Ohio Early Intervention Diagnosed Conditions: Part Two

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OHIO Early Intervention

Helping children and families wherever they choose to live, play, and spend their day.

Participating in Today's Session

Communicating: Type questions/comments in Questions box.

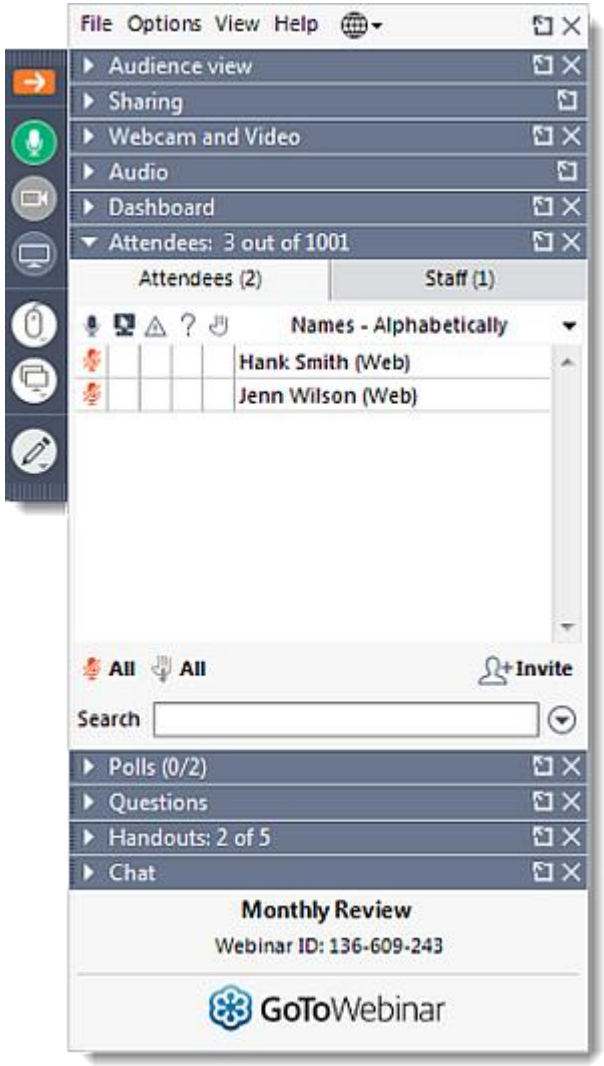
Polls: Poll question will appear on screen. Click in button next to answer.

Handouts: Handouts section of Control Panel.

Certificates: At end of webinar, type name, role and county in the Questions box. Activation code will be given. Certificate in Handouts section of Control Panel.

<u>Tech tips</u>:

- Close other apps (e.g. email, Word, etc.)
- Use headset if having audio problems.
- Make sure you're using your Computer Audio.
- Dial-in option- phone # on Control Panel.



PHYSICAL AND MENTAL CONDITIONS WITH A HIGH PROBABILITY OF RESULTING IN A DEVELOPMENTAL DELAY:

- Newborn Conditions Very low birth weight (i.e., less than 1,500 grams) diagnosed at birth or within thirty calendar days after birth with:
- (1) Intraventricular hemorrhage (grade III), and/or
- (2) Chronic lung disease (bronchopulmonary dysplasia), and/or
- (3) Retinopathy of prematurity (stage IV or stage V)

Diagnosed Conditions in Neonates, Infants, or Toddlers:

- (1) Chromosomal conditions
- (2) Inborn errors of metabolism
- (3) Neurological conditions:
  - (a) Blindness, including visual impairments
  - (b) Cerebral palsy
  - (c) Deafness, including hearing impairments
  - (d) Epilepsy/seizure disorder
  - (e) Hydrocephalus
  - (f) Hypoxic ischemic encephalopathy
  - (g) Intraventricular hemorrhage (grade IV)
  - (h) Microcephaly
  - (i) Muscular dystrophy
  - (j) Spina bifida
  - (k) Spinal muscular atrophy
  - (l) Traumatic brain injury

(4) Other:
(a) Acquired immune deficiency syndrome
(b) Attachment disorder
(c) Autism spectrum disorder
(d) Blood lead level of five micrograms per deciliter or greater
(e) Cranio-facial anomalies
(f) Cyanotic congenital heart disease
(g) Fetal alcohol syndrome
(h) Infant of untreated mother of phenylketonuria
(i) Infection, fetal/neonatal (herpes, syphilis, cytomegalovirus, toxoplasmosis, and rubella)
(j) Neonatal abstinence syndrome
(k) Sickle cell anemia

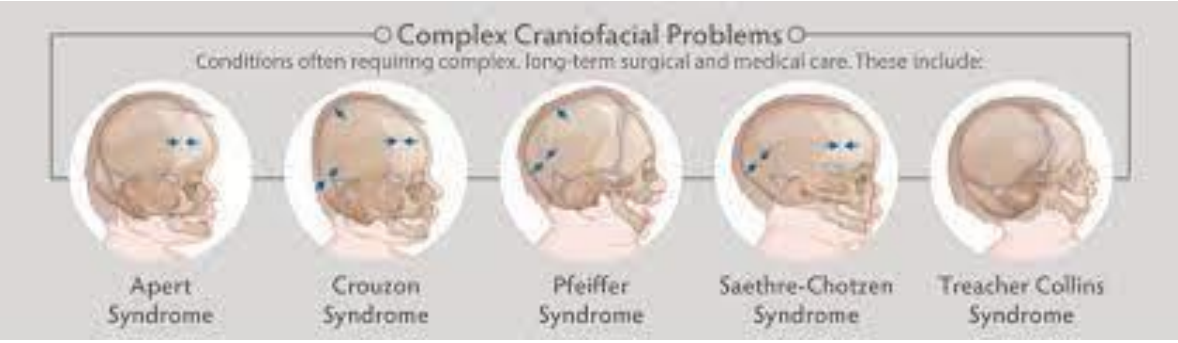
Cranio-Facial Anomalies:

What is a Craniofacial Anomaly?

- Craniofacial anomalies are deformities that affect a child's head and facial bones. These disorders are typically present at birth (congenital) and can range from mild to severe.

