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MIND
your
BODY

Fix my ear

POON CHIAN HUI finds out what goes into the reconstruction surgery for three common ear deformities: the cauliflower ear, the congenitally absent ear and the bat ear

The ear is so visible that a slight anomaly will stand out.

Protruding ears, oddly-shaped ears and even absent ears are deformities which can cause much distress, especially to a child. Being teased can seriously dent one's self-esteem in the long run.

With its many curves and ridges, the ear is a complicated structure to recreate.

However, such reconstruction surgery is available and can greatly improve the appearance of deformed ears.

One of the few places in Singapore that offers this is KK Women's and Children's Hospital (KKH).



Dr Tan Ying Chien (above), a plastic surgeon at KKH who performs surgery for those with deformed ears, comments on three cases.

BEFORE



AFTER



Sarah's "cauliflower" ear (left) was the result of a severe infection from a ear cartilage piercing gone wrong. The patient's rib cartilage was used to reconstruct a new part of the ear (right).

PHOTOS: DR TAN YING CHIEN AND JOSEPH NAIR FOR THE STRAITS TIMES

1 Piercing gone awry

As a typical trendy teen, Sarah (not her real name) had decided, on an impulse, to have her right upper ear pierced at a mall. However, things went wrong, putting the then 15-year-old on a traumatic rollercoaster ride for the next three years.

A minor infection set in one week after her ear cartilage piercing.

"My right ear became red and swollen," recalled Sarah, now 18 and studying in a polytechnic. "At first, I wasn't too concerned as I thought it was normal."

However, it got worse and she was eventually referred to Tan Tock Seng Hospital. An operation was needed to remove the accumulated pus. By then, her right ear had ballooned to 1½ times thicker than normal.

There was more bad news. During the operation, doctors had to remove part of the ear cartilage due to the severity of the infection. This caused the ear to become deformed, giving her what doctors call a "cauliflower ear".

It came as a shock to Sarah. "I didn't expect such a thing to happen," she said. "My friend had the same piercing done on that day, but nothing happened to her."

However, it was not the physical pain that was the hardest to bear, but the scrutiny of others around her. "I became conscious of what people might think if they saw my ear," she said.

To prevent people from seeing her deformed ear, she would flip her long hair to one side to cover it. "I was really stressed during a stint at a part-time job because I had to tie up my hair," she recalled.

Although her family was supportive, Sarah admitted keeping her feelings from them. "When I got extremely upset, I just

cried alone," she said. "I felt that what had happened to me was unfair."

A chance for something to be done about it came last year when Sarah heard about ear reconstruction surgery.

"In ear reconstruction, the patient's own rib cartilage is used to create a new part of the ear," said Dr Tan Ying Chien, a plastic surgeon at KK Women's and Children's Hospital, who performed the operation on Sarah this January. During surgery, which lasted more than five hours, rib cartilage was extracted and the ear reconstructed immediately.

Dr Tan said the shape of the new ear had to be carefully carved from the cartilage, using precise measurements taken from Sarah's other ear as reference.

It is a tricky process as the rib cartilage is not very malleable, he said, adding that the new part also had to blend in with the rest of the deformed ear as well as match the other ear.

Although severe cases like Sarah's are rare, Dr Tan said infections – the cause of such ear deformities – are common among people who have their ear cartilage pierced. "Compared to the earlobe, the ear cartilage takes longer to heal and is more prone to infection," he said, adding that multiple cartilage piercings will increase this risk.

While Dr Tan saw only two such cases in the past six months, he felt that it was still two cases too many.

His advice for those who still want to get their ear cartilage pierced is to be cautious.

"Always make sure that it is done in a sanitary environment," he said. "Monitor the ear closely afterwards and seek immediate medical help if there is pain, redness, swelling or pus discharge."



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Benjamin, who has a case of microtia or congenitally absent right ear (left), is so pleased with the reconstruction (right) he is considering fixing his other ear.



