

# The Sensor



## Inhalation Anesthetics and Vaporizers Page 9

The development and functionality of the anesthetic vaporizer as it relates to the anesthesia gas machine.

## IN THIS ISSUE:

### Facial Trauma Reconstruction

A plastic surgery case study and how the anesthesia team addressed difficulties and potential risks.

### Member Highlight

Meet Martha Sayers, Cer.A.T.T., Certified Anesthesia Technician at the Whanganui District Health Board in New Zealand.

### Education Director Article

Marc McGaffic, MS, Cert. A.T.T. talks about the state of education and how it's changed over the course of 2020.

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ANESTHESIA TECHNOLOGISTS  
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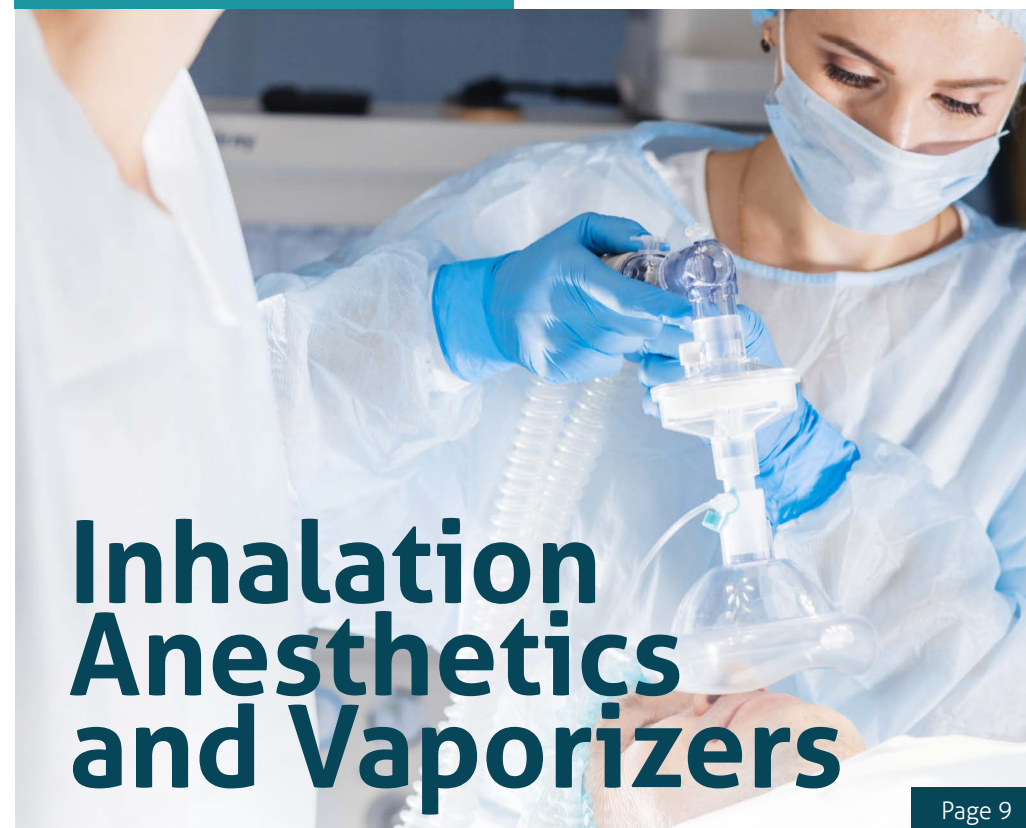
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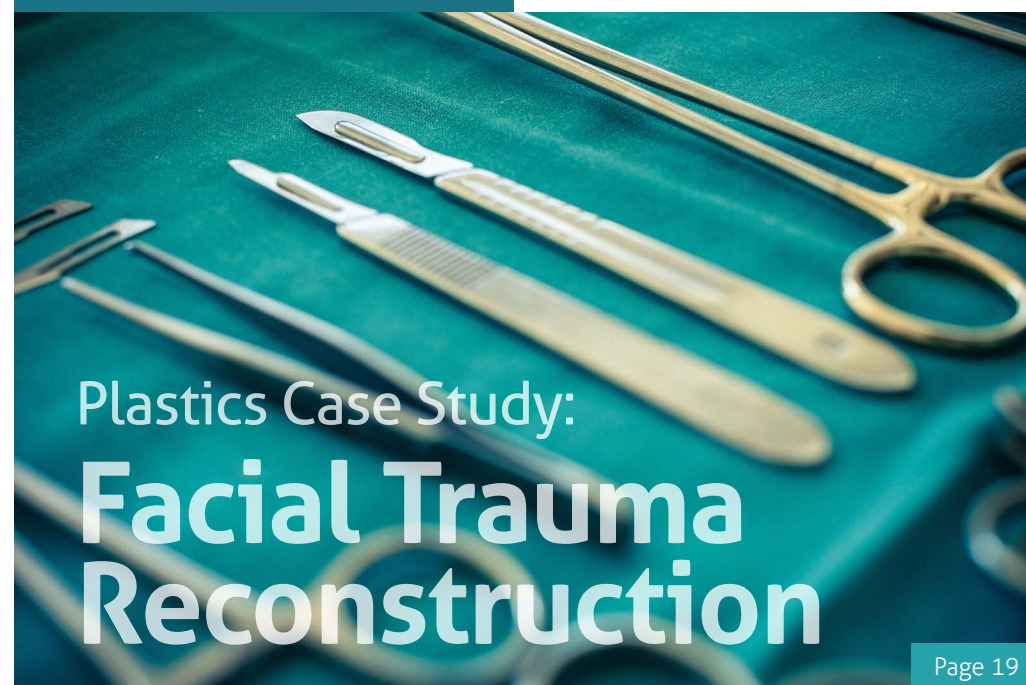
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Plastics Case Study:

## Facial Trauma Reconstruction

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# Perspective

## PRESIDENT'S LETTER



### Greetings ASATT Members!

I hope that everybody is keeping safe and healthy during these pandemic times. Stay safe and stay healthy!

As this year comes to a close, there have been some changes here at ASATT.

November 13, 2020 Justin Akamine formally submitted his resignation from the role as President due to workplace demands. We at ASATT wish him the best of luck.

November 14, 2020 the ASATT BOD nominated and approved myself to fulfill the remainder of Justin's term.

The ASATT BOD is committed to continuing our current projects to streamline operations and create a more efficient and effective professional society for our membership.

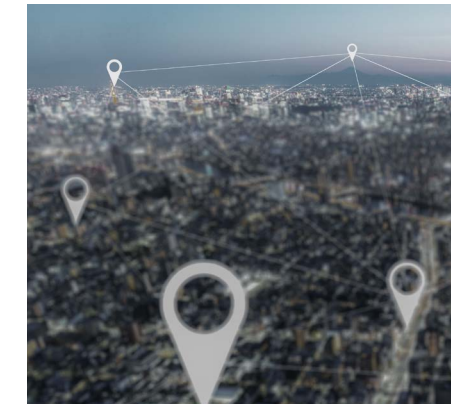
If you are needing those last few CE's for recertification, we have two virtual regional meetings coming up. These will offer up to 10 CE's total. As an ASATT member, these will be automatically loaded on our server for your convenience.

**I wanted to wish all of you a Happy Thanksgiving and safe travels!**

God Bless,  
**Greg Farmer, Cer.A.T.**  
ASATT Interim President

# Highlights

## SOCIETY NEWS



### Annual Conference Recap

ASATT's First Virtual Annual Educational Conference was a smash hit! We broke every ASATT conference record in the books with over 550 attendees and 21 CEs offered. We want to express our upmost gratitude to the presenters for providing the quality education that members have come to expect with any ASATT event, to the sponsors and exhibitors for working diligently with us to connect with attendees virtually, to Greg Farmer and Justin Akamine for hosting, and to ASATT management staff for flawlessly facilitating the conference. Through the after-conference survey we found that attendees thoroughly enjoyed the virtual format. Check out what some of the attendees had to say about this year's event:

*"I really liked virtual because I could stay in my PJs and get up to walk around if needed and still watch the lectures!"*

*"All of the speakers were great! They had excellent presentations. I was completely satisfied!"*

*"Much more cost effective as virtual!"*

*"I think you all did a fantastic job with the conference. It felt completely natural and seamless. I was very impressed with everything!"*

Thank you to everyone who attended this virtual version of the Annual Educational Conference. While we surely missed the opportunities to network and visit with friends from all over the country this year, this safe format was a great success.

