

OPERATIVE NOTES

American Academy of Pediatrics - Section on Surgery Newsletter

AAP Dates for 2024

As 2023 comes to a close, it's a good time to start planning for next year. Here are some important dates to circle on your calendar for 2024:

The **AAP Legislative Conference** will be **April 14-16, 2024** in **Washington, DC**. This 3-day conference will prepare you to advocate on Capitol Hill with a team of pediatricians and sub-specialists from your district.

The **AAP Leadership Conference** will be **July 25-28, 2024** in **Itasca, IL**. This is the meeting where policies and leadership focuses are discussed.

The **National Conference and Exhibition (NCE)** will be in **Orlando, FL** from September 27 - October 1, 2024. The **Section on Surgery** will meet from **September 27-29, 2024**. Future meetings: Denver - September 26-30, 2025; San Diego - October 2-6, 2026; Chicago - October 15-19, 2027.

If you have questions, please e-mail sosu@aap.org.



Dr. William E Ladd caring for children injured by the 1916 Halifax explosion, St. Mary's College

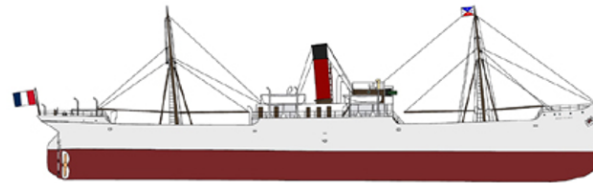
The 1916 Halifax Explosion: The Birth of Pediatric Surgery in North America?

It is early morning on **December 6, 1917** and the deadly war in Europe is still dragging on. We are in the Canadian East coast port city of Halifax, Nova Scotia which is the main staging point for ships being loaded with supplies, munitions, and soldiers headed to the war. This day begins like others with the anti-submarine nets being removed at the entrance of the “narrows” to allow ships to move in and out of the harbor. Two ships that are the focus of this tale: the Norwegian Ship *SS Imo*, chartered by the Belgian relief commission, sits empty while the French ship *Mont Blanc* is loaded with about 3000 tons of various highly explosive material – picric acid, TNT, benzol, and gun cotton. The *Imo* is in the narrow Halifax Harbor and was forced to one side to avoid another ship traveling on the wrong side. This maneuver put it in line with the incoming *SS Mont Blanc*.

The Halifax Explosion, 1916 / cont'd



SS Imo



SS Mont Blanc

As the two approach, both signal that they had the right of way. Finally, realizing a collision is imminent, the *Imo* stops and reverses as the *Mont Blanc* takes evasive actions and turns towards Halifax but momentum continues its course, leading to the inevitable collision. The two ships collide at slow speed but with enough impact to leave a gouge in the French ship, knocking over the barrels of fuel and explosives piled on the deck. It is now 8:45 in the morning as the *Imo* reverses out of the *Mont Blanc* but with the grinding of metal on metal, sparks ignite the highly flammable liquids from the broken barrels. The *Mont Blanc*'s crew makes a futile attempt to put the fire out, but it grows quickly out of control. The crew hastily abandons ship, knowing the danger and what is about to happen. Sadly no one in the harbor understands their cries – they are speaking French. The 15 minutes that the ship burns without evacuation of the harbor prove to be crucial.

As the boat burns, the fire attracts civilians to see what all the commotion is about. This brings more people towards the explosion that occurs on 9:04:35 AM. The blast instantly levels most of the city and creates a 60 foot tsunami. 2000 are instantly killed and 9000 others injured. Many are blinded by flying broken glass as they look out windows to see the burning ships in the harbor. The shock wave breaks windows over 60 miles away and is even felt and heard almost 100 miles away. It is the largest man-made explosion ever created in history until the atomic bomb is dropped more than a quarter century later. The *Imo*, after hitting the *Mont Blanc*, is hurled across the harbor, resting still intact.

