

TODAY'S WEATHER



HIGH: 57  
LOW: 33

It will be mostly sunny.

# THE GAZETTE



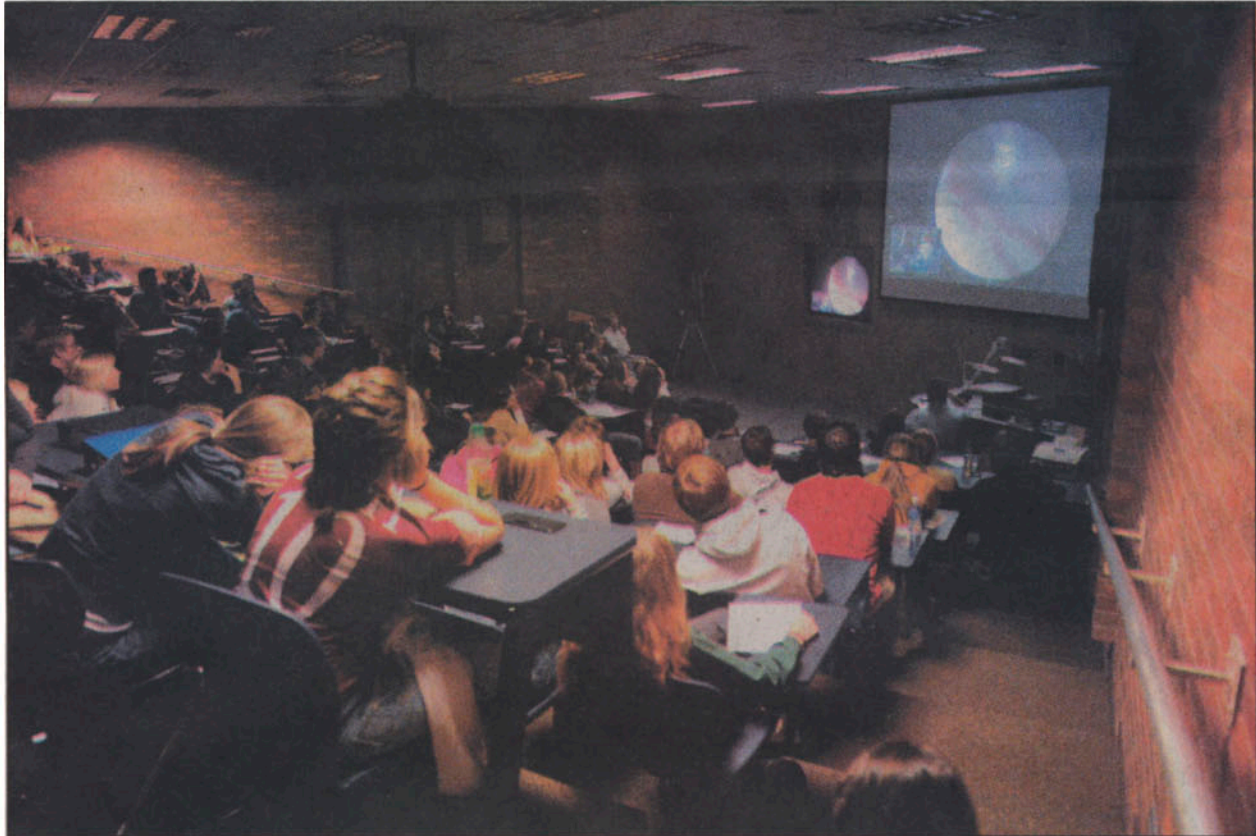
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Staff photo by RAMI DAUD

From Medina High School's distance learning lab, students watch Dr. Mark Luciano perform neurosurgery Thursday morning at the Cleveland Clinic.

# Inside the operating room

Through a live broadcast, Medina High students in psychology class watch Cleveland Clinic surgeon work on youngster's brain

By CASSANDRA SHOFAR  
Staff Writer

MEDINA — With precision and utmost care, neurosurgeon Mark Luciano made a small incision in the head of a 21-month-old boy to irrigate fluid on his brain Thursday morning.

Watching, via live broadcast, were 104 students at Medina High School.

As part of a high school AP psychology class, Luciano, director of pediatric neurosurgery at the Cleveland Clinic, performed an operation while the students viewed the procedure on a screen in the school's distance learning lab.

Once the approximately two-hour surgery was over, Luciano

answered questions from the students, which were relayed to him through microphones scattered throughout the room.

"This is my first time seeing one of these surgeries," said junior Adam Miller. "I like that we get to communicate with the doctor and not just watch some video."

Luciano took every question and gave an answer in layman's terms, explaining in basic language the complexity of the brain and of hydrocephalus, which was the infant's condition.

Hydrocephalus is an accumulation of serous fluid within the cranium, especially in infancy, due to obstruction of the movement of cerebrospinal fluid, often causing great enlargement of the head and water on the brain.

"The (21-month-old) suffered a stroke before birth. As a result the right side of his frontal lobe didn't fully develop, and the area filled with cerebrospinal fluid," said AP psychology teacher

Regis McGinty. "As a result of the stroke, a birth defect prevented the fluid from circulating in the brain, and was causing swelling.

He added: "Using endoscopic surgery, which is minimally invasive, Dr. Luciano punched a hole through the brain's membrane to allow the fluid to circulate. The endoscope is about 4 millimeters in diameter."

Junior Sam Legenza has had two appointments with Luciano for a cyst on the back of his brain due to two previous concussions, and though he doesn't have to have surgery at present, he said he may have to endure a similar procedure in the future.

Legenza said he could relate to the surgical procedure performed Thursday because of his condition and was intrigued to see with his own eyes how it works.

"Seeing it was kind of cool. They just made holes for the fluid to absorb," he explained.

# Surgery

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Having just covered the neuroscience chapter of the class, McGinty had already gone over a lot of the information demonstrated during the surgery and question-and-answer session with his students beforehand.

However, he said, seeing the real thing in action is a far better learning experience for the students than just talking about it in class.

"You can't beat a real-life experience," he said. "Psychology is everywhere around us."

McGinty said the students were looking forward to this event for weeks and he thought everything went smoothly.

The idea for the surgery was inspired by a student of McGinty's, who had interned at the Cleveland Clinic over the summer.

Senior Katie Kerns, who had seen a couple of live surgeries while doing her internship, thought it would be a good learning opportunity for her fellow classmates.

"It was nice that (Luciano) could relate to us on a personal level ... give explanations in layman's terms and was willing to answer questions for an hour" she said. "He was really nice and explained things really well."

McGinty said the students have also sent the 21-month-old boy a bouquet of balloons, and are writing letters of appreciation to Luciano, the patient and his family.

While this is the first time McGinty has ever done anything like this for his class, it isn't the first time live surgery has been viewed via the distance learning lab.

A live heart operation was viewed in the lab earlier this year for a biology class, said Jeanne Hurt, communications coordinator

for the school district.

"These surgeries are broadcast into the classroom through a partnership with the Cleveland Clinic's Office of Civic Education Initiatives," Hurt said in an e-mail. "In partnership with area schools, local businesses and fellow nonprofit organizations, the Office of Civic Education creates innovative programs designed to enhance children's education in the areas of math, science, health and wellness, arts and innovations."

Hurt said the teachers and students prepared ahead of time for the surgical broadcast with a teacher's guide containing pre-surgery and post-surgery lessons and discussions.

She added: "The lessons prepare students to view the surgeries and include ideas to extend the learning into other curricular areas."

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