA	Brian James Halavonich, CST.. ME	Sean M. Laroche, CST, CSFA . MA	Vickey Lynn Nickel, CST, CSFA... CO
Robert Larry Burt, Jr., CST KS	Kelly L. Dogoda, CST TN	Freta DeAnna Hale, CST, CSFA.. WY	Mary Frances Lastres, CST, CSFA. FL	Chandra W. Niwaz, CST, CSFA TN
	Tonia Dawn Dolezal, CST MN	Tommi Marie Halverson, CST ID	Cynthia A. Lawhon, CST TX	Tammie Nodolf, CST MI
	Erin Cecilia Donley, CST OH	Cecilia Lucinda Hancock, CST .. GA	Tracey Ann Letso, CST NJ	Catherine Olsen, CST PA
		Rose Marie Hanson, CST FL	Marie Lucille Livezey, CST, CSFA OK	Michelle Marie Pala, CST IL
			Antonio Guanzon Llamzon, CST CA	Laura A. Palacios, CST TX
			Shannan Marie Long, CST CO	

Pamela Reah Pantaleo, CST CO
 Karen Jean Parlow, CST MN
 Jacquelyn Sue Payton, CST, CSFA SC
 Kimberly S. Pease, CST PA
 Martha C. Phipps, CST FL
 John E. Pitassi, CST CA
 Arturo M. Ponce TX
 Brenda Karen Poynter, CST, CSFA,
 FAST KY
 Denisha Diane Price, CST TN
 Helen J. Przewozniak, CST CT
 Debbie Ann Puzio, CST PA
 Diane Rabalais, CST NC
 Kelly Cameron Rains, CST CO
 Elizabeth Raitt, CST, CSFA AZ
 Olga Cepeda Ramirez, CST CA
 Bernardus E. Ray, CSA, OPA-C FL
 Carolyn Denise Richards, CST TX
 Kathy Raye Ritchie, CST TN
 Pamela S. Roberts, CST, CSFA FL
 Rufa Lubas Robertson, CST MD
 Frank Stephen Rochat, CST TN
 Jeannine Patricia Rodecker, CST RI
 Jose A. Rodriguez, CST, CSFA TX
 Patrice Chantell Rolison, CST .. OK
 Robin Jane Romanow, CST PA
 Cynthia Roraback, CST OR
 Susan Marie Rushton, CST CT
 James William Russell, Jr., CST,
 CSFA TX
 Kareem L. Russell, CST, CSFA ... MD
 Stephanie Rymer, CST MN
 David John Salo, CST, CSFA MN
 Eric Lee Sansom, CST, CSFA OR
 Kim M. Sapid, CST TX
 Audrey A. Savino, CST IL
 Sharon S. Schuster, CST, CSFA ... LA
 Marcia Schwer, CST CT
 Jo Ann Rae Scribner, CST WI
 Cathy Denise Seagle, CST, CSFA TN
 Mary E. Sedgwick, CST TX
 Benjamin Larry Sellers, CST, CSFA ..
 GA
 Dawn L. Sendon, CST MT
 Dixitkumar Govindlal Shah, CST ...
 MD
 James Nelson Sharp, CST MI
 John F. Sheehan, CST IN
 Lavin D'Caprice Sherman, CST,
 CSFA SC
 Vladimir Shkalikov, CST IL
 Teresa Shook, CST, CSFA TX
 Brenda Rae Simon, CST MN
 Tracy Jeanene Sincel, CST, CSFA OH
 Khem Singh, CST, CSFA IL
 Susan Ellen Siwek, CST FL
 Dorothy B. Smith, CST, FAST IL
 Jody Diane Smith, CST PA
 Roland Walker Spotts, CST TX
 James G. Stephens, SA-C TN
 Donna J. Stetler, CST IN

Shannon Dean Stipe, CST FL
 Melissa Ann Stolp, CST MN
 Rocky Todd Stonebreaker, CST NV
 John Richard Strobel, CST, CSFA MO
 Denise A. Sullivan, CST, CSFA .. MA
 Tiffanie L. Sweatman, CST, CSFA SC
 Robin R. Szarmach, FAST IL
 Sherry Ann Taylor, CST, CSFA GA
 Michael A. Terenzi, CST, CSFA ... NC
 Jennifer L. Thomas IL
 Angela T. Thompson, CST FL
 Judy Ann Thompson, CST WA
 Shawn Allen Thompson, CST, CSFA ..
 KY
 Tonya LaRee Thul, CST MN
 Cindy Tilton, CST CO
 Cindy Lyn Torre, CST FL
 Virginia D. Toth, CST SC
 Lana Ann Trimble, CST, CSFA KY
 Patricia Dawn Trombley, CST, CSFA ..
 TX
 Lorrie Ann Trouten, CST MN
 Jerome J. Upchurch, CST, CSFA, SA-C
 MD
 Darcy Jo Van Horn, CST NE
 Thane Adrian VanDyke, CST NV
 Debora Rae VanMeter, CST VA
 Joseph Gerard Veilleux, CST WI
 Karen Lynn Vellucci, CST PA
 Kristina Marie Vines, CST WI
 Patricia Wankel, CST NY
 Kimberly R. Warren, CST LA
 Tracie Melinda Warren, CST GA
 Wendy J. Watson, CST, CSFA, FAST WY
 Loretta L. Webb OK
 Dana Lynn Wehrle, CST IL
 Crystal Lee Weidman, CSFA, FAST,
 LSA TX
 Julie K. Weiss, CST LA
 Patricia C. Weiss PA
 Julie Lynn Westrick, CST IN
 Marcia B. Wickman SC
 Anne Marie Wiecezorek, CST, CSFA ..
 SD
 Jane Miranda Wiewel, CST IL
 Genevieve Marie Wilkie, CST .. MN
 Thomas Albert Williams, Jr., CST CA
 Mark Wade Wilms, CST, FAST CO
 Julia Lee Wimer, CST IA
 Alice Wolanin, CST FL
 Jackie Lynn Woolever, CST IN
 Debra Sue Wright, CST MO
 Polly Esther Wright, CST FL
 Susan Renee Wright, CST FL
 Gina Lynn Yarab, CST NC
 Tammy Louise Zapalac, CST TX
 Jonathan Robert Zellner, CST, CSFA
 CA
 Nancy C. Zmora, CST NY
 Vicki Zygas, CST, CSFA IN

31+ YEARS

Bonnie Christine Agosto, CST.. LA
 Sheila B. Alford, CST TX
 Linda Susan Amon, CST, CSFA ... MI
 Donna Louise Anders, CST ME
 Saul Andrade, Jr., CST TX
 Thaddeus J. Ann, CSFA VA
 Deborah I. Ash, CST KS
 Donna S. Avant, CST MO
 Derrick Lerone Bailey, CST FL
 Pam Ella Baker, CST NH
 Theresa Marie Barkow, CST WI
 Diana J. Barnett, CST MO
 John Derek Bartlett, CST ID
 Linda J. Bauer, CST TX
 Robert D. Belanger, CST MI
 Sandy L. Bell, CST SC
 Debra J. Bellamy, CST, CSFA MO
 Robert C. Bennett, CST CA
 Cathy E. Kaitis Bethard FL
 Christy M. Biggerstaff, CST IN
 Danica Bijelic, CST CA
 Meredith Blanford, CST, CSFA TX
 Sherri Marie Blankenhorn, CST NE
 Tonya Lee Blevins, CST IN
 Benita Elaine Blunier, CST GA
 Robert Joseph Bockhorst, CSFA OH
 Thaddeus M. Boczek MO
 Cara Rai Boka, CST MT
 Arlene Carol Boone, CST MD
 JoAnn Marie Boulanger, CST, CSFA ..
 MN
 Rechelle Ann Bowen, CST TN
 Coralie Cilma Boxill-Haynes, CST
 NY
 Bernard L. Boyd, Jr., CST PA
 Benson D. Bradley, Jr., CST, FAST AZ
 Sharon Lynne Brattoli, CST OH
 Gina A. Brendley, CST, CSFA IL
 William Thomas Bresnihan, Jr.,
 CSFA, FAST, CSA FL
 Tara G. Bright, CST SC
 Sharon A. Brito TX
 Sean M. Britten, CST WA
 William Edward Brokloff, CST .. PA
 Sonia T. Brooker, CST IL
 John D. Brophy, CST, CSFA, FAST.. NV
 Julia A. Brown, CST FL
 Mary Ann Brown, CST TN
 Delaine Lollar Buckethal, CST.. TN
 Sheryl D. Buckner, CST TN
 Lee Ann Buettner-Downie, CST TX
 Martin Daniel Bump, CST, CSFA,
 SA-C CO
 Sue Ann Burns, CST TX
 Dana Denise Burr, CST, CSFA OK
 Alanagh Ann Burton, CST GA
 Wendy Lou Byars, CST MN
 Joan Alicia Cadiz, CST FL
 Manuel Tevis Calderon, CST, CSFA ..
 NM

Kayla M. Campbell, CST MA
 Marilyn J. Candelaria, CST NM
 Laura M. Cardin MA
 Dorothy A. Causer, CST, CSFA ... PA
 Jacqueline Irene Charest, CST ME
 Tamara Chow, CST, CSFA HI
 Angie Marie Christian, CST NY
 Joan Marie Cioffi, CST PA
 Cinda G. Cochran, CST GA
 Chikela Cody, CST NY
 Tamara Lynn Coffield, CST KY
 Breton Kip Colaw, CST WA
 Barbara Lynn Coleman, CST MS
 James J. Collins, CST, CSFA PA
 Holly Anne Colson, CST NH
 Donald Otis Conaway VA
 Maria L. Concepcion FL
 Grace C. Cong, CST IL
 Lisa Renee Cooper, CST TN
 Alecia E. Cornelius CA
 Buffie S. Cotton, CST LA
 Sharon Lee Crane, CST, CSFA FL
 Michael Wyn Crest, CST, CSFA ... CO
 Holly B. Crittelli, CST, CSFA FL
 Timothy J. Currie, CST WA
 Jennifer T. Dahl, CST MN
 Tanya Denise Daktar, CST GA
 Beth A. Davis, CST MN
 Glennda L. Dawson, CST TN
 Annette Theresa Deberville, CST VT
 Laura Jane DeBoe, CST MO
 Bobbie Louanne Decker, CST .. OK
 Kathy Ann DeFeo, CST CT
 Jose Luis DeLeon, CST, CSFA TX
 Shawn S. Denman, CST IN
 Angela D. Dixon, CST MD
 Berlene Dixon-Powell, CST ... MD
 Joni Lynn Dolhonde, CST, CSFA . LA
 Michael Dominguez TX
 Debbra Lisa DuMoulin, CST ... MD
 Renee Marie DuPont, CST CA
 Carla Ann Duran, CST CA
 Marjorie A. Edwards IL
 Pamela L. Ehler-Butler, CST, SA-C
 FL
 Eduardo J. Elizondo, CST, CSFA .. TX
 Karen J. Ellicott, CST NE
 Wanda L. Elliott, CST, CSFA, LSA .. TX
 Penny Ann End, CST FL
 Hector Genaro Escobar, CST FL
 Bobbi Beth Fee, CST MO
 James Edward Feltman, Jr., CST,
 CSFA AZ
 Linda Louise Fetzi, CST MN
 Tracy L. Finan, CST OH
 Fredrick Harry Fisher, CST, CSFA, CSA
 NY
 Phil V. Wilkes Fixico, CST, CSFA . CA
 Lou Anne Fleming, CST NE
 Sandra G. Flink, CST FL
 Tracy J. Flowers, CST IL