**SAVE THE DATE FOR NEXT YEAR'S IN-PERSON ANNUAL EDUCATIONAL CONFERENCE IN FORT WORTH, TEXAS!**

**Sept. 23-25, 2021**

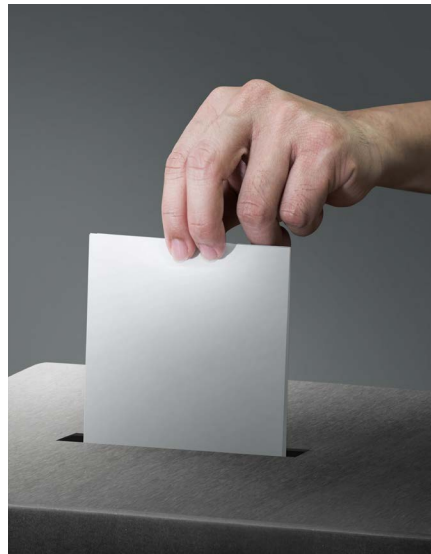


### Regional Meetings

The transition to a virtual world has been proven to be quite successful for ASATT educational opportunities. Back in August, Region 7 hosted the very first Virtual Regional Meeting. It was a great success and was followed up by a Virtual Region 4 Meeting on Oct. 3. The Region 4 Meeting pulled nearly 80 attendees and offered up to four CEs. We would like to say a huge thank you to Matthew Chandler and Justin Akamine for hosting the Region 4 Meeting and to Dr. Craig Cummings, Dr. Michael Zundel, Dr. Tom Ebert and Dr. Paul Linky for giving spectacular presentations. Continue

to check out the [Meetings/Events page](#) of the ASATT website for more upcoming Virtual Regional Meetings and other educational opportunities.

*\*Be on the lookout for your conference pin in the mail!*



### 2020 Election

Thank you to all who participated in voting for the 2020 Election. Because of your votes, we have an incredibly talented and dedicated group of individuals serving ASATT this year. We are excited to announce the new ASATT Board of Directors for the 2020-2021 year:

**Interim President/  
Immediate Past President:**  
Greg Farmer, Cer.A.T.

**President-Elect:**  
David Foster, Cer.A.T.T.

**Secretary:**  
Joaquin Ronquillo, Cer.A.T.T.

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Jason Menchey, Cer.A.T.

**Region 6 Director:**  
Allison Kohn, Cer.A.T.T

**Region 7 Director:**  
Delbert Macanas Sr., Cer.A.T.T

Keep an eye out on the ASATT website, the monthly ASATT Update and the coming issues of the Sensor for more information on the next election.



### Recertification Season

Recertification began November 1st and is well underway. You may earn CEs and submit documents through December 31st, but don't wait until the last minute! Get your CEs in order now to get through the process as fast as possible. Thanks to a new update on the ASATT website, you may now view your CEs on file with ASATT in the Member Center. Learn more about the recertification process and submit your documents at the recertification section of the ASATT website.

### 2020 Regional Education Awards

ASATT finds joy in paying tribute to those individuals who are not required

or paid to advance the education of technicians and technologists but whose sincere interest promotes education in our specialty, and for that reason, the Regional Education Award is given out every year to nominated individuals. The 2020 Regional Education Award Winners have been chosen, and the winners are as follows:

#### REGION 1

**Alvin Mangubat and Angel Martinez**  
Here's what Alvin and Angel's nominator had to say: "They have held several Region 1 meetings and continue to support Anesthesia Techs in our region."

#### REGION 2

**Kimberly Allen**  
Here's what Kimberly's nominator had to say: "Kimberly is very dedicated to making sure the Technicians/ Technologists earn their CE's. She has held several Regional meetings and has done an outstanding job from start to finish."

#### REGION 4

**Kevin Mines**  
Here's what Kevin's nominator had to say: "Kevin stepped up and delivered 2 presentations at last year's Region 4 meeting after a speaker canceled."

#### REGION 5

**Bryan Fulton**  
Here's what Bryan's nominator had to say: "For every meeting we have had he has come and given a presentation and never had a problem helping teach Anesthesia Techs in Region 5."


#### REGION 6

**Michael Boytim**  
Here's what Michael's nominator had to say: "Michael has continuously been a strong proponent of the profession of anesthesia technology. He has been the AANA liaison to ASATT board for

years. His steadfast commitment to education for anesthesia technology has been proven with his leadership on the NCE committee."

#### REGION 7

**Pat Hegge**  
Here's what Pat's nominator had to say: "Pat has been a leading advocate to teach and educate all of our Anesthesia Technician & Technologist peers. He has lectured numerous times for ASATT. He has delivered lectures in Region 7, Region 5, and the Annual meeting."

ASATT is privileged to have members who dedicate so much of their time and efforts to bettering the profession. Thank you to all who sent in nominations and congratulations to our winners! 

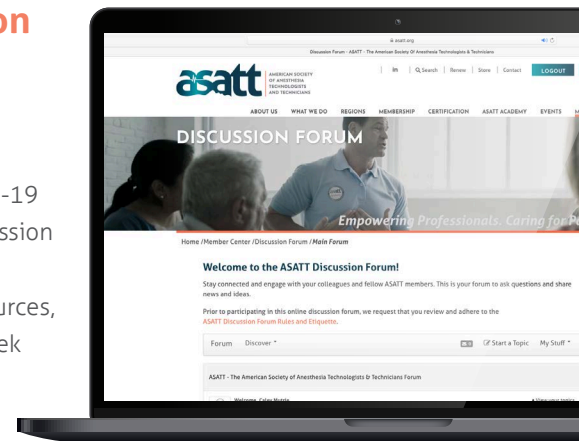
## TID BITS

# Share. Inquire. Learn.

### ASATT's online Discussion Forum is available for members to connect and share!

You do not have to confront the COVID-19 crisis alone. ASATT has an online Discussion Forum that members can support each other through the sharing of vital resources, knowledge and experiences, and to seek answers to questions and concerns.

[Join the Conversation!](#)



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# Spotlight

## MEMBER HIGHLIGHT



### Martha Sayers, Cer.A.T.T.

#### What is your current job title?

Certified Anaesthetic Technician at Whanganui District Health Board.

#### How many years have you been in the Anesthesia Technology profession?

I started as a student 2007. I completed a Diploma in Applied Sciences in 2010, and sat for registration exams in 2011, so 13 years. I was a vet nurse prior so have a few extra years doing anaesthetics in the animal world, too.

#### What do you find most challenging about your job?

Remembering the different anaesthetist's preferences and how different personalities handle different situations and being able to adapt to them.

I recently moved hospitals so learning new protocols and procedures has been a fun challenge.

#### How many years have you been an ASATT member?

I joined in 2013, attended the Las Vegas conference that year, then decided to do the exams and I certified in 2015.

I'd like to work in the USA but getting a work visa is very difficult. No agencies help techs – only Drs and nurses... so I enter the green card lottery each year.

#### What is your fondest memory of ASATT?

Arriving in NOLA early for the conference, and being welcomed by the committee and being able to help set up the balloons for 25th anniversary.

#### What differences are there being a tech in New Zealand?

The main differences I know about from talking to techs is that here in NZ we have 1 theatre per tech and 1 anaesthetist - no CRNA's, we only do anaesthetics – we have a biomed department for repairs, supply chain for ordering and a sterile services unit for all cleaning and autoclaving.

#### What has been your proudest accomplishment? (Personal life, professional life, or both.)

Professionally - Sitting and passing both NZ and USA registration exams

Personally – purchasing my home and having no debt besides mortgage.

#### What is your favorite food?

Beef rendang.

#### You have just won your dream vacation. Where would you go?

Going up to the Arctic circle, or going to Madagascar and Mauritius.

#### People would be very surprised to know that...

I do needlepoint, and if I wasn't a tech I'd probably be a mechanic.

#### What do you enjoy doing in your spare time?

I take my dog to the beach and search for interesting driftwood. When I'm not at work I have a small menagerie at my house. I foster dogs and cats and take in unwanted pets. I have rabbits, guinea pigs, aviary birds and ex-battery chickens

#### What is your favorite type of music?

80's and country.

#### What is your favorite movie?

Shawshank Redemption, Man from Snowy River, Breakfast Club.


#### What would you like to get around to doing one of these days?

Skydive. 

# Happenings

## ASATT AND RELATED EVENTS

### Regional Meetings


The shift to virtual meetings and conferences has turned out to be quite the hit among ASATT members. The ASATT Board still believes meeting virtually is the safest option at this point, and our members feel the same way. In December of this year we have two more regional meetings coming up: Region 4's second Virtual Meeting of the year on Dec. 5 and a combined Regions 5 & 6 Virtual Meeting on Dec 12. More details are posted on the [Meetings/Events page](#) of the ASATT website 

### 2021 Annual Educational Conference

While the future remains uncertain amid COVID-19, we are planning for an in-person Annual Educational Conference in 2021. We believe in the power of in-person networking and education and we know how much our members, sponsors and presenters missed those opportunities this year. The ASATT Board will continue to monitor the COVID-19 situation and make decisions accordingly in order to help our members have

the safest and most valuable experience possible in 2021. Updates will be posted to the ASATT website, to the monthly ASATT Update and sent via email.