- Common craniofacial anomalies include:

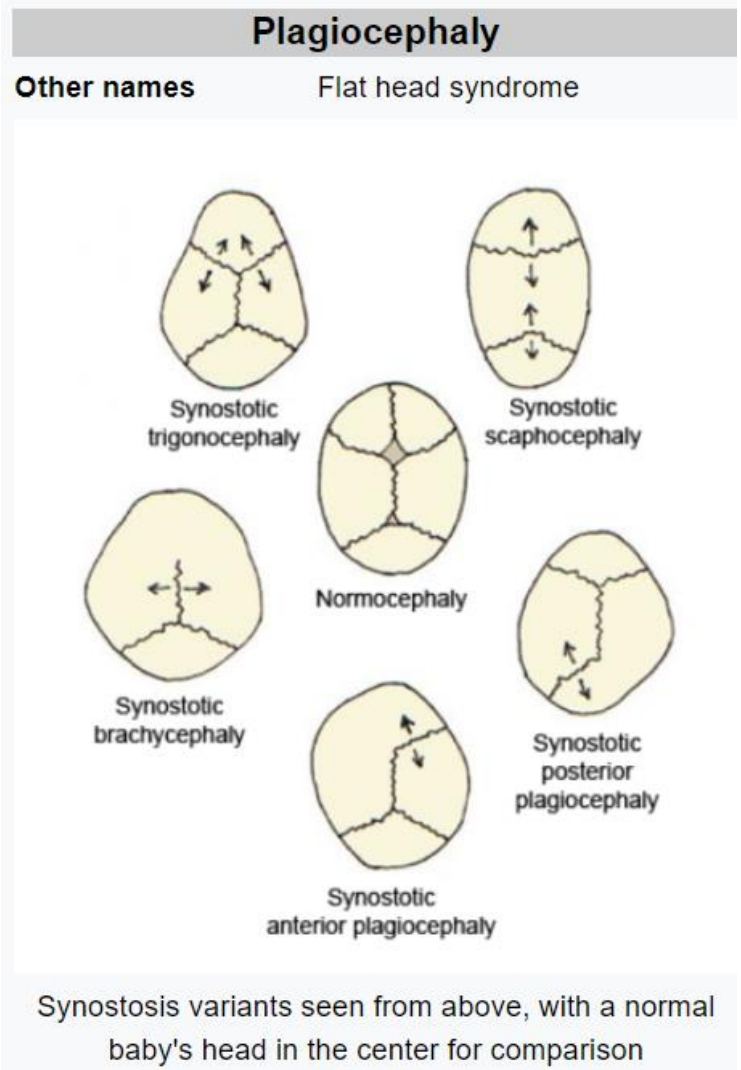
•cleft lip and palate: a separation in the lip and the palate
•craniosynostosis: premature closure of the soft spots in an infant's skull
•hemifacial microsomia: a condition in which the tissues on one side of the face are underdeveloped
•vascular malformation: an abnormal growth composed of blood vessels
•hemangioma: a benign tumor that causes a red birthmark



Is Torticollis A Diagnosed Condition with Automatic Eligibility?

Is Plagiocephaly A Diagnosed Condition with Automatic Eligibility?

- Plagiocephaly **IS** a diagnosed condition on the list.
- Torticollis **IS NOT**, BUT In many cases a child will need intervention. The EISC should coordinate eligibility via EI-12.

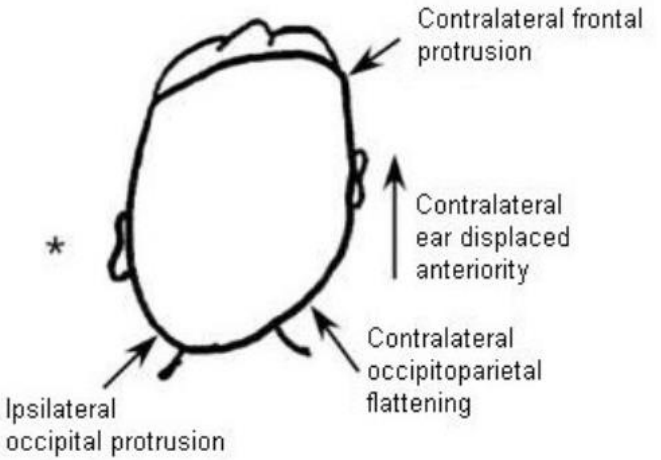


Synostosis variants seen from above, with a normal baby's head in the center for comparison

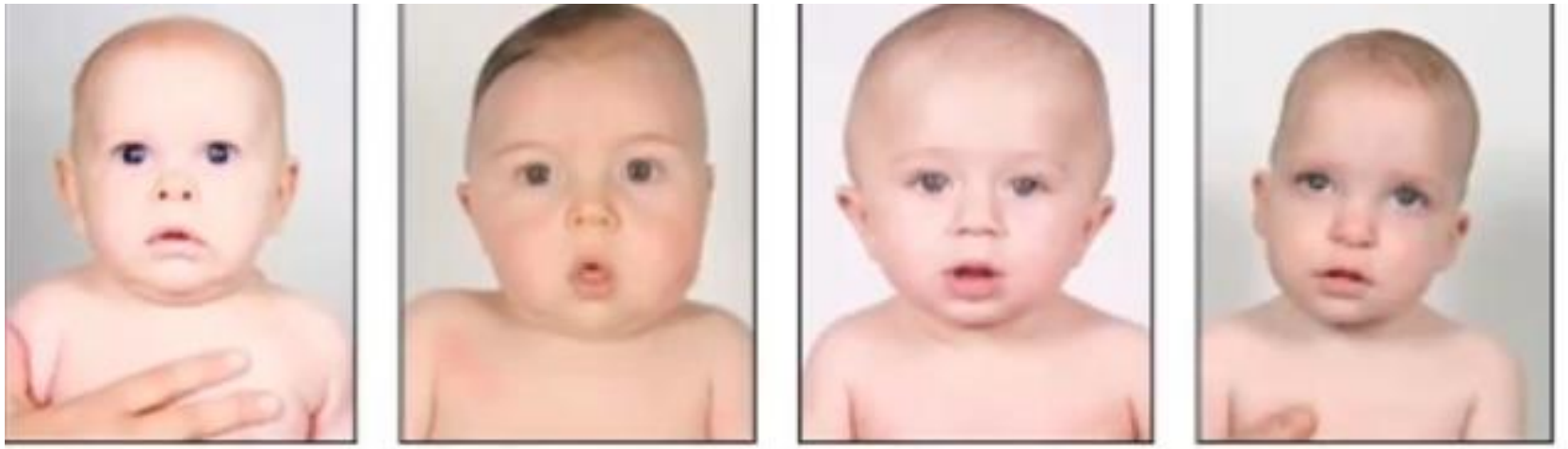
…But What About Torticollis and Plagiocephaly?

- Congenital muscular torticollis is caused by idiopathic fibrosis of the sternocleidomastoid muscle that restricts movement and pulls the head toward the involved side.
- Deformation of the craniofacial skeleton will develop if the restriction is not released.
- This may result in aesthetic and functional problems.