Julie L. Foster, CST TX
 Patricia Fowlkes-Grate MD
 Joan Ester Free, CST, CSFA VA
 Denise Louise Frey, CST PA
 Colleen G. Fuchs, CST IL
 Cecilia Odette Gaete, CST CA
 Barbara Monica Galecki, CST IL
 Rosario R. Garcia, CST TX
 Carey Vaughn Gardner, CST KY
 Staci L. Gaunt, CST PA
 Heather Allison Geronimi, CST AZ
 Wayne E. Glass NY
 Freda M. Goth, CST MO
 Annie L. Graham NC
 Renee A. Gray, CST, CSFA FL
 Angela Jean Green, CST IN
 Jodi Kay Greenlee, CST IN
 Christina B. Grey, CST CA
 Brenda Louise Grice, CST TX
 Lesa Sue Griffith, CST OH
 Michele C. Gruber, CST LA
 Daniel J. Gustafson, CST CO
 Marlene Gutierrez, CST FL
 Kathryn Hartley Guzik, CST, CSFA AL
 Stephen E. Hall VA
 Steven Clair Hall, CST OH
 Abby L. Haney, CST IN
 Eric Clay Hardy, CST, CSFA TN
 Robin Lynn Hass, CST, CSFA NV
 Robert E. Helton, CST, CSFA-CVS TN
 Steven E. Henderson, CST IL
 Robert Hernandez, CST CA
 Janet K. Herold, CST IA
 Terry Michael Herring, CST, CSFA,
 FAST NC
 Patti Rae Hicks, CST MO
 Melissa K. Higgins, CST FL
 Janna Hightower, CST, CSFA MO
 Barbara Jo Hilbert, CST PA
 Misty Renee Hill, CST TN
 Paula R. Hinkle, CST, CSFA MO
 Corey Cordell Hinton, CST, CSFA AZ
 Vanessa L. Hodson, CST IN
 LeLa C. Holloran, CST FL
 Rebecca Mae Holmes, CST, CSFA MI
 Lesia Gay Holt-McIlrath, CST ... TX
 Line France Marie House, CST, CSFA
 CT
 Garry P. Howard, CST, CSFA FL
 Sharlene Sanderson Hreinsson, CST
 UT
 John C. Hubbell NY
 Sheila Hughes MA
 Berta Ventura Jacobs, CST TX
 Susan Angeline Jaksa, CST, CSFA MN
 Pia Johnson Jimenez, CST, CSFA GA
 Jacqueline Jones, CST SC
 Kimberly A. Judd, CST IN
 Teri Junge, CST, CSFA, FAST WI
 Thomas Paul Justice, CST, CSFA, LPN
 OH

Celeste Marie Katlic, CST MD	Stephanie Ranae Miller, CST, CSFA. MA	Kathryn Margaret Roth, CST ... OH	Guinevere F. Watson-Rutherford MI	Kimberly April Cummings, CST GA
Roxanne Marie Kazmaier WI MA	Pamela L. Rowley, CST, CSFA CT	Belinda Miller Welch, CST, CSFA KY	Anna M. D'Abruzzi, CST OH
Melina C. Kearney, CST NY	Dana M. Moonen, CST, CSFA NC	Cheryl Rae Russell, CST MT	Robyn Lynne Wentz, CST, CSFA WA	Linda Mae Deitz, CST MN
Dawn Etta Kee, CST, CSFA MO	Edna G. Morrison, CST NY	Cheryl L. Russell, CST, CSFA IL	Alberta F. Wesel, CST OH	Maria Felisa DeKler, CST FL
Mechell Dawn Keesling, CST, CSFA. MO	Carlton James Mouton, CST CA	Simone Marie Sackett, CST MN	Darlene Marie White, CST CT	Monique M. Desautels, CST ... MA
Patricia Pisano Keller, CST, CSFA GA	Maria I. Muenks, CST, CSFA MO	Paul A. Salas, CST, CSFA FL	Douglass Wiczorek, CST, CSFA. CT	Jacqueline Michele Dinkins, CST .. TN
Roy Keller, Jr., CST, CSFA AZ	Michele Lea Mulkey, CST IN	Mary L. Sams, CST FL	Theresa Dawn Wiest, CST, CSFA. FL	Kara Lyn Docs, CST OH
Cynthia Anne Kelley, CST MI	Kim David Mullins, CST MI	Jessie San Miguel, Jr., CST TX	Adell Marie Williams, CST LA	James E. Downey, CST NJ
Shelly Marie Kelley, CST KY	Michele Davis Myers, CST GA	Penny Denise Satterfield, CST. TN	Susan K. Williams, CST KY	Donna Lyn Duckworth, CST CO
Kimberly M. Kemberling, CST MN	Sandra E. Neal, CST, CSFA AR	Susan Saullo, CST NJ	Helga M. Wise, CST, CSFA MO	Yvonne E. Edmond, CST TX
Kathy M. Kessler, CST OH	Bradley C. Neuarth, CST, CSFA. ND	Ronald Page Scott, CST, CSFA FL	Jodie Beth Woods ID	Anna M. Esseln, CST WA
Virginia Lee Kilgore, CST, CSA. KY	Sharon R. Newton, CST AR	Tracy A. Scott, CST TN	Gregory G. Wright, CST VA	Lorrie L. Etenburn, CST, CSFA. CO
Gloria Elizabeth King, CST TN	Cynthia M. Nilssen, CST TX	Cindy R. Seamans, SA-C TX	Michael Orlando Wright, CST, CSFA, SA-C, CSA TX	Elizabeth Jane Fedorko, CST ... PA
John Anthony King, CST, CSFA. NM	Stacy Ann Norden, CST GA	Dawn Michelle Seibert, CST TN	Dorothy Yackley, CST IL	Julie L. Ferrin, CST MT
Therron N. King, CST CA	Carolyn R. Norton, CST, CSFA AL	Victoria Lynn Seigler, CST, CSFA . FL	Bibi Jamela Yasin, CST NY	Wendy Marie Fink, CST PA
Sally Ann Kiene, CST CA	Arturo Orozco, CST CA	Joan Kathryn Selburg, CST, CSFA IL	Tammy M. Ziedy, CST TX	David Gerard Flores, CST, CSFA. IL
Tracy L. Klosterman, CST OH	Stephanie Lynn Orr, CST IN	Wade Alex Shaver, CST SD	Alan Blake Zimmerman, CST IN	Reginald Augustus Frederick, CST, CSA TX
Anthony Roland Koebler, CST, CSFA IL	Robert K. Pahs, CST IN	Valeri Lynn Shaw, CST OH		Holly Ann Fritsche, CST NE
Diane Marie Koenigsnecht, CST, CSFA MI	Patricia Ann Palenicek, CST, CSFA FL	Oksana C. Shnyder, CST, CSFA . OH	32+ YEARS	Yamile Fuentes, CST FL
Louis Anthony Koharchik, CST, CSFA PA	Cynthia Marie Paris, CST TX	Rebecca G. Shue, CST IN	Sherri M. Alexander, CST, FAST... IN	Jane M. Gamblin, CST ID
Patricia Lynn Kress, CST SC	Christine Anne Parron, CST OH	Cynthia A. Shupe, CST, CSFA MI	Julie Keenan Allen, CST, CSFA TX	Sandra Lee Gaylord, CST, CSFA. MA
Charles D. Kreuser, CST CA	Gayla Janette Patterson, CST ... AR	Melody Ann Sisk, CST MI	Terry Lynn Almoney, CST PA	Gisele R. Gendreau, CST ME
Kristine C. Krueger, CST, CSA. TX	Artina Horne Pemberton, CST.. NC	Billy Joe Skinner, Jr., CST TX	Gertrude F. Armstrong, CST WI	Cathy Banks Gillespy, CST SC
Cynthia K. Kutz, CST ND	Mona A. Pena, CST TX	Jean Mary Smith, CST, CSFA NH	Marcela Artstein-Sauer, CST ... CA	Isabel Cristina Gonzalez, CST, CSFA FL
Levie T. Laguitan, CST CA	Sandy Champagne Phillip, CST LA	Lori Leneau Smith, CST, CSFA. AR	Jesse J. Austin, Jr. VA	Stephanie A. Graber, CST IN
Mark Lee Lawrence, CST, CSFA. SC	Brian Kent Phillips, CST MD	Mashella Rene Smith, CST MO	Trina Renee Backhaus, CST CA	Stephen C. Green, CST TX
Kelly Ann Leckinger, CST CA	Susan B. Plattner, CST IN	Barry Miles Snyder, CST FL	Marilyn B. Bagen, CST VA	Dana Marie Greer, CST, CSFA AR
Renee Dawn Lee, CST, CSFA OK	Janelle A. Porter, CST NE	Benny T. Soveranez, CST NM	Marcelino Barbosa, Jr., CST TX	Kay Lynn Gregg, CST MN
Jill Patricia Leone, CST IL	Brenda Ann Powell, CST, CSFA. FL	Lori Lee Stanley, CST IN	Sergio Javier Batiz, CST, CSFA TX	Cynthia Denise Greyerbiehl, CST . WA
Laurietta DuLong Lewis, CST, CSFA. FL	Steven D. Powell NY	Jane M. Steiner OH	Andrea Lynn Belanus, CST MN	Shirley Marie Haas, CST TX
Patricia E. Lewis, CST TX	Derril S. Pruitt TN	Samantha C. Stevenson, CST, CSFA IN	Deanna Belyan, CST MO	Brenda Ann Hamilton, CST, CSFA TX
Melissa K. Lickfeldt CO	Melinda Ann Prusa, CST VA	Paula A. Stokes-Runnels FL	Suzanne M. Bergeron-Harris, CST, CSFA NH	Bonnie L. Handley, CST OH
Patricia Coleen Long, CST NE	Mary Elizabeth Pugh, CST TX	Susan Marie Story, CST TX	William D. Berry, CST, CSFA TX	Julie Lynn Hansen, CST IL
Vanessa M. Lonnon, CST, CSFA TX	Max J. Quintana OR	Sandra Kaye Strong, CST KY	Debra Caldwell Beville, CST TX	Honey S. Hedrick, CST NC
Jayne MacPherson, CST, FAST. MA	Sherry Lynn Radford, CST TN	Dooley D. Summers, CST WY	Jeffrey Bidwell, CST, CSFA, FAST, CSA KY	Julie A. Hendrickson, CST KS
Diane M. Maloney, CST OH	Juanita May Raines, CST, CSFA ... FL	Linda M. Summers, CST WY	Michael Henry Blencowe, CST. NJ	Cynthia Romo Hernandez, CST. TX
Anthony K. Mansinghani, CST. MT	Bibiana Patricia Ramirez, CST.. NJ	Bruce Matthew Swayne, CST. WV	ReVonda D. Bond-Robinson, CST. FL	Lori Moss Hicks, CST NC
Sandra Manwiller, CST, FAST.... WA	Melinda Lee Rash, CST TX	Melissa Ann Swift, CST PA	Michele R. Bowen, CST IN	Robert Brian Hicks, CST, CSFA ... KY
Susan Marie Maret, CST TX	Wendy A. Reed, CST NC	Betty Ann Taylor, CST SC	Stacey Ann Boxler, CST PA	Suzanne Marcel Holy, CST, CSFA MT
Tracey Lee Marso, CST, CSFA, CSA PA	Sally Elizabeth Regan, CST IN	Cheryl A. Thompson, CST WA	Stephanie S. Brandenstein, CST IN	Ricky Gene Howard, CST NC
Brian David Martin, CST, CSFA. LA	Roxanne Melissa Reid, CST NC	Tara Nicole Todd, CST SC	Rebecca A. Brazell, CST SC	Dorothy Lynn Howe, CST FL
Dana Lynn Martin, CST TX	Christina Glawe Rex, CST PA	Melba O. Tolliver, CST, CSFA AR	Denise Annette Bridges, CST ... TX	Jodi A. Inahara, CST, CSFA ID
Theresa Martin, CST TX	Catarino M. Reyes, Jr., CST, CSFA TX	Mary O. Topjian MA	Charlotte Ellen Brookshire, CST GA	Kathy Annette Jackson, CST AR
Timothy A. Marvin, CST, CSFA TX	Jennifer K. Rice, CST IN	Carolyn Sue Trefz, CST IL	Debra Lee Brown, CST IL	Tammy Rice Jackson, CST, CSFA. SC
Ebrahim Mazahery, CST, CSFA, CSA. CA	Carol J. Ridens, CST IN	Sharon Kay Triggs, CST VA	Elizabeth Ann Brownlee, CST .. LA	David M. Jacobelli, CST MO
Helen J.R. McCarthy, CST OK	Pamela J. Riley, CST TX	Ann Cecilia Trossbach, CST MD	Teresa L. Burmester, CST MN	Daniel James, CST WA
Laura Ann McCloskey, CST SC	Robert Rivera, CST NM	Sandra Gail Tucker, CST, CSFA ... AR	Sandra K. Burns, CST NC	Jessica E. Jenkins, CST MA
Jill Marie McDonald, CST CA	Loretta Frances Rivers, CST FL	Joyce Marie VanZee, CST SD	Rita V. Champagne, CST WA	Gina Lynn Johnson, CST TX
Teresa E. McDonough, CST SC	Cynthia Darlene Roberson, CST OK	Janet Lee Vickers, CST FL	Charlotte L. Chavous, CST, CSFA TN	Mark M. Johnson, CST MN
Kathy L. McFall, CST LA	Sabrina A. Roberts, CST WA	Michael Joseph Vincent, CST ... MI	Danielle Renee Chism, CST CO	Kristen Louise Johnston, CST .. SD
Lee Edwin McLeod, CST FL	Kimberly Steward Robinson, CST. LA	Suzanne Volkmer, CST IA	Anna Marie Chriscoe, CST, CSFA NC	Dana Lynn Jones, CST GA
Maria L. Medina, CST FL	Ana Maria C. Robles CA	Kenneth L. Vossler, CST CO	Lori D. Coban, CST IN	Na Tran Jordan, CST NC
Sharon H. Milburn, CST, CSFA ... VA	Frank Rocha, CST CO	Justine Beverly Waldeck, CST. PA	Kim Renee Cole, CST, CSFA. OH	Sheryl M. Kier IL
Patty L. Millen, CST SC	Greg Stephen Rodenmeyer, CST CO	Christine Jean Walker, CST, CSFA, RNFA, CRNFA TX	Jill Renee Coles ID	Jean Ann Kimpler, CST, CSFA. WI
	Margaret Helen Rodriguez, CST, CSFA, FAST, BS TX	Patricia Ann Walker, CST PA	Michael Eugene Conyers, CST. FL	Toni M. King, CST NJ
	Renae Lee Roman, CST, CSFA. PA	Tricia Lyn Waltz, CST WI	Neiva Irene Cordova, CST TX	Charlotte Yvonne Knight, CST, CSFA TN
	Julie Ann Rosene, CST NC	Carolyn A. Washington, CST GA		
	Linda S. Rosenthal, CST TX			
	Valerie Delet Ross, CST TN			

