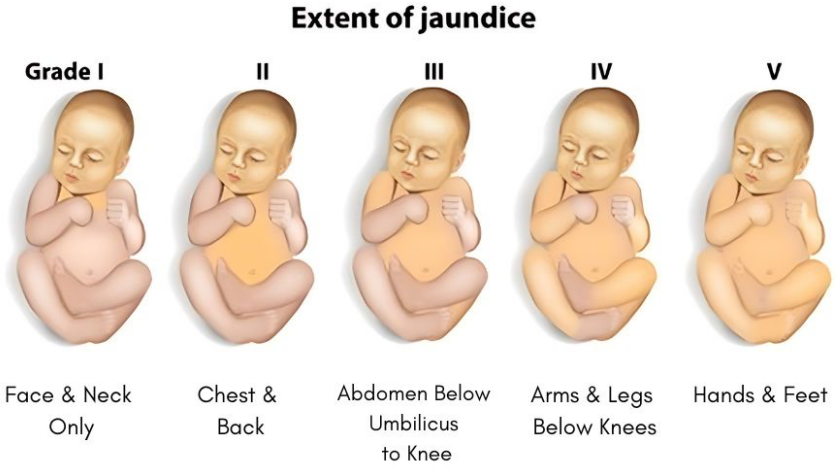
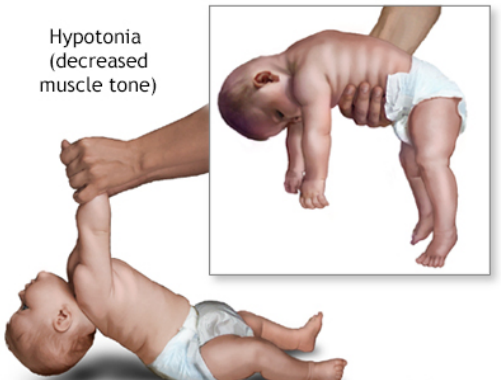
Newborn Assessment Guidlines

Newborn Head-to-Toe Assessment

CATEGORY	OBSERVATIONS	
General Appearance	Color: pink/ pale/ acrocyanosis/ jaundiced Cry: strong/ weak/ high-pitched Tone: normal (flexed)/ hypotonic/ hypertonic	Acrocyanosis  Jaundiced 

Newborn Head-to-Toe Assessment

		Hypotonic Low muscle tone is often, but not exclusively, linked to some sort of chromosomal abnormality. Common diagnoses include Down syndrome, Prader-Willi syndrome, and Ehlers-Danlos syndrome.  Hypertonic High muscle tone is often associated with damage to the brain and/or central nervous system. Some of the most common diagnoses include cerebral palsy, stroke, and multiple sclerosis 

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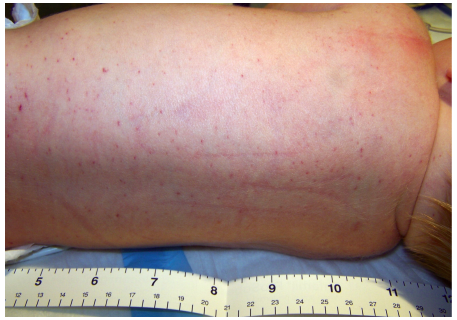
Skin	peeling/ rash/ bruising/ vernix/ petechiae/ Mongolian Spots	Premature infants tend to have more vernix caseosa than full-term infants.  Petechiae (not scattered or covering a large area) is most often due to trauma from birth can be normal; petechiae with a fever is NOT a normal finding. Petechiae covering a large section (i.e. back/torso) is also NOT a normal finding and can be related to Neonatal Alloimmune Thrombocytopenia.  Mongolian spots are not contusions. They are non-blanching hyperpigmented patches over the gluteal region that usually present at birth or in the first few weeks of life. 

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		Other possible findings: Lanugo is fine, soft hair that may cover the scalp, forehead, cheeks, shoulders, and back. This is more common when an infant is born before the due date.  Milia, (tiny, pearly-white, firm raised bumps on the face) which disappear on their own. 

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		Mild acne that most often clears in a few weeks. This is caused by some of the mother's hormones that stay in the baby's blood.  Erythema toxicum. This is a common, harmless rash that looks like little pustules on a red base. It tends to appear on the face, trunk, legs, and arms about 1 to 3 days after delivery. It disappears by 1 week. 

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		Congenital nevi are moles (darkly pigmented skin markings) that may be present at birth. They range in size from as small as a pea to large enough to cover an entire arm or leg, or a large portion of the back or trunk. Larger nevi carry a greater risk of becoming skin cancer.  Café-au-lait spots are light tan, the color of coffee with milk. They often appear at birth or may develop within the first few years. Children who have many of these spots, or large spots, may be more likely to have a condition called neurofibromatosis. 

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		Port-wine stains - growths that contain blood vessels (vascular growths). They are red to purplish in color. They are frequently seen on the face, but may occur on any area of the body.  Hemangiomas - a collection of capillaries (small blood vessels) that may appear at birth or a few months later. 

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		Stork bites - small red patches on the baby's forehead, eyelids, back of the neck, or upper lip. They are caused by stretching of the blood vessels. They often go away within 18 months. 
Head	molding/ caput/ open flat fontanels/ cephalohematoma	Molding Overlapping bones along suture lines. Present at birth. Resolves in first few weeks of life.  Caput Succedaneum Soft-tissue swelling that crosses suture lines; irregular borders. Parieto-occipital or diffuse swelling. May see dependent edema on one side. Present at birth. Resolves in the first few days of life. 

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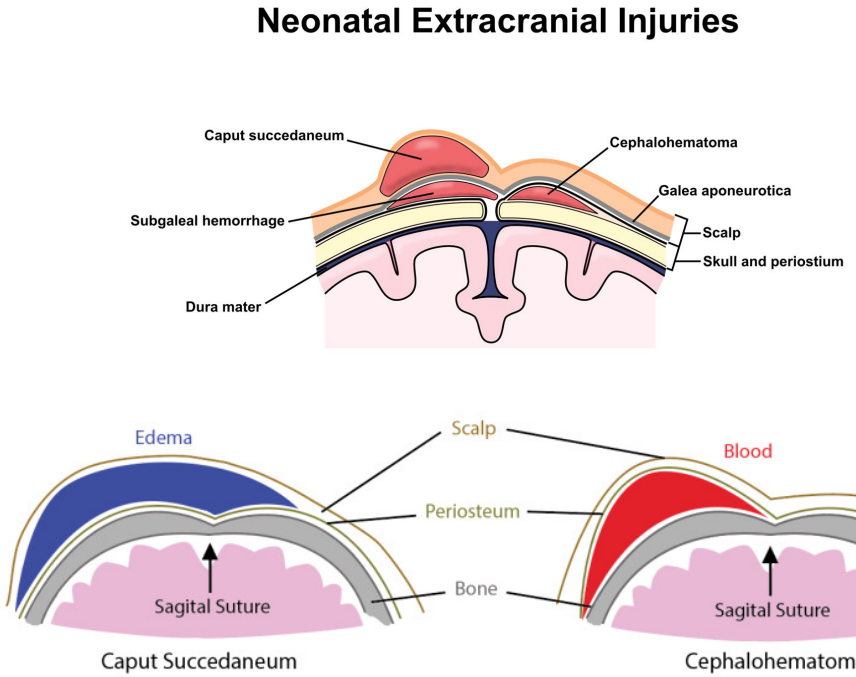
		Subperiosteal hemorrhage. Swelling that does not cross suture lines. Tense, focal swelling. Usually in the parietal area. May be bilateral. Develops incrementally during first 24-hours of life. May take 2-3 months to resolve.  Comparisons: 

