

# Q&A

with Dr. Dennis W. Vane, Surgeon-in-Chief

Dennis W. Vane, M.D., M.B.A., is surgeon-in-chief of SSM Cardinal Glennon Children's Medical Center and chief of the division of pediatric surgery at Saint Louis University School of Medicine. He is the inaugural holder of the J. Eugene Lewis Jr., M.D., Chair in Pediatric Surgery.

**Q Dr. Vane, you arrived at Glennon last year, a few months after the opening of the new 10-room surgical suite. What have the new operating rooms enabled you to do?**

**A** The fact that the ORs and our equipment are really state of the art allows us to do pretty much any procedure that is being done anywhere in the country. The question then becomes, "Do we have the surgeons to do those procedures?" That is what I have worked on, and the surgeons who I've hired are leaders in the field.

Glennon is now a state-of-the-art surgical facility, not just in pediatric general surgery but also in the other surgical specialties. We do state-of-the-art surgery in ENT, neurosurgery, urologic anomalies, craniofacial anomalies and cardiothoracic defects. We've expanded the program to do fetal surgery, which is only done in a handful of institutions in the world. Things we're doing here are rarely done elsewhere, except to the west in San Francisco and to the east in Cincinnati, Philadelphia and Boston. Then there is us. Glennon is the clinical leader in this area of the country.

**Q How has Glennon's surgical staff grown?**

**A** We have four people in pediatric surgery, two in urology, two in plastic surgery. We are recruiting two new neurosurgeons who will be able to do fetal



interventions. ENT has recently expanded – I think they have four surgeons. Orthopedics is expanding as well. They have four people who work here fairly regularly.

I am still looking for other people to join the surgery staff. The number of cases we are doing has dramatically increased.

**Q What are the new surgical procedures that have been introduced at Glennon?**

**A** We have the expertise to take care of a lot of pulmonary anomalies that the support systems were not able to support in the past. We have reinstated ECMO (extracorporeal membrane oxygenation) and are pushing

to the outer limits of what has been done before. ECMO functions in place of a child's lungs for a period of time while they heal or while we do a surgical intervention. We translated that into the neonatal period so we can take a baby with significant airway problems, deliver the baby here at Glennon and then put the baby immediately on this lung bypass machine until we can straighten out the baby's issues.

Everybody is pushing into minimally-invasive surgery. The people we have here are trained specifically for advanced laparoscopic and minimally-invasive procedures, so we can offer anything that is being done anywhere. Some of the things we do here are single-port procedures – that is the ultimate in minimal invasiveness. When laparoscopic surgery started there were a few small incisions. Now there is one tiny incision through the belly button. Everything is done through that small incision. Not every child can have that procedure -- there are still some kids who come out with big incisions because they have really big problems. And, of course, we have come to fetal surgery. Sometimes we can intervene even before the child is born.

**Q What can be done at the fetal stage now?**

**A** There are procedures like releasing amniotic bands, which cause losses of hands and arms and legs and are very deforming. That is fairly straightforward. We can intervene in what is called twin-to-twin transfusion, wherein one twin is the donor for blood in the circulation and the other twin is the recipient. One gets too much circulation and the other gets too little and both are at risk for dying. We can divide the blood vessels that cross from twin to twin and protect both twins. It is a high-risk procedure, but usually both twins will die without it, so it is an attempt to save both twins.

We are working on interventions for spina bifida in the fetal process. There is a National Institutes of Health study going on for that -- as soon as it closes we want to do that procedure here.

While we are expanding the area of fetal surgery and there are procedures that appear to be very beneficial for fetuses, there are others that have historically not been shown to be beneficial. One of Dr. Ed Yang's specific interests is the diaphragmatic hernia, a condition that can be life-threatening because it compromises the development and functioning of the baby's lungs. The problem with the diaphragmatic hernia is that some kids do very well after they are born and other kids don't, so the issue has been

figuring out which ones are not going to do well so you can decide who needs surgery. I think we have that data now.

In the future there will be continued expansion into minimally-invasive surgery. Whether or not that will translate into robotic surgery, I can't tell you. But we are positioning ourselves to be able to do that if that is where things are going. Looking at things analytically has been one of our strengths. At Cardinal Glennon we are not doing a lot of bench research or basic science research, but the research we're doing has much more clinical impact on patients and their families.

**Q At the investiture ceremony for the Lewis Chair, you cited the mission orientation of Glennon and Saint Louis University among your reasons for coming here. How does that mission affect your work?**

**A** Everybody's job here is to give families the best possible experience that they can have. That is pervasive. It makes people walking out of here say, "Wow, I not only had state-of-the-art care but I feel good about it! I had the best possible experience that I possibly could have given circumstances that were difficult."

We offer a coordinated approach to care here. When a diagnosis has been made, whether it is for cardiac anomaly or urological anomaly or general surgical anomaly, the parents come to us and at one visit can talk about what interventions are available. They can sit down with the cardiac surgeon, the cardiologist, the urologist and the general surgeons and have a complete understanding of what is going to happen with their baby when it is born.

The fact that we have private rooms in our neonatal intensive care unit allows the parents to stay in the room with the baby. That really assists in caring for that child and allows us to preserve contact with the mom. When a baby comes here, it is devastating for the parents. No question about that. We can bring some comfort to families and say, "This is serious but it is not life-threatening or limb-threatening. The chances are this baby is going to be perfectly fine. He'll have a scar on his bellybutton, but he will play football."

We can help people get through some difficult times. Any time a child has surgery it is incredibly stressful for the parents. My son had surgery – it was stressful for me. I know all about it.



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