

## Alexian Brothers Health System, Arlington Heights, IL

### Genesis Gets a New Beginning

From the time her newborn girl, Genesis, was one month old, Esther Hernandez knew something was wrong. She noticed the bones on the baby's head weren't forming correctly, and her pediatrician agreed. X-rays showed Genesis had craniosynostosis, a birth defect that causes one or more sutures on a baby's head to close prematurely, before the brain is fully formed. It is sometimes characterized by a raised hard ridge along the affected suture. The cause of this condition is unknown. "When you're born, the skull is very flexible and forms in several plates," says pediatric neurosurgeon Bryan Bertoglio, M.D. The junction between these plates is called a suture. As the brain grows, the sutures spread apart. Normally, these sutures don't close until a child is two or three years old. When sutures close too early, the baby's head shape is abnormal.

Genesis had sagittal synostosis, the most common type of craniosynostosis, which affects the suture at the top of the head and forces the head to grow long and narrow instead of wide. The primary treatment for craniosynostosis is surgery to relieve pressure on the brain and make room for the brain to grow normally. "When I found out my baby needed surgery I was extremely sad," says Esther. But she knew she had no choice.

She was referred to Dr. Bertoglio for surgery. Traditional surgery for this condition involves making a large incision, removing part of the skull and recreating the suture, according to Dr. Bertoglio. "The main concern with traditional approaches is there is more blood loss and swelling," he says. "Patients usually need a blood transfusion." Because of that, surgery is not normally done until the infant is eight to ten months old.

In Genesis' case, Dr. Bertoglio opted to do a newer, less invasive endoscopic procedure at St. Alexius Medical Center when she was four months old because of her age and the type of craniosynostosis she had. "I was so grateful he could do this type of surgery," says Esther. During the procedure, Dr. Bertoglio inserted a lighted tube — called an endoscope — into the skull through small incisions he made in the scalp and opened the affected suture. Endoscopic surgery typically takes about an hour, causes less swelling and blood loss than traditional surgery and usually requires a one-night hospital stay.

The only drawback with endoscopic surgery, according to Dr. Bertoglio, is that it requires the infant to wear a custom-made lightweight cranial molding helmet for several months to ensure normal head shape. The helmet is made by a private company, and the cost is not covered by insurance. Unfortunately, Genesis' family did not have the resources to buy the helmet, so Dr. Bertoglio approached the Alexian Brothers Foundation for assistance. "They generously agreed to pay for it," says Dr. Bertoglio.

Genesis got her helmet shortly after surgery and is doing well. "Dr. Bertoglio is the greatest," says Esther, who also has three sons. "We are very thankful to him, the Foundation and everyone at Alexian Brothers for what they did for Genesis and our family. They are the best. We couldn't ask for anything more."