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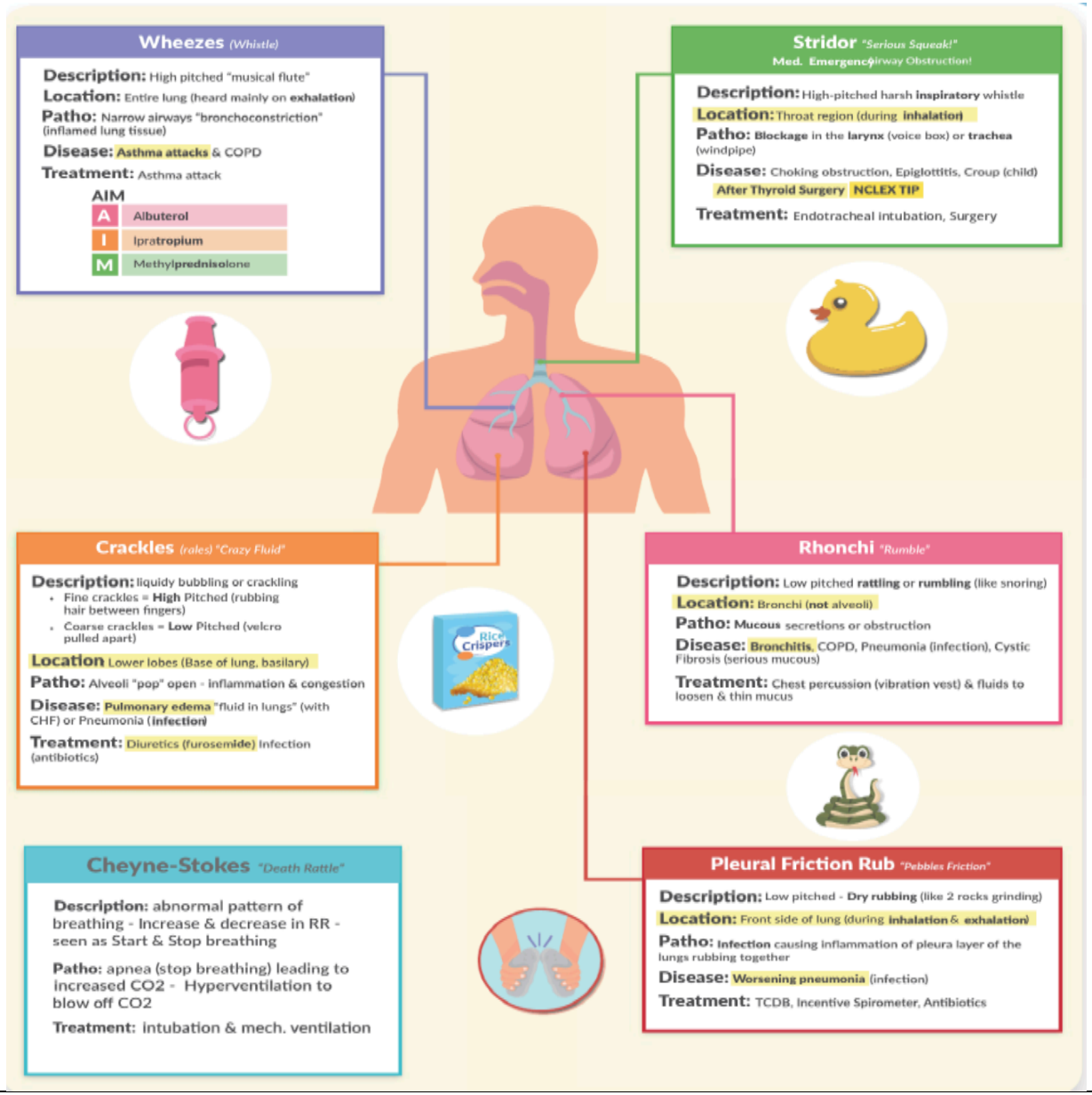
Eyes	clear/ discharge/ jaundice/ hemorrhage	Jaundice  Hemorrhage Infant subconjunctival hemorrhage is a common and generally mild birth injury that often heals itself without medical intervention. It's characterized by red patches on the whites of a baby's eyes. In very rare cases, the damage may be permanent and signal a more serious condition. 
ENT	intact palate/ normal ear setting/ patent nares/ nasal flaring airway patent? upper airway congestion?	 Normal ear position (left). Abnormally angled ear (middle). Low-set ears (right)

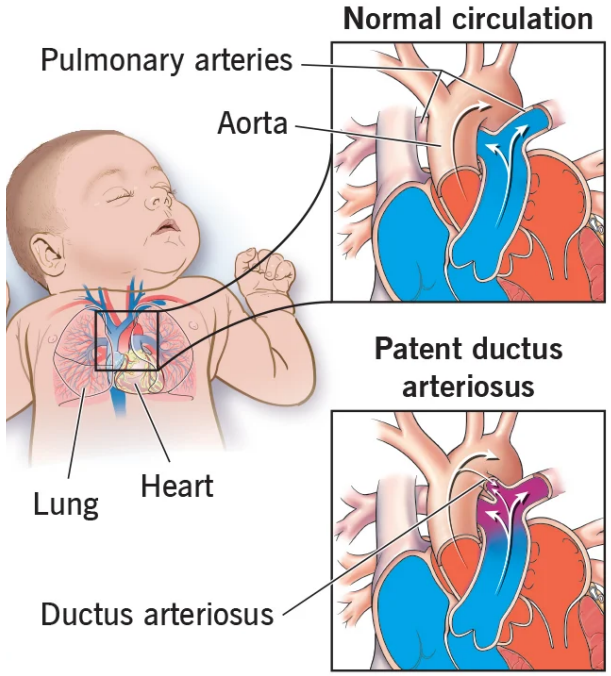
Newborn Head-to-Toe Assessment

Chest	symmetrical/ clavicle (intact)/ fractured (L/ R)? nipple placement WNL/abnormal breast tissue? chest movement- symmetrical/ ribs symmetrical?	 

