

THATTAN

SHEET METAL

Nitrous oxide, or "laughing gas," is produced with this apparatus. You can assemble a pneumatic trough as shown in drawing at right.

The Gas That Makes You Laugh

Chemists call it nitrous oxide. You can generate this and other oxides of nitrogen in a home laboratory.

By Kenneth M. Swezey ACHING tooth is never funny. But A the dentist who yanks it out may well first put you to sleep with a few whilfs of nitrous oxide, commonly known as "laugh-Joseph Priestley discovered this colorless gas with the sweetish odor in 1772. A quargas with the sweetish odor in 1772. A quar-ter of a century later, Humphrey Davy, an-other famous English scientist, found that if mixed with ing gas. other tamous Logush scientist, found that if mixed with a certain amount of oxygen the gas produced a feeling of exhilaration the gas produced a recurry or exmandent when inhaled. Hence, its name, Long used as an anesthetic for dental work and uniform support nitrons oxide work and minor surgery, nitrous oxide

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(N.O) is one of five known oxides of nitro-gen. The others are nitric oxide (NO), nitrogen trioxide (N.O.), nitrogen pertox-ide (N.O.), and nitrogen peroxide, The latter takes two molecular forms, nitrogen latter takes (NO) or nitrogen tetroxide (N/O). dioxide (NO_i) or nitrogen tetroxide (N_iO_i). Mitrous oxide is still prepared today by the same method that Davy employed-by the same method mat Davy employee-of arefully heating annonium nitrate. At about 200 deg. C., this compound breaks down here alterna wide and water value about 200 deg. C. mis compound means down into nitrous oxide and water vapor. You can do this in a home laboratory but hyper new home here's a word of

But before you begin, here's a word of caution. Like all nitrogen companies, and monium nitrate is comparatively unstable.

An explosion may occur if it is mixed with An expression may occur if it is mixed with other substances, if it contains impurities, or it is overheated when confined. However, it has been heated in laborait it is overheated when commed. However, it has been heated in Jabora-tories and chemical plants for 150 years

NITROUS OXIDE IN OXYGEN FOR LABOR PAINS

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New! ASATT Hooded Sweatshirts! pg 10





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SENSOR

provides its readers with information on anesthesia-related topics, and with a forum for learning and discussion. *The views expressed herein are those of individual authors, and do not necessarily reflect the views or opinions of ASATT.*

All submissions pertinent to the objectives of ASATT will be considered for publication. Preferred media: CD or via email. Photos in TIF or JPG formats preferred. Photographic prints *can* be returned.

ISSUE DEADLINES:

Spring	April 1st
	July 1st
	November 1st
Winter	January 1st

Display ad rates and size specifications can be requested from ASATT at 414/908-4942 ext. 450.

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GREETING EVERYONE, I would like to say this year is an exciting one, with new members on board and new officers; we are moving our Society in the right direction. The accomplishment might seem modest, but those who have been here from the beginning recognize that this organization has come a long way quickly.

This year has also moved quickly and our Board continues to work hard. All of the regions are up and ready to provide everyone the opportunity for CEUs in your area. The Regional Directors have all provided the date on our website for the conferences in their region. I would like to ask all the members to take this opportunity to visit our website and obtain more information on these conferences.

This year several of our regional meetings will be held in April. I hope that these regional meeting are of benefit to all of you and you are able to take advantage of them. I would like to wish all the Regional Directors the best of luck, and I hope to hear from you about your region's continued great success.

As you all know, this year our plans are to join ANAA in Las Vegas and that time is also coming quickly. We are now registering for the national conference in August. The early bird special for the national conference will end on April 30th so

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if you register before then, you will only pay \$250 for the registration. The room rates of \$89 will be available until July 8th. I would like to encourage all of you to take this opportunity



to register early and save money.

It is also my privilege to report that our Society has gained over 100 new Certified Technicians and continues to receive applications to sit for the ASATT national certification exam for technicians. We have also seen an increased number of candidates sit for the technologist exam. I would like to congratulate you all for this effort.

Our commitment to offering more opportunities to CEUs is still an ongoing effort and we will continue to look for opportunities that will benefit our members and provide them relevant information. So please be patient with our Board as we work with CEU providers — to provide the best, most secure experience possible.

I look forward in the next few months to working with our officers as we plan our Annual Meeting.

I wish everyone a safe and happy spring season.

- Joey Herrera, Cer.A.T.T. ASATT President



Anesthesia

Anesthesia Tech Pearls is excited to announce the opening of our educational website designed to meet the continuing education needs for anesthesia technologists and technicians.

