The Director’s Cut

Joseph Lister: The Single-Eyed Advocate for Antisepsis

What does Joseph Lister, a general surgeon born nearly 200 years ago, have to do with pediatric cardiology, a specialty that would not develop for over 100 years? Much! Lister’s impact in medicine was so great that the history of surgery can be divided into pre- and post-Lister eras.

When Lister became a surgeon in the 1850s, “as many as 80% of all operations were followed by hospital gangrene and almost one half of all patients died after a major operation.” Sir James Simpson, the inventor of chloroform anesthesia, commented: “The man laid upon the operating table in one of our surgical hospitals” was “exposed to more chances of death than the English soldier on the field of Waterloo.” Surgeons rarely washed their hands or instruments between patients and the development of pus post-operatively was considered a good sign—the body’s way of expelling dead tissue. Since the development of gangrene, sepsis and death were considered secondary to “bad air”, over which surgeons had little control, cleanliness was considered “finicky” or “affected” and there was no thought that these “germs” could be prevented from entering wounds, infection might be prevented. He learned of carbolic acid being used to destroy parasites in cattle and he began to use a carbolic acid solution to irrigate wounds and sterilize instruments, as well as his hands. The results were truly remarkable with minimal post-operative infection. In 1867, he published his work: “On the Antiseptic Principle in the Practice of Surgery” and the seeds of a revolution were sown.

Convincing the medical world to follow his antiseptic technique, however, took decades with battle lines drawn between the younger surgeons who accepted the merit of Lister’s methods and the expediency of the older “bad air” school. He worked as a surgeon at the Royal Infirmary and refused to accept the inevitability of post-operative wound infections and high mortality. He read of the work of Louis Pasteur who showed that fermentation and rotting occurred because of microorganisms, thus formulating the “germ theory of disease.” Lister postulated that microorganism might also explain the rampant post-operative wound infections and if these “germs” could be prevented from entering wounds, infection might be prevented. He learned of carbolic acid being used to destroy parasites in cattle and he began to use a carbolic acid solution to irrigate wounds and sterilize instruments, as well as his hands. The results were truly remarkable with minimal post-operative infection. In 1867, he published his work: “On the Antiseptic Principle in the Practice of Surgery” and the seeds of a revolution were sown.

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We’re Moving - 55 Madison Avenue Here We Come!

September will bring many changes to Goryeb’s pediatric sub-specialty practices. All the out patient clinics on the second floor of Goryeb Children’s Hospital are scheduled to be moved to the second floor of 55 Madison Avenue by the end of September. The administrative offices will also be at this site, but all phone numbers will remain the same. There is free parking in the back of the building.

Pediatric cardiology moved its administrative offices to 55 Madison Avenue in June, making us the pioneers in the building. We hope this change of site will be a smooth one for you.
Nurses’ Notes

Exercise safety

Lynn Campbell, MSN, APN

- Exercise can be broken up into multiple sessions, adding up to the 60 minutes. Don’t forget to include PE classes.
- Start with exercise that meets your ability and build up slowly to gain endurance.
- Recommendations for children and teens are to get moving for at least 60 minutes/day on most days. Check with your pediatric cardiologist for any activity restrictions.
- Always stretch prior to activity to avoid strain injuries.
- Stay hydrated with non-sugary, electrolyte-balanced beverages.
- Try to avoid exercising during the heat of the midday.
- Exercise with a buddy – it’s more fun and it’s safer.
- Eat a healthy diet to balance your calories burned with calories consumed.
- Keep track of your activities and celebrate your progress in some special way.

Staff Highlight

Colleen Henderson, RCS, RDCS, PE, FE

I have the proud distinction to be the echo technologist who has worked in pediatric cardiology the longest since I started in 1993. At that time, Dr. Donnelly and Dr. Kaufman worked part-time and we only had one room to do the testing. As the only echo tech, those were long work days. If a “blue baby” was born, I would have to leave the office visits, run up to the NICU to do the echo, and then come back to finish the office visit echoes.

Every year the program added a new person or two. The next staff person to join the program was Wanda Kaminiski, RN, a blast from the past for those families who have been with us “forever”. And then Alexis was added as a second echo tech and the program has just exploded from there.