Newborn Head-to-Toe Assessment

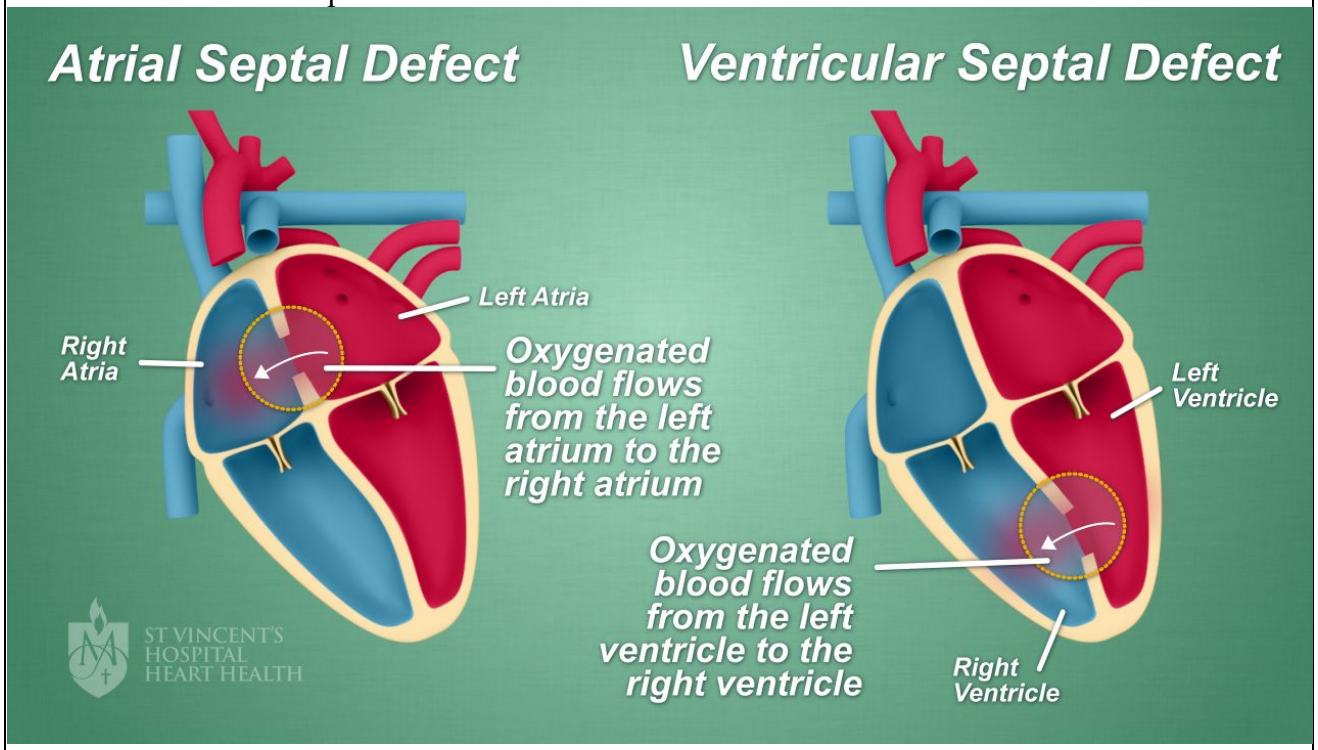
Respiratory	RR ____ clear/ equal bilaterally/ retractions/ grunting/ coarse breath sounds- crackles/ diminished/apneic episodes	

Newborn Head-to-Toe Assessment

Heart	HR _____ regular rate/ peripheral pulses bilaterally (femoral)/ murmur/ PMI	Palpation of the femoral pulse should be a routine examination in the neonatal period in order to detect coarctation of the aorta or congenital left-sided obstructive heart malformation. It will present as an absent or diminished femoral pulse. Brachial pulse is best manual pulse check in an infant. Patent Ductus Arteriosus 

Newborn Head-to-Toe Assessment

Atrial and Ventricular Septal Defect



A septal defect is a birth defect of the heart in which there is a hole in the wall (septum) that divides the upper or lower chambers of the heart.