Per Johns Hopkins Medicine: *"Symptoms of Craniofacial Abnormalities*
Craniofacial malformations can be mild or severe and depend on what parts of the infant's skull are affected. Certain groups of signs and symptoms are known as syndromes, and there are several that result in telltale facial anomalies….(including) Plagiocephaly and Torticollis."

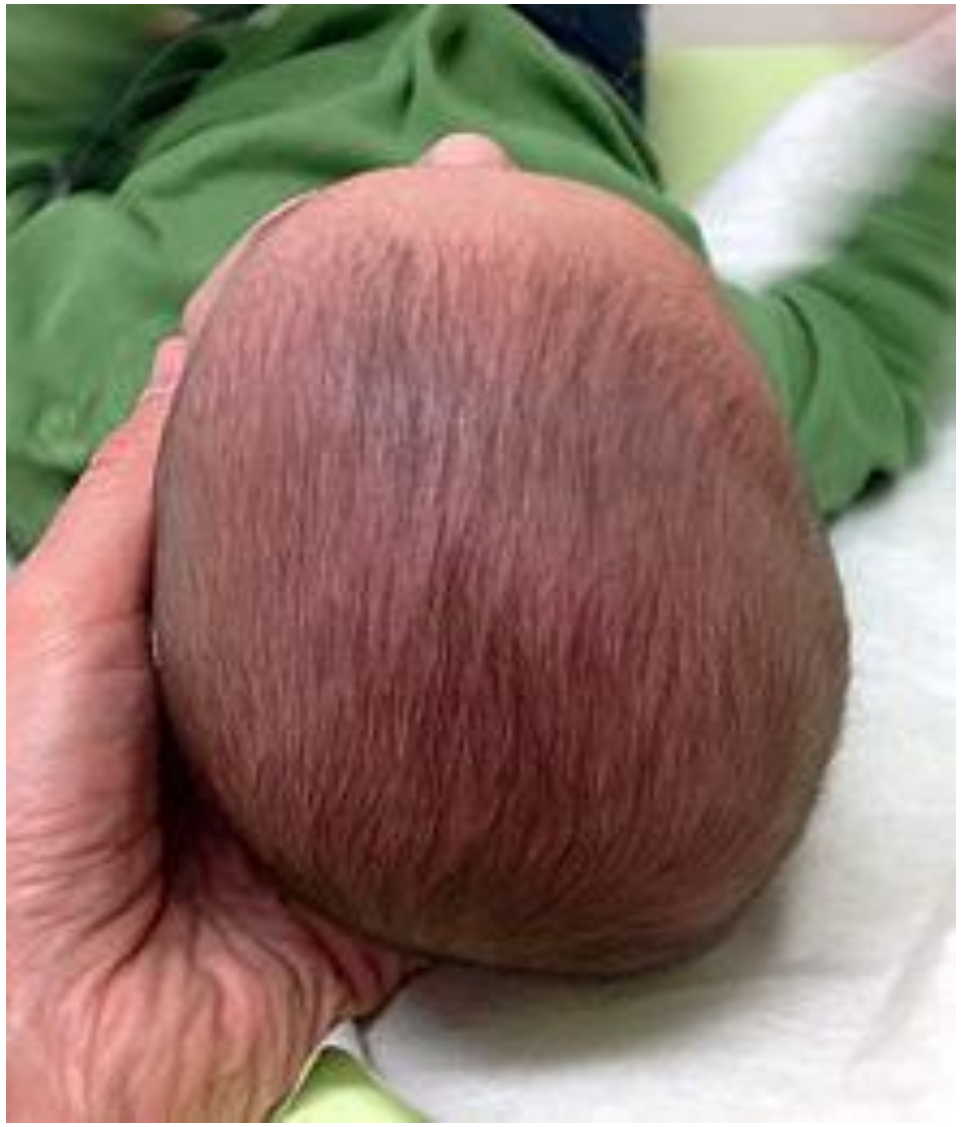


Vertex view of a head depicting typical findings of plagiocephaly associated with congenital muscular torticollis. Note the typical parallelogram shape due to asymmetric external compressive forces and associated growth. *Denotes the side of the shortened sternocleidomastoid and resultant torticollis


Normal
Plagiocephaly
Brachycephaly
Scaphocephaly


Normal
Plagiocephaly
Brachycephaly
Scaphocephaly

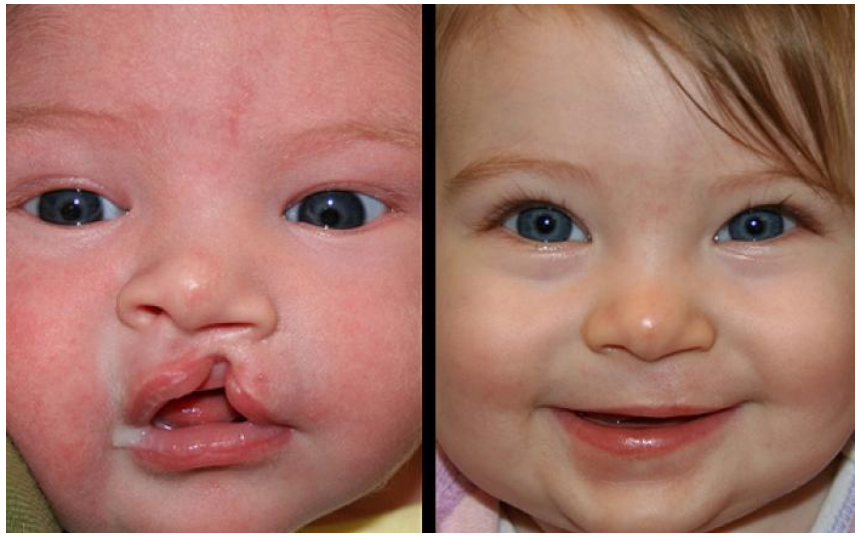
- Babies who have a “flat head syndrome” have a high chance of living a normal life.
- They can grow out of it naturally or correct it with therapy.
- However, if plagiocephaly is left untreated, children are at risk of developmental, neurological, or psychological difficulties.