We Offer:

- The **first** online educational resource specifically tailored to anesthesia technicians and technologists.
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- Access and affordability for the certified anesthesia technologist and technicians to earn continuing education hours online that meet the ASATT and CAAHEP requirements.

"Our goal is to provide all the continuing education credits required to maintain certification. To meet this goal, we at Anesthesia Tech Pearls will upload a minimum of two new lectures each month. We look forward to serving you and encourage your suggestions and feedback."

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WHAT AND HOW TO PREPARE FOR CERTIFICATION TESTING



By Cindy Zellner, Cer.A.T. Region 4 Director

SATT BOARD MEMBERS and Headquarters are always being asked, "How and what can I study to prepare for sitting the Certification exam?"

There are so many avenues you can explore to accomplish this. The first thing you can do is pay close attention to detail in your day-to-day duties in your profession and **ask your providers questions** as to **why** you do what you do and for more



details. Most of them will be more than willing to explain things to you in detail. You can then do further research on your own on what they tell you through medical publications they can suggest. If you have a medical library at your facility, borrow some anesthesia-related books and browse through them.

The next thing you can do, and the first place I checked when preparing to sit the Certification exam, was to go directly to the ASATT website. Go to the Certification dropdown, and click on ASATT Certification Information. From there you will find two areas: "Certification for Technicians" and "Certification for Technologists." In each of those there is a link to download the handbook. Choose Technician or Technologist and open that link to the handbook. There you will find all the information you want on testing from fees, to locations and dates for testing, eligibility requirements for testing, how to apply for testing, and most importantly (for me, anyway) was the most useful tool I could find: the Detailed Content Outline for the Technician Examination. This area has a breakdown of what areas will be tested with a description of each area and how many questions will be asked in each area. I found this the most useful to me. From there I knew which areas I was well prepared for and what areas I needed to explore in further detail.

Also listed in the handbook are suggested reference materials. I found the "Understanding Anesthesia Equipment, Construction, Care and Complications" by Dorsch and Dorsch, and "Clinical Anesthesia" by Morgan, Makhail, and Murray, to name two, in our medical library. I borrowed both of those and researched the areas that I felt I needed more study in to prepare for sitting the exam. If you don't have access to these great manuals, talk to your manager or director of your anesthesia department to see if they would consider purchasing them for their employees to use as a resource. That is how we first got ours at our facility - the need for a good resource manual for studying and research for the employees.

Another area to go through on the ASATT website is the Standards of Practice link, www.asatt.org/ **sop.html.** This will give you much information on what competencies are expected, and which areas technician and technologist are expected to be competent in.

Lastly – and I did utilize this one to some extent and found it beneficial for myself and a few co-workers was to Google Anesthesia Technician Certification Test Preparation. There are many different choices of courses to take online to prepare for sitting the exam. Our group did benefit much from taking these courses, and the fees were picked up by our facility at that time due to the benefits gained from having their technicians gain more education and become certified, which in return made our group more valuable to our Providers. It is a real win-win for everyone.



I hope this helps in warding off some of the fear of sitting the exam. You are already more prepared for testing than you may think. Just utilize a couple of these suggestions and you will be well on your way to passing the exam, and helping your facility gain a more prepared and educated technician or technologist.

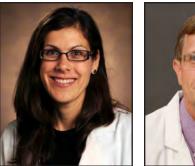
Good luck with sitting your exam! You CAN do it! ⊆





Inhaled Nitrous Oxide in Oxygen for Labor:

Utilizing a blender device to provide patient-controlled analgesia





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ABSTRACT

Inhaled nitrous oxide has been used extensively in Europe for many decades for labor analgesia but this method has been rarely used in the United States until recently. Increased interest in this therapeutic option has grown out of the midwifery profession and currently three academic medical centers offer this self-administered form of labor analgesia. The delivery system is a blender device which utilizes tank or wall sources of nitrous oxide and oxygen. This article discusses the historical development of this therapy, key aspects of machine capabilities, device setup, and implications for clinical use. Also discussed is environmental safety and gas scavenging, and monitoring for a labor pain management option whose use is increasing in the United States.

NITROUS OXIDE IS commonly used in Europe, Canada, and Australia for the relief of pain during labor and childbirth. In 2007, 50% of women giving birth in Australia used nitrous oxide and it is used for approximately 60% of deliveries in the United Kingdom.

Nitrous oxide was identified as an anesthetic agent appropriate for obstetric pain relief not long after the use of other early anesthetics. The use of chloroform and ether for childbirth followed shortly after the first successful administration of ether for surgery in Boston in 1846. Although

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nitrous oxide was not found to be an anesthetic potent enough by itself for surgical procedures, the Russian physician Stanislav Klikovich found it to be well-suited to use for relieving the pain of childbirth and published the first study of its use in laboring women in 1881.