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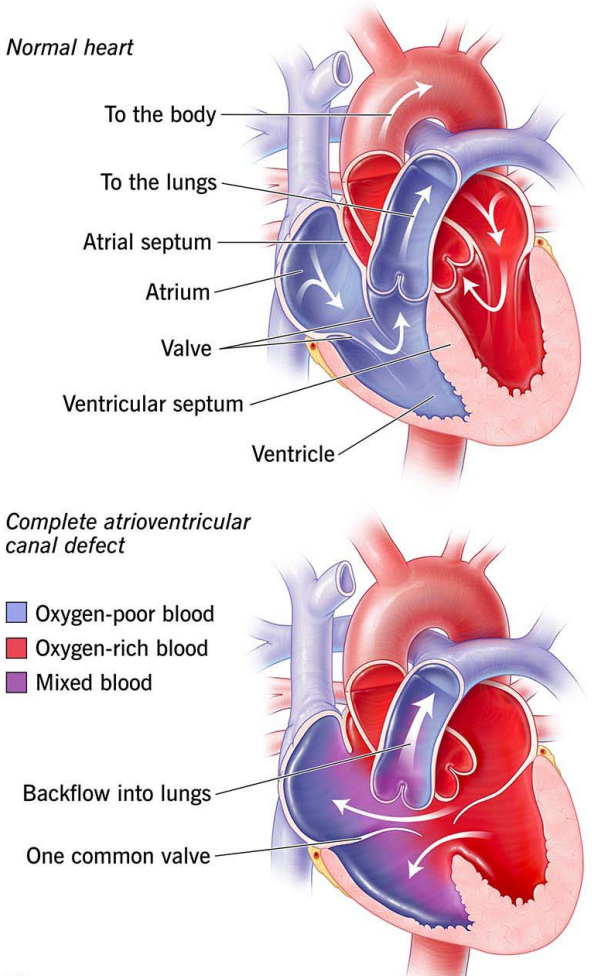
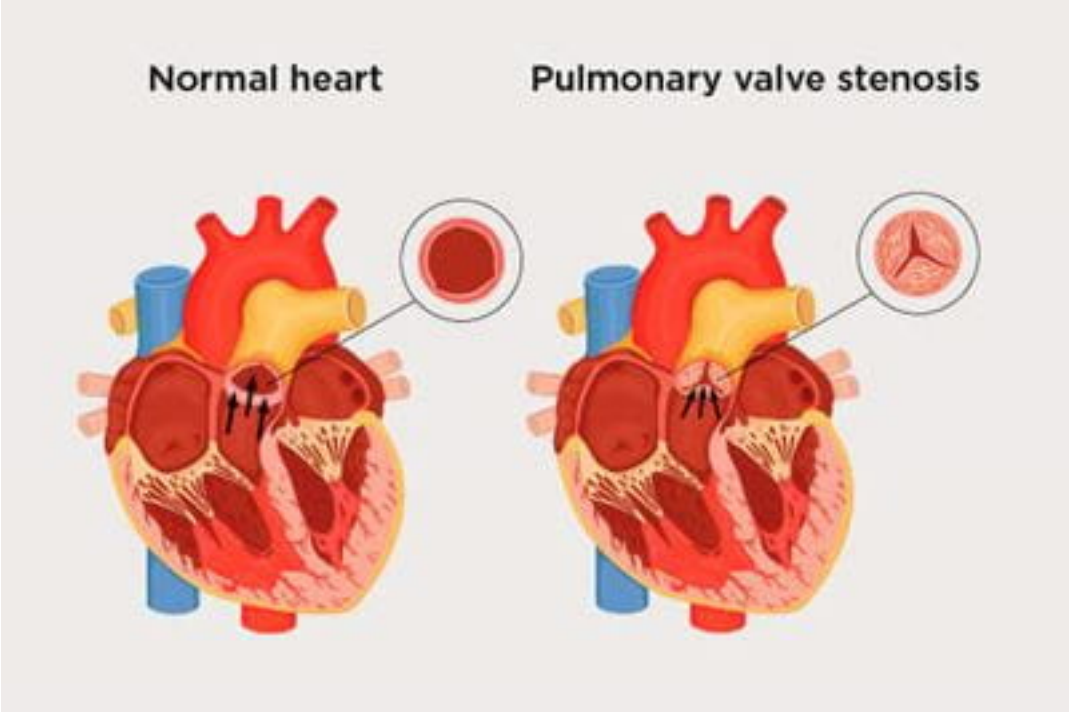
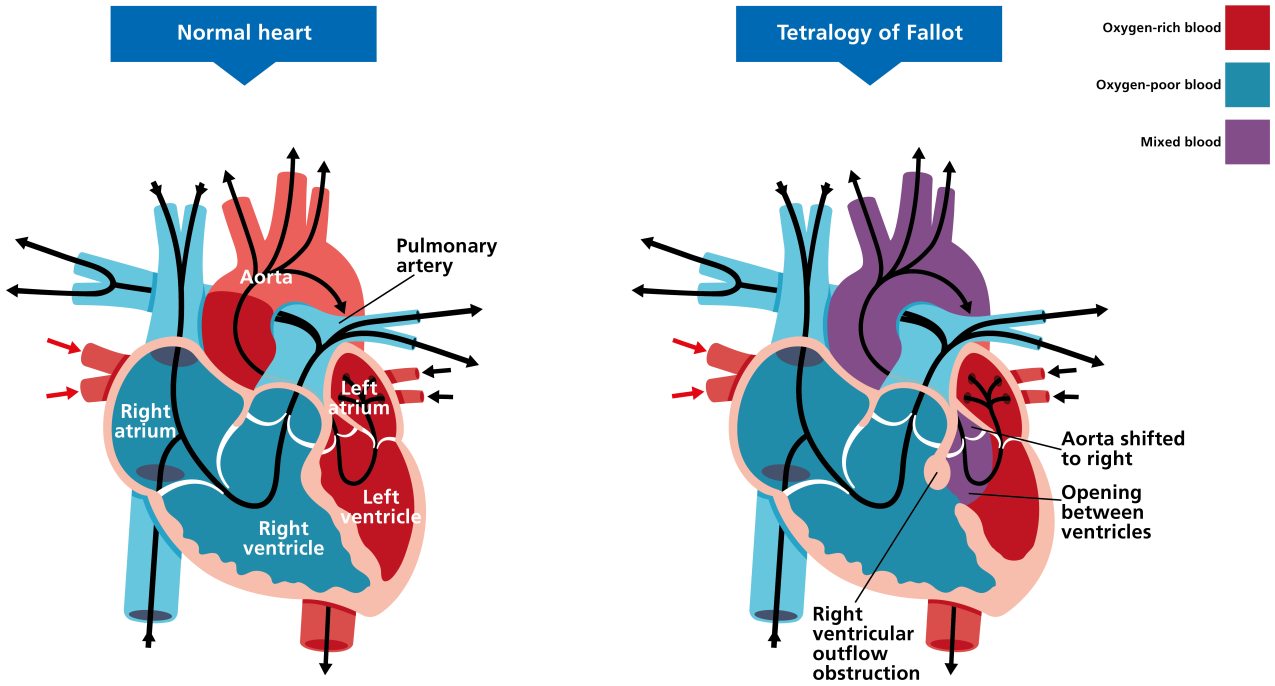
		Atrioventricular Canal Defect or Atrioventricular Septal Defect  A large hole in the center of the heart affecting all four chambers. Valves don't properly route the blood to each station of circulation. An atrioventricular canal defect allows the oxygen-poor and oxygen-rich blood to mix. This results in extra blood flow to the lungs that forces the heart and lungs to work extra hard. It may lead to heart failure and high blood pressure in the lungs. Surgery is needed to close the hole and reconstruct the valves. This defect is also called an atrioventricular septal defect (AVSD).

Newborn Head-to-Toe Assessment

		Pulmonary Valve Stenosis  A thickened or fused pulmonary valve that is not fully open. Located between the right heart's chambers, this valve allows blood to flow into the pulmonary artery and then to the lungs.