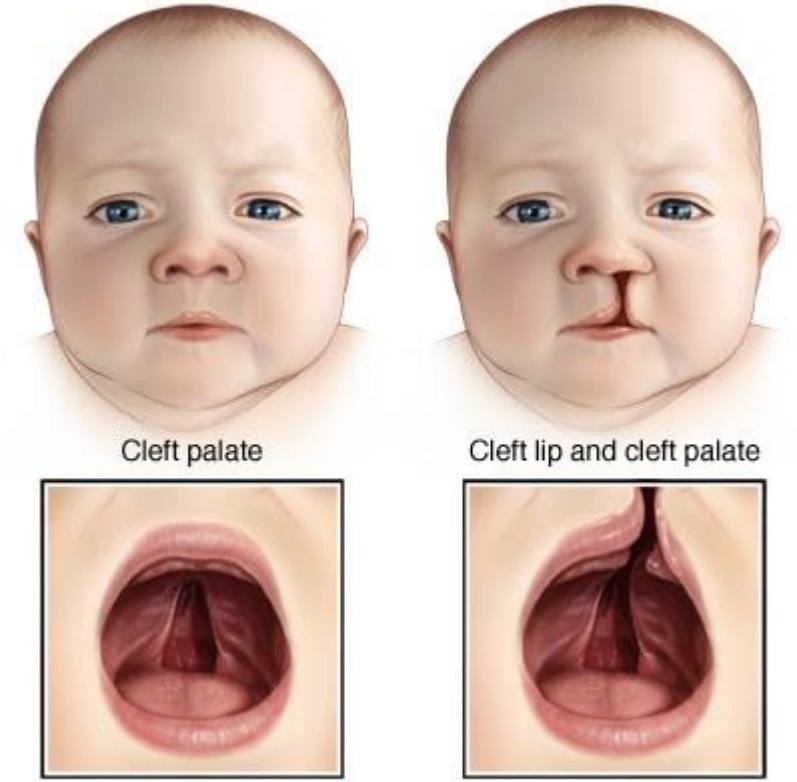


Cleft Lip and Palate:

What's the difference between cleft lip and palate?

- A cleft lip is an opening in the upper lip
- A cleft palate is an opening in the roof of the mouth.
- In both cases, an opening forms because the facial structure **doesn**'t close completely during development.
- A child can be born with one or both of these conditions.





Is Cleft Palate A Diagnosed Condition with Automatic Eligibility?

Is Cleft Lip A Diagnosed Condition with Automatic Eligibility?

Would Cleft Lip or Palate be considered an Early Diagnosed Condition?

- They occur in utero and are diagnosed typically at birth.
- These conditions can cause feeding difficulties in infancy and contribute to speech disorders or delays in childhood.
- In addition, studies have shown, children with cleft lip (CL) had a significantly higher risk of any psychiatric disorder, intellectual disability, and language disorders.
- Children with cleft lip and palate (CLP) had, in addition, an **increased risk of autism spectrum disorder (ASD)**

Reactive Attachment Disorder

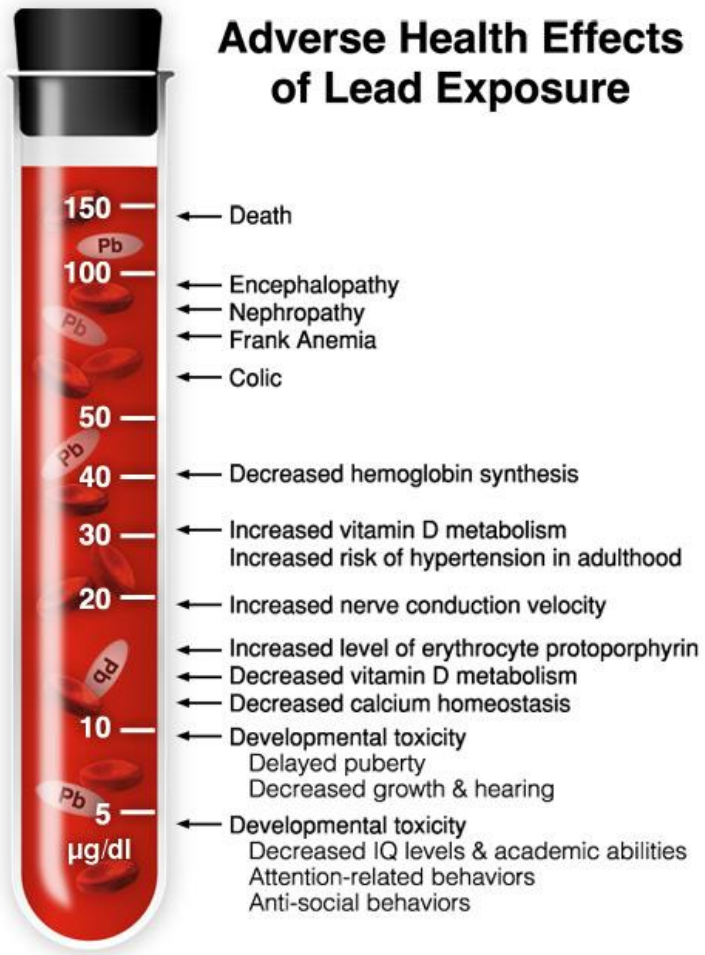
- rare but serious condition in which an infant or young child doesn't establish healthy attachments with parents or caregivers

- may develop if the child's basic needs for comfort, affection and nurturing aren't met and loving, caring, stable attachments with others are not established

Is Attachment Disorder A Diagnosed Condition with Automatic Eligibility?

- **Is Reactive Attachment Disorder a Developmental Disability or Early Onset Condition?**
  - In the DSM-5 (used by physicians), the "disinhibited form" is considered a separate diagnosis named "disinhibited attachment disorder".
  - RAD arises from a failure to form normal attachments to primary caregivers in early childhood.
  - Studies have shown that children with RAD are more likely to have multiple comorbidities with other disorders, lower IQs than population norms, more problem behaviors, and poorer social skills than would be found in the general population.
  - They may share features of autism and often have a complex presentation.

Blood lead level of five micrograms per deciliter or greater:



Blindness, Including Visual Impairments:

- **Visual impairment** refers to all degrees of reduction in vision.
- **Blindness** is defined as having no more vision than light perception in both eyes and where corrective lenses would make no difference.
- The prevalence of significant visual impairment is around 1/2000 in the Western world.
- Visual impairment present at birth could be due to genetic anomalies or due to injury to the developing visual system.
- Dependent on the cause, the possible presence of other impairments may be indicated, as in rubella.