In Great Britain the need for an analgesic agent which was safe for use with midwifery patients not attended by a physician led British physician Dr. R. J. Minnitt to develop and market an apparatus for patient self-administration of nitrous oxide in 1933. This machine combined

OUTLINE

- 1. Use of inhaled nitrous oxide for labor world-wide
- 2. History of use and machine development
- 3. Machine specifications and capabilities
- 4. Machine set up and use in patient care
- 5. Regulatory requirements with regard to machine delivery
- 6. Physiology of uptake, effect and excretion
- 7. Environmental safety and scavenging
- 8. Monitoring of anesthetic gasses
- 9. Patient teaching and optimization of therapy
- 10. Growing use of inhaled nitrous oxide in the United States and implications for anesthesia technicians

nitrous oxide with air and was the origin of the term "gas and air" still currently used in Great Britain to refer to inhaled nitrous oxide for labor. Although the Minnitt apparatus was used widely for decades, the device did not limit the percentage of nitrous oxide in air and thus potentially allowing the administration of a hypoxic gas mixture. In 1961 the British Oxygen Company introduced Entonox[®] a pre-mixed tank with nitrous oxide and oxygen in a 50/50 proportion. This significantly



improved both patient safety and ease of use. EntonoxTM is currently used worldwide for labor and other clinical applications where analgesia is required.

In the United States, the administration of inhaled analgesics is regulated by the Food and Drug Administration. Pre-mixed tank systems of nitrous oxide and oxygen have not been approved by the FDA in the United States and currently the only FDA-approved device for nitrous oxide administration appropriate for use in labor is a blender device that mixes flows of nitrous oxide and oxygen from separate sources marketed under the trade name Nitronox[®].

The Nitronox[®] machine delivers nitrous oxide and oxygen at a set 50/50 ratio. This machine can utilize both wall and e-cylinder tank sources of nitrous oxide and oxygen. The machine utilizes a demand valve attached to the distal end of an inspiratory circuit adjacent to a face mask and allows for flow of gas only during active inhalation. This allows for intermittent high volume inspiration to coincide with uterine contractions. The demand valve also serves to prevent free flow of nitrous oxide into the

ambient environment when the circuit is not in use. The circuit is attached to a scavenging system which removes gas from the face mask during patient exhalation.

Nitrous oxide within the source tank is in a liquid-gas equilibrium liquid state and thus a pressure gauge attached to the tank

will read relatively constant pressure of 750psi until the tank is nearly empty. As a result the tank pressure gauge should be monitored and the tank replaced when the gauge pressure reads 500psi or less to avoid tank exhaustion during use. Most rooms used for labor and delivery

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do not have wall nitrous oxide lines and, at our institution, nitrous oxide is sourced from a tank and oxygen is supplied from a wall source in the room. E-cylinders of oxygen contain 622 liters of oxygen and can be used for labor of short duration. (For this reason, the availability of wall source oxygen for this machine is recommended).

Nitrous oxide is an anesthetic gas with a minimum alveolar concentration (MAC) of 111%, and thus is not potent enough to be used as a single agent anesthetic. For surgical anesthesia, it is frequently used in conjunction with other inhaled or intra-

venous anesthetic agents as part of a multi-agent anesthetic technique. The American Society of Anesthesiologists (ASA) guidelines regarding monitored anesthesia care state that nitrous oxide administered in concentrations less than 50% and without the administration

of additional sedating agents is classified as analgesia or minimal sedation. Thus, when self-administered by patients in labor a 50% nitrous oxide in oxygen technique does not require continuous inroom monitoring by an anesthesia provider unless additional sedating agents are used. Continuous pulse ox-

imetry should be employed when patients have received narcotics or other sedating agents within two hours of nitrous oxide use.

The analgesic mechanism of action of nitrous oxide is not well understood and affects different receptor sites known to produce pain relief. Ni-



Side by side comparison of the updated models: At left, a stand capable of holding two tanks of nitrous oxide and two tanks of oxygen. Right: a smaller version capable of accommodating one cylinder each of nitrous and oxygen.

trous oxide stimulates the release of endogenous opioids without directly stimulating opioid mu receptors. It inhibits NMDA receptors resulting in a slight dissociative effect and is a GABA-mimetic with anxiolytic effects. The onset of action is rapid corresponding to its rapid rise in alveolar concentration when inhaled and analgesic action is seen in as little as 30 seconds from the beginning of inhalation. This makes it well-suited for intermittent use to coincide with contractions of labor. Offset is also rapid and effects are gone within a few minutes of discontinuing use. The metabolism of this agent is negligible with very weak accumulation in fat and other tissues.