Newborn Head-to-Toe Assessment

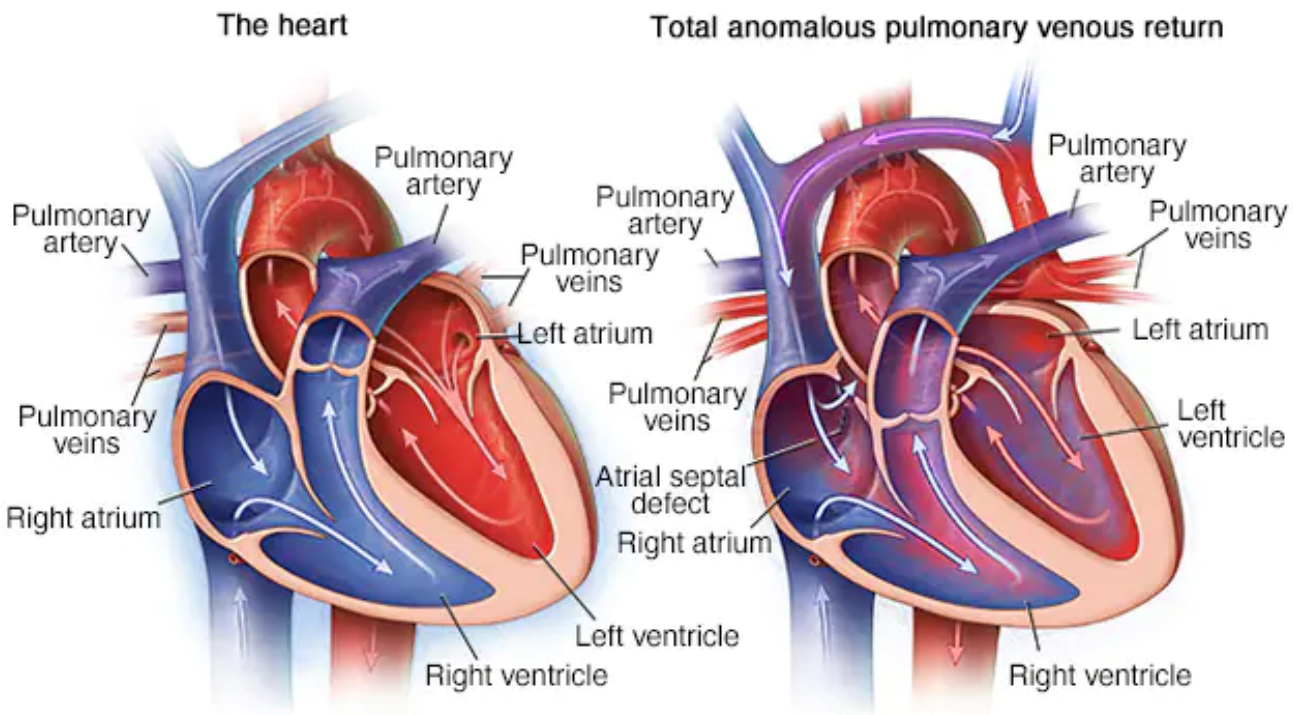
Tetralogy of Fallot



A combination of four heart defects. It includes a ventricular septal defect. It also includes pulmonary valve stenosis. Additionally, the aorta lies over the hole in the ventricles. Finally, the muscular wall of the right ventricle is thicker than normal.

Newborn Head-to-Toe Assessment

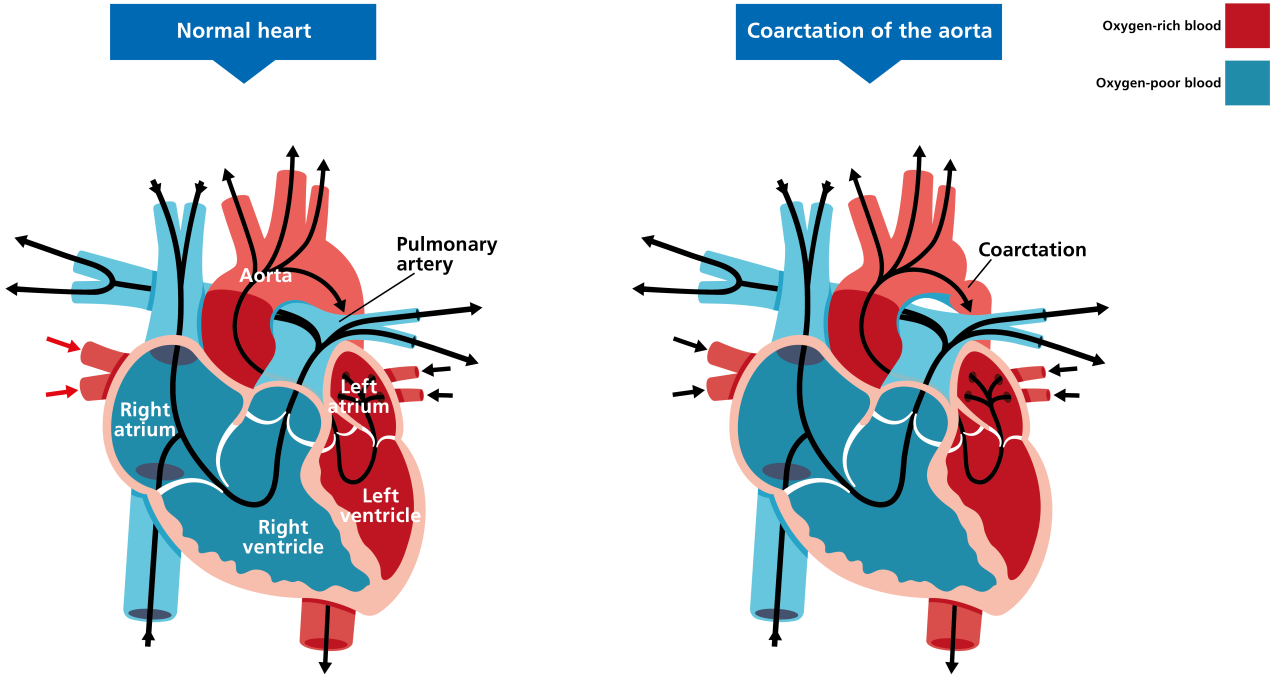
Total Anomalous Pulmonary Venous Return



The pulmonary veins do not connect to the left upper chamber (atrium). These veins are needed to bring blood back from the lungs. As a result, the oxygen-rich blood returns to the right side of the heart. There it mixes with oxygen-poor blood.

Newborn Head-to-Toe Assessment

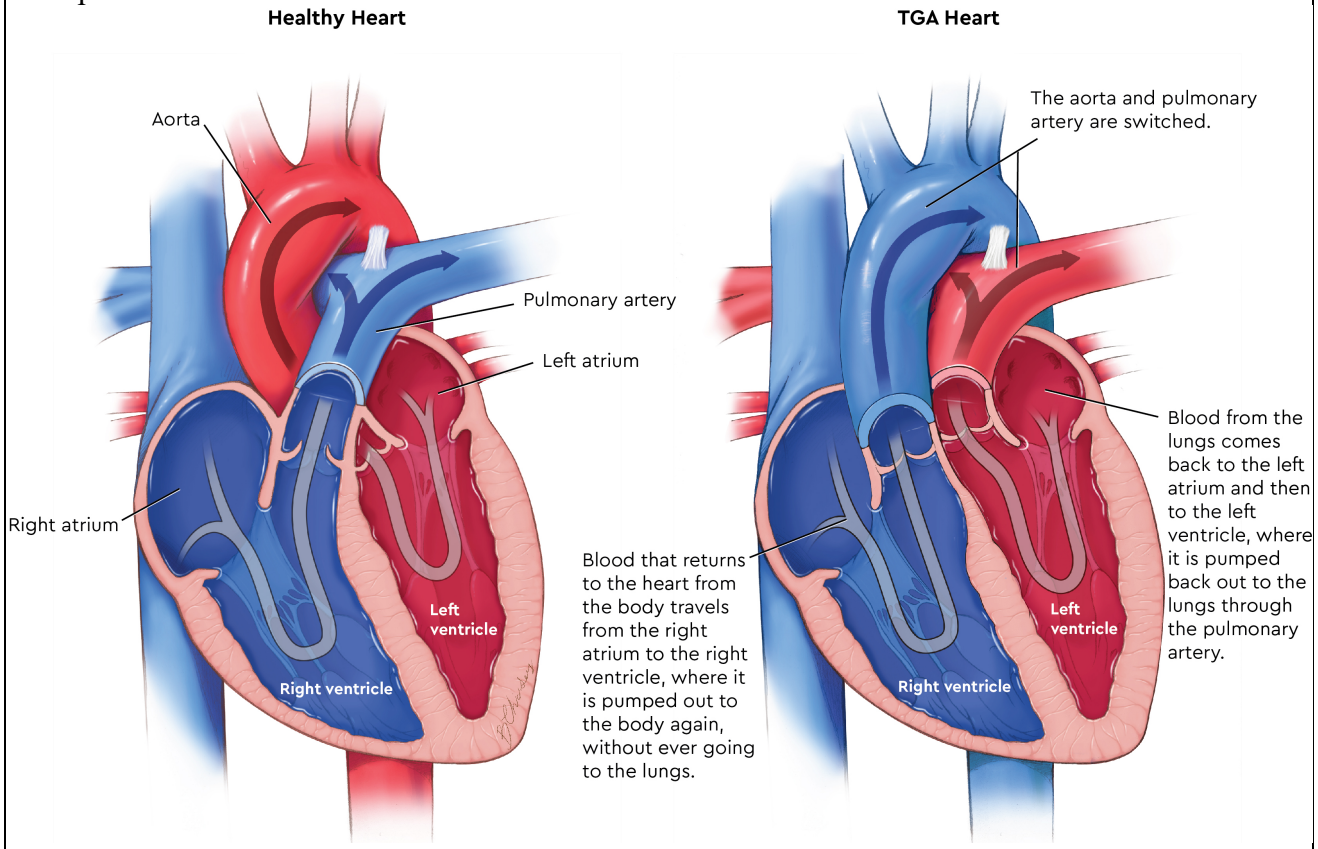
Coarctation of the Aorta (CoA)



