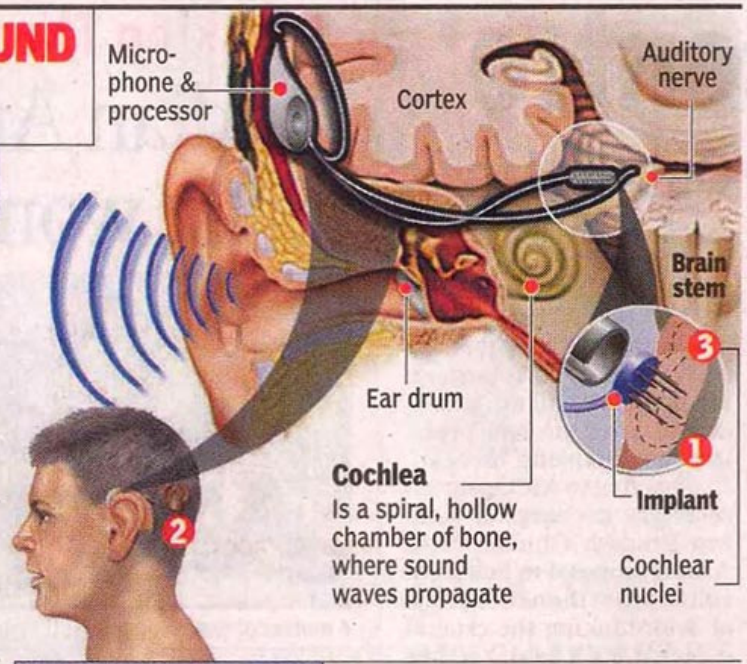
Kids to break silence with chip implant

5 Children Didn't Have Cochlea, Now Audio-Verbal Therapy Will Be Vital

BREAKING SOUND BARRIER



What is auditory brain stem implant

1 **A small chip, consisting of a flat electrode,** is implanted directly onto cochlear nuclei in brain stem. Chip delivers impulses directly to brain centre & converts sound waves into bio-electric current

2 **Outer speech processor,** placed externally after two months of surgery, **receives sound, digitizes it & transfers it to chip**

3 Chip acts as transducer and converts sound waves into bio-electric current, which is then received by cochlear nuclei

Surgery takes about 4 hours

Should ideally be done in children aged between 2 and 4 years

Useful: In cases where cochlear implant is not possible, or cochlea is not there, or auditory nerve and cochlea have been damaged

Prerna Sodhi | TNN

New Delhi: Unlike other three-year-olds, Muskan has never heard the chirping of birds, her mother's lullaby or even the sound of her own laughter. She was born deaf.

Her parents went to many doctors. Finally their prayers have been answered. With advanced technology — an auditory brain stem implant — she will now be able to hear and respond to sounds. Four other children, who also underwent this surgery at Dr BL Kapur Super Specialty Hospital, will be able to hear, thanks to tech impulses from the implant.

Four of the five kids could not hear from birth. The other, six-year-old Raunak, lost his hearing last year after a meningitis attack. "Doctors could not conduct a cochlear implant as his auditory nerve was damaged. But after this surgery, I am hoping my child will be able to hear again," said his mother Hema Kumar.

Parents of Dhruv Singh (2), Kartik Bhatia (2), Muskan (3) and Pratham Agarwal (6), too, are praying all goes well. These children have been unable to hear since birth due to the absence of the cochlea and auditory nerve in the ear. "After we were told a cochlear implant was not possible, we lost all hope. Then we learnt about this implant," said Sandeep Kumar, Muskan's father.

A team of neurosurgeons, ENT specialists and anaesthetists conducted an over four-hour surgery on them. But it will still be a while before they can speak and understand every sound. "The post-operation, audio-verbal therapy plays a vital role in their normal development. It will solely depend on the child's IQ and the sincerity with which the therapy is done," said Dr J M Hans, chairman of the Centre for ENT & Cochlear Implant at the hospital.