Sheila P. Kruse, CST KY
 Misty Ann Kuester, CST IN
 Mary J. Kunde, CST IL
 Vickie L. Kutzler, CST, SA-C FL
 Charles Lane, CST SC
 Suzanne E. Lantieri, CST CT
 Rhoda Margaret Lazar, CST IL
 Conni Maria Levesque, CST CT
 Matthew A. Link, CST, CSFA TX
 Joel David Lovejoy, CST MN
 Marsha L. Lowe, CST OH
 Cecelia Ann Lumpkin, CST MI
 Bruce M. Lyle, CST, FAST, BS IN
 Christopher Robert Lynch, CST,
 CSFA TX
 Susie Ann Macklberg, CST CA
 Mary B. MacSwain, CST, CSFA FL
 John F. Marshall, CST TN
 Shari Marie Martin, CST ID
 Maranda Albright Mazyck, CST SC
 Janet M. McCowan, CST SC
 Sandy Novella McDowell, CST. SC
 Jennifer L. Memmer, CST IN
 Asucena Delrosario Miles, CST NC
 Donna Lois Miller, CST WI
 Rosalynn V. Muir, CST TX
 Valance E. Mulkey, CST, CSFA ... CO
 Angela W. Mull, CST NC
 Teresa M. Murphy, CST IL
 Elizabeth Jane Nier, CST IN
 Deanna K. Noe, CST TN
 Theresa M. Owen, CST FL
 Jeri K. Patrick, CST MO
 Louise B. Penley, CST TN
 Delores Gale Pritchett, CST, CSFA KY
 Joseph M. Prucinsky, CST FL
 Tina K. Putman, CST, FAST VA
 Craig Daniel Rabideau, CST WI
 Marc Ratner, CST FL
 Regina B. Redden, CST SC
 Brenice Williams Reid, CST NC
 Avis D. Reynolds, CST VA
 Ann Richardson, CST MI
 Mayra Y. Rickard, CST CO
 Anna Catherine Roberts, CST .. FL
 Sheri Lynn Robinson, CST FL
 Angela D. Roman, CST TX
 Melissa Jean Ross, CST NC
 Amy C. Ruiz, CST GA
 Mohammed I. Salih, CST TX
 Maurice A. Salim, CST PA
 Amy Lynn Schneiderman, CST .. IL
 Cecilia J. Schrack, CST DE
 Dennis M. Sheridan, CST, CSFA .. IL
 Lydia Elise Smith, CST TN
 Carrellyn Renay Steinert, CST NM
 Jodi Lynn Stiffler, CST PA
 Lisa Marie Strohm, CST FL
 Theresa Lynn Sweet TX
 Lazette Symonette FL
 Marsha Gene Tennant, CST TX

Sara K. Terrell, CST FL
 Lisa M. Tiffany, CST IN
 Donovan John Traverse, CST, FAST..
 NC
 Mark Christopher Trujillo, CST, CSFA
 CO
 Cheryl A. Van Newkirk, CST MI
 Sally Jo Walter, CST, CSFA TX
 Verna Dean Washington, CST .. GA
 Deborah Louise Wenzel, CST ... NC
 Elaine D. Whitney-Pierre, CST LA
 David D. Williamson, CST TN
 Kevin D. Wohlfiel, CST MN
 Cindy Lou Wolf, CST TX
 Timothy P. Wolfe, CST, CSFA PA
 Tamera G. Wood, CST TX
 Jesus Zamarripa, CST TX
 Kimberley A. Ziemer, CST MN
 Julie M. Zirbel, CST WI

33+ YEARS

Marquelle A. Arenson, CST CA
 Leann M. Bailor, CST OR
 Maria Lynn Bain, CST, CSFA, SA-C,
 CSA OH
 Janice Baker, CST TX
 Tracey Baker-Herrell, CST, CSFA MO
 Linda Ellen Barker, CST OH
 Kristine Blosenski-Anklam, CST WI
 Heidi Ann Boese, CST WI
 Martha Alison Booth, CST TX
 Scott Michael Boucher, CST FL
 Eleanor Anne Bousquet, CST .. MA
 Zorita K. Bowen, CST IL
 Suzanne Elizabeth Brewer, CST PA
 Robin Elizabeth Brkic, CST ID
 Betsy E. Brown, CST WI
 Yvette Renee Bulington, CST ... IN
 Janine Marie Button, CST, CSFA .. IN
 Clinton R. Cervi, CST AZ
 Diana Lee Clark, CST FL
 Maxine Elizabeth Collins, CST .. FL
 Debra Gail Coney, CST OH
 Bridget Michelle Cook, CST ... ME
 Karen Renee Crum, CST NC
 Shelly L. Dias, CST SD
 Julie A. Diedrick Cyran, CST OR
 Karen Elaine Dixon-Pasley, CST CA
 Charlotte Renee Dona, CST MO
 Donna Cocchi Dunn, CST GA
 Dee Anne Edwards, CST NC
 Michael W. Edwards AL
 Monciella J. Elder GA
 Stacey Yevonne Ellis, CST TX
 Teresa L. Ervine, CST VA
 Raul S. Escobar, CST TX
 Maria Reyna Fineman, CST TX
 Kimberly Lynn Fleischhauer, CST,
 CSFA IN
 Victor Garcia, CST, CSFA TX
 Robyn P. Gerthoffer, CST CO