To correct protruding ears (left), a surgical procedure called otoplasty is done where the ears are "pinned back" to reduce their prominence (right).

2 Creating a ear

Benjamin (not his real name), 20, always felt different while growing up as he did not have a right external ear. In place of where the external ear should have been was a small lump of mishapen flesh. He is deaf in this ear.

He can only hear with his left ear, which is also slightly misshapen.

After years of being teased mercilessly by classmates, Benjamin had a lifeline thrown his way two years ago when he enlisted for national service.

A doctor conducting the routine check-up introduced him to Dr Tan Ying Chien, a plastic surgeon at KK Women's and Children Hospital who specialises in ear reconstruction.

"I wasn't sure at first if I should see the doctor," said Benjamin. "I've never thought of having surgery because I've become used to my condition."

However, a chat over lunch with someone who had had his ear reconstructed changed his mind. Said Benjamin: "He told me about his experience. He also told me how to prepare myself for surgery and how to cope after that."

Dr Tan, who operated on Benjamin, said reconstructing the microtia - which is the medical term for a congenitally absent ear - is not easy as most of the ear has to be created from scratch.

Two operations are needed, he said. The first is to remove rib

cartilage from the patient and carve it into the shape of an ear. The structure is then inserted under the skin at the ear area. This takes about seven hours.

As the inserted ear tends to lie flat against the side of the head, a second operation is needed to lift the reconstructed ear away from the head to achieve a normal appearance. This normally takes place six months after the first operation and takes about four hours to perform.

The entire procedure may be painstaking but using rib cartilage instead of an artificial material helps to make the ear look and function more naturally.

"The rib cartilage is part of the body," said Dr Tan. "This way, when the skin at the ear breaks, for example, it will heal."

While one can opt for a prosthetic ear made from silicon, problems like discolouration and infection are common, said Dr Tan. "The prosthetic ear also doesn't age together with the rest of the body," he added.

Microtia affects about one in every 7,000 babies worldwide. Generally, it occurs more in boys than in girls and can affect one or both ears. Most will have decreased hearing capabilities.

Benjamin, who is very happy with his new right ear, is considering a similar surgery to improve the appearance of his left ear. "The finished look is beyond my expectations," he said.

3 Pinning back the ear

Have you ever teased a childhood friend whose ears stuck out from his head?

You might not have been aware of it, but you were actually making fun of a physical deformity. The condition is known as "bat ears".

The most common but least serious of ear deformities, a bat ear, is determined by the presence of at least one of three factors, said Dr Tan Ying Chien, a plastic surgeon at KK Women's and Children Hospital who specialises in ear reconstruction.

These are: a large angle between the ear and the side of the head; an absence of the antihelical fold (the y-shaped fold at the upper ear); and a large conchae, which refers to the "bowl" of the ear.

Any of these factors can make one's ears appear too prominent.

Although hearing is not affected, the condition may have a psychological impact on children when they are subjected to teasing and name-calling by their schoolmates.

To correct protruding ears, a surgical procedure called otoplasty is done where the ears are "pinned back" to reduce their prominence.

The ear cartilage is first softened by a series of small cuts to make it flexible. A stitch is then made to pull the ear back so that it rests at a smaller angle against the side of the head.

The surgery takes only about one hour and the patient does not

The operation to pin back bat ears takes only about

1 hour

have to be hospitalised, said Dr Tan.

However, the patient will need to wear something, like a bandana, for about two weeks after the surgical dressing is removed. This is to keep the ears in place while the cartilage settles into its new shape and position.

Otoplasty can be done on patients as young as four years old.

Adverse post-surgery effects are uncommon, Dr Tan said. In extreme cases where the stitching is too tight, a "telephone ear" may result - where the middle part of the ear appears too pinched back in comparison to the top and bottom parts.

An interesting observation is that Asians appear to be more tolerant of this condition than Caucasians, said Dr Tan. Many do not seek surgery until they are much older, like when they are in their 20s.