- Visually impaired children often rely on **sequential observation**.
- They can see or touch only part of an object and from this limited information build up an image of components.
- Awareness of relationships between objects occurs later, and initially connections between sounds and objects are not often made.
- Vision loss can also be associated with hearing loss.
- Increased incidence of Learning Disabilities, Intellectual Disability (ID), Cognition, Social Function, Education and Mental Health Concerns

Deafness, Including Hearing Impairments:

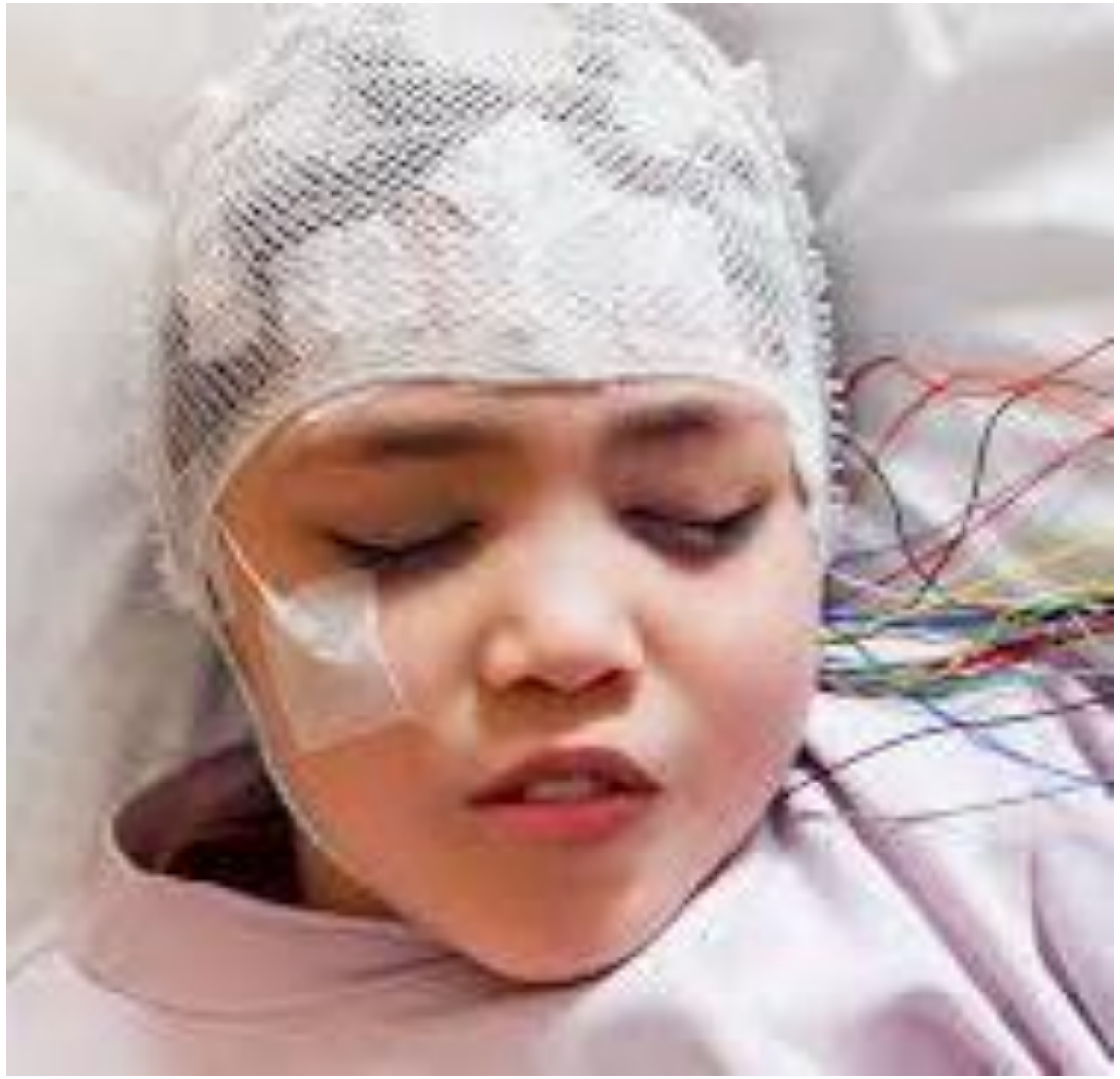
Deafness….It's More Than Hearing Loss….

- Up to 40% of children who are deaf or hard of hearing have problems not just with language delay but with learning, behavior, and motor development
- Increase in Communication, Behavior and Learning Difficulties
- Greater Risk of Secondary Disability

- Approximately one-third to one-half of individuals who are DHH have an additional disability
- Studies found a co-occurrence rate of
  - 23% for having intellectual disability (ID)
  - 10% having Cerebral Palsy
  - 7% having autism spectrum disorders among children with moderate to profound hearing loss

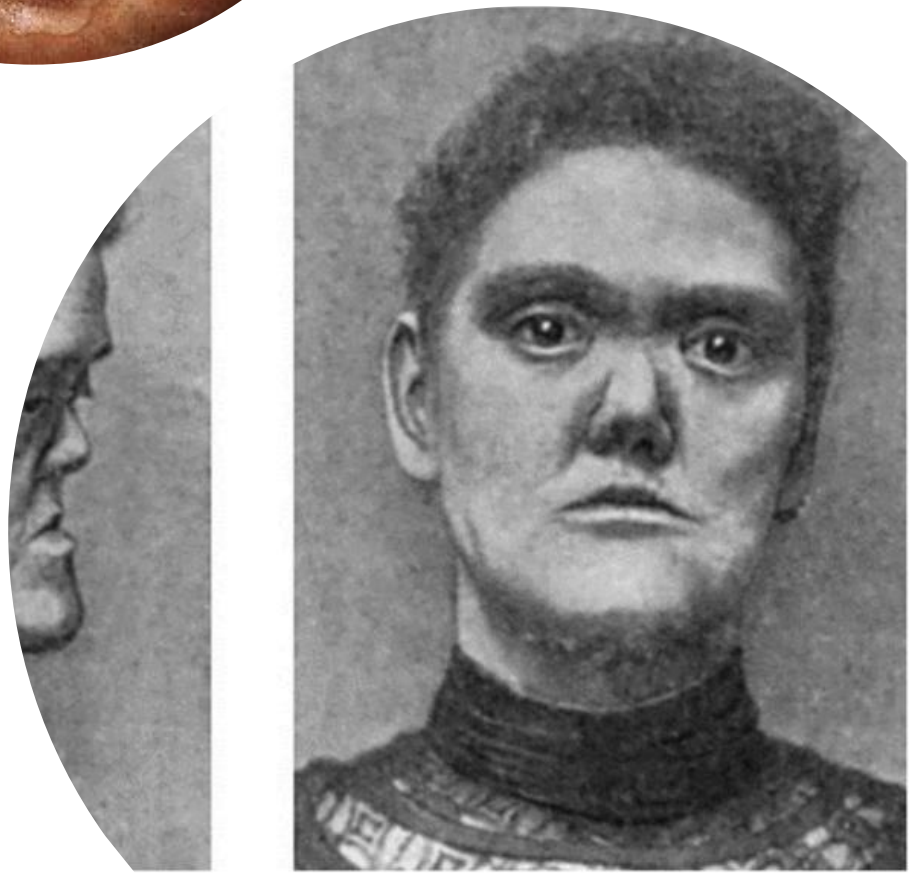
Epilepsy/Seizure Disorder:

- Seizures Can Occur In Utero or Infancy
- They can be a Co-Occurring Disorder with other Developmental Disabilities
- Some of the risk factors for having seizures in children with developmental disabilities are:
  - Cerebral Palsy
  - Intellectual Disability (ID)
  - Neonatal Seizures (seizures at birth or within the first 4 weeks of life)
  - Past History of Febrile Seizures
  - Autism
  - Prematurity



Infection, fetal/neonatal (herpes, syphilis, cytomegalovirus, toxoplasmosis, and rubella):

- Congenital syphilis is **a chronic infectious disease caused by** a spirochete (treponema pallidum)
- It is acquired by the fetus in the uterus before birth.
- Symptoms of this disease may not become apparent until several weeks or months after birth.
- In some cases, may take years to appear.

