



The serious oxygen-depriving events that lead to [cerebral palsy](#) (CP) and other birth injuries can cause partial or complete loss of vision and/or hearing in many individuals. . In some cases, easy fixes like glasses, contact lenses, or external hearing aids can help mitigate the developmental hurdles that vision and/or hearing loss can pose. However, in more severe cases, doctors may recommend surgery.

Cerebral Palsy, Hearing Loss, and Surgery

Hearing loss in children with cerebral palsy comes in two main forms:

- *Sensorineural Hearing Loss*: Sensorineural hearing loss occurs when the nerves that transmit sound information from the outside world to the brain are damaged
- *Conductive Hearing Loss*: Conductive hearing loss comes as the result of physical damage to the ear itself due to inflammation or build-up.

Oftentimes, both sensorineural and conductive hearing loss can be treated through the use of hearing aids, cochlear implants, or a combination of both. In some cases of conductive hearing loss, however, these solutions do not remedy the problem, and hearing loss remains severe, or continuously reoccurs. In these instances, surgery may be recommended.



The surgery for conductive hearing loss, called a stapedectomy, can be used to restore normal hearing in up to 90% of cases [1]. During a stapedectomy, a bony part of the ear



known as the “stapes” is removed and replaced with an artificial stapes. With the artificial stapes in place, sound should again be able to readily access the inner ear by way of the eardrum.

Cerebral Palsy, Vision Loss, and Surgery

Vision loss in children with cerebral palsy can come in several forms. Common vision issues include:

- *Cortical-Visual Impairment (CVI)*: Also known as cortical blindness, this condition impairs a person’s ability to make sense of what they see. Cortical-visual impairment is a complication that exists in the brain.
- *Strabismus*: A condition in which the eyes turn in different directions.
- *Hyperopia*: Also known as farsightedness, this condition makes it difficult to see objects up close with clarity.

Many of these conditions can be treated adequately with the use of glasses or contacts, and others can be overcome through visual exercises and training routines.

In some more severe, persistent, or worsening cases of vision loss, however, surgery is required. The two main surgeries used to correct vision loss in children with cerebral palsy are the photorefractive keratectomy (PRK) procedure, and laser-assisted in-situ Keratomileusis (LASIK) treatment. During both procedures the cornea is reshaped in order to allow light to effectively enter the eye for proper vision [2].

Surgery can be expensive. For more information regarding the costs of surgeries for children with cerebral palsy and other disabilities, as well as other cost-related information, visit [this page](#).

Sources:



RelayHealth, "Ear Surgery for Hearing Loss: Stapedectomy," *Summit Health Group* (2014), https://www.summitmedicalgroup.com/library/adult_health/aha_stapedectomy/.

Brian S Boxer Wachler, "PRK Laser Eye Surgery: What Is PRK And How Does It Differ From LASIK?" *All About Vision* (2017), <http://www.allaboutvision.com/visionsurgery/prk.htm>.

Learn More About Hearing and Vision Correction for Cerebral Palsy:

- [Hearing Loss and Cerebral Palsy](#)
- [Vision and Hearing Loss in Cerebral Palsy](#)
- [\[CP Family Network\] Hearing Loss with CP](#)
- [Conductive and Sensorineural Hearing Loss](#)
- [American Optometric Association: What is Strabismus?](#)
- [Neurological Causes of Visual Field Loss](#)
- [Understanding Cerebral Vision Loss](#)