Registration will open for the Annual Educational Conference in early 2021 so save the date now: Sept. 23-25, 2021 in Fort Worth, Texas.

We hope to see you there! 







# Inhalation Anesthetics & Vaporizers

The development and functionality of the anesthetic vaporizer and how Sevoflurane relates to its specific vaporizer model, physiological indication, and molecular structure.



**MICHAEL CRAIG, BS, AAS, CER.A.T.T.**  
CONTRIBUTING EDITOR: **BRYAN FULTON, BAA, CER.A.T.T.**  
OKLAHOMA CITY COMMUNITY COLLEGE

## Historical Significance

The origins of the anesthesia vaporizer are quite muddled; However, that is beyond this paper's purpose. It would appear from historical accounts that the first public demonstration of a physician utilizing a vaporizing apparatus to anesthetize a patient for the purposes of a surgical procedure occurred on October 16, 1846 (WLM, 2019). This monumental moment in the history of anesthesia took place at the Ether Dome, a surgical operating amphitheater located in the Bulfinch Building at Massachusetts General Hospital in Boston. The patient, Edward Gilbert Abbott, was undergoing a



tumor mass resection procedure (WLM, 2019). The surgical team accomplished this feat with the use of Ether and a Morton inhaler [fig.1]. The Morton inhaler, designed by William T.G. Morton that same year, is considered the first vaporizer but was simply a container to hold the volatile anesthetic. Despite this momentous period in history, the science of anesthesia would have to advance beyond a glass container and the highly flammable and explosive Ether (Pharmacopoeia, 2016).

Since 1846, there have been many scientific advances in volatile anesthetics. A primary advancement in general anesthetics revolves around the introduction of halogenated anesthetics. Halogenated anesthetics (HA) are currently the most widely used inhalation anesthetics in surgery today (NIH, 2019). The reason halogenated anesthetics hold a point of primacy is due in part to the nature of their chemical and molecular makeup. They are generally more chemically stable than their predecessors. Additionally, these HA's offer more diversity in attaining tailored potency, duration, and physiological modification as opposed to earlier volatile anesthetics. According to a study done in the American Journal of Health-System Pharmacy (AJHP, 2006), they said,

**"Inhaled anesthetics have been shown to be both safe and effective in inducing and maintaining anesthesia. These agents differ in potency, adverse-effect profile, and cost. Newer anesthetic gases, such as Sevoflurane and desflurane, appear to have more favorable physiological/chemical properties. These factors, as well as patient characteristics, duration and type of procedure, must be considered when selecting an inhaled anesthetic."**

~ American Journal of Health-System Pharmacy ~



Figure 1: Morton Inhaler

## What Are Halogenated Hydrocarbons?

What is a halogenated hydrocarbon (ie. halogenated anesthetic), also call halogenated ethers or Haloalkanes? A halogenated hydrocarbon is an organic compound consisting of only Carbon and Hydrogen, which contains one or more halogen atoms (Helmenstine, 2019). Just to re-establish base knowledge: a halogen is an element located in Group VII [fig. 2] of the periodic table. Halogens are reactive nonmetals having seven valence electrons. Specific molecules that fit within this designation are Fluorine, Chlorine, Bromine, and Iodine. Of the four listed, Fluorine is the most commonly used in the manufacturing of anesthetics. There are currently five halogenated anesthetics in use today by anesthesiologists in the United States. They are halothane, Isoflurane, Enflurane, Desflurane, and Sevoflurane (NIH, 2019). Concerning their makeup, Isoflurane is a chlorinated hydrocarbon base, whereas Sevoflurane and Desflurane are fluorinated anesthetics, the three of which are the most widely used anesthetics today. Halothane, a brominated hydrocarbon, is rarely used today, primarily being used on pediatric populations. Halothane is avoided in adults due to a linkage the gas has to a severe distinctive liver injury. Since liver injury is rare amongst the pediatric population, some facilities will still use halothane on children. Although rare, it is important to note that liver injury has been reported with all halogenated inhalations agents (NIH, 2019). Though relatively safe, Sevoflurane literature reveals a single case report of severe acute liver injury similar to Halothane Hepatitis being induced by Sevoflurane (LiverTox, 2018).

Sevoflurane (i.e. Ultane; Abbott Laboratories, Inc.) in particular is one of the most commonly used volatile anesthetic agents, particularly for outpatient anesthesia (LiverTox, 2018). 1,1,1,3,3,3-hexafluoro-2-(fluoromethoxy) propane, as it's known by its IUPAC name, has a molecular

Figure 2: The Halogen group are colored in light purple.

formula of C<sub>4</sub>H<sub>3</sub>F<sub>7</sub>O with a molecular weight of 200.05 g/mol (PubChem, 2005) [refer to fig. 3]. Sevoflurane is a liquid at room temperature with a vapor pressure of 160 mmHg at 20°C (Butterworth, 2018). Due to this modest vapor pressure, the use of a conventional variable bypass vaporizer is permitted (this will be discussed in subsequent pages). Under unrestricted conditions, Sevoflurane has a volume percent of 21%. Regarding potency, the MAC (minimum alveolar concentration) or the alveolar concentration required to prevent movement in 50% of patients in response to a standardized stimulus with Sevoflurane is 2.0% (Butterworth, 2018). It is important to note that while Sevoflurane has a standard value of 2.0% ±0.1%, the relative MAC value will decrease with age (FDA, 2019).

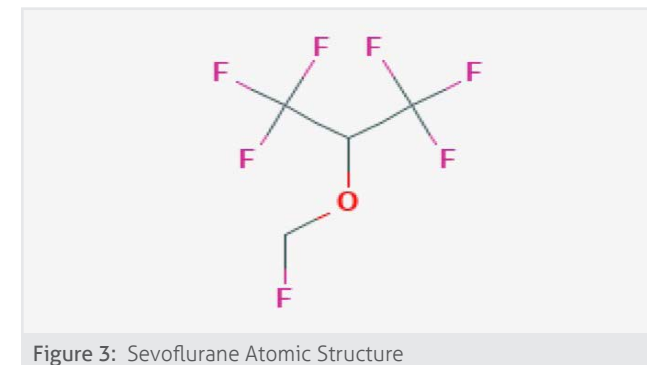


Figure 3: Sevoflurane Atomic Structure

## Physiological Properties

Sevoflurane is quite common in outpatient surgery settings; this may be partly because its solubility in the blood is low. The benefit of this low solubility is that it yields a rapid fall in alveolar concentration upon discontinuation of administration (Butterworth, 2018). This low blood serum level and precipitous drop in concentration after discontinuation results in a reduced emergence from anesthesia. This rapid emergence from anesthesia allows for more efficient flow through the surgical schedule, hence why Sevoflurane is relied on heavily for outpatient surgery centers.

In the body, Sevoflurane exerts multiple effects on the various systems (i.e. cardiac, respiratory, cerebral, neuromuscular, renal, and hepatic). In the cardiovascular system, Sevoflurane mildly depresses myocardial contractility as compared to Isoflurane and Desflurane. Although the reasonings are still unknown, Sevoflurane is also seen to prolong the QT interval. In most cases, QT prolongation presents approximately 60-minutes following anesthetic emergence in an analysis performed on infants. Sevoflurane also has shown depression in the respiratory system, which can reverse a bronchospasm event similar to that of Isoflurane (Butterworth, 2018).

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In regards to the cerebrum, Sevoflurane is generally regarded as an anesthetic that causes a slight increase in CBF (Cerebral Blood Flow), and ICP (Intracranial Pressure) with maintenance of normal CO<sub>2</sub> levels (normocarbica/capnia). However, some studies have linked decreases in is CBF to the use of Sevoflurane (Butterworth, 2018). In high-concentrations, those greater than 1.5 MAC, Sevoflurane may impair the auto-regulation of CBF. In cases of hemorrhagic hypotension, Sevoflurane furthers a drop in CBF (Butterworth, 2018). The literature indicates that the impairment of CBF autoregulation seems to be less pronounced in Isoflurane. It is recommended that an isoflurane vaporizer be attached to the interlock in designated trauma rooms for the above-mentioned reasons.

Sevoflurane produces sufficient muscle relaxation following an inhalation induction (Butterworth, 2018). Sevoflurane's muscle relaxation advantage can be utilized in conjunction with a multi-modal approach to induction by the use of propofol, lidocaine, and/or opioids. It has been shown that Sevoflurane slightly decreases renal blood flow and renal tubule function. Despite the reduced blood flow, the research has not suggested any post-operative renal toxicity or renal insufficiency (Butterworth, 2018). Hepatically, a decrease in portal vein flow has been reported, but there the research also shows an increase in hepatic artery blood flow, thus negating the decrease in the venous flow. In Butterworth's Mogan and Mikhail's Clinical

Anesthesia, the text indicated that hepatic blood flow and oxygenation is sufficiently maintained through the use of Sevoflurane (Butterworth, 2018).