Halifax is in total ruins. Fires spring up all over the city. Parts of the railway are demolished and everywhere, dead and dying lie among the ruins. Hospitals are in shambles. To complicate already terrible conditions, a blizzard brings 16 inches of snow to Halifax. Many people trapped in fallen buildings froze to death before they could be saved. The rescue efforts begin immediately from across Canada and the northeastern US, but these are limited by the weather. Boston, Massachusetts is the largest city close to Halifax but even their team is 700 miles away and hampered by the storm.

The Halifax Explosion, 1916 / cont'd

One of the first trains to arrive is the Red Cross Unit, led by **Dr. William Edward Ladd**, 37 at the time. The unit consists of 100 doctors, nurses, and orderlies from Boston. With supplies enough for a 500 bed hospital, they battled through the blizzard, downed telegraph lines, and blocked railways to reach the stricken city on December 9. A damaged but still serviceable building at **Saint Mary's College** is converted into an infirmary where the team treats victims maimed and blinded by shards of wood and glass. The medical convoy will remain on site for nearly a month through the winter holidays. Ladd will treat thousands of injured individuals, including hundreds of children with burns, lacerations, and other injuries.

As the story goes, treating these children compelled Dr. Ladd to dedicate his career to the surgical care of infants and children. While this narrative indeed is moving, it was dispelled in 1963.

March 29/63
 DR. WILLIAM E. LADD
 Sherborn, Massachusetts

Telephone
 Mattick, Mass.
 Area Code 617
 433-7693
 Dr. Gerald T. Zwiren
 Atlanta, Georgia.

Dear Dr. Zwiren:
 I have your letter of the twenty third asking me to confirm or modify your story of the Halifax explosion and its effect on my personal selection of pediatric surgery as a speciality. As you expressed a desire for accuracy I fear I will have to make many alterations. In case you are interested I will give you a very short resume of the Halifax disaster and very personal connection with same. On December 6th 1917 there was a collision between two steamers in Halifax harbor, one heavily laden with T.N.T. The resulting explosion destroyed half the city flattening all the buildings of that section and blowing out most of the windows of the rest. The fatalities were very great as were the injuries. The mortality was no greater among children than adults. I was asked by Mr. Jackson at eight o'clock that evening if I would head a Red Cross relief expedition to go to Halifax. Mr. Jackson president of the Red Cross requested that I collect 30 volunteers, doctors, and sixty volunteers nurses and have them to start for Halifax by nine o'clock the next morning. Thanks to the cooperation of the telephone company by nine A.M. I had 29 doctors and 45 nurses ready to go to Halifax on December 7th. We took over a Catholic College which was still standing through windowless, and ran it as a hospital until Jan 14th 1918.

As far as the effect this experience had on my selection of a speciality I would say it was nil: From 1908 I had been on the visiting staff of the Childrens Hospital, the Infants, and the Boston City Hospital.

**Dr. Gerald T Zwiren
(Atlanta)
Letter to Ladd in 1963**



As far as the effect this experience had on my selection of a speciality I would say it was nil: From 1908 I had been on the visiting staff of the Childrens Hospital, the Infants, and the Boston City Hospital.

A pediatric surgeon from Atlanta, **Dr. Gerald T Zwiren** wrote Ladd and inquired about the fateful events. Ladd responded, *“As far as the effect this experience had on my selection of a specialty I would say it was nil: From 1908 I had been on the visiting staff of the Children’s Hospital, the Infants, and the Boston City Hospital.”* Despite this myth being dispelled, the events of Halifax most certainly had an effect on Ladd. He must have been touched by the injuries, the lack of infrastructure, and the need to educate others on how to treat children. He would become the Chief of Surgery at the Boston Children’s in 1927 and would go on to train others, securing his moniker as the “Father of Pediatric Surgery”. Nearly ¾ of all pediatric surgery program directors and 2/3 of pediatric surgeons in the US and Canada can trace their training lineage to Dr. William Ladd. You too can see whether your training lineage is linked to Ladd [HERE](#).