The major artery that carries blood to the body is narrower than it should be. This narrowing affects oxygen-rich blood flow to the upper and lower parts of the body. If the aorta is not widened, it can cause high blood pressure or heart damage.

Newborn Head-to-Toe Assessment

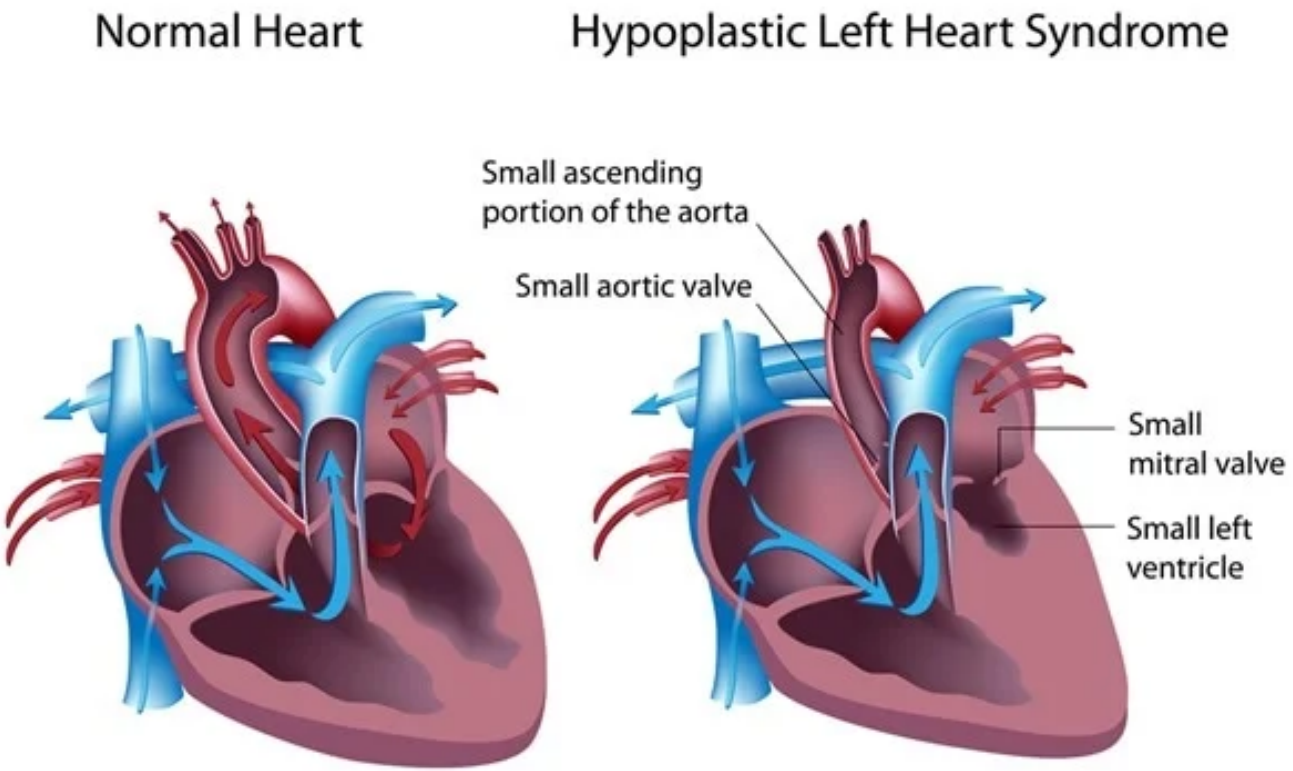
Transposition of the Great Arteries



Two main arteries – the main pulmonary artery and the aorta – connect to the wrong chambers. In a healthy heart, the right side pumps oxygen-poor blood to the lungs through the pulmonary artery. In babies with TGA, oxygen-poor blood enters the right side and is pumped back out through the aorta. The left side of the healthy heart pumps oxygen-rich blood to the body through the aorta. In the TGA heart, oxygen-rich blood from the lungs is pumped back to the lungs through the main pulmonary artery.