Contraindications for using Sevoflurane in certain patient populations include severe hypovolemia, family history of or confirmed malignant hyperthermia events and intracranial hypertension (Butterworth, 2018). As mentioned earlier, Sevoflurane should be avoided in hemorrhagic events as it can potentiate a drop in CBF beyond physiological autoregulation. Additionally, rooms designated for neurosurgery should have Isoflurane available since incidents of intracranial hypertension are more expected.

Drug interactions are not common; however, as stated previously, like other volatile anesthetics Sevoflurane can potentiate Neuromuscular blocking agents (NMBAs) (Butterworth, 2018).

### Scientific Advancement:

With the development of the new inhalation anesthetics, technology had to be developed to make them even safer concerning dose, concentration, regularity, maintenance, and predictability. The vaporizers in use today are far more advanced than those of the 1800s [fig. 1]. The key attribute to an anesthetic vaporizer is dilution. Volatile anesthetics are liquid at room temperature, for the most part. The vaporizer must have the capacity to change the volatile liquid anesthetic into a non-hypoxic, breathable gas. The solute in this situation would be a fresh gas such as oxygen (Dorsch, 2008). Vaporizers in use today are concentration calibrated. Within the context of concentration calibration, vaporizers rely on variable bypass or injection to control concentration levels. Sevoflurane, due to its stable saturated vapor pressure, can accomplish safe vaporization through a

variable bypass vaporizer. By variable bypass, we refer to splitting the fresh gas flow in a provider-determined ratio, referred to as the splitting ratio. Practically speaking, this is seen as a percentage of gas delivery. For context, a majority of the gas is diverted to the patient without ever interacting with the vaporizer; the remaining volume of gas is diverted through a sump line into the vaporizer unit

where it flows over the gas vapor and binds to the oxygen. It later works its way to the bypass line where the volatile anesthetic can enter the breathing system and patient (Chakravarti, 2013).

Today, the Tec 7 vaporizers (GE), Vapor 2000 Series (Drager), and the Sigma Delta (Penlon) are all variable bypass design vaporizers. The working principle of all these vaporizers is similar (Chakravarti, 2013). Some key features these vaporizers use to enhance vaporizing capabilities are baffles and wicks. Baffles are used to increase the surface area for the gas flow and anesthetic to bind, whereas wicks function in the same capacity of a candle in bringing the liquid agent

**Baffles are used to increase the surface area for the gas flow and anesthetic to bind, whereas wicks function in the same capacity of a candle in bringing the liquid agent closer to the fresh gas.**

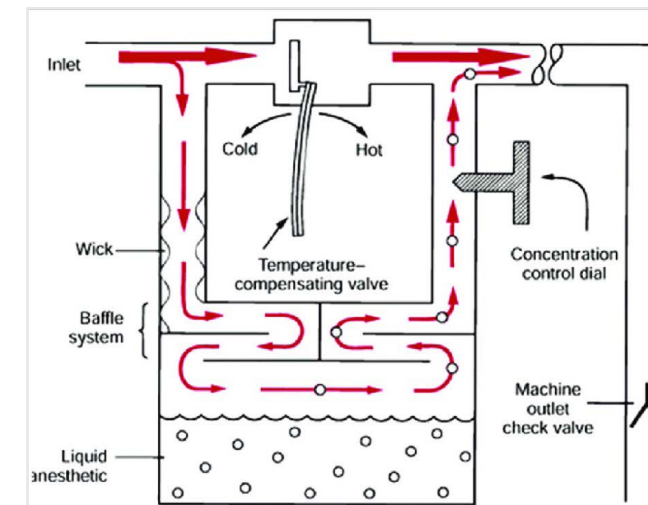


Figure 4: Principle of variable bypass vapouriser-plenum vapouriser

Modern Anaesthesia Vapourisers - Scientific Figure on ResearchGate. Available from: [https://www.researchgate.net/figure/Principle-of-variable-bypass-vapouriser-plenum-vapouriser\\_fig7\\_258703085](https://www.researchgate.net/figure/Principle-of-variable-bypass-vapouriser-plenum-vapouriser_fig7_258703085) [accessed 18 Oct, 2020]

closer to the fresh gas. Both designs again help enhance vaporization and help ensure the proper concentration is delivered to the patient (Chakravarti, 2013) [refer to Fig. 4].

### ASTM Regulations

To ensure regularity the American Society for Testing and Materials International (ASTM) sets multiple standards that all anesthetic vaporizers must have in order to be compliant to ensure the safe delivery of anesthetic. The ASTM International requires that manufacturers provide information regarding "...variations in ambient temperature and pressure, tilting, back pressure, and input flow rate and gas mixture composition on vaporizer performance must be stated in the accompanying documents (ASTM, 2000)." Since ambient temperature and pressure can vary from city to city, manufactures must inform health systems of their particular parameters. Additionally, since titling

and back pressure are events that can result in unmeasured anesthetic flow to reach the patient, the manufactures are required to provide the steps necessary to troubleshoot and correct back-pressure and tilting events. In most cases, the procedure is to engage the vaporizer in a minimal setting and turn on the oxygen flowmeter to a flow rate above 5L/min. This procedure will evaporate the resting liquid from the system and purge it from the breathing system.


The ASTM International also set standards for volume of delivery requiring a "...delivered concentration from the vaporizer shall not deviate from the set value by more than  $\pm 20\%$  or  $\pm 5\%$  of the maximum setting, whichever is greater, without back pressure (ASTM, 2000). Practically speaking, if the concentration calibrated dial is set to deliver 2% of Sevoflurane, the vaporizer is within regulation if it's actually delivering between 1.6% and 2.4%. Secondly the regulations allow for a maximum delivery capacity variability of  $\pm 5\%$ . Meaning that is the max percent of delivery is 8%, that the actual regulatory delivery can range from 7.6% to 8.4%. For the technologist, this is an important parameter to understand. Suppose the gas analysis is indicating an Inspiratory concentration greater than 20% to set delivery, then the vaporizer is not within regulatory bounds and needs to be exchanged. Clinically speaking, this excessive amount of gas delivery beyond the patient's MAC level could result in complications like a drop in CBP or acute liver injury.

The ASTM also mandates that the delivery of the anesthetic in the OFF position must be less than 0.05%, a parameter that accounts for minor clinically irrelevant leaks (ASTM, 2000). Furthermore, it dictates that regardless of brand, the vaporizer's control knobs must rotate in a counterclockwise fashion (ASTM, 2000). Regarding refilling the vaporizer unit, the ASTM mandates that the volume level must be displayed. The ASTM mandates that the vaporizer must have systems in place to prevent overfilling. The primary reason is that overfilling can result in a pumping effect which ejects liquid agent beyond the bypass into the breathing system. This excess liquid would result in an unmeasured delivery of volatile anesthetic to the patient. The technologist needs to ensure proper refilling of the vaporizer and ensure the anesthesia provider follows proper protocols when refilling to limit damage to the unit and potential harm to the patient. The ASTM details other parameters for the anesthetic vaporizer unit; however, the above-mentioned items are of particular importance to the technologist.

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## In Conclusion

Delivery of vaporized anesthetic agents has come a long way since their beginnings in the 1800s; from the small glass container containing highly volatile ether compound to today's use of halogenated hydrocarbons. Anesthesia delivery is far safer and far more practical in regards to predictability and efficacy. The advent of these newer volatile anesthetics and delivery devices has also allowed surgical suites to perform a wider array of surgical procedures once thought impossible. For the technologist, they must have a working understanding of the vaporizer units and the chemistry and physical properties behind the anesthetics themselves. When appropriately utilized by the anesthesia care team, halogenated anesthetic gases' delivery can yield a safe anesthetic with a smooth induction and emergence process. 

Take the  
**QUIZ**  
Click here for a copy of the quiz.

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# Outlook

## PROGRAM DIRECTOR INSIGHTS



**"Great leaders don't set out to be a leader... They set out to make a difference. It's never about the role -always about the goal."**

~ Lisa Haisha ~

Allow me to begin by saying – I am not a leader, but instead, a difference maker.

The current state of education has drastically changed over the course of the year. The world that we live in has been turned upside down, creating/ mandating a virtual learning experience for hundreds of thousands of students

all through the country. Each educator tasked with the ultimate research mission – switching from face-to-face instruction to a virtual learning experience. Nobody was ready – everyone seeking alternative delivery methods ensuring their undergraduates would become successful alumni.

Each roadmap had potholes, cracks in the pavement, speed bumps and the students...the students had fumes in the gas tank. Just another element of adversity to overcome to achieve a return on their investment. See, students invest a lot of time and money into their education. My job is simple – ensure each student obtains their own personal ROI (return on investment) – that is achieved by making a difference in their educational plan.