The side effects of nitrous oxide administration for labor include nausea and dizziness. Nausea may respond to ondansetron or other antiemetic administration. Dizziness is typically well tolerated, although this side effect may be unacceptable to some patients and require discontinuation of its use.

The environmental safety of anes-



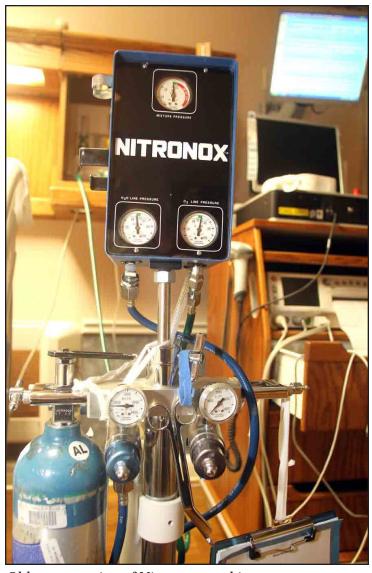
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thetic drugs has been examined extensively and most studies have looked at the possible negative health outcomes in healthcare workers. Meta-analyses of such work have not shown significant adverse effects in healthcare providers. The Occupational Safety and Health Administration (OSHA) has published advisory guidelines regarding the monitoring of anesthetic gases in the workplace. OSHA recommends air sampling for anesthetic gases be conducted every six months to measure worker exposures and check effectiveness of control measures. Personal nitrous oxide passive dosimeters are mentioned in OSHA's guidelines but have not yet been validated by the agency. The sampling of nitrous oxide at our institution follows the same guidelines regarding environmental sampling of anesthesia gases in our operating rooms. Room sampling measurements and healthcare worker dosimeter badges readings at our institution have consistently reported values well below the National Institute for Occupational Safety and Health recommended exposure limits (RELs) of 25 parts per million, for nitrous oxide measured as a time-weighted average. The Nitronox machine is equipped with an active scavenging system that utilizes wall suction/ evacuation systems to remove exhaled nitrous oxide. This system is very effective at minimizing ambient nitrous oxide accumulation. This apparatus is more effective than the commonly used ventilation and limited scavenging techniques employed in the United Kingdom where delivery systems preclude the ready use of active scavenging for many labor wards.

An epidural or spinal provides near-complete pain relief and is the most effective form of labor analgesia available. It is highly effective but carries some uncommon risks including spinal headache and transient nerve irrita-

MORE

tion. Other more serious risks such as paralysis are possible but exceedingly rare. Nitrous oxide provides a very safe method with no known adverse effects for mother or baby. It has a long history of safe use but is significantly less effective than an epidural in providing pain relief, and provides mild to moderate analgesia and anxiolysis. We have found it to be an effective labor pain method in our patient population as approximately 50% of parturients employ it as the sole means of pain relief at our institution. Anecdotally, we have found nitrous oxide to be particularly useful for multiparous patients, patients requesting analgesia later in labor, and patients who are motivated to avoid use of an epidural for pain re-



Older generation of Nitronox machine.



Patient demonstrating self-administration of nitrous oxide. (Reprinted with permission.)



lief. It provides a useful pain management tool that can significantly reduce the pain of labor and improve coping for many women.

The recent interest in the use of nitrous oxide for labor in the United States has emerged through midwifery interest in its use for labor analgesia and by the publication of numerous reports endorsing its use. At this time, three academic medical centers offer nitrous oxide for labor.

Wider adoption of its use — limited due to lack of available equipment — has likely prevented its use at more medical centers and birth centers. The Nitronox device was developed and originally manufactured by the Fraser-Harlake Corporation which ceased production of the units in 1992. Rights to manufacture the machine have been secured by the U.S. dental supply manufacturer Porter Instruments who is currently manufacturing new models for sale beginning in 2013. The availability of new Nitronox machines in 2013 should allow more widespread use at medical centers, hospitals and birth centers where it has previously been unavailable. The use of nitrous oxide for labor will likely increase in the United States with increased machine availability.

Patient instruction is important to therapy success. Nitrous oxide use for labor is typically not continuous, but rather episodic and coinciding with uterine contractions. Women are instructed to take four to five rapid deep breaths at the first sense of an impending uterine contraction. This often requires ongoing teaching during use of the apparatus in order to provide effective analgesia that is timed to coincide with the peak of contraction intensity. It is ideal to encourage patients to take successive breaths during administration without removing the mask from their face to limit room air entrainment. Patients should hold their own mask rather than have a helper apply the mask for them.

