Cochlear implantation is a well-accepted method of aural rehabilitation in deaf or severely hearing-impaired adults and children. A majority of patients not only suffer from hearing impairment but from tinnitus. The high rate of preoperative tinnitus in adults (68.1%) stands in contrast to assumed lower rates in children. Unknown are such factors as how tinnitus develops in children, how they realize what tinnitus is, and whether the mechanism of development of tinnitus differs from that in adults, respectively. Electrical stimulation of the auditory pathway is followed by loss, or at least reduction, of tinnitus in most cases (75%). Also, the insertional trauma alone is able to stop tinnitus in some patients. Attention must be paid to the low risk of developing tinnitus postoperatively. No reports are available regarding tinnitus in children. Though younger children may not be able to report, some adolescent patients report preoperative or postoperative tinnitus (or both) that is reduced by electrical stimulation at the rates seen in adults. Further investigations are needed to define the mechanism of tinnitus development in children and to define optimal stimulation modes and rates for tinnitus reduction with best auditory performance.