Julie K. Gilbreath, CST TX
 Vanessa Claire Giles, CST WA
 Tonya Michele Glocker, CST OK
 Cindy Lou Griswold, CST MT
 Gayle M. Gyles, CST, CSFA CA
 Edith Marie Hagan, CST KY
 Rebecca Whalen Hammock, CST VA
 Carolyn Joanne Hanohano, CST CA
 David Donovan Hart, CST MN
 Lacy A. Hebert, CST LA
 Beatrice Hedberg, CST IL
 Cindy L. Hedge, CST MO
 Yolanda Yungco Henson, CST ... IL
 Brenda L. Hess, CST VA
 Kimberly Ernest Hickman, CST TN
 Jane A. Hildreth, CST NV
 Mary J. Hopper, CST CO
 Edith E. Jones, CST GA
 Toni Gail Johnson, CST WI
 Dawna Jo Jones, CST OK
 Rosalinda G. Justice, CST NM
 Karen A. Kanouff, CST GA
 Debra Sue Keyser, CST OH
 Markay Kifer, CST PA
 Michael J. Kimmell, CST PA
 Karl Zechariah Klein, CST, CSFA . OK
 Janet M. Koranda, CST NE
 Christine K. Krejdl, CST WA
 Cheryl Lynn LaBombard, CST ... TX
 Felicia Marie LaGrecia, CST NY
 Nicole M. Lake, CST LA
 Angela Marie Lambert, CST LA
 Lillian H. Langan MI
 Claridad Lopez, CST NV
 Shelly A. Lottes, CST IN
 Robert C. Mack, CST NJ
 Kristi L. Martin, CST IL
 Leonel Martinez, CST, CSFA TX
 James M. McCallum, Jr., CST FL
 Denise L. McCarron, CST FL
 Laurie Ann McDermott, CST TX
 Denise Ann McGrath, CST MA
 Elaine M. Meincke, CST MN
 Cindy L. Miers IL
 Lisa Suzanne Miller, CST WV
 Michelle Washington Miller, CST TX
 Susan Marie Mocabee, CST MT
 Lori M. Molus, CST, FAST MN
 Bob M. Montoya, CST, SA-C TN
 Stephanie Kay Morris, CST FL
 Desiree Ann Motiff, CST, CSFA .. WI
 Stacey I. Naughton, CST FL
 Pamela Elaine North, CST OK
 Jeri Leigh Osborne, CST NC
 Jose Javier Palacios, CST, CSFA .. TX
 Christine Lopez Parr, CST, CSFA .. TX
 Laurie L. Pechous-Clark, CST . WA
 Stacy Lynn Pettit, CST WI
 Catherine M. Pinchart, CST WI
 Tami M. Pitcher, CST OH
 Dennis E. Portee, CST, FAST NC

Zaragoza R. Portillo, CST TX
 Georgina E. Poston, CST, CSFA .. SC
 Robert R. Prince FL
 Alicia K. Quine, CST TX
 Patricia Jane Radford, CST WA
 Nancy Marguerite Raymond, CST.
 ME
 Laura L. Reames, CST TN
 Peggy Jo Ridenour, CST, CSFA IA
 Marie-Louise Riley Johnson, CST.
 MA
 Brenda Kay Roberts, CST, CSFA MO
 Catherine K. Roberts, CST NE
 Charles Minuad Robinson, CST,
 CSFA OH
 Emily Teresa Rogers, FAST SC
 Barbara Ann Rowden, CST WA
 Sheila L. Ryan-Watson, CST IL
 Marilyn Denise Ryles, CST GA
 Lavina Ember Salchow, CST ... MO
 Cherylann Marie Salva, CST ... MA
 Daniel Sanchez, CST, CSFA, OPA-C ...
 TX
 Michelle Sanders, CST NE
 Mary Linnea Sant 'Angelo, CST . CT
 Barbara Jean Sell, CST IN
 Monica Moss Shelton, CST, CSFA KY
 Donna Marie Smarsh, CST OH
 Karin Lynne Smiley, CST IL
 Gina Rene Smith, CST, CSFA MO
 James C. Smith, CST PA
 Tanya L. Smith, CST, CSFA TN
 Gwen Snider, CST MS
 Maria A. Spandri-Guzman CA
 Millicent Spruill, CST NC
 Christine Stokes, CST MO
 Janna M. Thompson FL
 Tammy H. Timmons, CST SC
 Dianna G. Toliver, CST, CSA, RNFA, RN,
 CNOR TX
 Jacqueline C. Torp, CST FL
 Barbara Turcotte, CST, CSFA FL
 Robert L. VanNorstran, CST TN
 Nadine Lynn Vatauvuk, CST PA
 Emilise Esther Villa, CST TX
 Angela Maria Warner, CST SC
 Anita Louise Williams, CST IN
 Joan M. Wobig, CST, CSA MN
 Angela Benniefield Wright, CST GA
 Vicki Lynn Wright, CST IN
 Patricia Marie Wykoff, CST VA
 Tamara L. Yarmey, CST NV
 Lisa A. Young, CST IN
 Barbara M. Zarbatany FL

34+ YEARS

Cynthia Maria Abejuro, CST MI
 Jennifer Lynn Agnoni, CST PA
 Catherine Jean Alexander, CST . TX
 Lisa K. Allen-Yancey, CST TX
 Rebecca Lee Anderson, CST OH

Kathleen Faye Araujo, CST, CSFA OK
 Dana E. Bancer, CST, FAST FL
 Patricia Ann Beck, CST IN
 Deanna L. Billingsley, CST MN
 Janet M. Block, CST MN
 Theresa Gail Bollman TX
 Mona L. Bourbonnais, CST, FAST. ID
 Tonja Branham, CST, CSFA OK
 Candyce L. Candage, CST FL
 Michael R. Carnett, CST, CSFA ... AR
 Jennifer Sue Castle, CST, CSFA ... IN
 Sharon Clark, CST AZ
 Chechee A. Critchfield, CST TX
 Julian X. Cruz, CST TX
 Mary Kay Cusack, CST, CSFA, FAST SC
 Mary Elizabeth Davis, CST CA
 Tammy Renee Day, CST KY
 Lovelle L. Donahue, CST OH
 Sandra Kay Dunham, CST SC
 Joanne L. Farley, CST PA
 Jan E. Ferrara, CST LA
 Sondra A. Ferraro PA
 Deborah Lynn Fischer, CST CA
 Gerrilynne S. Flohe, CST, CSFA .. OH
 Philip Floth, CST NV
 Lillian M. Foland IN
 Helen R. Foster MD
 Jose Francisco Gallardo, CST, CSFA .
 TX
 Lori B. Gaston, CST PA
 Amy Marie Gebers, CST, CSFA ... CA
 Geryaln A. Gengler, CST IA
 Janet E. Gish IN
 Tina C. Godfrey, CST SC
 Juan Sanchez Gomez, CST TX
 Toni Grantham, CST CA
 Joseph Dennis Groteboer, CST MN
 Jeri R. Haase-O'Brien, CST CA
 Mary Elizabeth Hanke, CST IL
 Debra Colleen Hastings-Perry,
 CST OR
 Stacy Ann Heider, CST PA
 Nancy K. Howell, CST MI
 Angela Denise Holt Henry, CST. TX
 Sheriann Marie Howard, CST ... NY
 Shannon Marie Jahns, CST, CSFA ID
 Marla Jane Johnson, CST, CSFA .. KY
 Linda M. Jones TX
 Kay E. Keehn, CST NV
 Carolyn Christine Kelley, CST ... TX
 Julie E. Kissel, CST IN
 Kelli Ann Klings, CST PA
 Shirley A. Kroll, CST WI
 Ronald O. Kruzel, CST, FAST CO
 Darlene M. Lanegrass, CST ... LA
 Maria Lynne LaWarre, CST OH
 Dawn Lindow, CSFA FL
 Deborah K. Lindsey, CST MI
 Michele Lynn Mahoney, CST ... SC
 Corrina Marie Main, CST, CSFA .. MT
 Angelito C. Manahan, CST TX

Elizabeth D. Kirk, CST..... KY
 Connie Christine Knapp, CST... SD
 Danna Jenell Kraus, CST..... IN
 Willowdene Lee, CST..... CA
 Kimberly A. Liggett, CST..... OH
 Jane Marie Lilly, CST..... ME
 Laura M. Lowe, CST..... VA
 Brenda Kay Mackey, CST..... MN
 Susan B. Marshall, CST, CSFA, FAST SC
 Arthur Martinez, Jr., CST..... CA
 Nancy Ruth McNeal, CST..... MI
 Joyce Ann Mitchell, CST..... TN
 Victoria S. Morgan, CST..... SC
 David Eugene Morris, CST..... MT
 Barbara J. Murphy, CST, CSFA .. MN
 Anita M. Nicholas, CST..... MA
 Stacy Page, CST, CSA..... NC
 Teresa Hudson Peeler, CST..... NC
 Tulsidai Rahaman..... NY
 Pamela K. Ream..... PA
 Amber Rebecca Reed, CST..... MO
 Patrice Marie Ring, CST..... PA
 Jody Lynn Robbins, CST, CSFA.. ME
 Denise L. Roberts, CST..... OK
 Tracy Lynn Roettger, CST..... IN
 Mary Alice Ronoke, CST..... SC
 Martha L. Sawyer..... AR
 Angela Kathryn Schneider, CST. IL
 Gena Lynne Seaman-Gregory, CST
TX
 Susan Lynn Severson, CST..... SD
 Catherine J. Shelton, CST..... FL
 Karyn Renee Shotkoski, CST... NE
 Susan Marie Skurla, CST..... PA
 Maria L. Smith..... VA
 Jo Ann V. Steffes, CST, CSFA, FAST WI
 Lori Ann Strickland, CST, CSFA.. NC
 Mary E. Suffolk, CST..... AZ
 Mary Ann Sutt, CST..... PA
 Diana Bernadine Sutton, CST .. MN
 Catherine L. Swiger, CST..... OH
 Carrie M. Tarrance, CST..... TN
 Nancy J. Terry, CST..... IN
 Steven R. Thompson, CST..... SC
 Graciela A. Verdeguer, CST..... NY
 Dino Villoria, CST..... FL
 Mary Ann H. Wert, CST..... PA
 Monica Lynn West-Gray, CST. MD
 Janette S. Wilcox, CST..... TX
 Molly Ann Woolridge, CST..... TX
 Tommi L. Workman, CST, CSFA .. NC

38+ YEARS

Karla Renee Adams, CST..... IN
 Rondalynn M. Anderson, CST... FL
 Margie Ann Bartlett, CST..... VA
 Susan A. Bearese, CST..... NY
 Kimberly Ann Berland, CST..... IL
 Cassandra Sloan Blackden, CST LA