At our institution, nitrous oxide for labor is provided as a service of the obstetric anesthesia department. Anesthe-



Dr. Starr demonstrating operation of the Nitronox unit to techs at the 2011 Region 3 meeting.

sia providers initiate therapy, including machine setup and patient teaching, and provide continuous care to patients using nitrous oxide for their labor. Machine troubleshooting is part of ongoing obstetrical anesthesia provider education and provides a unique learning experience for student nurse anesthetists and anesthesiology residents. As more U.S. medical centers incorporate nitrous oxide for labor services, machine check, setup and troubleshooting responsibilities may be assigned to anesthesia technicians in part or in whole. Knowledge of this therapy will be valuable to anesthesia technicians working at centers that offer this growing therapy to laboring women. \subseteq

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Anesthesia Tech Day is fast approaching, show your appreciation for your Anesthesia Technicians with some ASATT Logowear.

March 31st

Hurricane Sandy Members

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To the members of ASATT that have been affected by Hurricane Sandy, their families and associates of area Hospitals:

ASATT would like you to know that you are in our thoughts and prayers. While forecasts warned that this storm would have a tremendous impact, no amount of preparation could have altered the devastation that the residents of the mid-Atlantic region experienced. As helpless as you may feel with your current circumstances, your friends at ASATT feel equally helpless.

To help alleviate the stress for those individuals who faced catastrophic losses due to "Sandy", ASATT will grant those individuals an extension on their recertification until February 28th, 2013. To lessen the financial impact, the late fees will also be

In order to extend your recertification cycle, please email either ASATT HQ at: certification@asatt.org or suec598@msn.com. In the subject line, please type: recertification extension. In the message area, please type your name and contact information. For those who are permanently displaced, please leave contact information for a reliable individual.

> American Society of Anesthesia Technologists and Technicians LCOME Education Conference August 8-10, 2013 SVEGAS August 8-10, 2013 Las Vegas, NV • Flaminge Held

www.asatt.org

President Joey Herrera, Cer.A.T.T., has created a taskforce to give the ASATT Website a complete makeover. The new website will debut late summer/early fall.

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TECHNICIANS PASSING THEIR CERTIFICATION EXAMS

NOVEMBER

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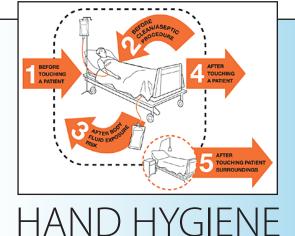
TECH DAY POSTER!

Help solve the mystery! How will the Society, the **Profession and Anesthesia Techs be represented in this** year's poster celebrating Anesthesia Tech Day? Send your ideas to: region5director@asatt.org

Deadline for submission is March 4, 2013. If your idea is chosen, you will receive a complimentary membership for the year! (August 2013 through July 2014).



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The above image represents the "My 5 moments for Hand Hygiene" from the World Health Organization.

Reports indicate that the flu season started a month earlier than normal and outbreaks have been reported in 47 states. The government reports that this year's vaccine is well matched to the actual virus and that it is 62% effective. What is the best defense? Get the flu shot; wash hands with soap and warm water and avoid touching your eyes, nose and mouth. Of course the reports also suggest staying away from sick people, which is somewhat of a challenge when you work in a healthcare facility.

American Society of Anesthesia Technologists and Technicians **Education Conference** August 8-10, 2013

Las Vegas, NV • Flamingo Hotel

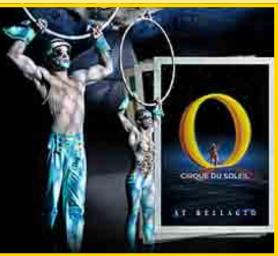
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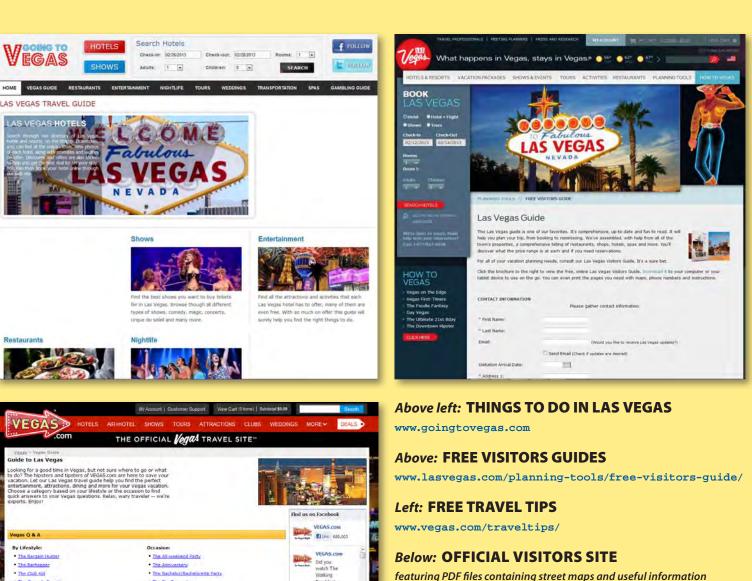




