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Is Genetic Counseling necessary ?

It is recommended to have genetic counseling before and after genetic testing to learn the benefits and limitations of the test.

Why Greenarray Congenital Hearing Loss Genetic Test ?

- Molecular confirmation of a clinical diagnosis.
- Maximizing patient care and increasing clinical efficiency.
- Significantly improve outcomes and reduce medical costs through early diagnosis.
- Greenarray uses Massively Parallel sequencing to detect the mutations thereby giving accurate and sensitive results to the patients.

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References :

- Busi, M., Rosignoli, M., Castiglione, A., Minazzi, F., et al. 2015. Cochlear implant outcomes and genetic mutations in children with ear and brain anomalies. BioMed research international, 2015.
- Shearer, A.E., Hildebrand, M.S. and Smith, R.J., 2017. Hereditary hearing loss and deafness overview. Gene Reviews® [Internet].
- https://www.cdc.gov/ncbddd/hearingloss/freematerials/parentsguide508.pdf

About Greenarray

Greenarray is a molecular diagnostic laboratory. We offer diagnosis of infectious diseases, genetic testing and healthcare information to improve health and wellness. Our goal is to provide high quality affordable and accessible services.

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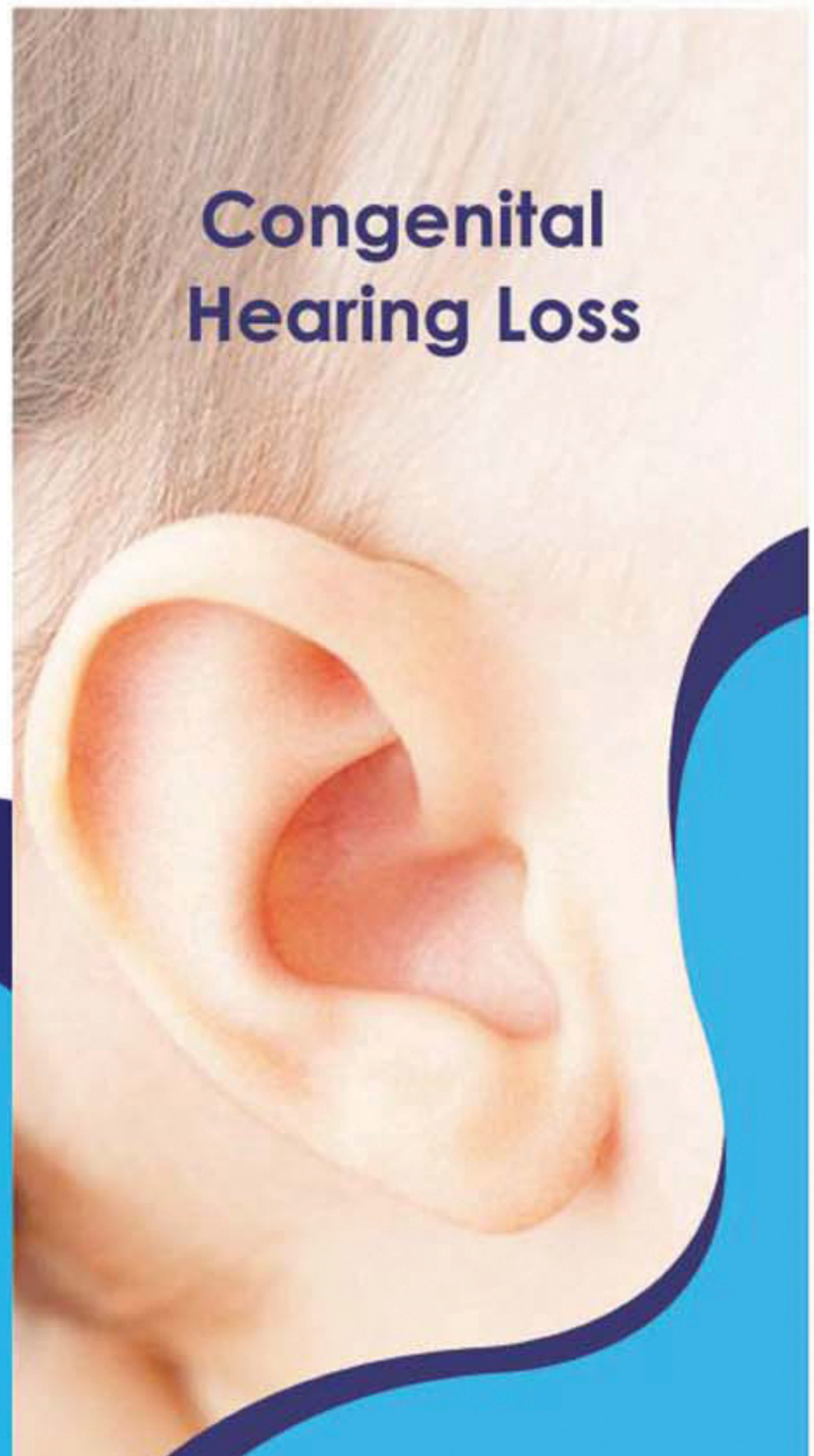
Congenital Hearing Loss