Martha Ann Bradburry, CST..... TX
 Brenda Ann Bushey, CST..... CO
 Sue W. Cagle, CST..... TN
 Kathleen D. Carney, CST..... CT
 Angele Eroche Chauvin, CST, CSFA FL
 Scott A. Comeaux, CST, CSA..... CO
 Kelly A. Crandall, CST..... OH
 Rozanne C. Crump, CST..... IN
 Lisa F. Duff, CST..... NV
 Sandra Kay Edwards, CST, FAST .. OK
 Cathy L. Empson, CST..... IL
 Elizabeth F. Feldman, CST..... CT
 Deborah Kay Floyd, CST..... VA
 Tammy Denise Gagliardi, CST.. NY
 Tony Gales, CST..... IL
 Lori Giordano O'Leary, CST..... CT
 Celia B. Gonzalez, CST..... FL
 Carolyn Faye Hayes, CST..... KY
 Terry L. Humphrey, CST..... FL
 Michelle E. Iskra, CST..... CT
 Becki E. Jenkins, CST..... MD
 Michelle Anderson Jones, CST. SC
 Susan Burnett Jones, CST..... SC
 Kerry A. Keating, CST..... MA
 Susan J. Keegan, CST..... OH
 Tammy A. Kerr, CST..... IN
 Judith Ann Kilbarger, CST..... CO
 Monica L. Kirchberg, CST, CSFA MN
 Debra Mary Klotter, CST..... TN
 Deborah Sue Komar, CST..... PA
 Penny S. Lococo, CST..... NV
 Sandra Kay Luthie, CST, FAST... TX
 Lori Lynne Maynard, CST, CSFA . OH
 Laurie Huber McCann, CST..... LA
 Nathan C. McCauley, CST..... MN
 Kelly Faye Meaney, CST..... IN
 Cindy Lee Meyer, CST..... NC
 LaVon V. Moore..... OH
 Janet L. Murphy, CST, CSFA..... OH
 Kenneth D. Niederhauser, CST. CA
 Dawn M. Novak, CST..... ID
 Doloris L. O'Connor, CST..... OH
 Connie Joyce Patton, CST..... MO
 Sharon Gale Pickard, CST..... AZ
 Annie Jewel Pierre, CST..... TX
 Jimmie Pisk, CST..... WA
 Victoria L. Reed, CST..... IN
 Karen Olivia Rhone, CST..... NC
 Robin Renee Robinett, CST..... TN
 Vickie R. Scott, CST..... KY
 Marie Virginia Sexton, CST..... MN
 Deborah L. Sheffield, CST, CSFA. TX
 Julie Ann Skibinski, CST..... IN
 Retina Dawn Sorrells, CST..... TN
 Colleen Renee Stern, CST..... OR
 Thomas J. Stewart..... OR
 Carolyn J. Thomas, CST..... KY
 Patricia Ann Toth, CST..... PA
 Penny Ann Tucker, CST..... AL

Suzanne M. VanderVeen, CST.. NE
 Theresa Vela, CST..... TX
 Leann Renee Watson, CST, CSFA CO
 Lorrie Anne Webb, CST..... VA
 Karin Ryan Wempe, CST..... TX

39+ YEARS

Gail Ball, CST..... FL
 Alexandra Bierne..... CA
 Kathleen Boothe, CST..... CT
 Sharon L. Briol, CST..... MN
 Faye Ann Buncich, CST, CSFA.... PA
 Norma J. Burrell..... TX
 Kathy Ann Clark, CST, CSFA..... IL
 Tracy Jill Clow, CST..... OR
 Frances Dorrie Colvin, CST..... CA
 Rita Kay Conquergood, CST.... KY
 Penny S. Daniels, CST..... MN
 Penny Noreen Darling, CST..... TX
 Kelley L. Dickerson, CST..... TX
 Marianne Dluhos, CST..... PA
 Judy K. Dressler, CST..... NV
 Susan Lynne Gadd, CST..... FL
 Diane M. Gerardot, CST..... MO
 Michelle L. Gosnell, CST..... IL
 Mary Ann Hackman, CST..... MT
 Kathy S. Harrell, CST..... TX
 Tim S. Hegg, CST..... MT
 Linda Marie Hensley, CST..... WI
 Patti Ann Hicks, CST..... MI
 Karen Marie Hieserich, CST... MN
 Mark B. Hinton, CSFA, SA-C..... CO
 Teresa L. Holman..... SD
 Tamara Sue Hoover, CST..... IN
 Nasrullah Khan, CST..... WI
 Mary Jean Kunicki, CST..... WI
 Suzanne Laliberte, CST, CSFA.. ME
 Lorie S. Lavergne, CST, FAST.... LA
 Frances Ellen Lingnoffski..... WI
 Victoria D. Lovingood, CST..... SC
 Kimberly Ann Mansker, CST..... IA
 Melinda McKay, CST..... NC
 Mary Jule McKenna, CST..... CT
 Bettina J. McLaughlin, CST..... SC
 Colleen Therese Merkel, CST... NJ
 Monica J. Micik, CST..... PA
 Vicki Lynn Moore, CST, CSFA.... GA
 Anita J. Mykrantz, CST..... OH
 Elizabeth Ness, CST..... MI
 Blake Richard Neuroth, CST, CSFA ..
OH
 Patricia Ann Newell, CST..... OH
 Mendie Jane O'Connor, CST... ME
 Robert L. Paige, CST..... PA
 Denise Ann Paine, CST..... IA
 Margaret M. Potesta, CST, CSFA AZ
 Marlena K. Romine, CST, CSA.... TX
 Lisa Renee' Rosene, CST..... MA
 Kathryn A. Sample..... CA

Jacqueline GERALYN Sawickis, CSTIL
 Herbert M. Schene, Jr..... FL
 Robert Eugene Sell, CST..... MN
 Deanna Silsbee, CST..... OR
 Edwina B. Soreth, CST..... PA
 Judy A. Sremba..... FL
 Regina R. Stancel, CST..... FL
 MaryJoan Sutton, CST, CSFA, FAST FL
 Dianne D. Taylor, CST..... TN
 Moses Udo, CST..... CA
 Jewel Ann Vitas, CST..... MN
 Norma J. Warlick, CST..... SC
 MaryJane Watson, CST..... SC
 Rebecca Lynne Whittaker, CST TN
 Susan Lee Williams, CST..... NY
 Arletta Marie Zilka, CST..... MN
 Eileen M. Zirbel, CST..... MN

40+ YEARS

Nancy Adema, CST..... SD
 Theresa J. Allen, CST, CSFA..... MA
 Olga Bailey, CST..... FL
 Karen Marie Bares, CST..... SD
 Diane L. Barnes, CST, CSFA..... AZ
 Glenda Sue Beverley, CST..... GA
 Phyllis Jean Biever, CST..... IL
 Laura Lee Black, CST..... CA
 Douglas W. Brahmer, CST..... PA
 Monica L. Cervi, CST..... AZ
 Anne Marie Colatruglio, CST... OH
 Janet C. Davis, CST..... IN
 Vickie L. Davis, CST..... FL
 Gloria Michele De Leon, CST... NC
 Sally J. Delehanty, CST..... IN
 Kathleen Regina Diedrich, CST WI
 Cynthia Ann Festa, CST..... FL
 Sandy K. Fletcher, CST..... GA
 Janet Sue Gauthier, CST, CSFA... MI
 Margaret Eva Gestrich, CST.... CO
 Vanessa K. Gray..... GA
 Karen Lea Hardin, CST..... MO
 Maria Carmen Hernandez, CST CA
 Kelly D. Irons, CST, CSA..... TX
 Terry Lynn Jackson, CST, CSFA... KY
 Melissa Ann Jett, CST, CSA..... KY
 Darlene Anita Johnson, CST..... NE
 Deborah K. Jones, CST..... GA
 Janice M. Kapcsos, CST..... PA
 Rita C. Keller, CST, CSA..... KY
 Mindy Kay Kennedy, CST..... IN
 Edwin Louis Kircher, CST, CSFA, SA-C
AZ
 Tracy J. Kish, CST..... CT
 Joan P. Kovach, CST, CSFA..... IL
 Phyllis R. Kutzke, CST..... MN
 Sandra Lee Landis, CST..... NC
 Tina Louise Lawler, CST..... MN
 Regina Vance Legge, CST..... VA
 Bryan P. Leman, CST..... TX

Tina Marie McGinty, CST, CSFA. MS
 Francois P. Michaud, CST, CSFA .. FL
 Mark Miller, CST..... IN
 Merri Diann Ramboldt, CST... MN
 Maria V. Rufo, CST..... NY
 Sylvia J. Russom..... TN
 Terri Ann Ryan, CST..... MN
 Diane M. Sady, CST..... MA
 Patricia J. Sanzone, CST, CSFA.... FL
 Sheri J. Sawyer, CST..... SC
 Allison P. Sellers, CST..... LA
 Wendy Beth Shapiro, CST..... NY
 Beth A. Smith, CST..... OH
 Sandra B. Snider, CST..... VA
 Doreen Somers, CST..... SC
 Carol Eileen Stephenson, CST .. SD
 Lori M. Stewart, CST..... IA
 Teresa Winslett Stewart, CST... SC
 Sarah L. Stringer, CST..... GA
 Robin L. Sum, CST..... IN
 Andrea Celeste Swindel, CST... SC
 Sue Ellen Thatcher, CST..... OH
 Deborah Ann Turner, CST, CSFA, FAST
OR
 Denise Marie Wiegand, CST... VA
 Joyce Ann Wierdak, CST..... IL
 Yolanda Faye Williams, CST.... SC

41+ YEARS

Juliana Adelchanow, CST..... CA
 Kathryn L. Bahn, CST..... TX
 Johnnie Lynn Blankenship, CST,
 CSFA..... WV
 Gloria J. Brown, CST..... VA
 Monica Bryant, CST..... SC
 Michelle R. Cain, III, CST..... IN
 Colleen Marie Carella..... CT
 Nancy Ann Carter, CST..... CA
 Daniel Cavazos, CST, CSFA..... TX
 Sharon D. Chaves, CST..... FL
 Marc Jon Chudow, CST..... FL
 Susan Ann Danner, CST..... IN
 Gwendolyn Jan Dudurich, CST . PA
 Elinda J. Fuller, CST..... NC
 Paula R. Gibson, CST..... TX
 Robin Leigh Grey, CST, CSFA.... OK
 Tamarah Kay Hahn, CST..... IN
 Mary E. Hamlin, CST, CSFA..... SC
 Kristyl Ann Hanchera, CST..... NE
 Mary Kathryn Hardesty, CST.... IN
 Catheryn P. Hart, CST..... IL
 Donna E. Henderson, CST, CSFA, FAST
TN
 Lori Ann Hepler, CST, CSFA..... OH
 Lisa C. Jackson, CST..... GA
 Judie Ann Kelley, CST..... SD
 Dina Denise Kettmann, CST..... IA
 Lois A. Kleindl-Peltier, CST, CSFANV
 Christine Joann Koch, CST..... IN