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Regional Activities

REGION 1

CT-ME-MA-NH-NJ-NY-RI-VT Director: Jonnalee Burgess, Cer.A.T. Work: 603/650-6804 or 603/653-6031 Email: region1director@asatt.org



Well, we made it through the holiday

season; now you want to start making your plans for the Region 1 meetings. Yes, I said *meetings* ... plural. The first one is Saturday, April 6th at the Berkshire Medical Center in Pittsfield, Mass. The second one is at SUNY Upstate Medical University in Syracuse, New York on Saturday, May 18th. We are working on hotel information for both meetings. You may be thinking that these are too close together; however, not everyone can make it to the meeting in Vegas in August. I think it's great that we are again breaking records in Region 1 with two meetings. We are going places!! Keep checking the Regional Meetings update for the flyers and make sure that if you go to just one of the Regional Meetings that you specify on the registration form which one you are signing up for.

As for the Annual ASATT Meeting, start making your plans now. All of the dates, times and hotel information is on the website under Annual Meeting Information. It's in Las Vegas in August, so make sure you put your time-off request in to your employer. It is at the Flamingo, right on the Strip. So, start saving your change for a little bit of gambling. The last time ASATT was in Vegas, one of the techs won a car! You just never know ... it could be your lucky trip!

Keep checking the website updates for information on the Regional Meetings. You also want to start thinking of people that you can nominate for the new Region 1 Director as my term ends this year. Make sure you ask who you nominate for this position or any position. Stay safe

BOARD NOMINATIONS

For years, anesthesia technologists and technicians have struggled to get the recognition they so rightfully deserve for the support services they offer to their facilities, the anesthesia providers, and the patients they serve. As the profession continues to expand, it is important for there to be individuals willing to fill these vacancies by donating their time to the Society and to their profession. Detailed information on the nomination process and qualifications will be included in the next issue of *The Sensor*.

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and happy for the spring months. See you at the Regional Meetings.

REGION 2

DE-IN-MD-MI-OH-PA-VA-WV Interim Director: Randy Harris, Cer.A.T. Work: 443/492-8928 Email: region2director@asatt.org



Hello, Region 2 members!

While everybody is enjoying their favorite warm place, I hope all Region 2 members were able to get their papers in on time for recertification. Please continue to contact me if I can be of further assist to you in any way. Remember, you are a part of ASATT. I encourage all members to become a part of a committee like the Recertification or National Meeting committees. We all have a part in the growth of ASATT. You have what it takes.

Thank you Mavis Judd at Johns Hopkins University Hospital for inviting me to speak at their Anesthesia Technician staff meeting. Also, thanks to Joe Brooks at University of Michigan for allowing me to introduce myself to their staff in their Anesthesia Technician newsletter.

Please save May 18th for the next Region 2 educational seminar. Also, the National Meeting will be held August 8–10 in Las Vegas. I will notify you through emails of the details.

REGION 3

AL-FL-GA-KY-NC-SC-TN Interim Director: Sue Christian, Cer.A.T.T. Work: 615/343-7077 • Fax: 615/343-1966 Email: region3director@asatt.org



Greetings Region 3 Members!

With the 2012 Recertification cycle almost complete, I am now able to focus on organizing educational conferences for our Region. At this time, tentative plans are in the works for a meeting at Vanderbilt slated for late April or early May. I have had inquiries about holding a late summer or early fall meeting in North Carolina, with possible locations being Catawba Valley Medical Center or Duke University. Detailed information will be forthcoming.



REGION 4

IL–IA–MN–MO–ND–SD–WI Director: Cindy Zellner, Cer.A.T. Work: 715/387-7179 • Fax: 715/387-5890 Email: region4director@asatt.org



This is the perfect time of year to get those CEs going. If you are unable to attend a conference in your own Region, check out the conferences and dates in some other Regions. Each Region has at least one, and another might be better suited to your needs as well as give you a chance to visit another part of the country. Just check out the "Regional Activities" dropdown on the ASATT website.

And just another reminder about conferences — the Annual Conference usually held in October in conjunction with the ASA is changing this year. We are trying out holding our Annual Conference in conjunction with the AANA for 2013 and it will be held at the Flamingo Hotel in Las Vegas, August 8-10. More details and registration will be posted on the website in time.