A Comprehensive Genetic Screening Panel for Hearing Impairment

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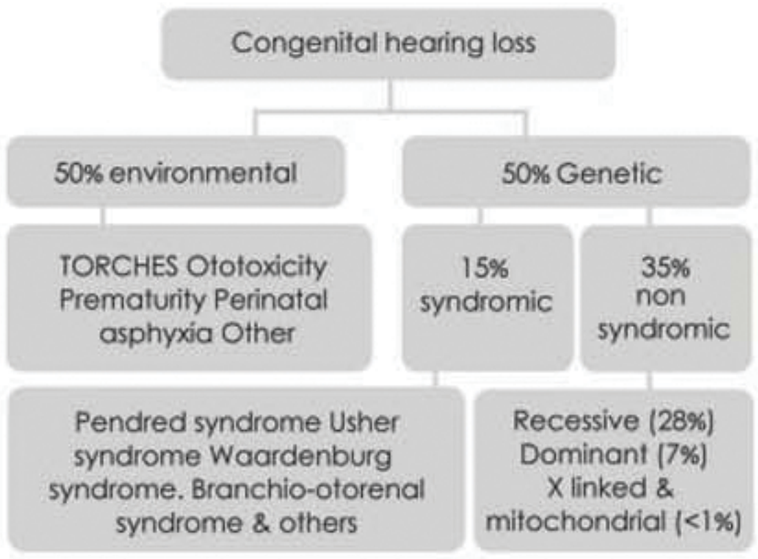
Congenital hearing loss means hearing loss that is present at birth and is one of the most prevalent chronic conditions observed in children.

Incidence and Prevalence

Most estimates suggest that about 1 to 3 out of every 1000 children are born with a hearing loss, based on screening and/or medical records (Centers for Disease Control and Prevention [CDC], 2009; National Institute on Deafness and Other Communication Disorders [NIDCD],2010).

What causes Congenital Hearing loss?

Genetic factors are thought to cause around 50% of all incidents of congenital hearing loss.