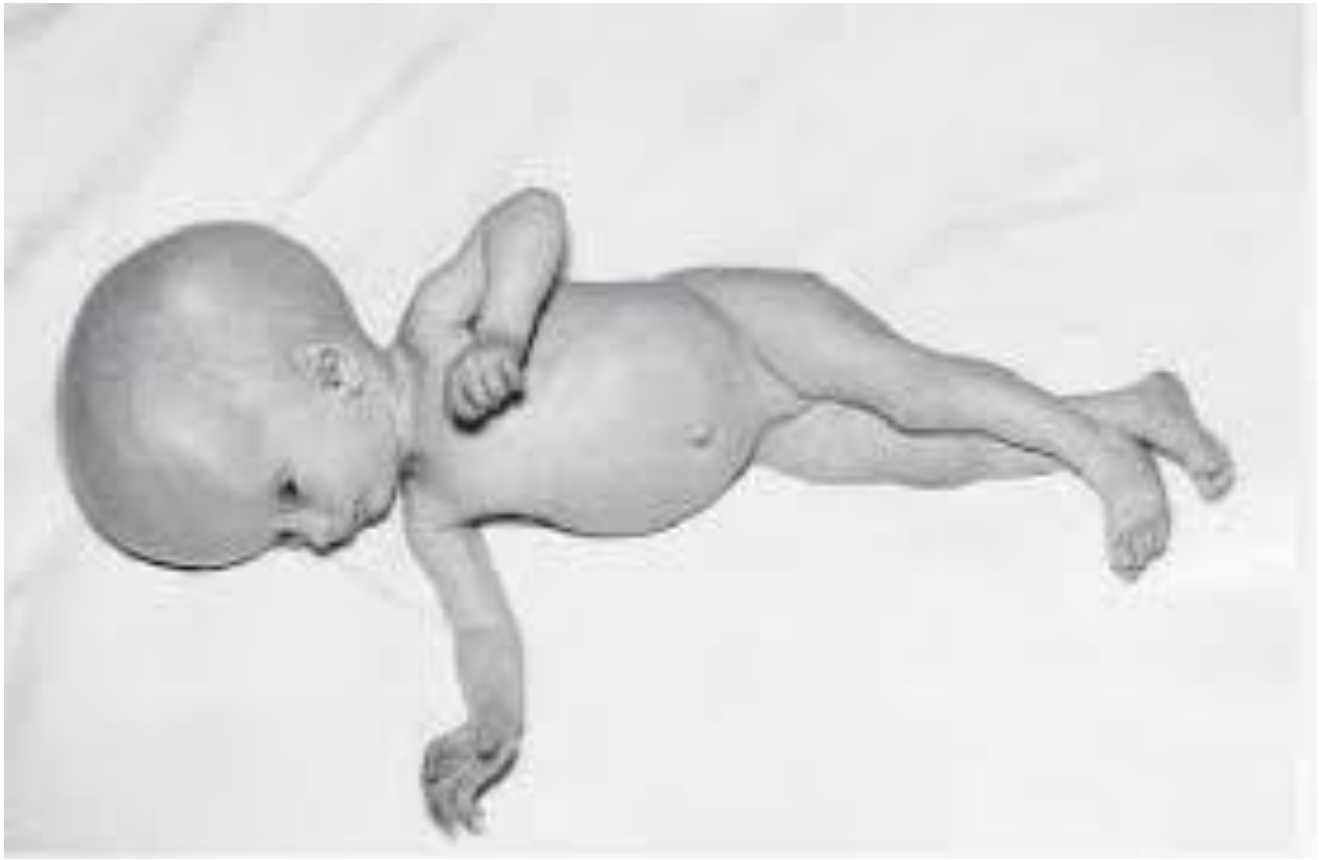


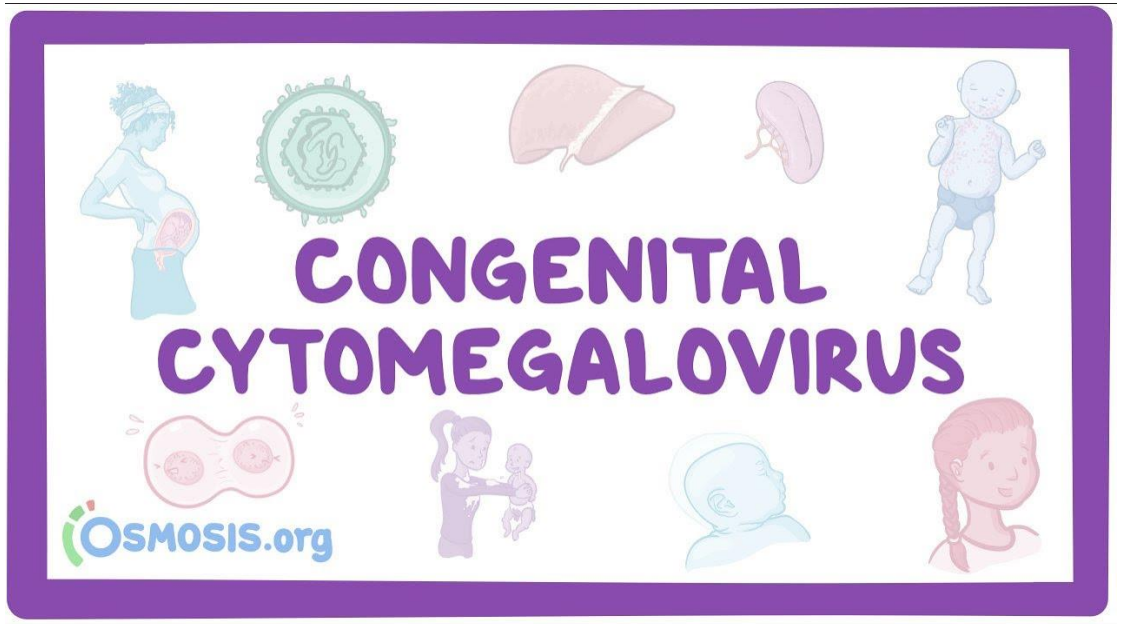
- **<u>What is congenital herpes simplex?</u>**
- Congenital herpes simplex is an infection caused by exposure in the uterus.
- In most cases, babies contract congenital herpes in the birth canal during delivery