Many programs came together to support

each other. Oklahoma College, Kaiser Permanente, City College, and many others became, collectively, a family, and shared resources, plans for enriched education, and virtual opportunities so students can maintain compliance and, in many cases, graduate with no delay. I want to personally thank Vicki Reyes, Michael Boytim, Bryan Fulton, Persi Adams, Michelle Houdek, and countless others – with each other there are no limits we cannot achieve.

Wayne County Community College District instituted new instructive pathways of learning and educating when the global pandemic infiltrated our State and, most importantly, the county we reside in, Wayne County. Clinical sites quickly closed for student placement, face-to-face instruction was immediately suspended, and our students (as well as staff) were gravely concerned for the safety of everyone involved.

I am proud of my team: Marc Phillips, Cer.A.T., Sheyna Ali, CRNA, Chris Nation, Cer.A.T., and Nada El-Achi, Cer.A.T. for their compassion and devotion towards student success and the safety of patients throughout Southeast Michigan. It was the "outside of the box thinking" that aided our students, just months away from graduation, into a learning environment built for success. Never were students expected to discover Anesthesia Technology through an online platform, nor should they ever. Our profession is hands-on, in the operating room or surgical suite! How can we

*Continues on next page...*



# Learnings

## STUDENT CORNER

perform the same level of training from outside the campus and clinical sites while ensuring patient safety? Allow me to divulge for you:

1. Lab practice "care packages" were created on campus and sent to each student in the program
  - a. Each "care package" contained supplies and minor equipment for students to practice and perform through Zoom or Blackboard Collaborate.
  - b. One student even said, "never thought I would be building an A-Line transducer in my kitchen, while on Zoom – this is wild."
  - c. Each session was recorded for debriefing and further educational evaluations.
2. Course offerings were quickly shifted to Blackboard learning (March 2020)
  - a. This was not a difficult task to accomplish being the program already utilizes Blackboard for PPT, homework submission, examinations and discussion boards.
  - b. Still, the ANE team built a platform complete with rigorous materials that pushed the student(s) to become successful and graduate on-time.
3. Online simulation technology was deployed
  - a. Anesoft online simulation licenses were purchased for each student for case management and to maintain high-level of skill practice.

4. Online publishing tools were implemented
5. Programmatic Advisory Members would also communicate suggestions and opportunities for our students
6. Finally, Anesthesia Technology worked closely with Surgical Technology programs at our campus to develop robust learning objectives. Huge shoutout to Dr. Mark Shikhman and Mr. Damus Golida for their assistance.

The entire process – from start to finish – would never have been accomplished without teamwork, communication and effective processes implemented throughout the early stages of the pandemic by our Health Science Provost Dr. Abby Freeman, PhD.

Given the circumstances related to the State shutdown, economic downfall, and the tremendous stress placed onto single-parent students, the outcomes for student achievement continue to be impressive for this program. The Anesthesia Technology graduating class of 2020 have all been offered employment opportunities and each eligible graduate have accepted their new positions working in the communities in which they thrive in: Detroit, Michigan.

Clinical partnerships again opened their facility doors and accepted our ANE students in August 2020. I could not be prouder of these graduates and current students of the ANE program. Many current students (non-graduates) have already been approached by hiring managers seeking to fill their

open vacancies upon graduation in 2021. Although this year has not gone by plan (i.e. pandemic) the students/ graduates never lost focus of their goal (employment) and they never lost focus of the overall portrait – patient safety.

Being honored enough to become an educational difference maker is great – but have you ever seen the look on a graduate's face when they walk across the stage or when they accept their first full-time position? Knowing deep inside they overcame adversity and they achieved their goal because of the role you became in their life? That is true leadership!

**"Do not throw away your shot. Make the most of every opportunity you are presented. Do the things you love, and give them your all."**

~ Hamilton Musical ~

To all future Anesthesia Technologists – "Do not throw away your shot. Make the most of every opportunity you are presented. Do the things you love, and give them your all." --Hamilton Musical

**Marc McGaffic, MS, Cer.A.T.T.**

Campus Dean – Anesthesia Technology  
Wayne County Community College District  
Detroit, Michigan 



**JE'SUIS HALTON**  
WAYNE COUNTY  
COMMUNITY COLLEGE

**"We all have dreams. But in order to make dreams come into reality, it takes an awful lot of determination, dedication, self-discipline, and effort."**

~ Jesse Owen ~

This quote by Jesse Owen embodies everything I had to follow while in this program.

Before I went back to school, I was a 29-year-old single parent working at Detroit Medical Center in the Human Resources department and something in my heart told me I needed to venture into a different career path – one that would allow me to help make a difference and help others. After a lot of thought I decided to go back to school in hopes of becoming an Anesthesia Technologist.

Little did I know that a world-wide Pandemic would strike, mere months before starting clinicals. I had to push myself harder than before. For me, I liked virtual classes because it gave me the opportunity to spend more time with my son and monitor his learning from home. The downfall was how I need face-to-face learning versus computer learning. One thing I can say for sure is that this program offers great professors; They did everything in their power to make sure that I grasped the knowledge and assisted me through virtual labs and learning.

With COVID-19 shutting down our campus, the professors worked overdrive and created an online learning environment that helped prepare me. Never did I imagine I could be constructing invasive monitoring lines in my home while being monitored through Zoom! When I started my clinicals I was put in a

position where I would be offered a position during our current pandemic.

This program has given me everything I needed to succeed in the anesthesia world and has aided me in becoming an amazing Anesthesia Technologist, that will become certified!

**Je'Suis Halton** 

## TID BITS

# Sensor Quizzes

**Don't forget the Sensor Quizzes**

**In each issue of our Sensor magazines we offer two feature articles, with each article accompanied by a quiz. You have the option of completing the quiz online or printing it off and sending it in.**

**Earning CEs has never been so easy.**



Plastics  
Case Study:

# Facial Trauma Reconstruction



**BRIANA HO, CER. A.T.T.**

A healthy 28 year old male participated in a mixed martial arts competition. He is 66 inches and 150 pounds. He received maxillofacial fractures (LeFort fracture III) and became unconscious. EMS arrived on scene and determined his Glasgow Coma Scale was 12 at 1900. He was estimated to have a 10% blood loss originating from his face. The patient had a CT scan upon arrival, and the test revealed a minor subdural hematoma. His vital signs: heart rate 95, blood pressure 111/74, respiratory rate 18, and SpO2 90%. He has no known drug allergies. The patient was transported to the OR for facial reconstruction surgery.

The population that commonly presents with maxillofacial trauma is patients in their mid 20's. The patient should be thoroughly examined for neuronal and secondary damage from the trauma. These include systemic factors like hypoxemia, hypercapnia, hypotension, formation and expansion of an epidural, subdural, or intracerebral hematoma, and sustained intracranial hypertension. The Glasgow Coma scale score positively correlates the severity of the injury with the patient's level of recovery. Any GCS score less than 8 on admission to the hospital holds a 35% mortality rate.

Based upon the presented patient information, the anesthesia team needs to address the five keys to trauma anesthesia prior to the patient's arrival to the OR. These include airway, IV access, hemodynamic resuscitation, avoiding the lethal triad (hypothermia, acidosis, coagulopathy), and supplying 100% oxygen.



He will likely tolerate anesthesia and surgery well as opposed to an older patient with comorbidities. Upon examination, he has general face trauma and needs repairs to his teeth, upper jaw, nose, cheekbones, and orbitals. The type of facial fracture that the patient presents is a Le Fort III fracture. There are three types of Le Fort facial fractures which are divided as Le Fort I, II, and III. Le Fort III is a transverse fracture seen in the upper maxilla which includes the cheekbones, nose, and orbitals.

The plastic surgeon will be working on his soft tissue injuries, reconstructing his face, mending his fractures, and performing a rhinoplasty.

Soft tissue injuries are common in maxillofacial traumas and it is best to correct up to 24 hours post-injury. Since soft tissues have rich blood supply, they can be salvaged, especially with soft tissues of the face.

The vigorous perfusion of facial soft tissues gives it the resilience against

infection. Full-thickness skin grafts can be taken from other areas of the body like the ear, clavicle, or neck; preferably from an area that matches color, thickness and texture to achieve a more natural look. In our case, the patient needs reconstruction of his cheeks and the surgeon can construct skin flaps from the sides of the face or neck to be transposed. Due to the patient's facial trauma, there is a chance that he may have facial nerve injury. It is prudent to identify the distal ends of the facial nerve with a nerve stimulator to tag it. If they are not identified and become lacerated, the patient will lose function in his face. Another common facial injury is the parotid duct and is commonly caused by trauma to the cheek. One way to identify damage is to inject a methylene blue dye to see if there is any extravasation of the dye. If extravasation is present, then there is parotid duct laceration. The surgeon will have to put a stent in place to avoid complications postoperatively.