Hearing loss present at birth: a classification overview

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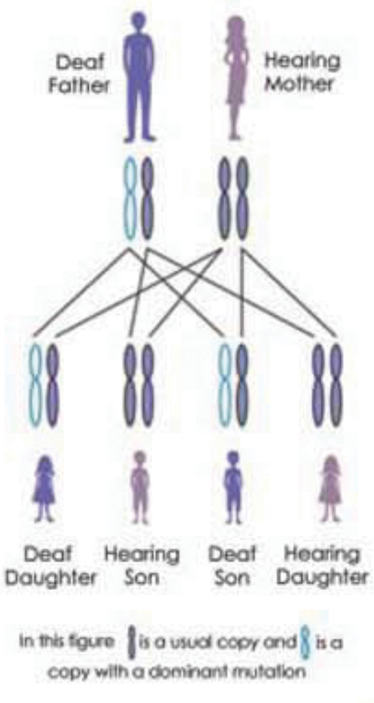
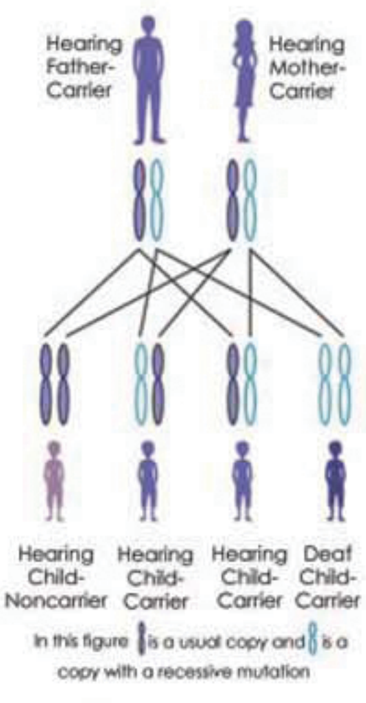
How is congenital hearing loss inherited?

An Example of Autosomal Dominant Inheritance



In this figure ▮ is a usual copy and ▮ is a copy with a dominant mutation

An Example of Autosomal Recessive Inheritance

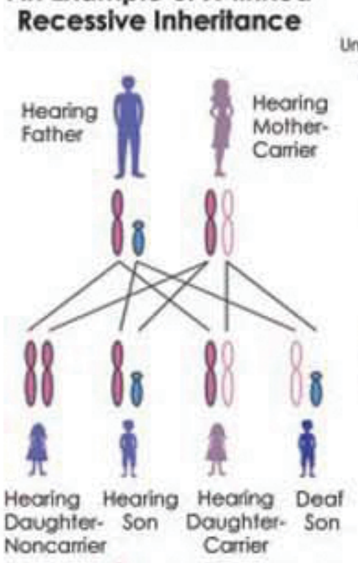


In this figure ▮ is a usual copy and ▮ is a copy with a recessive mutation

Hearing deficits in one of the four ways :

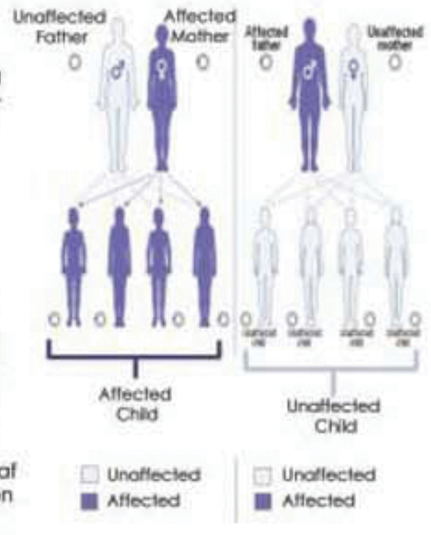
- Autosomal dominant • Autosomal recessive
- X- linked • Mitochondrial patterns of inheritance

An Example of X-linked Recessive Inheritance



In this figure ▮ is an X chromosome with a Usual copy of the gene and ▮ is an X chromosome with a copy with a recessive mutation ▮ is a Y chromosome.

Mitochondrial



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Why to undergo congenital hearing loss test ?

- The genomic test helps in early diagnosis and confirmation of the cause of hearing loss.
- Helps in early recognition and treatment
- Helps in detecting risk to the siblings
- Helps in making decision regarding subsequent pregnancies and antenatal checking.

Test Sample Requirement

Blood (3-5 ml in EDTA tubes)

OR

Extracted DNA samples (1µg high quality DNA)

OR

Heel Prick