

Weighing the Options

Children's surgeons play a leading role in evaluating whether surgery is the best treatment option.



DR. JOHN WALDHAUSEN IS A SURGEON, BUT BEFORE HE PICKS UP HIS SCALPEL, HE PULLS OUT A SCALE. BALANCING RISKS AND BENEFITS IS THE FIRST STEP HE AND FELLOW CHILDREN'S SURGEONS TAKE WHEN PATIENTS AND FAMILIES SEEK THEIR HELP.

With years of training and experience in pediatric surgery, Children's surgeons are able to assess the alternatives and choose the optimal treatment — even if that means setting aside their scalpels and referring patients to other specialists.

“Our job is to weigh all of the treatment options and decide whether surgery is really the best choice,” says Waldhausen, who leads the general and thoracic surgery team at Children's. “If we can solve the problem without surgery, we need to consider that because there are always risks from any type of operation.”

In many instances, surgery remains the best — and sometimes only — answer. As a pediatric hospital, Children's is designed and equipped from the ground up to serve pediatric patients and their families. Everyone involved in the treatment process — from appointment schedulers to nurses to anesthesiologists — is specially trained to work with children ranging in age from infancy through age 21. Everyone is also highly experienced. Children's surgical teams perform more than 12,000 pediatric operations a year — double the number of any other medical center in the region.

All of that adds up to greater expertise in the special needs of children. Growing bodies are different than adult bodies, and childhood diseases are not the same as adult diseases. Even the way kids react to surgery — from anesthesia to IV fluids — is different than adults.

“There's a smaller margin for error with children, and they can get in trouble much more quickly than adults,” Waldhausen says. “People who are trained in pediatrics and work with children all the time understand that and know right away when something may be wrong.”

FROM TOP:

Dr. John Waldhausen leads Children's General and Thoracic Surgery team. More than 40% of children seen by the team are referred for non-surgical treatment.

Drs. Adam Goldin and Stephanie Acierno in the operating theater.



Elias Metallo spit up all day long before Dr. Adam Goldin, right, operated to ease his gastroesophageal reflux. Goldin developed a unique method to diagnose GERD and determine when surgery is the best option.

More choices

Children's general and thoracic surgery team sees children with conditions ranging from appendicitis to cancer every day. While surgery often is the best choice, more than 40% of the children referred go home without needing an operation.

That statistic reflects both the quality of the general/thoracic surgery team — which has the expertise to recognize when surgery may not be necessary — and the steady advancement of nonsurgical options.

“The way we approach the decision to operate has changed significantly,” Waldhausen says. “With more options, we can choose the one that is most appropriate for each situation, whether it's open surgery, minimally invasive surgery or a nonoperative approach.”

Treatment of chest wall deformities such as pectus carinatum, or pigeon chest, is a good example. Characterized by protruding ribs and sternum, pectus carinatum can be painful. “Every time somebody gives the child a hug, it hurts,” Waldhausen says.

In the past, surgeons corrected pectus carinatum by removing the abnormal cartilages in the chest that cause the problem. Today, children can be treated by wearing a specially made brace, enabling them to avoid the long recovery period and large scar associated with an operation. The brace is easily hidden under the clothing and does not inhibit the child from attending school or playing.

Reducing uncertainty

Gastroesophageal reflux disease (GERD) is another condition that may lead to fewer surgeries in the future — with physicians at Children's playing a leading role.

GERD is caused by abnormalities in the stomach and esophagus that allow food and stomach acid back up the esophagus. Among other symptoms, children with GERD spit up frequently, which leads to poor nutrition, lack of normal development and aspiration pneumonia — the result of inhaling food particles into the lungs.

Yet some spitting up is normal. And GERD's symptoms can be caused by other conditions. The upshot? A lot of uncertainty about how to diagnose and treat the disease.

“Right now, there's no standard way of diagnosing GERD and no universal criteria for deciding when surgery is the best way to fix the problem,” says Children's surgeon Adam Goldin. “The concern is that kids are being operated on who may not actually have the disease and thus won't benefit from the operation.”

Tracking outcomes

While caring for GERD patients such as Elias Metallo, Goldin developed a unique algorithm to diagnose GERD and determine if surgery is the best option. Patients who come to Children's are now evaluated using Goldin's model, and he is tracking their outcomes to analyze how well the system works.

Before undergoing surgery in December, Elias spit up “all day long,” says his mom Shelly Sitler-Metallo of Ballard. “He was a mess, we were a mess, and we had to take numerous changes of clothing with us whenever we went out.” After his surgery, Elias spit up only once in three months. “It's a real blessing,” says his mom.

Such improvements to the quality of a family's life are among the outcomes Goldin considers when discussing the surgery as a treatment option with families.

“There are a lot of what-ifs with surgery, so you feel guilty thinking about yourself when you're deciding whether your child needs an operation,” says Elias' mom, who is a nurse in the University of Washington's Neonatal Intensive Care Unit. “We appreciated the way Dr. Goldin talked about what the operation would mean for the whole family.”

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