For his maxillofacial trauma, titanium plates and bone grafting are techniques used to reduce fractures and provide rigid bone fixation. It is important to perform reconstruction as soon as possible after a trauma; otherwise, shrinkage or tightening of facial soft tissues will result. Fractures of the upper midface include zygoma, nasoorbitoethmoid and orbital fractures. Mandibular fractures are treated with open

reduction and internal fixation. However, fixation can be a complicated task if permanent teeth are present in the maxilla and mandible due to damage by fixation hardware. Luckily, our patient only received upper jaw damage and will not need an ORIF. The physicalities that plastic surgeons plan to achieve when reconstructing the face are facial height and projection. Our patient will also need a rhinoplasty as he received a broken nose from the fight and incurred injuries to the nasofrontal ducts that drain the frontal sinuses into the nose. A rhinoplasty is done to restore the caliber of the nasal airway and is a complicated procedure involving a number of anatomical structures.

**Soft tissue injuries are common in maxillofacial traumas and it is best to correct up to 24 hours post-injury.**

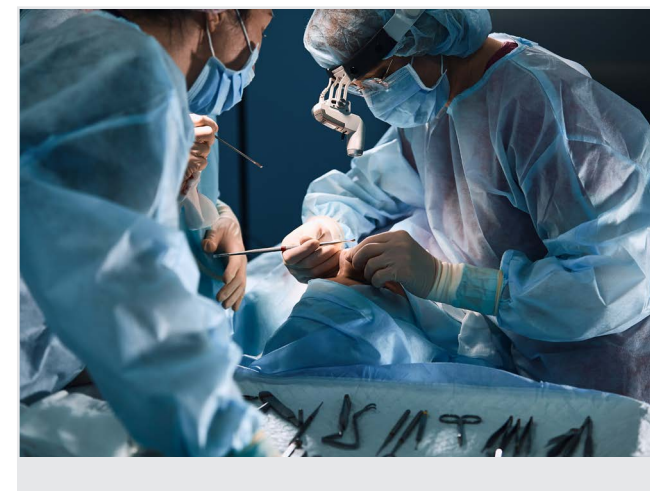
Prior to the start of the case, the anesthesia technologist will perform a FDA checkout on the anesthesia machine to ensure it is safe to use. Standard ASA monitors will be placed on the patient (pulse oximeter, 5 lead EKG, blood pressure cuff, EtCO<sub>2</sub>, and temperature probe). On standby,

the difficult airway cart, a hotline and arterial line with an ultrasound is placed in the room. Standard emergency drugs such as vasopressors, beta blockers, anticholinergics and crystalloids will be on top of the cart. A long circuit and a flex connector are provided for the 90-180 degree table turn. The patient has an upper body bair hugger for temperature maintenance. Two units of typed and screened blood should be on hold if the provider suspects significant blood loss. Antibiotics are generally used to prevent infection and to avoid complications post-operatively with sepsis. In preparation for trauma cases, rapid sequence induction is necessary.

For positioning, the patient will be supine in a slight head-up to minimize bleeding and have his pressure points padded. The patient will be preoxygenated with 100% O<sub>2</sub> for about 3-5 minutes via blow-by. This is because the patient lacks adequate facial structure and will result in a poor seal for masking. A rapid sequence induction will be performed with a muscle relaxant and induction agent, rocuronium and etomidate simultaneously, with the application of cricoid pressure. Rocuronium is a nondepolarizing muscle relaxant which will not cause an increase in intracranial and intraocular pressures compared to succinylcholine. Succinylcholine is a depolarizing muscle relaxant and

contraindicated for this patient due to its negative side effects and has no reversal drugs for it. Etomidate will not drop blood pressure significantly because of its clean cardiac profile when compared to propofol. Cricoid pressure will be used during the induction and intubation phases; suction must always be available. Jaw opening, mask fit, neck mobility, micrognathia, retrognathia, maxillary protrusion, macroglossia, dental pathology, nasal patency, and intraoral lesions or debris will determine how the provider will intubate the patient. An oropharyngeal pack is placed to minimize the amount of blood and other debris reaching the larynx and trachea. For this procedure, an oral RAE tube will be used because it is south facing and will enable the surgeon to work on the LeFort III fractures. Size 7.0 and 7.5 oral RAE tubes will be set up with a GlideScope or McGrath.

After intubation, the anesthesia provider will protect the patient's eyes with ophthalmic ointment and lightly tape them shut to prevent corneal abrasion. Transcranial Doppler sonography will be placed on the patient's head and is a noninvasive continuous measure of the velocity of blood flow in the major blood vessels in the "Circle of Willis" within the brain. As a precaution for increased intracranial pressure, the patient should be treated with moderate hyperventilation, mannitol, or pentobarbital for his intracranial hypertension due to his subdural hematoma. The arterial line will give the provider a real-time blood pressure and allow viewing of the closure of the aortic valve via the dicrotic notch. A secondary IV is ideal to allow rapid infusion if necessary. Additional equipment



**Sevoflurane will be used and has a low blood:gas solubility which means it has a fast on and offset.**

for point-of-care testing will be needed and may include a glucometer, i-STAT, HemoCue, blood gas analyzer, or whole blood microcoagulation system.

For the maintenance of general anesthesia, the anesthesia provider will use volatile agents, analgesics, muscle relaxants, and antibiotics. Sevoflurane will be used and has a low blood:gas solubility which means it has a fast on and offset. In terms of pain control, the anesthesia provider can use a nonsteroidal anti-inflammatory drug such as Ketorolac. Ketorolac's analgesic effects can last up to 6-8 hours and will not cause respiratory depression or

nausea and vomiting like with opioids. Rocuronium is used for maintenance; its onset is similar to succinylcholine. Cephalosporin is typically used in surgery and is an effective antimicrobial.

For emergence, extubation should only be performed on the awake patient who has regained control of protective

reflexes. The use of intravenous lidocaine may help reduce coughing prior to extubation and prevent bleeding in the postoperative period. Although our patient is young and his level of consciousness prior to surgery was moderate, his subdural hematoma is a factor to keep the oral RAE in postoperatively. The treatment of nausea and vomiting via Zofran, Reglan, Versed or Valium is important in preventing aspiration and keeps surgical wounds from reopening.

The anesthesia technologist must anticipate potential risks during induction, maintenance and emergence. Airway is the most critical aspect of anesthesia. Once the oral RAE is placed, the tube can become dislodged, kinked, disconnected, or perforated throughout surgery. This poses a problem because the anesthesiologist is no longer present at the head of the patient. In the induction phase, if the glidescope or McGrath is unsuccessful, a fiberoptic or tracheostomy can be attempted. A blind nasal intubation is contraindicated in the presence of a basilar skull fracture, ecchymosis of periorbital tissues, "raccoon eyes," or if present behind the ear, "battle's sign."

Due to the nature of the injury and length of the procedure, there are potential complications that can occur, for instance, a maxillofacial trauma may accompany a pneumothorax,

*Continues on next page . . .*




cervical spine injury, subdural hematoma, and intra-abdominal bleeding. Hypotension may also occur after induction, causing vasodilation and hypovolemia; treatment includes an alpha adrenergic agonist such as phenylephrine and volume infusion with crystalloids or colloids. Hypotension prevention includes a slight head-up position and an epinephrine infiltration.

Hypertension, on the other hand, is an anticipated event the provider and anesthesia technologist should be prepared for; this can stem from surgical stimulation or occur from elevated intracranial pressure. This can be treated by giving additional doses of the induction agent or by increasing anesthetic inhalation agents or vasodilators. A beta antagonist medication like esmolol can control high blood pressure and tachycardia. It should be noted that vasodilators should be avoided until the dura is opened if evacuation of the subdural hematoma should be elected.

Bradycardia can result when the surgeon starts working near the eyes and is a result of the oculocardiac reflex being triggered. When the surgeon applies pressure on the eyes or manipulates the eyes, it will affect the trigeminal nerve and vagal nerve pathways. The anesthesia provider will have the surgeon stop stimulation to the eyes, provide adequate oxygenation and ventilation and administer an anticholinergic like atropine as needed. A lidocaine injection can also be done to reduce the oculocardiac reflex.

Disseminated intravascular coagulation (DIC) is another event to keep a close eye on as this can cause an unanticipated event during maintenance. Release of thromboplastin from a brain injury can cause clots to form in the brain or throughout the body. DIC may also lead to acute respiratory distress syndrome; however, positive end expiratory pressure (PEEP) is applied on the ventilator to maintain adequate cerebral perfusion pressure (CPP).

