

Learning About Sensory Loss: The Sooner the Better

If you suspect that a child may not be able to use his/her hearing and vision effectively to communicate and gain information, please refer the family to the Florida & Virgin Islands Deaf-Blind Collaborative. 1-352-273-7529

During the first three years of a child's life major neural networks are being formed in the brain. Much of this development depends on vision and hearing. These distance senses enable us to know about things and people in the world even when we are not in physical contact with them. After the first three years, neural networks develop more slowly. Skills that may be gained in early intervention will not develop as quickly when the child is older.

Every child, with or without disabilities, should have periodic vision and hearing checks. For a child with disabilities, this is especially important. It is too easy to attribute missed visual and auditory inputs and missing communication outputs to “global developmental delay.” The importance of ensuring that vision and hearing are within normal limits cannot be overstated.

Below are some syndromes, diseases and conditions that put a child at high risk for hearing and/or vision loss.

Pre-Natal/Congenital Conditions

- Congenital Rubella
- Congenital Syphilis
- Congenital Toxoplasmosis
- Cytomegalovirus
- Fetal Alcohol Syndrome
- Hydrocephaly
- Maternal Drug Use
- Microcephaly
- Neonatal Herpes Simplex

Post-Natal/Non-Congenital Conditions

- Asphyxia
- Direct Trauma to the Eye and/or Ear
- Encephalitis
- Infections
- Meningitis
- Severe Head Injury
- Stroke
- Tumors
- Chemically Induced

Hereditary/Chromosomal Conditions

- Aicardi syndrome
- Alport syndrome
- Alstrom syndrome
- Apert syndrome
- Bardet-Biedl syndrome
- Batten disease
- CHARGE syndrome
- Chromosome 18, Ring 18
- Cockayne syndrome
- Cogan syndrome
- Cornelia de Lange
- Cri du Chat syndrome
- Crigler-Najjar syndrome
- Crouzon syndrome
- Dandy Walker syndrome
- Down syndrome
- Goldenhar syndrome
- Hand-Schuller-Christian
- Hallgren syndrome
- Herpes-Zoster (or Hunt)
- Hunter syndrome (MPS II)
- Hurler syndrome (MPS I-H)
- Kearns-Sayre syndrome
- Klippel-Feil syndrome
- Klippel-Trenaunay-Weber syndrome
- Kniest Dysplasia
- Leber's Congenital Amaurosis
- Leigh Disease
- Marfan syndrome
- Marshall syndrome
- Maroteaux-Lamy syndrome
- Moebius syndrome
- Monosomy 10p
- Morquio syndrome
- NF-Neurofibromatosis (von Recklinghausen Disease)
- NF2-Bilateral Acoustic Neurofibromatosis
- Norrie disease
- Optico-Cochleo-Dentate Degeneration
- Pfeiffer syndrome
- Prader-Willi
- Pierre-Robin syndrome
- Refsum syndrome
- Scheie syndrome (MPS I-S)
- Smith-Lemli-Opitz (SLO) syndrome
- Stickler syndrome
- Sturge-Weber syndrome
- Treacher Collins syndrome
- Trisomy 13-15 (Patau syndrome)
- Trisomy 18 (Edwards syndrome)
- Turner syndrome
- Usher I syndrome
- Usher II syndrome
- Usher III syndrome
- Vogt-Koyanagi-Harada syndrome

Professionals working with infants and young babies, as well as parents, should be aware of the red flags that may indicate a problem with either vision or hearing.

Hearing Loss Risk Factors

- Malformation of the ear, nose, and throat
- Rubella during pregnancy
- Rh incompatibility
- Family history of hearing loss
- Apgar score from 0-3
- Severe neonatal infections
- Meningitis
- Low birth weight (under 3.3 lbs.)
- Hyperbilirubinemia
- Ototoxic medications
- Severe respiratory distress and/or prolonged mechanical ventilation
- Neurodegenerative disorders
- Childhood infectious diseases such as mumps and measles
- Seizures
- Neurosurgical interventions

Hearing Loss Behavioral Indicators

- The child does not stop moving, does not quiet in response to speech,
- The child does not arouse from light sleep to sudden loud noises.
- At about 4-7 months, the child does not turn to sounds and voices or give an indication of detecting a sound source by eyes widening or blinking, fussing or quieting, increasing or decreasing overall activity level, changes in breathing or sucking patterns.
- There is a lack of babbling, cooing, grunting, or the child stops these behaviors and does not progress to speech.
- The child does not respond to familiar sounds (such as mom's and dad's voices) when (s)he cannot see the source.
- The child does not use speech at an age when most children are beginning to use speech (approximately 9-12 months).

Vision Loss Risk Factors

- Family history of vision loss (Retinoblastoma or Albinism)
- Malformation of the ear, nose, and throat
- Prematurity and low birth weight less than 3 lbs.
- Birth trauma/head trauma
- Anoxia
- Cerebral Palsy
- Congenital viral or bacterial infections (Rubella, CMV, Syphilis, Group B Streptococcus Infection, Toxoplasmosis, Chicken Pox, HIV)
- Meningitis, Encephalitis, Hyperthyroidism, Microcephaly
- Seizures

Vision Loss Behavioral Indicators

- The child does not have eyes or eyelids that look typical.
- The child does not recognize caregivers' faces or smile in response to their smiles around the age of 3 months.
- Child does not get excited at sight of bottle or other familiar objects (s)he likes.
- At 4-6 months, the child's eyes do not seem to move together when following an object or person.
- Child turns or tilts head in unusual positions when looking at an object.
- The child may hold an object very close to his/her eyes.
- The child may over-reach or under-reach for objects (accurate reaching usually occurs around 6 months).