Fast forward to 2017. We now have six physicians and nine echo technologists working in four echo rooms and one fetal room. I’m the lead echo technologist responsible for the day-to-day clinical operation of pediatric cardiology, as well as overseeing continuing education and the echo lab accreditation. I also teach in the Morristown Medical Center School of Cardiovascular Technology.

Having spent 23 years in pediatric cardiology I have seen many babies, including my own, grow up. And now they are having babies, including my own. I have six wonderful grandchildren, ranging from 11 years old to 22 months old.

When I’m not at work, I’m usually doing things with my family. We especially enjoy water activities, such as swimming, tubing, kayaking and paddle boarding. I like new experiences and trying new things which is probably why I enjoy pediatric cardiology. Every day is different and every day presents a new challenge.

KIDFIT Program at Goryeb Children’s Hospital

Marianna Nicolletta-Gentile, DO

Today’s children are less active and eating more unhealthy foods than ever before. These habits have led to an alarming increase in childhood obesity and obesity-related diseases, such as diabetes, heart disease and psychosocial challenges.

For patients and families looking for help with living a healthier lifestyle, Goryeb Children’s Hospital offers two unique programs, KIDFIT and KIDFIT Med Programs. The team consists of an exercise physiologist, physicians (Drs. Woo and Nicoletta-Gentile), nutritionist, nurse and social worker.

The KIDFIT program features two separate groups—one for children ages 5-11 and one for teens ages 12-18. The team will prescribe a treatment plan that is tailored to individual needs, including exercise recommendations, nutrition planning, sleep assessments and counseling.

The KIDFIT Med program is designed for children ages 5-18 who have a body mass index (BMI) greater than the 95th percentile for age and associated health problems related to weight. It is a six month medically supervised weight loss program, and our team will create an individualized treatment plan for each patient to enable successful and long term weight loss.

Unique to both programs is a body composition assessment using the BodPod system. This is an egg-shaped chamber that accurately measures body fat, muscle mass and total body weight.

To schedule an intake appointment, please call 973-971-8824. At this appointment, the KIDFIT team will assess the exact needs of the patient and family and enroll them in the appropriate KIDFIT program. For more program information, please visit: [http://www.atlantichealth.org/goryeb/our-services/kid-fit-health-management.html](http://www.atlantichealth.org/goryeb/our-services/kid-fit-health-management.html)
September is National Childhood Obesity Awareness Month

One in 3 children in the U.S. are overweight or obese. Childhood obesity puts kids at risk for health problems that were once seen only in adults, like type 2 diabetes, high blood pressure and heart disease.

The good news is that childhood obesity can be prevented. In honor of National Childhood Obesity Awareness Month, we encourage families to make small health changes together.

- When watching TV, do exercises during commercials, such as jumping jacks or leg lifts
- Go on a family walk around the neighborhood after dinner
- Put on music and dance together for fun
- Use luncheon plates instead of dinner plates to put portion sizes into a realistic perspective
- Keep fresh fruit within easy reach for snacks
- Avoid eating within two hours of going to sleep
- Try buying food with no more than 5 ingredients for healthier choices
- Reward children with attention and praise, not food

Taking small steps as a family can help your child stay at a healthy weight and you can be a positive role model.

Children’s Cardiomyopathy Awareness Month

September is an opportunity for the heart community to raise awareness about cardiac issues affecting children of all ages. Cardiomyopathy is a chronic disease of the heart muscle that can present in different forms, such as hypertrophic, dilated or restrictive. The heart is structurally normal, but it doesn’t function optimally because the muscle fibers are affected. Cardiomyopathy can be inherited or acquired. It occurs in approximately 12 children out of every million with the majority diagnosed as infants under 12 months of age. On the other hand, cardiomyopathy is the number one cause of sudden cardiac arrest in children.

In general, the treatment involves medications or less frequently, it can involve surgery or the placement of an ICD (implantable cardioverter defibrillator). Children with diagnosed cardiomyopathy may have some lifestyle restrictions and they require regular monitoring by a pediatric cardiologist.

The Children’s Cardiomyopathy Foundation is a local resource providing information, peer support, fundraising and advocacy for families. The website is childrenscardiomyopathy.org and they can be reached at PO Box 547, Tenafly, NJ 07670 or (866) 808-2873.