If postoperative airway edema is observed upon extubation, the patient should be carefully observed or left intubated. Airway obstruction and laryngospasms are major postoperative concerns due to tissue edema or foreign bodies such as teeth, blood clots, or bone fragments. Emergency equipment such as a bag valve mask, airway adjuncts, and a difficult airway cart with emergency medications should be on standby to regain airway access.

The setup and anticipation we presented during each phase of anesthesia showcases the critical role we play in caring for the safety of the patient. As the profession evolves, new technology and continuing education are instrumental. 

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# Vitals

## INDUSTRY NEWS

### Into the Front Line

2020 marked the year that our governing organization, the American Society of Anesthesia Technologists and Technicians (ASATT) embarked on celebrating the field from a one-day recognition to a full week, March 29th- April 4th. Anesthesia Tech Week occurred weeks after the coronavirus was declared a global pandemic. Our pizza parties and cakes were rapidly replaced with PPE and Purell. Fear of the unknown, anxiety about patient care and concerns about contamination were some of the emotions experienced by health care providers. Staff that could work remotely were encouraged to do so and soon the hospital began to feel like a ghost town. Everything became quiet and still. Essential personnel only. Commutes seemed like Sunday morning drives. You could cross Longwood Ave without a cross walk signal and no Starbucks were open!

Never before has an anesthesia tech had more opportunity to seize the moment than now. Like most hospitals, rotating residents were sent back to their home institutions for additional support for patients requiring ventilators. As many hospitals across the nation were implementing a 2-person anesthesia care team for each COVID positive or COVID unknown patient, Boston Children's Hospital elected to implement a 3-person team, with the anesthesia tech included. For each case, whether aerosol generating or not the anesthesia tech remains in the room to assist for the entire case. With every intubation the tech provides video laryngoscope support. We assist in line placement while maintaining clean hands for our providers. Ultrasound guidance is provided as needed. On the outside of the operating room, another anesthesia tech in PPE provides additional or urgent supplies.

We designated certain ORs for COVID cases and reconfigured the OR from an equipment standpoint. Due to supply chain issues and being mindful of waste, the anesthesia machine had been stripped down to provide only patient age/size specific supplies. Our traditional fully stocked blue bell cart and wire carts have been pulled into the hallway to be managed by the outside anesthesia tech. We configured

a basic COVID cart that is assembled per case by the anesthesia providers and techs. Itemized checklists were developed to cover all aspects of peripheral access, airway management, suctioning, and body temperature control.

Our standard breathing circuits at Boston Children's Hospital have always included HEPA dual filters, so that portion of the Anesthesia Patient Safety Foundation (APSF) guidelines on use of HEPA filters for the anesthesia machines was common practice for us. However, the gas sampling line was unfiltered so we took multiple steps forward by also testing means to provide filtration to the gas sampling line. In-house trials and testing occurred finding the best fit product for the added protection. These trials generated innovative discussions between physicians, anesthesia techs and biomedical engineers. All groups were naturally increasing their working knowledge of the anesthesia machine and mechanisms.

The collaborative effort within the perioperative environment helped us to be as prepared as we could for the fluid situation of what we were facing. Given the nature of our patient population we were not inundated like our adult hospitals in the area. This provided us with additional time for multi-disciplinary simulations and staff trainings with multiple opportunities for participation provided across all shifts. An anesthesia COVID task force was assembled to disseminate information consistently. Communication once critical before COVID became imperative. We have mandatory team huddles before each of these cases with all active participants involved; anesthesia attendings, fellows, nurse anesthetists, anesthesia techs, nursing, clinical assistants and surgeons. ZOOM capability was accessed to allow enhanced communication and live streaming of these COVID cases.

**"Anesthesia techs are on the front line. We are essential."**

~ Jamie DeCaro ~

The overall teamwork and mission to provide care "Until every child is well" during this pandemic solidifies our commitment to our work.

**Jamie DeCaro, M.Ed, Cer.A.T.T.**

Chief Anesthesia Technician

Department of Anesthesiology, Critical Care and Pain Medicine


Boston Children's Hospital 



# Partners

## ASA

From October 2-5, 2020 we had the first completely virtual ASA annual education meeting and House of Delegates. The ASA had a very short period of time to create a virtual alternative to the largest in-person anesthesiology meeting in the world. As with the 2020 ASATT Annual Educational Conference, the ASA educational portion was quite a success with over 10,000 registrants and easy accessibility to hundreds of learning opportunities. The House of Delegates met with significant technical difficulties, however, with 300+ individuals attempting to interact to make important society decisions. We are learning fast about the virtual world with a lot more to learn before in person meetings can be completely replaced.


**Joseph F. Answine, MD**  
Liaison to ASATT 

## AANA

Writing as committee chair, the ASATT National Certification Examination (NCE) Committee is working with Scantron (the company that develops the Anesthesia Technology NCE) to develop a practice exam for the NCE. This examination will be available to students enrolled in an approved/accredited anesthesia technology educational program and certified anesthesia technicians who wish to take the Anesthesia Technology NCE. This practice examination has several objectives:

1. To provide information to students about their progress in the anesthesia technology educational program
2. To provide information to program administrators on how well their programs are preparing students with the knowledge they need for anesthesia technology practice
3. To prepare students and certified anesthesia technicians for the Anesthesia Technology NCE.

To meet these objectives, the practice examination has specifications similar to those of the NCE, administered under proctored conditions, and is designed to provide feedback to students, program administrators, and certified anesthesia technicians. The practice exam is computerized and is intended to help students, anesthesia technology educational programs, and certified anesthesia technicians identify their strengths and weaknesses in preparation for the Anesthesia Technology NCE.

Take care and stay safe!  
**Michael Boytim CRNA, Ed.D.**  
Liaison to ASATT 

# Notes

## REGIONAL UPDATE

### REGION 1




#### Hello Region 1!

The leaves are falling off which is an imminent sign that the snow and cold are not too far away. It looks like we will be having at least one Regional Meeting within the next 4 months. It does take time. If you want to have a

live meeting; you need to check with your facility to make sure that they are allowed. Many places are not allowing live events, which means that we are having Zoom Meetings, at least for now. If you know of anyone that would like to volunteer their time for a 1-hour lecture, please ask them to send me an email.

For those of you that need the CEs for recertification, please start making sure that you have enough to recertify. There are several ways to earn CEs either through ASATT Sensor Quizzes or check your facility to see if they have any that ASATT would approve. We have a couple more people that have offered to host a Regional Meeting. If you are one of those people, and you know who you are, PLEASE reach out to let me know if you are still interested.

If it is your year to recertify, Please do not wait until the last minute to start the process. Start it now and get it done. So much easier to do it now. If you need more CEs, don't forget that you can attend any of the Regional Meetings. The availability is out there for members to take advantage of. If you need help, email me or call me and I will try to walk you through it. I would be glad to help you. We (ASATT), including Headquarters, have tried to make this as painless and easy as we can, and it is important now more than ever to get this done.

STAY SAFE AND HEALTHY,  
**Jonnalee Geddis, Cer.A.T.** 

### REGION 2



#### Hello to our members,


I hope everyone is doing well. Hope everyone is staying safe and figuring out ways to cope with this Pandemic and now with the Flu season approaching us. Please remember to get your flu shots, wash your hands and remember social distancing!!

I have been getting a lot of emails about members saying they can't seem to find their CEs on the ASATT website. It now looks like it's under your dashboard once you log in to ASATT.

I'm still working on a Virtual Meeting for us in Region 2 or for any Region/member (that's the nice thing about holding a virtual meeting) in the month of December. So if you would like to be a speaker, please email me. I would like to have it worth 5 CEs.

Remember, if you're up for re-certification this year that this takes place in November and December. Please don't wait to the last minute Remember, one of the perks of being an ASATT member is that your CEs are loaded to your Dashboard. Remember, Certification expires December 31st every two years. Individuals who are due to re-certify this year will receive an email notification that it is time to renew. The emails will be sent out by November 1st. The email will include instructions for the member to complete. Remember if not mailed or postmarked before December 31st, there will be a late fee!

**As a reminder: Please everyone stay safe and wash your hands and think about social distancing.**

Take care and stay safe everyone!!  
**Karen Patrick, Cer.A.T.** 



## REGION 3

**Greetings Region 3,**


As we prepare for the change of seasons, we should also prepare ourselves to implement additional safety measures to protect ourselves and our families from not only contracting and/or spreading

the COVID virus, but now the flu. As we continue to navigate our way through the pandemic and the many challenges it brings, I hope that you are taking care of your mental health as well as your physical wellbeing.

Change...a word used repeatedly for the last several months. The pandemic has changed our way of life this past year. Our annual conference was changed from an in-person on the ground format to a virtual format. Our regional meetings have changed from on the ground in-person to a virtual format. On that note, Kudos to our out-going President Greg Farmer and ASATT HQ staff for their hardwork and dedication with helping the Society to host the very first Virtual Educational Conference last month. Going forward, at least for the next few months, we will continue to hold virtual webinars/meetings to afford technicians and technologists an opportunity to earn CE's for use towards their recertification.