ASATT is growing. And with all the upcoming changes in education, testing, and certification our many committees in our organization are becoming very busy and bombarded with extra duties regarding each one. This is YOUR organization. If you really want to have a voice in what happens with our profession, please consider joining one of these committees and having a say in what happens by helping. Many hands make light work. Please consider stepping up and contacting a Board member, Regional Director, or ASATT Headquarters to see which committee could best utilize your expertise. You won't be sorry. It is very rewarding to be able to say, "I was a part of that change." Please give this some thought.

And as a reminder, our Region 4 Conference will be held at Marshfield Clinic in Marshfield, WI on April 20th. This will be a one-day conference with up to seven CEs offered. Registration can be done online through the ASATT website under Regional Activities, and clicking on Region 4, along with information about the conference. Any suggestions on what you would like to see at these conferences is needed and welcomed.

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REGION 5

AR–CO–KS–LA–MS–NE–OK–TX Director: Charlene Koch, Cer.A.T. Work: 720/777-6207 Email: region5director@asatt.org



Happy New Year!

Many wishes to everyone that 2013 will bring you great success and memories!

Goal setting is one topic that I have decided to cover in this issue of *The Sensor*. I think that as Anesthesia Techs, it is important that we lead the way in setting the example of professionalism and expertise within the OR environment. Whether the Anesthesia Tech team in your facility is large or small, it is important to work as a united group. This may be a great team goal for 2013! It is something to consider!

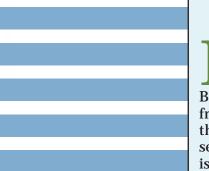
Education is vital to our profession. Don't look at it as "the requirement for recertification." Look at the education that you receive as your growth to become the best tech your providers can ask for. The more you know, the more you can offer professionally. There is great satisfaction in having a provider seek you out to ask your professional opinion. There is even more satisfaction in them taking your advice and using it successfully.

Did you know that last year between all of the Regional Conferences, the National Conference and the four issues of *The Sensor*; ASATT provided **94** [[[[**bg** – **super-bold** "**94**"]]]] hours of education? These opportunities will be open for you again this year. Watch the web updates and *The Sensor* for information on how you can get your education. You can join Region 5 here in Colorado on April 20th, then travel to Las Vegas in August for the National Conference. It will be a lot of fun, worth your time, and will fulfill most (or possibly all) of your education requirements for recertification!

Set your goals, get educated and have fun do so! It will be worth it!

Keep in touch and best wishes for a successful and fulfilling 2013!





Regional Education Awards

N AN UPCOMING ISSUE of *The Sensor*, we will have detailed information relevant to the nomination process for the Regional Education Awards. The ASATT Board of Directors would like to see more participation from the membership. Those individuals who put forth the effort to recognize and promote the profession deserve to be recognized and if someone in your Region is promoting the profession, we want to know about it!

REGION 7 AK-HI-ID-MT-OR-WA-WY Director: Joleen Bishop, Cer.A.T. Work: 206/223-2391 Email: region7director@asatt.org



Greetings Region 7!

Welcome to the New Year. I hope everyone had a safe and happy holiday season and everyone is rested for the challenges in our daily lives. I would like to take a moment to recognize that not all of us in the Anesthesia Technician community had a positive introduction to the New Year, particularly our colleagues on the east coast. Be it the devastation of Sandy, the tragedy in Connecticut, or the blizzard in early February, your means of addressing the pains and the visions of bravery are inspirational to the whole nation.

Moving forward in 2013, we have a couple of exciting events occurring this year including our Annual Meeting in Las Vegas with the AANA, and continued growth and development within our organization as a budding and strengthening group. Our Regional meeting will be Saturday, April 13th at Renton Technical College. Currently, Gary West is getting his team together and setting the foundation for an excellent event. Become a part of the resolution and plan on attending. It will be the best decision of the New Year.

Let this be the year you get involved. Anesthesia Technicians make a difference, so become involved in the organization that makes a difference for all of us. I hope to see you out there.