Emily Wrzos, a 2017 graduate of Roxbury High School, is the happy recipient of a $3,000 scholarship from the Congenital Heart Defect Coalition. She will attend Rutgers University in the fall to study genetics. Dr. Kaufman and the pediatric cardiology team are very proud of her.

Emily underwent two open heart surgeries by the age of seven and her scholarship essay reflects her approach to life with a congenital heart defect. She writes: “My heart condition has taught me to welcome everything that comes in and out of my life. I have learned to love endlessly, smile often, take risks, chase your happiness wherever it may lead you. So when people always tell me that they’re sorry for what happened to me, I smile and tell them confidently that I wouldn’t have it any other way. My childhood taught me to make the most of every minute and to embrace myself, quirks and all.”

Family Connection

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**SOCIAL WORK CORNER  MARGARET MICCHELLI, LCSW**

*New* CHD Discussion Group

A discussion group for families of a child with a CHD, as well as families with a prenatal diagnosis of a CHD, is held every month. It’s an opportunity to meet others who have similar concerns and questions. What should I expect at different developmental stages? How do I talk with my other children about the CHD? What will my child need in the future?

The discussion will be facilitated by a pediatric cardiology nurse, pediatric cardiology social worker and a CHD parent who is on the board of the CHD Coalition. Please keep the first Wednesday of each month in mind. Next meeting will be October 4, 2017 in the first floor conference room at 55 Madison Avenue. Please call Margaret Micchelli, LCSW for more information at (973) 971-8689.

“Creative Expressions” Healing Arts Calendar Art Contest

For the 5th year in a row, Goryeb Children’s Hospital is producing a calendar of art work by youth between 4 and 18 years old who have a chronic condition or chronic pain. The theme this year is: What Makes You, “You”? It’s a great way to express yourself and you don’t have to be an accomplished artist to enter the contest. Art work can be in any medium and up to 11” x 14” in size. All art work is due by October 1, 2017. Please call Stacy Alper, LCSW for more information at (973) 971-5785.

Update On Our Pediatric Cardiology Nurses

Megan McCombs (Dickinson), BSN, RN, one of our part-time nurses, recently became board certified in pediatric nursing. By passing a rigorous, comprehensive exam she has demonstrated a specialty knowledge in this field beyond the RN licensure requirements. Congratulations, Megan! And we welcome back Lynn Campbell, MSN, APN who obtained her masters degree in nursing and advanced practice nursing license since she was last with us. We’re glad to have her on board again with her wealth of pediatric cardiology expertise.

**THE DIRECTOR’S CUT (continued)**

rienced senior surgeons who refused to believe that unseen germs, moreover, germs carried by the surgeons themselves could be the means of initiating wound infections and the dire consequences. The greatest resistance came from the elite, revered surgeons in the United States. It would take years and the death of an American president to accelerate the incorporation of Lister’s antiseptic methods into American surgical practice.

In 1881, after only 4 months in office, President James Garfield was shot by Charles Guiteau, leaving 2 bullets lodged in his back. Garfield’s doctors, including many leading surgeons of the day, probed the wound track repeatedly with unwashed hands and instruments. After suffering for 2 and ½ months and losing 100 lbs., President Garfield died. His autopsy revealed a body ravaged by infection leading the crazed Guiteau to state at his murder trial that although he had shot the President, it was his surgeons who killed him. Garfield’s death proved to be a turning point in American medicine with reforms in disease prevention and the more widespread adoption of Lister’s antiseptic methods in American hospitals.

Through his adamant advocacy for antisepsis, Joseph Lister saved countless surgical patients and justly earned the title of “father of modern surgery.” Despite early resistance to his methods, the medical world gradually accepted the value of his work. In his lifetime, he received many honors and was knighted by Queen Victoria. Perhaps the most meaningful tribute, however, came from an American Ambassador to England who upon meeting Lister greeted him with “My lord, it is not a Profession, it is not a Nation, it is Humanity itself which, with uncovered head, salutes you.” Throughout his life, Lister remained a humble man who never forgot his guiding principle: “I trust I may be enabled in the treatment of patients always to act with a single eye to their good.” – a guiding aspiration for all of us in healthcare.

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On the Antiseptic Principle of the Practice of Surgery

Joseph Lister