Further changes will be rolling out early next year. Changes to membership, changes to certification, changes to recertification. It is important to stay abreast of those changes so that no one is caught off guard-so please be sure that we have your correct email address on file as well check out the ASATT website from time to time. As Chair of the recertification committee, it amazes me how some individuals can change their email address in a span of 3-5 business days. Email is the primary means of communication – especially if there is an issue with your recertification packet.

Speaking of recertification, please be sure that you read and follow the instructions carefully when using the document upload site. Should you fail to follow instructions, it not only delays your review, it will also incur you additional charges.

Stay safe Region 3,  
**Sue Christian, Cer.A.T.T.** 

## REGION 4


**Greetings from Region 4!**

Wow, what a couple of months we've had...summer has officially ended and the trees have started turning into those wonderful colors we all love.

The first ever Virtual National Conference was a huge success

with over 550 registered...it was a fantastic 3 days of educational lectures with a lot of great information and some very dynamic speakers!

The first, and certainly not the last, Region 4 webinar was held Saturday, October 3rd...we had a great turn out with 80 registered for the 4-hour webinar. Thank you to everyone that registered and attended! With that being said, Region 4 will be having another webinar on Saturday December 5th from 9-1 with another 4 CEU's available... watch the website for more information as it becomes available!

As always, be safe and see y'all soon,  
**Matthew Chandler, Cer.A.T.T.** 

## REGION 6

**Hello Region 6!**

I am excited for the new year coming soon, but we do have some exciting things going on to finish out this year.

I get a lot of questions regarding how to get CEs or when our next regional meeting will be.

Unfortunately, due to COVID 19, we will not be able to safely meet up in person. ASATT will be hosting regional meetings online over Zoom! This will not only give you the opportunity to continue to receive CEs for Region 6 meetings, but now you can also sign up for and attend all regional meetings while continuing to earn CEs. All the regional meetings will be posted on the ASATT website under the events tab.

ASATT is also offering CEs for taking the Sensor Quiz on the website. Not only is the Sensor great for receiving continuing education, but it is also a great way to get information

on what's new and read articles relating to Science and Technology.

Re-certification is approaching soon for some of you as well. Please make sure you plan ahead and reach out early with any questions you might have! Getting all of your CEs together can sometimes be confusing and I know a lot of us have questions on what may or may not apply.

You can also access more information on the ASATT website under the Certification tab.

Stay safe,  
**Allison Kohn, Cer.A.T.T.** 

## REGION 7

**Howzit Region 7!!!**

I hope all of you in our ASATT Ohana are doing well and staying safe. The news says that some of you are starting see a rise in Covid-19 cases. Please stay vigilant; we don't need anyone contracting Covid-19.

"Situational Awareness." Don't let your guard down and stay alert.

**"Be aware of your surroundings, identify specific problems or threats, and be prepared to execute a tactical plan to deal with each threat."**

~ Unknown ~

We're heading into fall and it will soon start to get colder. In Hawaii, it becomes the rainy season for us. NCAA & NFL football seasons are getting into full swing. While the NBA season just ended with the LA Lakers and LeBron James winning it all. The MLB is in the middle of the playoffs as we speak. It was be a REAL different Halloween for the kids. Soon we'll getting ready to celebrate all the BIG family holidays. How are you going to celebrate them? Something to think about... Don't get me wrong, I LOVE my family, but do you want to be the person responsible for spreading this disease to an elderly family member???

**"Be careful who you trust. Salt and sugar look the same."**

~ Unknown ~

2020 has been full of surprises for everyone. ASATT has had to endure the changes like the rest of the world because of the pandemic. I would like to thank Past-President Greg Farmer who has helped provide leadership to get us through up until this point. He helped guide us from face to face meetings to the "virtual world" meetings. There were a lot of obstacles to navigate and he had a successful Virtual Annual Meeting.

Region 7 was the only region that was able to hold a face to face educational meeting in February at Chemeketa Community College. Then we held the first virtual meeting in August. The rest of the regions are moving forward and having their virtual meetings.

The question is...Do we need any more virtual meetings in Region 7 in 2020? I asked this question in my last two website updates but have not received any response from anyone. Please send me an email at your earliest convenience.

**"Planning is bringing the future in the present so that you do something about it now."**

~ Alan Lakein ~

Looking forward to Region 7 in 2021...Are we going to have "live/face to face" meetings? Are we going to do virtual meetings? How many total meetings in Region 7? Personally, I still miss the live meetings; the Hawaii Meeting is like a family reunion. We pretty much all know each other but never see each other, so getting together annually is fun. Catching up with each other during the day is great. Plus, AT's who don't normally get to visit with the vendors/sales representatives get to interact with them. We need to look at goals for end of my term as the director. It will be here before we know it.

*Continues on next page...*



I'll say it again and again...ASATT is the society that will help our profession move forward into the future.

Let's resolve to continue to uphold Region 7's status as the leading region in ASATT, helping educate our peers and help us move our profession forward. As I have said before... We are laying the foundation for future generations of Anesthesia Technicians & Technologists and we MUST build this together.

**"The leader who is forever in the learning mode is the likely to succeed."**

~ Lee Thayer ~

Please be careful with Covid-19. It's nothing to take lightly. Take precautions and follow all of the CDC bulletins and guidelines, but don't let it overwhelm your life.

**PLEASE BE SAFE AND PROTECT YOURSELVES...**

Aloha,  
Delbert Macanas, Cer.A.T.T. 

## Looking for "Vintage" ASATT merchandise?

With the rebranding of ASATT, we find ourselves with an overstock of ASATT merchandise.

We have taken inventory and reduced prices on items such as Conference t-shirts, hooded sweatshirts, travel mugs, and more!

Check out the [Storefront on the ASATT website](#) for deals and be on the lookout for more sales announcements.



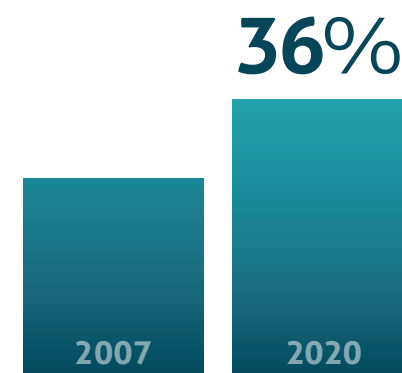
## TID BITS

# ASATT is YOU!

A breakdown of the current ASATT members, by the numbers.

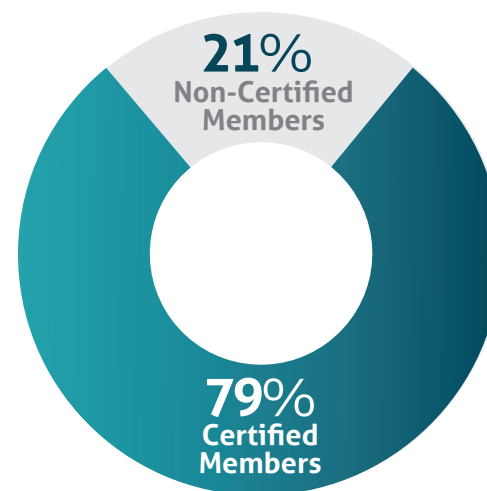
# 1,350

Current ASATT Members



**Member Growth Since 2007**

*(Year that ASATT and AEG joined forces to manage the Society)*



# Academy


## ASATT ACADEMY

This year has brought with it many challenges and the unprecedented situation that has come in the wake of the COVID-19 pandemic. The ASATT Board of Directors has been closely monitoring the situation over the past months with the health, safety and welfare of our members and taking the highest priority in all decisions related to meetings and educational offerings.

### ASATT Adds Virtual Education to The Portfolio of CE Offerings

ASATT has embraced the virtual realm and is taking steps to harness online technology to bring you timely, cost-effective educational opportunities.

The Board of Directors is already heavily engaged in planning Virtual Regional Meetings. ASATT's Region 4 Director, Matthew Chandler, held a Virtual Regional Meeting on October 3. The event drew nearly 80 attendees and had a total of four spectacular presentations. Stay tuned for more details on 2021 Regional Meetings.

Watch for announcements of virtual educational offerings in future issues of the Sensor, on the [ASATT website](#), in the monthly ASATT Update and on ASATT social media. Reach out to your Regional Director to see what is to come and to get involved yourself! 





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Looking to  
Volunteer on  
a Committee?

Join one of our ASATT Committees by visiting our [Committee page](#).

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- Bylaws, Policies and Procedures Committee
- Certification and Recertification Committee
- Communications Committee
- Continuing Education Committee
- Ethics Committee
- Financial Committee
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- Membership Committee
- National Certification Examination Committee
- Nominations Committee
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