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## **Surgical and audiological outcome with an active transcutaneous bone conduction device in very young children**

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Due to the plasticity of the neural hearing pathway, it is mandatory to start in all newborns, also in those with isolated permanent middle ear related hearing impairment, a hearing device based therapy.

In children with insurmountable middle ear pathology such as atresia of the outer ear, canal bone conduction devices are fitted with a headband. Depending on the activity of growing children, headbands are getting uncomfortable, acceptance is reduced.

Within in a prospective study, we implanted children with a bone conduction device before the age of five years, being sure that the bone thickness is enough.

Audiological and radiological parameters were monitored in all included patients.

The results demonstrate that all children were implanted without any surgical complication. The postoperative result in speech understanding was at least comparable with the one achieved with the headband fitting.

We conclude that the daily counselling routine for parents should also include the option of the surgical alternative as soon as children are three years old.