Karen Marie Krueger, CST WI
 Vonda Louise Leer, CST, CSFA, SA-C KY
 Lori W. Loughmiller, CST FL
 Robert A. Lowe, CST PA
 Evelyn Adele Maillho, CST LA
 Lilabeth J. McKelva, CST TX
 Shelley L. McLaughlin, CST IA
 Tracie L. Minor, CST PA
 Leslie Mooney, CST CT
 Jackie H. Neighbors, CST, CSFA, FAST TN
 Denise Ann Null, CST OH
 Linda W. Patin, CST KY
 Cheryl Renee Planitz, CST LA
 Ana Eneida Puig, CST FL
 Holly Elizabeth Rasch, CST MI
 Dorothy Ann Rednour, CST SC
 Patricia Ann Reisdorf, CST MN
 Brenda Kathleen Robinson FL
 Tlisa Marie Schaefer, CST MN
 Peter G. Schwarz, CST NY
 Lora M. Setliff, CST NC
 Helen Little Spencer, CST SC
 Sharon Lee Surma, CST FL
 Deborah J. Swain, CST, FAST KY
 Phyllis A. Vols, CST, CSFA IL
 Jean Allison Wade, CST NC
 Elizabeth Ann Weese AR

42+ YEARS

Angela M. Avant, CST LA
 Sandra Sue Beal, CST IL
 Kathy Ann Bittner, CST IN
 Brenda Kay Bleeker, CST MN
 Rebecca Jean Branham, CST, CSFA, SA-C OH
 Tomi Marie Briggeman, CST, CSFA MT
 Ruben Campbell, CST IN
 Michealle Carter, CST SC
 Deborah Ann Cleghorn, CST CA
 Terri L. Conkle, CST OH
 Cindy C. Crusoe, CST FL
 Joanne Marie Dickinson, CST MA
 Nannette Denise Dillard, CST GA
 Sara Ann Eckmann, CST SD
 Donald D. Frankhouser, CST WA
 Denise Catherine Grabowski, CST SC
 Paula Annette Guillory, CST, CSFATX TX
 Linda M. Henderson, CST MI
 Linda M. Horthy, CST IN
 Mary Nell Huffines, CST TN
 June Ellen Killey, CST, CSFA IN
 April Marie Kochis, CST, CSFA ME
 Audrey A. Kress, CST IA
 Roxon LeDoux, CST, CSFA OK

Mary Gayle Lewandowski, CST MN
 Melinda Kaye Martin, CST OK
 Diane C. Mayes, CST SC
 Jenneal Priscilla McClurkin, CST SC
 Susan Horton Meads, CST, CSFA NC
 Sheila Joan Moran, CST IL
 Peggy Carini Morrissey WI
 Brenda Murphy, CST, CSFA NC
 Michael Anthony Osie, CST, CSFA OH
 Mary Kay Payne, CST GA
 Bradley Joe Phelps, CST, CSA WI
 Jack Perry Phillips, Jr., CST GA
 LaFrieda Rhea Ray, CST TX
 Cynthia Lynn Rehanek, CST OK
 Lori Lynn Renaux, CST MN
 Terry Lee Reside, CST, SA-C IL
 Steven B. Richard, CST CA
 Mary Jayne Rossman, CST, FAST MA
 Donna Denise Searles, CST CA
 Jane Marie Serger, CST OH
 Minnie M. Smith-Buckingham, CST, CSFA, FAST IL
 Mary Lila Stahl, CST MN
 Debra Ann Straface, CST NY
 Terri Lynn Tapp, CST, CSA IN
 Carolyn Reed Thompson, CST TX
 Kim Marie Williams, CST SC

43+ YEARS

Tammy T. Aydelott, CST OK
 Patricia Marie Barrone, CST MN
 Carlos Brito, Jr., CST TX
 Teresa M. Calandrillo, CST, CSFA NY
 Kerrie Coffey, CST FL
 Brenda Mae Cookingham, CST ME
 Darlene D. Deaton, CST NC
 Joyce Adele Dickerson, CST IN
 Janet L. Freshour, CST PA
 Cheryl Lynn Gerut, CST, CSFA-CVS IL
 Maria Ann Goodreau, CST MA
 Donna Bailey Green, CST SC
 Teri L. Hanenkrath, CST OH
 Jean Marie Hansen, CST PA
 Nancy K. Iverson, CST, CSFA MN
 Shirley M. Jones, CST LA
 Debra Lynn Manthey, CST WI
 Kelly Lynn McCrossin, CST ME
 Eva Mae McKeithan, CST NC
 Pamela Susan McQuade, CST, CSFA IA
 Clarissa Marie Millner, CST OH
 Laura J. Moll, CST FL
 Pamela A. Partsch, CST PA
 Kathleen C. Pepe, CST IN
 Debra K. Pixley, CST AR
 Lisa J. Pritt, CST VA
 Deborah K. Schroh, CST IL
 Kathy D. Sellner, CST MN

Mary Jane Sievers, CST MS
 Janet H. Stone OR
 Sheryl Lyn Sutton-Sigler, CST TX
 Louise W. Terranova, CST MI
 Babette Marie Tinnin, CST AZ
 Catherine Ann Walker, CST, CSFA TX
 Julie Lynn Weiss, CST MI
 Lisa B. White, CST IN
 Marleen Esther Witte FL

44+ YEARS

Jeffrey Lynn Barber, CST CA
 Ann G. Belk, CST, FAST FL
 Ruth Elaine Boice, CST, CSFA IN
 Jane Ellen Bruns, CST KS
 Joyce C. Carrick, CST, CSFA MI
 Susan L. Coe NY
 Rebecca Sue Compton, CST, FAST IN
 Vivian M. Coulter OK
 Beverly Jo Crady, CST, CSFA KY
 Cheryl Ann Eck, CST PA
 Elizabeth Anne Gaulin, CST, FAST MA
 Henry W. Gilman, CST ME
 Catherine V. Hamann AZ
 Sara J. Huilman, CST, CSFA IA
 Rosa Lee Johnson, CST, FAST MO
 Barbara A. Krukemeier, CST, FAST IN
 Tone L. Mahon, CST TX
 Diane Marie Mann, CST IA
 Christine Oster CA
 Cindy Sue Page, CST IA
 Carolyn Jean Ragsdale, CST, FAST IL
 Mary L. Reckow, CST CA
 Brenda S. Schnautz, CST, CSFA IN
 June Sharon Simmons, CST MD
 James W. Smith MD
 Sheryl Annetta Van Zante, CST IA
 Linda Ann VanDyke, CST, CSFA, FAST MO
 Tammara Verduin, CST TX
 Kathryn Kanney Watson, CST, CSFA NC
 Judy L. Williams, CST NC
 Elizabeth Pierce Windham, CST SC
 Sherry Lynn Winn, CST, CSFA KY

45+ YEARS

Murray Lee Anderson, CST WA
 Paul L. Burgart, CST MA
 Annette M. Coxon, CST, CSFA KY
 Merry McGinley Crow, CST TN
 Lesley Therese Doerr, CST IN
 Deonne Marie Eske, CST WI
 Rachel C. Glidden, CST, CSFA NM
 Deone Lynn Hemme, CST SD
 Mary Susan Hoffmann, CST IN
 Kathleen Marie Kersey, CST AR
 Regina Leitman, CST NJ

Kathleen Mercure, CST, CSFA MA
 Karen Marie Mills, CST MN
 Marilou Minarik, CST IL
 Bonnie Lynn Oleksak, CST PA
 Mary Lynn Oudean, CST AK
 Charlotte Sue Rountree, CST OH
 Laurie Lee Schlink CT
 Lynn Stewart Schroeder NC
 Linda Sue Schultz GA
 Teresa C. Smallidge, CST, CSFA MI
 Robert J. Sowell, FAST IL
 Linda J. Spink, CST NV
 Katherine L. White, CST AK

46+ YEARS

Jetta Lynn Almon, CST, CSFA IN
 Penny Lee Boyce, CST MN
 Eileen Crigler, CST, CSFA FL
 Carol Ann Denton, CST SC
 Peggy S. Eggleston, CST MT
 Martha Jane Gordner, CST PA
 Connie E. Haynes, CST IN
 Sandie A. Kazmierczak, CST OH
 Carol Kessler, CST NY
 Sandra Ahearn Milner, CST MA
 Ronna A. Palmieri, CST CT
 Debra A. Pitts IN
 Kathryn Rita Pophal, CST WI
 Karin J. Schneider, CST SD
 Donna M. Williams, CST, PA-C OH

47+ YEARS

Debra A. Baumgardt, CST IN
 JoAnn Connair, CST CA
 Molly K. Davis, CST TN
 Nadine Davis CO
 Jimmie C. Flores, CST TX
 Victoria French, CST MO
 Cynthia Fuentes, CST, CSFA, FAST TX
 Carolyn Henson Green, CST, FAST LA
 Bruce Norman Gruenewald, FAST NV
 Doris Sue King, CST IN
 Sue A. Kymble, CST, CSFA PA
 Patricia Langer CA
 Kathleen R. Oldendorf, CST LA
 Sandra L. Parry FL
 Katherine C. Snyder, CST, FAST UT
 Julie Anne Striby, CST IN
 Eileen M. Sullivan, CST IN
 Pamela Sue Van Schoick, CST IN

48+ YEARS

Jacqueline F. Albullet, CST CA
 Sharon E. Allard, CST CT
 Emma Lee Bowers, CST FL
 Burnette S. Brown, CST VA
 Christine Chaloupka, CST WI

Carolyn Sue Coutcher, CST, CSFA, CSA FL
 Millie Gates, CST, CSFA MO
 Terri Edythe Grayson, CST IN
 Evelyn Marie Greer, CST TX
 Vicki G. Hodges, CST NC
 Linda Jean MacGregor, CST, SA-CWI
 Elizabeth Maley, CST FL
 Patricia Maley-Hallagan, CST VA
 Terese M. Miller, CST IN
 Nina Moltzen, CST NJ
 Linda Lou V. Natale, CST NY
 Linda Bonnett Palmer, CST SC
 Richard E. Paschal, CST MA
 Judy W. Pruitt, CST TN
 Lynn Puskas, CST NY
 Charlotte G. Ratke, CST, CSFA PA
 Janet Kathryn Reisser, CST TX
 Kathy Anne Riley, CST IN
 Linda Schaeffer, CST FL
 Wanda Fay Smolek, CST IN
 Mary L. Spencer, CST LA
 Rosalie J. Winters, CST FL
 Arlene E. Wright, CST, FAST TX

