Cartilage tympanoplasty can be performed successfully in 95 percent of young children when appropriate conditions exist, according to a study in the February 2013 issue of *Otolaryngology–Head and Neck Surgery*.

"Pediatric tympanoplasty is a frequently performed procedure with varying reported success rates ranging between 35 percent and 94 percent. In general, tympanic membrane repair success in children is often perceived as lagging behind what is typically achieved in adults having similar underlying risk factors," the authors write.

The study was conducted at the University of Arkansas for Medical Sciences in Little Rock, AR. One hundred and nineteen pediatric patients who underwent type I cartilage tympanoplasty to repair a tympanic membrane perforation from August 2005 to November 2011 were divided into three age groups: under 7, 7-9, and 10-13 years old.

The success rates for the three groups were 93 percent, 95 percent, and 97.2 percent, respectively. Statistical analysis was used to test the differences among age groups in regard to remnant perforation, the need for revision tympanoplasty, and the need for tympanoplasty tubes.

The study had an average success rate of 95 percent among the three groups. Repair rates improved, and significant impairments in hearing outcomes were avoided. If tympanoplasty is scheduled accurately, concluded the authors, the age of the patient does not affect the rate of tympanic membrane repair or hearing outcomes.
In summary, the results of the study were promising, and the authors determined that "the use of cartilage in pediatric type I tympanoplasty for tympanic membrane perforation repair results in excellent outcomes that are comparable to the best-case outcomes that have been reported in the adult population."

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