

# Helping children smile

Cleft lips and palates are common birth defects – but surgery works well, and patients can go on to live normal lives

## ► The specialist: Dr. Peter J. Taub on cleft lip and palate

As the co-director of the Cleft and Craniofacial Surgery Program at Mount Sinai, Taub helps children and adults deal with deformities of the head and neck.

## ► Who's at risk

One of the world's more common birth defects, clefting of the lip and palate is a split or opening in the face that can extend from outside the lip, across the bottom of the nose and into the mouth along the palate.

"Clefts can be genetic, meaning they are passed through families, or sporadic, meaning they simply appear without a history of other family members affected," says Taub. Clefts of the palate alone have different characteristics than clefts of the lip (with or without involvement of the palate). For one, the former are more common in female patients, and second, they are more commonly associated with other congenital anomalies.

"When you see a cleft, it's a good idea to examine the patient very carefully for other findings," says Taub.

In most cases, the parents' behavior during pregnancy did not cause the cleft. However, doctors have identified a few potential risk factors: a deficiency of folic acid, a history of smoking by the mother or a history of alcohol abuse. Some ethnic groups are at higher risk than others. "Clefts are generally more common in Hispanic and Asian populations," says Taub. "They're less common in African-Americans, with Caucasians in the middle."

Clefts of the lip and/or palate aren't just an esthetic problem. "With newborn patients, the two major early concerns are breathing and feeding," says Taub. "Sometimes, a cleft involving the palate can be associated with an exceptionally small jaw, causing issues with breathing and swallowing."

## ► Signs and symptoms

"In many instances, the deformity is obvious," says Taub. "The cleft appears as a split between two portions of the lip, often just off the midline, with one side larger than the other." Other times, a thorough inspection of the roof of the mouth is critical in making the diagnosis.

"At Mount Sinai, we see many varieties of facial clefting that may involve only a portion of either the lip, the palate, or both," says Taub.

A minority of cases are more difficult to spot and can go undiagnosed for years. "A submucous cleft palate involves



Surgery is done in carefully timed stages, says Dr. Peter J. Taub. Photo by James Monroe Adams 4th

only the muscles within the roof of the mouth, and the lining is closed," says Taub. "If you think of the palate as a baloney sandwich, then the bread is fine but the baloney is separated down the middle: Everything looks okay when you look inside because the covering over the muscles is intact, but the important part, the muscles underneath, are clefted."

Children with a submucous cleft often have speech problems because the muscle that normally seals off the nose and mouth during speech functions poorly. "The result is escape of air through the nose during speech that presents with a very nasal resonance," says Taub. Another warning sign is that the child is not able to blow up a balloon or blow out a candle. "They can't seal off the nose and mouth — so if they try to build up air in the cheeks, it goes up and out of the nose," says Taub.

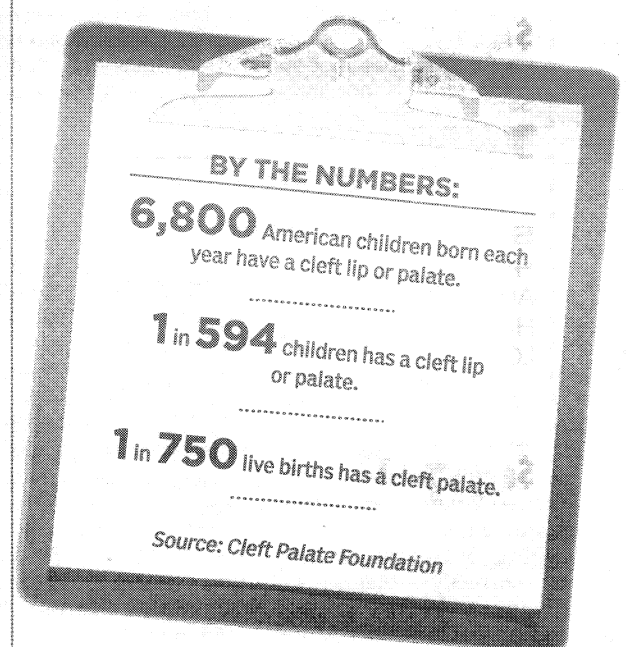
## ► Traditional treatment

Doctors have developed successful protocols for treating children born with clefts of the lip and palate, and there are centers for treatment of clefts around the world.

But clefts often can't be repaired with just one surgery; in most cases, patients will undergo a series of procedures between infancy and adulthood.

In the U.S., doctors usually perform the first surgery to repair the lip at 3 months of age, when the risks of anesthesia are low. "The surgery takes two to three hours, and the success rate is very good. But fixing the lip is just one step of the process — they still have to have the palate cleft repaired," says Taub. Doctors normally wait until the baby turns roughly 1 year old, to balance concerns about facial growth and speech and language development.

"Early repair can lead to scarring in the lip and palate that can disturb facial growth," says Taub. "Late repair on, the other hand, can lead to improper speech and language development."



Some children will need additional operations following repair of the lip and palate. Some may require surgery to improve the appearance of the nose when they are getting ready for preschool; others need revision of the lip scar.

For children whose cleft involves the gum tissue, a bone graft is placed during later childhood to assist with tooth development and retention. "Usually when they are between 6 and 12 years of age, we take a small amount of bone from the hip and place it into the gum tissue in the area of the remaining cleft," says Taub.

## ► Research breakthroughs

Cleft lip and palate surgeries are highly effective at correcting clefts and helping children through all the normal phases of development, but doctors are still refining their techniques.

"Newer approaches are trying to manipulate the palate before you do the lip repair," says Taub. "We have our pediatric orthodontists and dentists help move the palate around so that by the time we do the lip repair, everything is more lined up. That can help a lot."

## ► Questions for your doctor

A good question for parents to ask is, "How often does my child need to see the doctor in a given year?" The answer will depend on the child's age and where he or she is in the process. "For younger kids, we might see them once a month, or once every three months," says Taub. "For a child who is 11 or 12, it might be every six months." Some parents are very nervous, and worry that a cleft palate or lip will overwhelm their child's life.

Taub reminds them: "Patients with clefts can grow and develop and lead very normal lives."

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