AAP SOSu Delivery of Surgical Care Committee Focuses on Operating Room Environmental Stewardship

Climate change is the greatest current threat to global public health. Children are particularly vulnerable to the health impacts of climate change including trauma from weather disasters, increased heat stress, worsened air quality, changing climate-sensitive infections, and growing food-insecurity. These changing exposures disproportionately affect the most marginalized populations. Undoubtedly, children and future generations will bear the greatest burden of the effects of climate change. As pediatric surgeons, mitigating the impacts of climate change aligns with our mission to save lifetimes. Perhaps ironically, the healthcare system is a significant source of the greenhouse gas emission that drive climate change.



Gwyneth Sullivan, MD

Within the hospital, operating rooms are major contributors to emissions through high waste generation and energy use. Despite growing awareness of the impact of healthcare on climate change, little was known regarding OR practices and surgeon readiness related to environmental stewardship.

Recognizing this gap, the **AAP SOSu Delivery of Surgical Care Committee (DSC)** conducted a survey of the American Pediatric Surgical Association (APSA) membership regarding current institutional climate-smart actions and pediatric surgeon perceptions of environmental stewardship efforts in the operating room. The survey found that despite high recognition of the importance of environmental stewardship among pediatric surgeons, less than 10% of surgeons were involved in initiatives at their institutions. While certain actions, such as using reusable positioning devices, were highly incorporated, high degrees of uncertainty existed regarding other practices that were directly under a surgeon's influence, such as reformulation of surgical kits. Thus, the study highlighted opportunities for improved education and support of pediatric surgeons interested in engaging in improved environmental stewardship of the operating room. The **DSC Committee** is using these findings in drafting a policy statement related to the environmental impact of the operating room. Further, in collaboration with the newly formed **Advocacy Sustainability Subcommittee** of the **AAP SOSu** and **APSA**, the study has informed development of a "Greening the OR" toolkit. The toolkit is available through the APSA Pediatric Surgery Library under PedSurg Resources – Health Policy and Advocacy Committee.

The article will be published in the *Journal of Pediatric Surgery* December issue. The study was led by general surgery resident **Gwyneth (Wyn) Sullivan** of Rush University under the mentorship of **Mehul Raval** of Ann & Robert H. Lurie Children's Hospital.

Sullivan GA, Reiter AJ, Smith C, Glick RD, Skarda DE, Le HD, Gow KW, Rich BS, Raval MV. Pediatric Surgeon Perceptions on Operating Room Environmental Stewardship and Current Institutional Climate-Smart Actions. *Journal of Pediatric Surgery*. 2023 Jun 27.

Have any Pediatric Surgeons won the Nobel Prize in Medicine?

The Nobel Prize is named after Swedish Inventor and industrialist **Alfred Bernhard Nobel** who made several important contributions to science, held 355 patents in his lifetime, and is best known for the invention of dynamite. As specified by Nobel's will, his estate was placed in a fund, the interest of which was distributed on an annual basis, "*to those who, during the preceding year, shall have conferred the greatest benefit on mankind*". The first Nobel Prize in Physiology or Medicine was awarded in 1901, and its receipt is widely regarded as one of the highest accolades in science.



The process of selecting winners starts almost a year and half prior to the annual announcement. In September, over 3000 personal confidential invitations are sent out to qualified nominators. Submission of names is due in February and these are then evaluated through the summer and fall. The Nobel Committee submits recommendations in September to the Nobel Assembly, consisting of 50 professors at the Karolinksa Institute. The group chooses the winners via a majority vote on the first Monday in October. The decision is final and without appeal. The laureates are informed immediately afterwards and the decision is then announced at the press conference. The awards are presented on **December 10th** annually in honor of the date of Nobel's death in 1896.

This year, the Nobel Prize in Physiology or Medicine will be awarded jointly to Katalin Karikó and Drew Weissman "for their discoveries concerning base modifications that enabled the development of effective mRNA vaccines against COVID-19". This made us wonder: have any pediatric surgeons won the Nobel Prize? The simple answer is no. But let's look at this a bit more in depth.