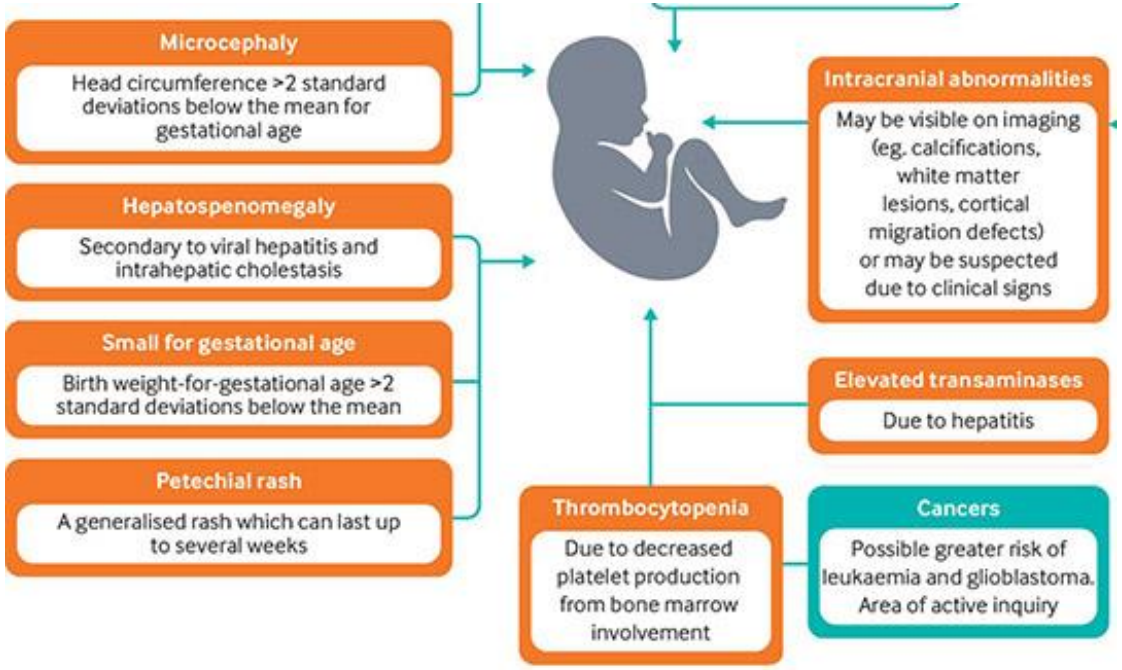
- **What are the symptoms of congenital herpes simplex?**
- Symptoms of congenital herpes usually appear within the first month of the infant's life including:
- irritability
- seizures
- trouble breathing, including grunting, blue appearance (cyanosis), rapid breathing and short periods of no breathing
- jaundice (yellow skin color)
- bleeding easily
- shock

- **<u>What is Congenital Toxoplasmosis?</u>**

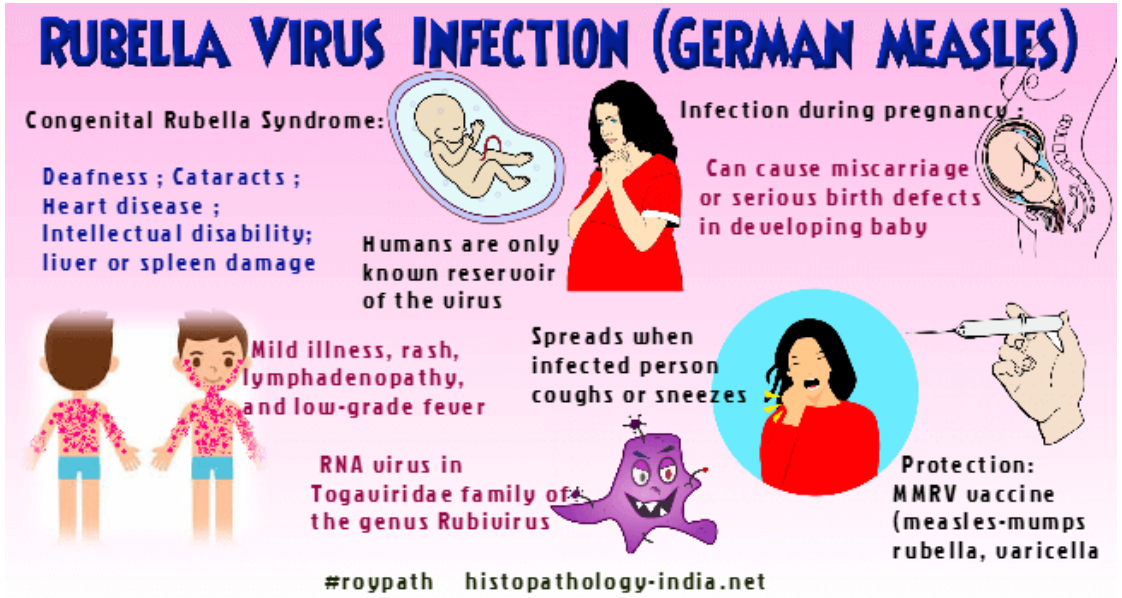
- A disease that occurs in fetuses infected with *Toxoplasma gondii*, a protozoan parasite, which is transmitted from mother to fetus.
- It can cause miscarriage or stillbirth.
- It can also cause serious and progressive visual, hearing, motor, cognitive, and other problems in a child.
- There are approximately 400 to 4,000 cases of congenital toxoplasmosis each year in the United States.
- Best Known for Toxoplasmosis? Cat Feces

