

MICROTIA & AURAL ATRESIA

Description

Microtia is a small, abnormally shaped or absent external ear. It can occur on one (unilateral) or two (bilateral) sides. The condition ranges from a bump of tissue to a partially formed ear.

Aural Atresia is the absence or incomplete formation of an external ear canal. It almost always accompanies microtia.

Hearing is impaired in the presence of microtia.

Though Hemifacial Microsomia and Treacher Collins (see additional information on each condition), two craniofacial conditions, are often accompanied by microtia, it most often occurs as an isolated condition.

Prevalence/Causes

Unilateral (one sided) microtia occurs in 1:8,000 live births; bilateral (both sides) microtia occurs in 1:25,000 births. There is no known cause for this condition.

Treatment

Initially, the priority during infancy is to ensure that the child has sufficient hearing for language to develop. Before the child is old enough to cooperate with auditory testing, a BAER (brain stem auditory evoked response) test is given. Later on, BAER testing is replaced by more reliable behavioral testing. If the problem is unilateral and the child has normal hearing on one side, a hearing aid will generally *not* be required. If microtia exists in both ears, a hearing aid is immediately recommended.

At age 5, a high resolution, 3D CT scan of the temporal bones is recommended to rule out a benign tumor in the middle ear (cholesteatoma), which is more common in aural atresia patients. At the same time, the CT

scan will indicate if the middle ear structures can support the later reconstruction of the external ear.

If reconstruction of the canal and middle ear is required, it needs to be coordinated with the external reconstruction, which takes place first.

External ear reconstruction generally takes place after age 6.

Outer Ear Reconstruction takes place in 3-4 stages.

Stage 1: Cartilage framework is carved from the rib cartilage and inserted on the side of the head, under the skin.

Stage 2: the ear lobe is rotated into the correct position

Stage 3: The conchal bowl is deepened and the tragus constructed.

Stage 4: Skin graft inserted behind the ear to lift it off the head and give it a normal position.

Associated Conditions

There can be a 40% reduction in hearing on the affected side.
Ear infections can be more frequent.