Since they have been awarded, there have been a total of 9 "surgeons" that have won Nobel prizes:

- ✦ **Emil Kocher** 1909 (thyroid surgery) – a general surgeon
- ✦ **Alexis Carrel** 1912 (anastomosis & transplantation) – a general surgeon
- ✦ **Frederick Banting** 1923 (discovery of insulin) – an orthopedic surgeon
- ✦ **Werner Forssman** 1956 (cardiac catheterization) – a urologic surgeon
- ✦ **Charles Huggins** 1966 (hormonal treatment of prostate cancer) – a urologic surgeon
- ✦ **Allvar Gullstrand** 1911 (work on dioptrics) – an ophthalmic surgeon
- ✦ **Robert Bárány** 1914 (inner ear disease) – the "father" of otoneurology
- ✦ **Walter Hess** 1949 (brain physiology) – an ophthalmic surgeon
- ✦ **Joseph Murray** 1990 (transplantation) – a plastic surgeon

Have any Pediatric Surgeons won the Nobel Prize in Medicine? cont'd

Two laureates have been inaccurately classified as surgeons, including **Alexander Fleming**, the discoverer of penicillin and **Antonio Egas Moniz**, who demonstrated the therapeutic value of frontal lobe leukotomy for some forms of psychoses. Fleming, while he did pass his surgical exams, never performed surgery. Moniz, who has been listed as a neurosurgeon, was actually a medical neurologist and had no surgical training. He employed the operative talents of a young neurosurgeon, Dr. Alemedia Lima ,to perform the brain tissue resections.

In 1901, the field of pediatric surgery emerged from its roots in general surgery to become its own distinct field. Many famous names come to mind for their clinical contributions, however, the Nobel tends to lean more on physiology or basic sciences with the exception of the very beginning of the last century. Perhaps the most likely pediatric surgeon to be considered was **Dr. Judah Folkman** for his pioneering work in the field of angiogenesis. While his name many have been “considered”, the statutes of the Nobel Foundation restrict disclosure of information about the nominations and selecting process for 50 years. Further, the Nobel may not be bestowed posthumously so with Folkman’s passing in 2008 at the age of 74, the possibility of his winning vanished.

Other names that come to mind include **Drs Robert Bartlett** for his invention of ECMO, **Patricia Donahoe** who purified recombinant human Mullerian Inhibiting Substance (rhMIS), **Michael Harrison** for his development of fetal surgery, and **Jay Vacanti** for his pioneering work on tissue engineering. As mentioned above, it is unknown whether any or all have been considered to date. However, if you know of a Nobel nominator, suggest these or any other names from our field and perhaps we can celebrate one of our own being bestowed this honor. If you have other names in mind, we welcome your suggestions to add their names in a future edition.



M Judah Folkman



Robert Bartlett



Patricia Donahoe



Michael Harrison



Jay Vacanti

Each of the listed pediatric surgeons also were bestowed the Ladd Medal:

1995 - M Judah Folkman

2003 - Robert Bartlett

2005 - Patricia Donahoe

2010 - Michael Harrison

2013 - Joseph Vacanti

Nominate for the William E. Ladd Medal and Arnold M. Salzberg Mentorship Awards

The **William E Ladd Medal** was established in 1954 and is bestowed at “infrequent intervals” for accomplishments of outstanding merit in Pediatric Surgery. The award honors Dr. William E. Ladd, often termed the father of Pediatric Surgery. Nominations originate from the members of the Section on Surgery and are submitted to the Executive Committee of the Section for consideration. The Executive Committee then chooses the recipient. This is the highest award of the American Academy of Pediatrics Section on Surgery and recognizes a lifetime of achievement in the field. If you have suggestions for a worthy recipient this year, please send a note and reason to sosu@aap.org.