49+ YEARS

Patricia G. Adams, CST WI
 Diana K. Burns, CST IN
 Beverly J. Carter, CST, FAST LA
 Mary V. Conner, CST, FAST MI
 Oscar Cuellar, CST TX
 Angela M. Cyr, CST ME
 Kathleen Mary Demitras, CST-CVS, FAST PA
 Alice R. Erskine, CST, RN, CNOR CA
 Thomas Fleming, CST OH
 Jeannette M. Juryne, CST IL
 Keith R. Orloff, CST, FAST CO
 Elizabeth A. Robbins, CST CA
 Judith A. Taggart, CST PA
 Betty L. Whitson, CST IA
 Patricia L. Windisch, CST PA

50+ YEARS

Joseph L. Aikey, CST PA
 Wynona Jefferson Ball, CST, LPN GA
 Diane Marie Carlson, CST CO
 Beatrice Champ, CST OH
 Dorothea Spangler Cooper, CST, FAST, LPN PA
 Peggy Jeanene Davis, CST UT
 Allen D. Denton, CST CA
 Carole G. DuBose, CST OH
 Jeanne M. Glapion, CST TX
 Roberto B. Gonzalez, CST TX
 Ruth Gregory, CST CT
 Robert L. Hartigan, CST MO

Valerie Ann Marburger, CST, CSFAFL
 Dolores Zamora Martinez, CST,
 CSFATX
 Diane Joan May, CST.....FL
 Henry Merkin, CST NY
 Mary F. Milke, CST..... CA
 Jeanne M. Morrison, CST GA
 Edwin Olivares, CST PR
 Sandra Rowland, CST FL
 Saralee Sable, CST PA
 Robert S. Sanchez, CST.....TX
 Patricia Lee Sooter, CST, FASTTX
 Lorraine Southworth, CST..... NY
 Robin Standley, CST OR

51+ YEARS

Marilyn K. Bourke, CST.....IN
 Gloria P. Cole, CST PA
 Diane Fleming, CST IL
 Patricia Elizabeth Gonsalves, CST,
 LPN NY
 Brenda Hershberger, CST IL
 Katherine B. Lee, CST, FAST..... OH
 Barbara Cecelia Meyer, CST IL
 Beverly Ann Oster, CST, FAST ... MO
 Patrick John Stanosheck, CST, CSFA
 NE
 Suzanne M. Stefanik, CST MA
 Sharon K. Todd, CST.....TX
 Sharon Lynn Vinsonhaler, CST . NE
 Judy A. Wasilonski, CST TN
 Alan W. Wong, CSTTX

52+ YEARS

Sylvia Abbey, CST, LPN LA
 Betty A. Alford, CSTIN
 Audrey L. Bender, CST, FAST.... MO
 Carolyn M. Branson, CST..... VA
 Connie Lee Dings, CST OH
 Barbara A. Gay, CST, FAST TN
 Nadine Hillson, CST.....FL
 Suzette K. Hubbell, CST LA
 Elsie Ann Lauret, CST, FAST LA
 Judy K. Martin, CST CO
 Tommie L. McNeil, CST FL
 Barbara J. Mitchell-Moss, CST..TX
 Donna J. Reeves, CST.....IN
 Elizabeth H. Roberts, CST, FAST MD
 Robert D. Smith, CST..... PA
 Joanne Barnett Thompson, CST GA
 Lynn F. Wilbur, CST RI
 Herbert Wray, CST..... NC

53+ YEARS

Fred Allan Allgood, CST, CSFATX
 Alice Gallegos, CST.....TX
 Mary Heicken, CST KY

Janie Marianna Hessong, CST... AZ
 Kathleen Ann Kuznar, CST PA
 Eileen M. Noble, CST CA
 Jean Rossmann, CST IL

54+ YEARS

Harry M. Blackford, CST, FAST... TN
 Margrethe May, CST, FAST AZ
 Elizabeth McDevitt, CST, FAST... TN
 Janice E. Olmsted, CST, FAST ... WA
 Stewart P. Robinson, CST, FAST . PA

Connect to Opportunity

LinkedIn®

Build your professional presence and connect to AST.



UPCOMING PROGRAMS



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

ALABAMA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 11, 2023
Title: It Starts with Us
Location: Oak Mountain State Park, 200 Terrace Dr, Pelham, AL 35124
Contact: Jessica Sirmon, 4208 Idlewood Dr, Pensacola, FL, 32506, 850-525-5369, alabamaastinfo@gmail.com
CE Credits: 6

ARIZONA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: February 4, 2023
Title: 2023 Annual Business Meeting & Bariatric Surgery & More Workshop
Location: Mayo Clinic Hospital - Mayo Clinic Education Center, Juanita Kious Vaughn Auditorium, 5777 E Mayo Blvd, Phoenix, AZ 85054
Contact: Raquel Briggs, 2365 E Cactus Road, Phoenix, AZ 85022, 602-388-5825, azsa.assembly@gmail.com
CE Credits: 4

CONNECTICUT STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: January 7, 2023
Title: Back to Basics
Location: Scinto Towers, 3 Corporate Dr, Shelton, CT 06484
Contact: Jonathan Brown, PO Box 581, Monroe, CT 06468, 203-650-9936, PresidentCTAST@gmail.com
CE Credits: 5

GEORGIA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 11, 2023
Title: Springtime in Savannah
Location: Savannah Technical College, 5717 White Bluff Road, Savannah, GA 31405
Contact: Erin Baggett, PO Box 216, Lawrenceville, GA 30046, 678-226-6943, gasawebmaster@gmail.com
CE Credits: 7

Program Type: Workshop
Date: September 9, 2023
Title: Surgery Southern Style
Location: Albany Technical College, 1704 S Slappey Blvd, Albany, GA 31701
Contact: Erin Baggett, PO Box 216, Lawrenceville, GA 30046, 678-226-6943, gasawebmaster@gmail.com
CE Credits: 8

INDIANA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 3-4, 2023
Title: ISA Spring Conference 2023
Location: St. Joseph Regional Medical Center, Mishawaka, 5215 Holy Cross Pkwy, IN 46545
Contact: Corinda Maday, 1708 Campeau St, South Bend, IN 46617, 574-903-6006, cethrapp@gmail.com
CE Credits: 6

ILLINOIS STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 11, 2023
Title: Annual Meeting, Elections, and Seminar
Location: Illinois Central College - Peoria Campus: Student Center, 5407 N University St, Peoria, IL 61635
Contact: Sonya Conton, PO Box 2254, Decatur, IL 62524, illinoisstateassembly@gmail.com
CE Credits: 5-6

IOWA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 4, 2023
Title: Iowa State Assembly Spring 2023 Workshop and Delegate Elections
Location: Western Iowa Tech Community College, 4647 Stone Ave, Sioux City, IA 51106
Contact: Tim Danico, 319-540-6008, timothy-danico@uiowa.edu
CE Credits: 7

KENTUCKY STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 24-25, 2023
Title: Annual Business Meeting and Elections
Location: Embassy Suites, 501 S 4th St, Louisville, KY 40202
Contact: Aaron Morris, 270-977-6900, ksaofast@gmail.com
CE Credits: 8

MICHIGAN STATE ASSEMBLY

Program Type: Webinar Workshop (Webinar approved for members only of the Michigan State Assembly)
Date: April 22, 2023
Title: MSA-AST Spring 2023 Virtual Workshop

Contact: Renona Gauthier, 25917 E Huron River Dr, Flat Rock, MI 48134, 248-891-3989, michiganassemblyofast@gmail.com
CE Credits: 3

MINNESOTA STATE ASSEMBLY

Program Type: Workshop
Date: April 29, 2023
Title: MNSA 2023 In-Person Spring Workshop
Location: Cuyuna Regional Medical Center – Heartwood Campus, 500 Heartwood Dr, Crosby, MN 56441
Contact: Lori Molus, PO Box 163, Becker, MN 55308, 320-492-8747, mnast2016@outlook.com
CE Credits: 6

MISSISSIPPI STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: February 25, 2023
Title: Spring Forward Mississippi
Location: Holmes Community College – Pat McGowan Workforce Building, 412 W Ridgeland Ave, Ridgeland, MS 39157
Contact: Shea Coleman, 412 W Ridgeland Ave, Ridgeland, MS 39157, 601-605-3396, tcoleman@holmescc.edu
CE Credits: 5

MISSOURI STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 3-5, 2023
Title: Annual Spring Conference, Business Meeting and Elections
Location: Mercy Hospital Joplin, 100 Mercy Way, Joplin, MO 64804
Contact: JoDee Neef, 1992 Waterfront Dr N Apt B, Columbia, MO 65202, 573-808-0585, jodeeneef@gmail.com
CE Credits: 13

NEBRASKA STATE ASSEMBLY

Program Type: Annual Meeting/Elections & Webinar (Webinar approved for members only of the Nebraska State Assembly)
Date: March 4, 2023
Title: 2023 NESA Winter Workshop and Annual Meeting
Location: TBD
Contact: Nebraska State Assembly, PO Box 67034, Lincoln, NE 68506, 402-988-8099, nebraskastateassembly@gmail.com
CE Credits: 6

NEW MEXICO STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 11, 2023

Title: NM State Assembly Spring Conference and Annual Business Meeting
Location: UNM North Campus; Domenici Center Auditorium, 1001 Stanford Dr NE, Albuquerque, NM 87131
Contact: Ruth Borah, NM-AST, PO Box 66496, Albuquerque, NM 87193, 848-391-3661, ruth.kerrjusinski@gmail.com
CE Credits: 5

OHIO STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 17-19, 2023
Title: Be the Best You Can Be in 2023
Location: Nationwide Hotel and Conference Center, 100 Green Meadows Dr S, Lewis Center, OH 43035
Contact: Lenore Gregg, ohioast@gmail.com
CE Credits: 14

OKLAHOMA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 25, 2023
Title: Spring Conference
Location: Canadian Valley Technology Center, 1701 S Czech Hall Road, Yukon, OK 73099
Contact: Miguel Agosto, 1800 Caribou Circle, Altus, OK 73521, 580-301-1648, oks-aoftheast@gmail.com
CE Credits: 5

OREGON STATE ASSEMBLY

Program Type: Annual Meeting/Elections with Webinar Workshop (Webinar approved for members only of the Oregon State Assembly)
Date: February 25, 2023
Title: Business Meeting/Workshop
Location: Salem Health Hospital, 890 Oaks St SE, Salem, OR 97301
Contact: Melissa Garinger, 3471 7th St, Hubbard, OR 97032, 503-318-1577, oast.oregon@gmail.com
CE Credits: 4