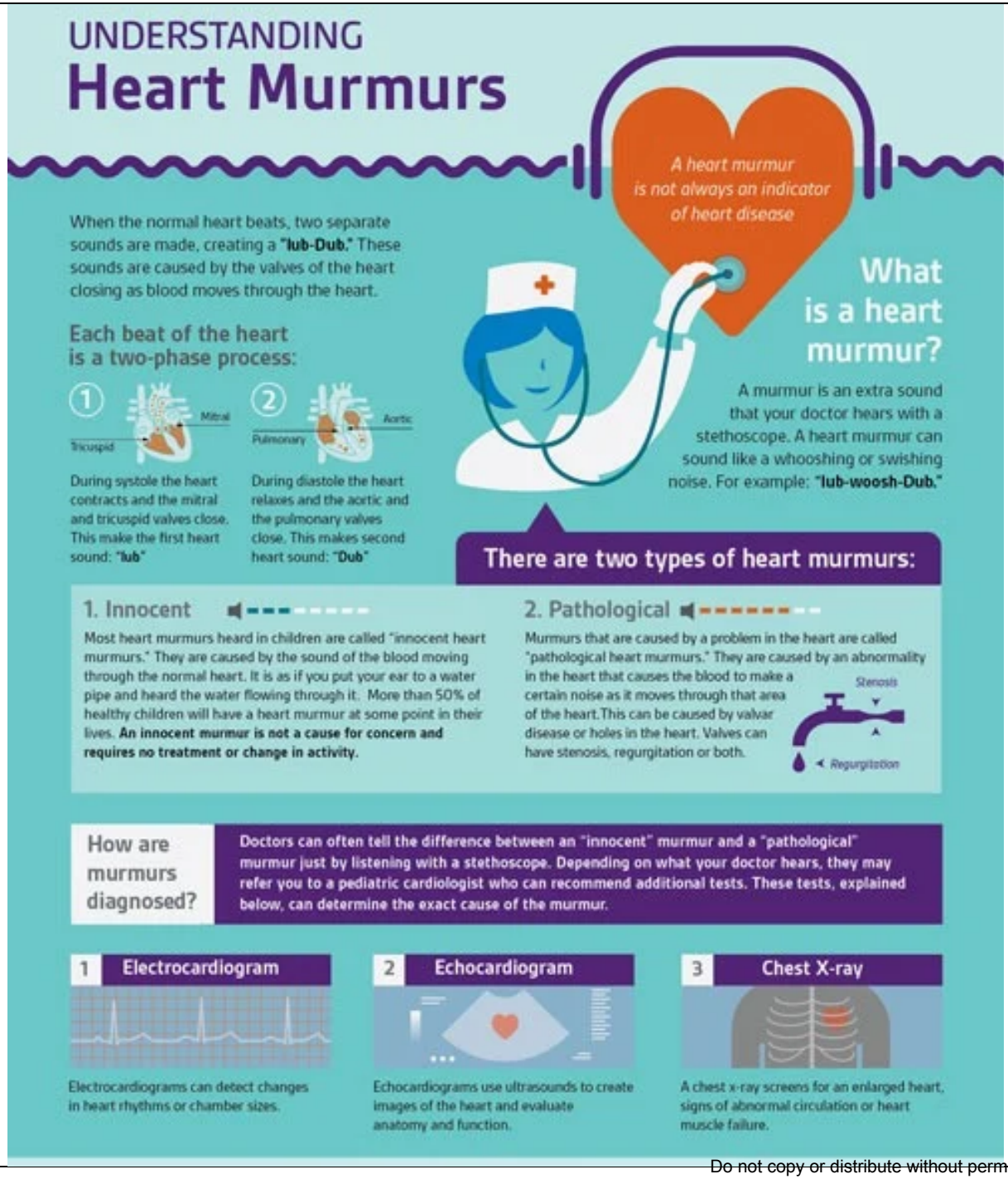
Newborn Head-to-Toe Assessment

Hypoplastic Left Heart Syndrome (HLHS)

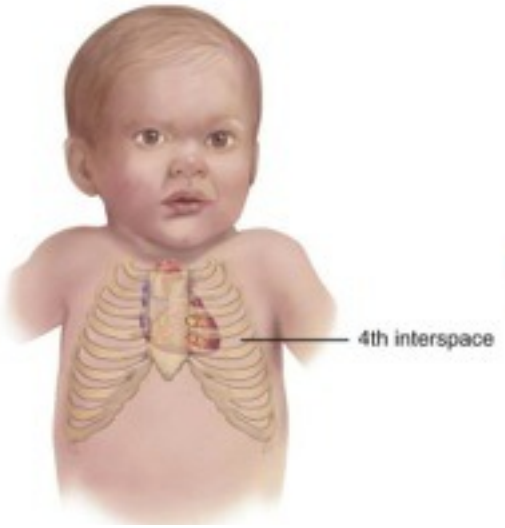
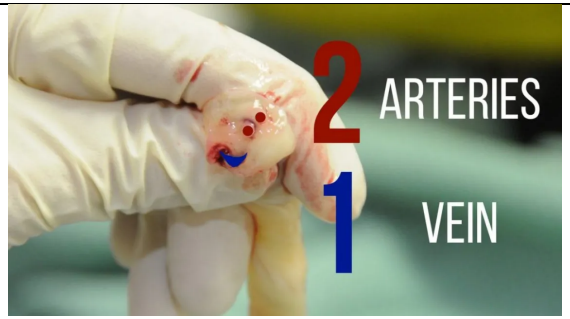


Babies with HLHS are born with an undeveloped left side of the heart. They have a very small left ventricle, the lower chamber that pumps blood into the aorta. The mitral and aortic valves are very small or completely closed. The mitral valve separates the left ventricle and the left atrium. The aortic valve separates the left ventricle and the aorta.

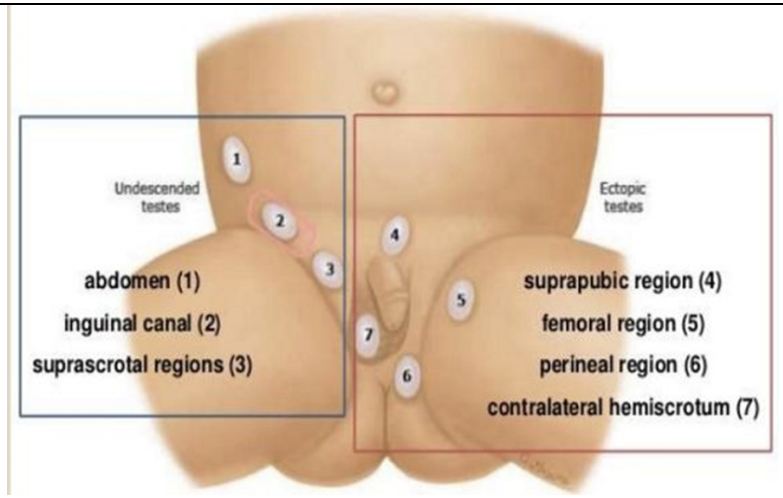
Newborn Head-to-Toe Assessment



Newborn Head-to-Toe Assessment

		Palpate the PMI that is the point of maximal impulse. The PMI should be at about the 3rd of4th intercostal space at about the midclavicular line. If the PMI is shifted dramatically either to the right or to the left, you must be concerned about a pneumothorax. 
Abdomen	soft/ distended/ bowel sounds (present, diminished, absent), umbilical vessels x ____, cord clamp	

Newborn Head-to-Toe Assessment

Genitalia	female/ male/ intersex (ambiguous) testes: descended (R, L), undescended? female: pseudomenstruation/ discharge?	 Pseudomenstruation -Newborn girls may have a small amount of vaginal discharge – a thick, white mucus that may sometimes be tinged with blood.
Anus	placement normal? Meconium-present/absent anal wink?	The anal wink (anal reflex, perineal reflex, or anocutaneous reflex) is the reflexive contraction of the external anal sphincter upon stroking of the skin around the anus.
Spine	gluteal folds- equal/ unequal; pilonidal dimple- yes/no spine- straight/ curved	Abnormal gluteal fold 

Newborn Head-to-Toe Assessment

		Dimple  Pilonidal 
Extremities	muscle tone- normal/hypotonic/hypertonia symmetrical movement/ polydactyly/ syndactyly	Polydactyly  Syndactyly 

Newborn Head-to-Toe Assessment

Reflexes noted	Moro/ grasp/ suck/ rooting/ swallow/ Babinski/tonic neck/ trunk incurvation/ step	

MORO (OR STARTLE) REFLEX

1. *Hold the infant with the head supported and rapidly lower the whole body a few inches.*
2. *Place the infant in a supine position on a flat, soft surface. Hit the surface with you hand or startle the infant ion some way.*

Disappearance of reflex:

This reflex disappears at 3 months.