Past Recipients: 1954 - Thomas Lanman, 1957 - Dennis Browne, 1957 - Herbert Coe, 1962 - Willis Potts, 1965 - Robert Gross, 1967 - Cameron Haight, 1969 - Orvar Swenson, 1972 - Mark Ravitch, 1974 - Wyland Leadbetter, 1976 - C Everett Koop, 1978 - David Waterston, 1979 - H William Clatworthy, 1980 - Clifford Benson, 1983 - W Hardy Hendren III, 1986 - Harvey Beardmore, 1988 - Stanley Dudrick, 1989 - Douglas Stephens, 1991 - Morio Kasai, 1993 - Thomas Starzl, 1995 - M Judah Folkman, 1996 - Marc Rowe, 1997 - Thomas Holder, 1998 - Judson Randolph, 1999 - Lester Martin, 2000 - J Alex Haller, 2001 - Peter Rickham, 2002 - Jay Grosfeld, 2003 - Robert Bartlett, 2004 - Daniel Hays, 2005 - Patricia Donahoe, 2006 - Eric Fonkalsrud, 2007 - James O’Neill, Jr., 2008 - Alberto Peña, 2009 - Kathryn Anderson, 2010 - Michael Harrison, 2011 - Keith Georgeson, 2012 - Lewis Spitz, 2013 - Joseph Vacanti, 2014 - Michael Gauderer, 2015 - Arnold Coran, 2016 - Moritz Ziegler, 2017 - Michael Klein, 2018 - Robert Shamberger, 2019 - Barbara Barlow, 2020 - Thomas Krummel, 2021 - Mary Fallat, 2022 - Donald Nuss, 2023 - Mary Brandt

The **Arnold M Salzberg Mentorship Award** was created in 1997 to recognize outstanding mentors in Pediatric Surgery. It is a tribute to Dr. Arnold M. Salzberg who was a mentor to many an aspiring pediatric surgeon. Recipients are those who stimulate entrants into the matching process, train and educate surgical residents, encourage scientific research, and accumulate a track record as a mentor. The nominations are solicited from the members of the Section on Surgery, and the honoree is chosen from those nominated by the Section members. Often, a group of mentees of one particular mentor will decide to nominate their mentor in the same year, causing one particular individual to “rise to the top” based on the foundation of support they have received. Letters of support from the mentees are submitted to the Section Manager and reviewed by the Executive Committee, with the Executive Committee having the final determination in the award. The honor is bestowed at the Section on Surgery each year. Please fill out the [Nomination Form](#) with letter by **February 16, 2024**.

Past Recipients: 1997 - Judson Randolph, 1998 - John Raffensperger, 1999 - Louise Schnauer, 2000 - Eric W. Fonkalsrud, 2001 - Robert J. Izant, Jr., 2002 - Dale G. Johnson, 2003 - W. Hardy Hendren, 2004 - Arvin Phillipart, 2005 - J. Laurence Hill, 2006 - Michael Harrison, 2007 - Arnold Coran, 2008 - R. Peter Altman, 2009 - Richard Andrassy, 2010 - Bradley Rodgers, 2011 - James O’Neill, Jr., 2012 - Jay L. Grosfeld, 2013 - James I. Talbert, 2014 - Donna A. Caniano, 2015 - Sigmund Ein, 2016 - Daniel Teitelbaum, 2017 - Charles J H Stolar, 2018 - Kevin Lally, 2019 - Keith M. Georgeson, 2020 - Richard R. Ricketts, 2021 - Henri R. Ford, 2022 - Craig Lillehei, 2023 - Geoffrey K Blair

Section on Surgery Call for Liaison Nominations

The **AAP Section on Surgery (SOSu)** Liaison Committee has initiated a call for nominations for several key positions that require surgical representation. Serving as an SOSu liaison to various AAP sections, councils and committees is an extremely important and rewarding endeavor that helps to advocate for the pediatric surgical membership and the community of patients that we serve. *Brief position summaries, including links to section web sites, are offered below for consideration..*

[Council on Children with Disabilities \(COCWD\)](#)