Peace. S

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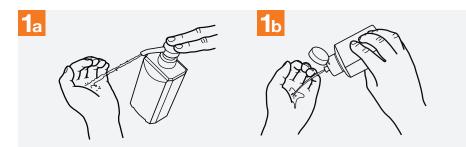
24th Annual ASATT Educational Conference August 8–10, 2013 Flamingo Hotel 3555 Las Vegas Blvd. South, Las Vegas, NV 89109							
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Member* Mem. # or User ID:	\$250	\$300	\$350	\$400	\$500	\$250	
Non-Member*	\$450	\$500	\$550	\$600	\$700	\$350	
Spouse/Guest**	\$200	\$250	\$250	\$250	\$250		
						TOTAL	
This is my 1st time attending an ASATT Conference Yes No	Special physical or dietary need		No Describe: _				
Registration fee includes conference ma *No registration will be processed withou received. No exceptions will be made.	ıt payment. Any	registrations	that do not hav	•	•		
**Spouse/Guest rate includes Welcome Re	ception, meals, o						
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Cancellations made by June 15, 2013, will receive full refund.	Cancellations made Ju	ne 16 through July 1	16, 2013, will be penal	ized 50% of the regis	tration fee. Cancella	ations made on or after July 17, 2013, w	vill receive no refund.
Print this form, attach payment (if paying by check), and submit to: American Society of Anesthesia Technologists and Technicians 7044 South 13th Street • Oak Creek, WI 63154 414/908-4942, ext. 450 • Fax: 414/768-8001							
Please note that membersl	hin dues are n		w.ASATT.a in the Confe		ation fee an	d are invoiced separat	elv.
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How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

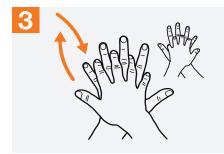
Duration of the entire procedure: 20-30 seconds



Apply a palmful of the product in a cupped hand, covering all surfaces;



Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced;



Rotational rubbing of left thumb clasped in right palm and vice versa;



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Backs of fingers to opposing palms with fingers interlocked;



Once dry, your hands are safe.



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Patient Safety A World Alliance for Safer Health Care SAVE LIVES Clean Your Hands

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S			INUING Ation Quiz	ļ	To test your knowledge on this issue's ience and Technology article on page 6, provide correct answers to the following questions on the form below; follow e instructions carefully. Submissions for this issue's Quiz expire December 31, 2014. Achieve 80% in this quiz to earn one (1) Continuing Education credit.
1.	The use of nitrous oxide is a self-administered form of labor analgesia.	4.	At the onset of inhaling nitrous oxide, analgesic action can felt in:	8.	Nitrous oxide is more effective than an epidural or spinal for pain relief.
	True False		A. 15 minutes C. 30 seconds		True False
2.	The Minnitt apparatus is ablending device that allowsfor a 50/50 proportion ofnitrous oxide and air.TrueFalse	5.	B. 3 minutes D. None of the above OSHA recommends the use of nitrous oxide passive dosimeters for patients using the Minnitt apparatus.	9.	NIOSH recommends exposurelimits of healthcare workersshould be limited to:A. 15 ppmC. 25 ppmP. 20 ppmD. 20 ppm
3.	Nitrous oxide is commonly used for labor analgesia in:A. Great BritainE. All of the aboveB. AustraliaF. B & C onlyC. CanadaG. A, B & CD. United States	6 . 7.	 True False Nitrous oxide inhalation is a continuous process until the baby is delivered. True False The Nitronox® machine will accept nitrous oxide and oxygen from either a wall source or E-cylinders. True False 	10.	 B. 20 ppm D. 30 ppm The current manufacturer of the Nitronox[®] machine is: A. Fraser-Harlake Corporation B. Dr. R. J. Minnitt C. Porter Instruments D. British Oxygen Company

To apply for Continuing Education/ Contact Hours:

- (1) Provide all the information requested on this form.
- (2) Provide correct answers to this issue's quiz in the box *(right)*
- (3) Mail this form along with \$10.00 (check or money order, payable to ASATT) to: ASATT7044 South 19th Struct

7044 South 13th Street Oak Creek, WI 53154-1429

The answers to the Winter 2013 Continuing Education Quiz are: (circle correct answers)				
1: T F	6: T F			
2: T F	7: T F			
3: A B C D E F G	8: T F			
4: A B C D	9: A B C D			
5: T F	10: A B C D			

Name	ASATT Number				
Street Address	Phone				
City	StateZIP Code				
Signature	Date				
SENSOR ONLINE					

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Membership Events

Anesthesia Tech Day	March 31
Membership renewal begins (notices sent via email)	June 1
Board of Directors nominations due	June 7
Regional Education Awards nominations due	June 28
2012 memberships expire	August 1

Educational Meetings

Region 1, Berkshire Medical Center, Pittsfield, MA	April 6
Region 7, Renton Technical College, Renton, WA	April 13
Region 4, Marshfield Clinic, Marshfield, WI	April 20
Region 5, Denver, CO	April 20
Region 6, Tucson, AZ	April 27
Region 1, SUNY Upstate Medical University, Syracuse, NY	May 18
Region 2, Pittsburgh, PA	May 18



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American Society of Anesthesia Technologists and Technicians

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