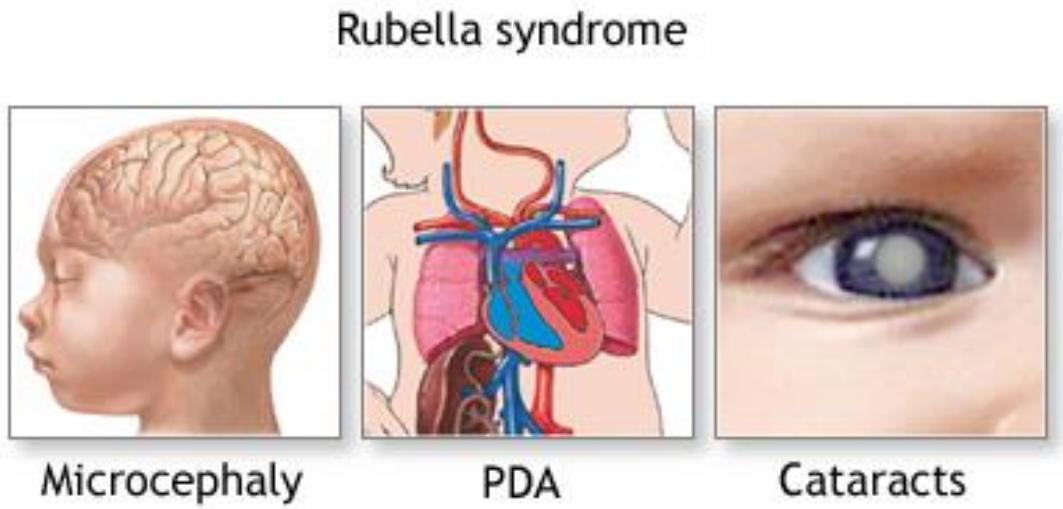



CONGENITAL CYTOMEGALOVIRUS
OSMOSIS.org


Microcephaly
Head circumference >2 standard deviations below the mean for gestational age
Hepatospenomegaly
Secondary to viral hepatitis and intrahepatic cholestasis
Small for gestational age
Birth weight-for-gestational age >2 standard deviations below the mean
Petechial rash
A generalised rash which can last up to several weeks
Intracranial abnormalities
May be visible on imaging (eg. calcifications, white matter lesions, cortical migration defects) or may be suspected due to clinical signs
Elevated transaminases
Due to hepatitis
Thrombocytopenia
Due to decreased platelet production from bone marrow involvement
Cancers
Possible greater risk of leukaemia and glioblastoma. Area of active inquiry

- Most babies with congenital CMV never show signs or have health problems.
- However, some babies have health problems at birth or that develop later.
- These problems may include:
  - Hearing loss
  - Developmental & motor delay
  - Vision loss
  - Microcephaly (small head)
  - Seizures

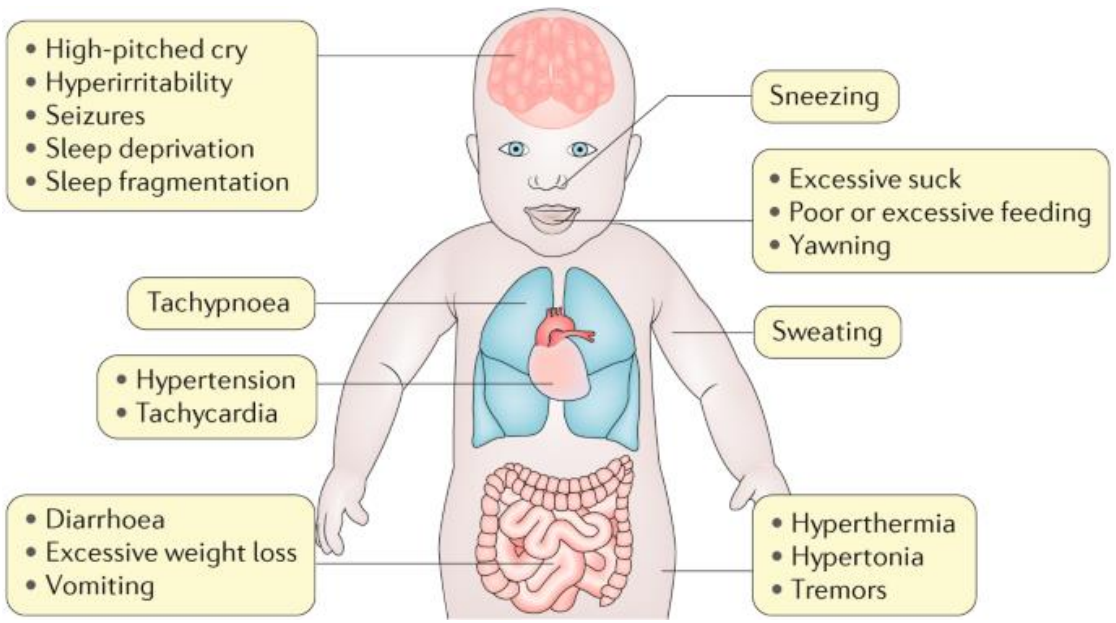

RUBELLA VIRUS INFECTION (GERMAN MEASLES)
Congenital Rubella Syndrome:
Deafness ; Cataracts ;
Heart disease ;
Intellectual disability;
liver or spleen damage
Humans are only known reservoir of the virus
Infection during pregnancy :
Can cause miscarriage or serious birth defects in developing baby
Mild illness, rash, lymphadenopathy, and low-grade fever
Spreads when infected person coughs or sneezes
RNA virus in Togaviridae family of the genus Rubivirus
Protection: MMRV vaccine (measles-mumps rubella, varicella
#roypath histopathology-india.net


Rubella syndrome
Microcephaly
PDA
Cataracts

A.D.A.M.

- **<u>Clinical Pearls: NAS</u>**

- Neonatal abstinence syndrome (NAS) is a treatable condition that newborns may experience as a result of prenatal exposure to certain substances, most often opioids.
- Neonatal opioid withdrawal syndrome (NOWS) is a related term that refers to the symptoms that infants may experience as a result of exposure to opioids specifically.
- Symptoms of NAS and NOWS may include severe irritability, difficulty feeding, respiratory problems, and seizures.
- Other items mentioned in chart review may include: Drug Withdrawal Syndrome, Finnegan Score, NAS scoring, Opioid Exposed Newborn.



Neonatal Abstinence Syndrome in Kentucky, Ohio and West Virginia

23.3 **15.5** **50.6**

NAS births per 1,000 births

Source: Kentucky Department for Public Health, 2016 data; Ohio Department of Health, 2015 data; West Virginia Department of Health and Human Resrouces, 2017 data

Graphic by Alexandra Kanik

Resources for Health Information Regarding Early Diagnosed Conditions:

American Academy of Pediatrics Website for Families:
https://www.healthychildren.org/English/Pages/default.aspx

American Academy of Family Physicians Website for Patients:
https://familydoctor.org/

Medline Plus, A Service of the U.S. National Library of Medicine and the National Institutes of Health :
https://medlineplus.gov/

Harvard Medical School Medical Dictionary of Health Terms:
https://www.health.harvard.edu/a-through-c

Kids Health (includes information for parents, educators, kids and teens):
https://kidshealth.org/

National Organization for Rare Disorders – Rare Disease Database & Video Library:
https://rarediseases.org/for-patients-and-families/information-resources/rare-disease-information/

NIH Genetic and Rare Diseases Information Center:
https://rarediseases.info.nih.gov/diseases/browse-by-first-letter