SOUTH CAROLINA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 3-5, 2023
Title: Spring Business Meeting
Location: Midlands Technical College, 1260 Lexington Dr, West Columbia, SC 29170
Contact: Katrina Williams, PO Box 10001, Dillon, SC 29536, 843-615-7454, katrinawilliams89@yahoo.com
CE Credits: 14

TENNESSEE STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 4-5, 2023
Title: TNAST Spring Meeting at Erlanger
Location: Erlanger Hospital, 975 E 3rd St, Chattanooga, TN 37403
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 21, 2023
Title: CEs by the Sea
Location: Lamar State College, 1500 Proctor St, Port Arthur, TX 77640
Contact: Brandon Buckner, 11605 Cravens Camp Road, Silsbee, TX 77656, 409-656-6949, bucknebr@lamarpa.edu
CE Credits: 8 Live

Program Type: Annual Meeting/Elections
Date: March 4-5, 2023
Title: Best Little Workshop in Texas
Location: Radisson Hotel Fort Worth North-Fossil Creek, 2540 Meacham Blvd, Fort Worth, TX 76106
Contact: Jamie Lopez, 5217 Canadian Ave, Midland, TX 79707, 432-638-2269, djai-melopez@yahoo.com
CE Credits: 15

VIRGINIA STATE ASSEMBLY

Program Type: Annual Meeting/Elections
Date: March 18, 2023
Title: 2023 Spring Elections, Annual Business Meeting and Workshop
Location: Laurel Ridge Community College – Hazel Hall, 6480 College St, Warrenton, VA 20187
Contact: Lisa Day, 13284 Firefly Road, Culpeper, VA 22701, 540-422-9471, ldaycsfa@gmail.com
CE Credits: 5-6

WISCONSIN STATE ASSEMBLY

Program Type: Webinar Workshop (Webinar approved for members only of the Wisconsin State Assembly)
Date: March 25, 2023
Title: March to Learning
Contact: Ilea Cornelius, 920-660-3669, wisconsinast@gmail.com
CE Credits: 6

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

Pelham
March 11, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

ILLINOIS

Peoria
March 11, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

NEBRASKA

TBD
March 4, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

SOUTH CAROLINA

West Columbia
March 3-5, 2023
Annual Meeting
2022 & 2023 BOD Elections
& 2023 Delegate Elections

ARIZONA

Phoenix
February 4, 2023
Annual Meeting
2022-2023 BOD Elections
& 2023 Delegate Elections

IOWA

Sioux City
March 4, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

NEW MEXICO

Albuquerque
March 11, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

TENNESSEE

Chattanooga
March 4-5, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

CONNECTICUT

Shelton
January 7, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

KENTUCKY

Louisville
March 24-25, 2023
Annual Meeting
2022 - 2023 BOD Elections
& 2023 Delegate Elections

OHIO

Lewis Center
March 17-19, 2023
Annual Meeting
2022 - 2023 BOD Elections
& 2023 Delegate Elections

TEXAS

Fort Worth
March 4-5, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

GEORGIA

Savannah
March 11, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

MISSISSIPPI

Ridgeland
February 25, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

OKLAHOMA

Yukon
March 25, 2023
Annual Meeting
2022 - 2023 BOD Elections
& 2023 Delegate Elections

VIRGINIA

Warrenton
March 18, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

INDIANA

Mishawaka
March 3-4, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

MISSOURI

Joplin
March 3-5, 2023
Annual Meeting
2023 BOD Elections
& 2023 Delegate Elections

OREGON

Salem
February 25, 2023
Annual Meeting
2020-2023 BOD Elections
& 2023 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.

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

“Thanks to this app, I passed!”

– *Tovah M*

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

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

Study with confidence whenever and wherever you are!

AST Study Guide App Features:

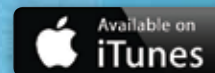
- 6 practice exams, each featuring 175 questions
- 2 bonus science review sections, for a total of 330 additional review questions
- Study in whatever time you have by selecting a question range that fits your schedule
- Options include taking the exams in a random or chronological order
- Get immediate answers and explanations to each question so you can maximize your learning and determine which areas you might need more review


User testimonials:

“Great study app! Practical, useful, easy. Totally worth the money and better than lugging around text books to study.” – *B Marchington*

“Very helpful ... passed my certification test only using this app” – *T Bowers*

“If you're practicing for your national it's a very good app to practice off of” – *M Chang*



An illustration on an orange background featuring two speakers at white podiums. On the left, a man with brown hair and blue-rimmed glasses, wearing a grey suit and blue tie, stands at a podium. On the right, a woman with dark hair and yellow-rimmed glasses, wearing a grey suit and yellow tie, stands at a podium. A large blue speech bubble originates from the man, containing the text 'SPEAK UP!'. A large yellow speech bubble originates from the woman, containing the text 'CALL FOR SPEAKERS'. At the bottom of the orange section, there are faint silhouettes of an audience.

SPEAK UP!

CALL FOR SPEAKERS

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

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

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

77 Procedures 12 Surgical Specialties

Check out AST's Procedures PowerPoint Surgical Series

Teaching surgical procedures takes time and ingenuity. Images to illustrate the various steps in a procedure are difficult to find but are crucial to students' comprehension and retention. Enter AST's Surgical Procedures PowerPoint Series as it puts teaching procedures at your fingertips!

And in this time of remote learning, AST's Surgical Procedures PowerPoint Series is exactly the tool you need to teach your students. Not only do they present procedural steps, the series includes information such as patient presentation and pathophysiology, case preparation tips, and built-in tools to highlight and engage critical thinking skills.

AST's Procedure PowerPoint Series includes access to **77 procedures** spanning **12 surgical specialties** included in the 6th edition of the *Core Curriculum for Surgical Technology*.

Specialties include:

- Cardiothoracic
- General
- Genitourinary
- Gynecological
- Miscellaneous
- Neurosurgery
- Ophthalmological
- Orthopedic
- Otorhinolaryngology
- Peripheral Vascular
- Plastic
- Trauma

The entire AST Procedures PowerPoint Series can be purchased for \$1200/year in an annual subscription.

Get started!



Check us out on Pinterest!



Pinterest



All Pins

522 Pins · 1y



State Assembly...

3 Pins



National Surgical...

117 Pins

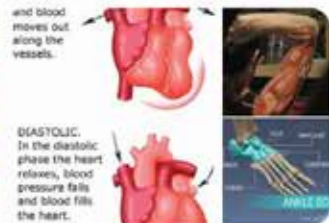


Surgical history

16 Pins



Atlanta 2020...



Surgical Technology...



Humor



Washington, DC 201...

www.pinterest.com/assnsurgtechs

SHARE THE VALUE OF AST

Recruit your friends and colleagues and earn **free membership**.



EARN TWO MONTHS FREE MEMBERSHIP FOR EVERY NEW MEMBER YOU SIGN UP TO JOIN AST

For each new member you recruit at the \$80-membership level, you will receive a two-month extension on your membership!

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 AST member number when filling out their application.
- > When 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! And so on, and so on, and so on!

Bonus membership months are not applicable to members who recruit themselves, students or retired/disabled members. No substitutions are permitted. Your membership must be current to receive bonus months. If a person's membership has lapsed for more than a year, they are considered a new member.



For more information, call Member Services at 1.800.637.7433 or visit www.ast.org

CONTINUING EDUCATION

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



#386

Parotidectomy with Facial Nerve Dissection

1 CE



#364

Radiostereometric Analysis in Orthopaedic Surgery

1 CE



#340

The Modern-Day Caesarean Section

1.5 CEs



#381

The Economic Argument for Using Safety Scalpels

2 CEs



#403

Emergency Department Visits and the Public Health

2 CEs



#415

Staged Rapid Source Control Laparotomy in Emergency General Surgery

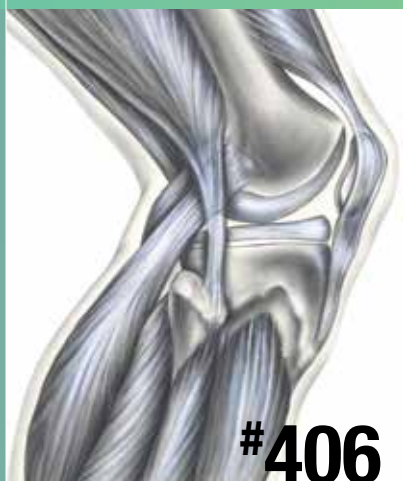
1 CE



#382

Functional Endoscopic Sinus Surgery with Image-Guided Navigation

1 CE



#406

PJACT: Treating Articular Cartilage Defects

1 CE



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

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

To order please visit: <http://ceonline.ast.org/articles/index.htm>

or contact Member Services at memserv@ast.org or fax requests to 303-694-9169 or call Member Services at 800-637-7433.

Returned CE tests cost:

Members \$6 per CE

Nonmembers \$10 per CE, plus \$400 Nonmember Fee

OPPORTUNITIES



#405

Surgical Rib Fixation

1 CE



#365

Butterfly Graft in Functional Rhinoplasty

1 CE



#425

Micromotion at the Tibial Plateau in Total Knee Arthroplasty

1.5 CEs



#389

Disc Battery Ingestion in Pediatric Patients



#383

Partial Nephrectomy

2 CEs



#431

Emotional Intelligence and the Surgical Technologist

2.5 CEs



#416

Cervical Arthroplasty

1.5 CE



#356

Treating Glioblastoma Multiforme

1 CE

ORDER FORM

☐ Member ☐ Nonmember

Membership No. _____

Name _____

Address _____

City _____ State _____ ZIP _____

Telephone _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

Test No. _____

Title (please print) _____

JOIN AST



Now it pays even more to
be a member of AST—
especially for students.

Students - Your savings begin right away when you apply for the special student membership rate, \$45 (a \$35 savings). **Save \$10** with the member discounted price of the examination study guide.

Enjoy the benefits of membership in the premier national professional organization for surgical technologists. Join online at www.ast.org; by phone at 800-637-7433; or by mail (fill in the application below).

Benefits include:

- ✓ scholarship opportunities
- ✓ access to the most up-to-date information about the profession
- ✓ insurance discounts
- ✓ education and employment opportunities
- ✓ access to resources that connects you to nearly 50,000 other surgical technology professionals
- ✓ student rate discounts

Application Form

6 West Dry Creek Circle, Suite 200, Littleton, CO 80120-8031

☐ Yes, I would like to save \$10 and order the Certifying Exam Study Guide at \$55 (plus shipping).
Savings for current and joining AST members only.

☐ NONMEMBERS: Certifying Exam Study Guide \$65 (plus shipping)

Name _____ Address _____

City _____ State _____ ZIP _____ E-mail _____

Phone _____ School _____ Graduation Date _____

I am paying by ☐ Check enclosed Pay by credit card by calling 800-637-7433 or paying online at www.ast.org