The SOSu Liaison will serve as the pediatric surgery representative (Unofficial Liaison) to COCWD in order support the mission and vision of the council, represent surgical interests, and provide specialty-related input and expertise. The AAP Council on Children with Disabilities (COCWD) is comprised of over 700 members—neurodevelopmental pediatricians, developmental and behavioral pediatricians, geneticists, neurologists, orthopedic surgeons, physical medical and rehabilitation pediatricians, and general pediatricians—who care for or have an interest in children and youth with disabilities and special health care needs. The COCWD is also the home of the Autism Subcommittee and is responsible for all autism initiatives undertaken via the Academy. [COCWD Vision](#): Optimal health, function, and development of children and youth with disabilities—in partnership with their families, providers, and communities—in all settings. [COCWD Mission](#): To develop clinical guidance for the optimal care of children and youth with disabilities and support implementation, educate pediatricians who care for children and youth with disabilities, provide expertise and advocacy on local and national issues related to children and youth with disabilities, and create collaborations with partner organizations and provide opportunities for COCWD members to actively engage in all the above.

[Committee on Hospital Care \(COHC\)](#)

The SOSu Liaison will serve as the pediatric surgery representative (Unofficial Liaison) to COCWD in order support the mission and vision of the committee, represent surgical interests, and provide specialty-related input and expertise. As an AAP interprofessional/interdisciplinary care team, the Committee on Hospital Care (COHC) raises, transforms, and improves the standard of care for children in the hospital in conjunction with the patient's caregivers and medical home. COHC aspires to transform the care of hospitalized children through collaboration between nursing staff, medical providers (primary care, specialists, etc.), home care agencies, paraprofessional staff (physical therapy, occupational therapy, phlebotomy, etc.) and the patients and families. Committee members are appointed to represent expertise in primary, subspecialty, and surgical pediatric care; child life; nursing; family; and administration.

All nominations (including self-nominations) should be sent to the Liaison Committee Chair [Dr. Marc Michalsky](#) or co-Chair [Dr. Kirk Reichard](#) **no later than Jan 8, 2024.**

All nominees should be AAP SOSu members in good standing and will be asked to provide a CV and brief letter of interest.

Requests for additional information should be addressed to Vivian Thorne (vthorne@aap.org).

AAP Section on Surgery Famous Figures: Clifford Dempster Benson (1903 - 1995)



Clifford Benson, MD, FAAP

Born in Iola, Wisconsin, Benson graduated from the University of Wisconsin at Madison in 1926 and Northwestern University Medical School in Chicago in 1929. He completed his internship and residency at Harper Hospital in Detroit. In 1934, Benson joined Dr. Grover C Penberthy, after whom the Chairmanship of Surgery at the Wayne State University School of Medicine in the practice of general and thoracic surgery is named. Although he maintained a large adult practice throughout his career, Benson made his mark during a 40-year career at the Children's Hospital of Michigan and served as Chief of Surgery for 10 years.

Benson established pediatric surgery as a recognized specialty in the region. He initiated one of the original 13 training programs in pediatric surgery. He was widely known for the development of the pyloric spreader. His most important contribution in the field was the original description of proximal resection with primary anastomosis for jejunal atresia. With Drs Mustard, Ravitch, Snyder, and Welch, Benson edited the first three editions of the multiple volume textbook *Pediatric Surgery*.

He served in the Navy during World War II. He was associate chief of surgery at Great Lakes Naval Hospital near Chicago from 1942-44 and at Pearl Harbor Area Hospital in Hawaii from 1944-46.

In 1961 he was awarded the Forstall medal by the British Association of Paediatric Surgery.

Benson served on the **AAP SOSu Executive Committee** from 1959 through 1965. He was awarded the **Ladd Medal** in 1980.

Reference

Clifford Dempster Benson (1903 – 1995). Detroit Free Press 28 April 1995

Clifford D Benson (1902-1995). J Pediatr Surg 30(10): 1405, 1995.

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A product of the AAP Section on Surgery Communications Committee; Publication date: December 2023

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