Abnormal findings:

An asymmetric response suggests injury of the part that responds more slowly. Absence of a response suggests CNS injury.

Newborn Head-to-Toe Assessment

PALMAR GRASP REFLEX

Place a gloved finger or sterile nipple in the newborn's mouth, and note the strength of the sucking response. (A diminished response is normal in a recently fed newborns.)

Disappearance of reflex:

This reflex disappears at 10-12 months.

Abnormal findings:

A weak or absent sucking reflex may indicate a neurologic disorder, prematurity, or CNS depression caused by maternal drug use or medication during pregnancy.

Newborn Head-to-Toe Assessment

SUCKING REFLEX

Place a gloved finger or sterile nipple in the newborn's mouth, and note the strength of the sucking response. (A diminished response is normal in a recently fed newborns.)

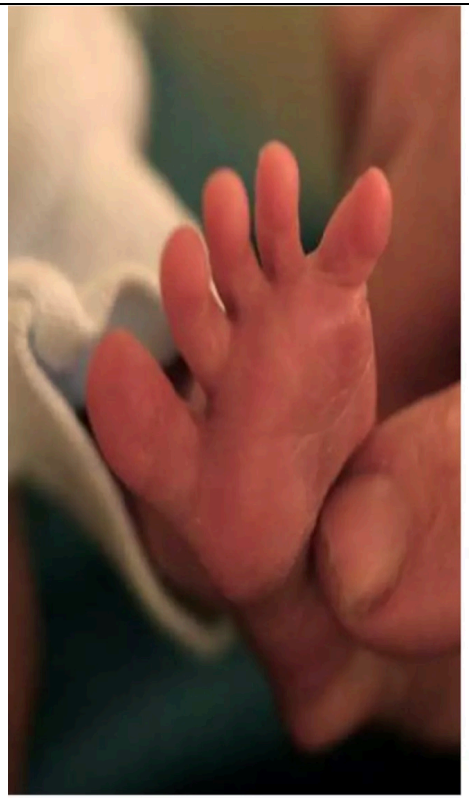
Disappearance of reflex:

This reflex disappears at 10-12 months.

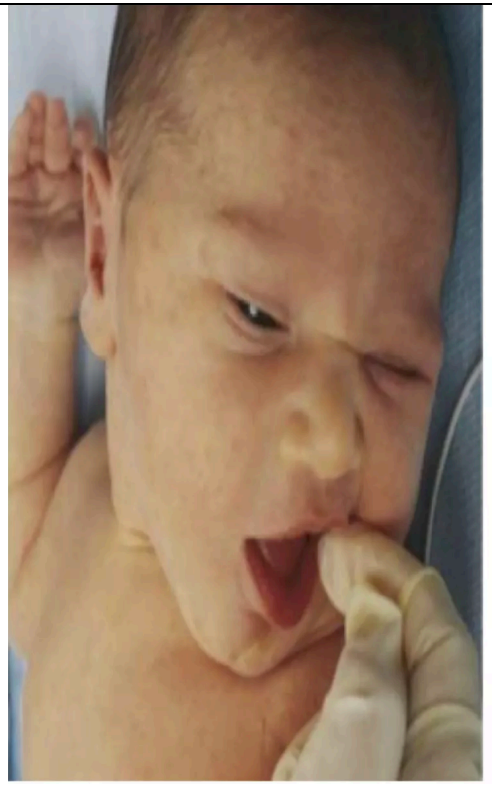
Abnormal findings:

A weak or absent sucking reflex may indicate a neurologic disorder, prematurity, or CNS depression caused by maternal drug use or medication during pregnancy.

Newborn Head-to-Toe Assessment

		 BABINSKI REFLEX *Hold the newborns foot and stroke up the lateral edge and across the ball. A positive Babinski reflex is fanning of the toes.* ***Disappearance of reflex:*** *This reflex disappears at 2 years.* ***Abnormal findings:*** *A positive response after 2 years suggests pyramidal tract disease.*

Newborn Head-to-Toe Assessment

ROOTING REFLEX

To elicit the rooting reflex, touch the newborn's upper or lower lip or cheek with a gloved finger or sterile nipple. The newborn will move the head toward the stimulated area and open the mouth.

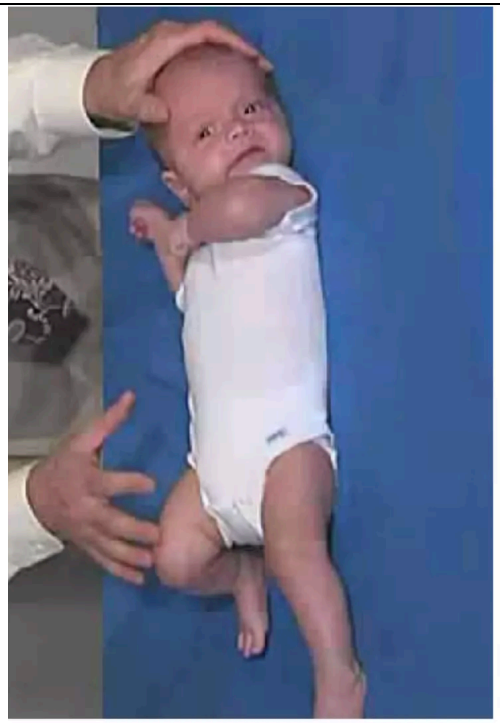
Disappearance of reflex:

The rooting reflex disappears by 3-4 months.

Abnormal findings:

Absence of a rooting indicates serious CNS disease.

Newborn Head-to-Toe Assessment



TONIC NECK REFLEX

The newborn should be supine. Turn the head to one side, with newborns jaw at the shoulder. The tonic neck reflex is present when the arm and leg on the side to which the head is turned extend and the opposite arm and leg flex. This reflex usually does not appear until 2 months of age.

Disappearance of reflex:

This reflex disappears at 4-6 months.

Abnormal findings:

If this reflex persists until later in infancy, brain damage is usually present.

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TRUNK INCURVATION REFLEX

It is elicited by holding the newborn in ventral suspension (face down) and stroking along the one side of the spine. The normal reaction is for the newborn to laterally flex toward the stimulated side.

Disappearance of reflex: *This reflex usually disappears by 2 -4 months.*

Abnormal findings:

No response may indicate CNS damage.

Newborn Head-to-Toe Assessment

STEPPING REFLEX

Hold the newborn upright from behind, provide support under arms, and let the newborns feet touch a surface. The reflex response is manifested by the newborns stepping with one foot and then the other in a walking motion.

Disappearance of reflex:

This reflex usually disappears within 2 months.

Abnormal findings:

An asymmetric response may indicate injury of the leg, CNS damage, or peripheral nerve injury.

Newborn Head-to-Toe Assessment

State	quiet awake/ alert/ active/ sleeping/ crying