

# Surgeons Return to Guatemala to Continue Ear Reconstructions

By Joelle Klein

Children's Hospital Colorado (CHC), in conjunction with the Center for Global Health at the University of Colorado, last month sent a team of about 20 medical professionals to perform reconstructive ear surgery on local indigent children at the Moore Center for Pediatric Surgery in Guatemala City.



*Fred Deleyiannis, MD, professor of surgery at University of Colorado Hospital and Children's Hospital Colorado, has helped children in Guatemala for the last 13 years.*

It's the third consecutive year a team has made the mission of mercy. The first year of the trip, providers performed a variety of ear, nose and throat surgeries. For the last two years the medical team, which included plastic surgeons, pediatric surgeons, operating room and post-anesthesia care unit nurses, and pediatric anesthesiologists, focused specifically on microtia repair: reconstructing ears for children born without them.

What makes these trips unique is the extent of continuous follow-up care the physicians from so far away are able to conduct. For starters,

the surgeons each year have returned to the same facility, and the patients routinely return for annual care with the surgeons who treated them. In between visits, moreover, Children's Colorado physicians follow their patients post-operatively through photos, emails and calls from the medical team in Guatemala.

**Making third first.** The Moore Center, run by the [Shalom Foundation](#), is a first-world surgical center in the middle of a third-world country, and probably the best surgical facility for children in Guatemala City, said Fred Deleyiannis, MD, professor of surgery at University of Colorado Hospital and Children's Colorado. Deleyiannis led the surgical team who made the trip to Guatemala the last two years.

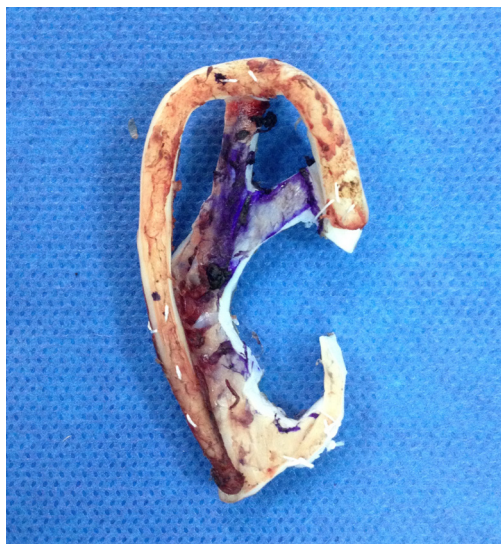


*A Guatemalan child getting ready for microtia repair surgery.*

"It's difficult to do long-term follow-up in any third-world situation or environment because often the facilities don't have an established relationship with a university or medical center," said Deleyiannis. "Because the [Moore] facility is so well established and because we have doctors that we are in touch with continually, we're able to have follow-up that is pretty reliable."

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Patients are preselected and screened by the doctors and medical staff in Guatemala throughout the year. The Children's Colorado team meets with the pool of selected patients on the first day of the trip to determine if they are good candidates for surgery. Patients who are too sick or too young (under seven) must be excluded.



*A child's ribs carved into the shape of an ear.*

Ear reconstruction typically involves three or four surgeries, with the first one being the most extensive, Deleyiannis explained.

**A rib for an ear.** How to reconstruct an ear? Similar to the Bible story of creating Eve from Adam, specialists use a rib, or rather a number of them.

"During the first surgery we begin to fabricate an ear by harvesting a number of ribs and carving them into the shape of an ear," said Deleyiannis. Clinicians then place the sculpted rib in the position of the ear and cover it with nearby skin. With each subsequent surgery they add more detail and projection to the ear.

This year the team performed five first-phase surgeries and five second- or third-phase surgeries on patients ranging in age from seven to eighteen. A plastic surgeon from Guatemala City helps in the OR and provides postoperative follow-up and care.

"Seeing the children from last year coming back for the second stage and seeing the change in the outlook, and how thankful they are for our continued commitment for taking care of them was particularly memorable," said Deleyiannis of this year's trip.

**Only a start.** Microtia repair, explained, addresses just the aesthetic part of the missing ear. It does not address the inner and middle ear abnormalities that usually accompany microtia and cause hearing loss.

But the external repair is more than skin deep, Deleyiannis maintained. The stigma attached to the deformity can be harsh and damaging to a child's self-worth.

"Microtia repair is to help with appearance and psychosocial well-being," Deleyiannis said.

Deleyiannis has a long history of helping the children of Guatemala. He's traveled there every year for the last 13 years, 11 of them with [Children of the Americas](#), a non-profit organization dedicated to providing medical and surgical services to indigent children and their families in rural Guatemala, and the last two with Children's Colorado.

Why Guatemala? "I think of it as kind of a responsibility to provide services to people that don't have care," he said. "And I have the training to provide a service that can help a lot of people."



*The first of several surgeries to reconstruct an ear on a child born without one.*

Deleyiannis credits Children's Colorado, which along with University of Colorado Hospital, has long lent support to international work.

"Children's Hospital is one the rare institutions that actually provides the clinical support, nursing staff, and the administrative support to allow [this kind of trip] to happen. They understand that part of their mission is to provide international help."

Deleyiannis plans to go back to continue to provide care for those in need next year, and every year after that.