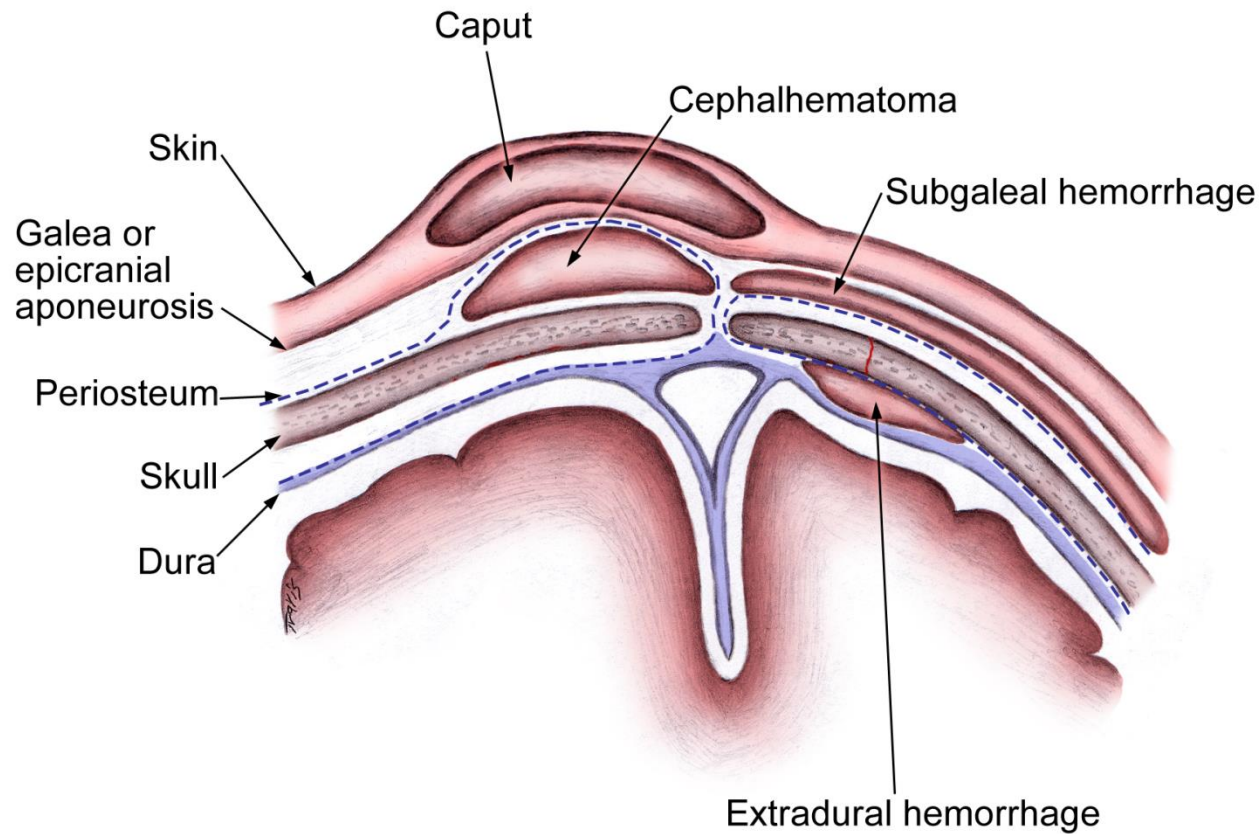


# Birth Injuries

# Caput Succedaneum



# CAPUT SUCCEDANEUM

## Definition

A caput succedaneum is an edema of the scalp at the neonate's presenting part of the head. It often appears over the vertex of the newborn's head as a result of pressure against the mother's cervix during labor. The edema in caput succedaneum crosses the suture lines. It may involve wide areas of the head or it may just be a size of a large egg.

## Causes

- Mechanical trauma of the initial portion of scalp pushing through a narrowed cervix
- Prolonged or difficult delivery
- Vacuum extraction
- The pressure (at birth) interferes with blood flow from the area causing a localized edema. The edematous area crosses the suture lines and is soft. Caput Succedaneum also occurs when a vacuum extractor is used. In this case, the caput corresponds to the area where the extractor is used to hasten the second stage of labor.

# CAPUT SUCCEDANEUM

## **Signs and Symptoms**

- Scalp swelling that extends across the midline and over suture lines
- Soft and puffy swelling of part of a scalp in a newborn's head
- May be associated with increased molding of the head
- The swelling may or may not have some degree of discoloration or bruising

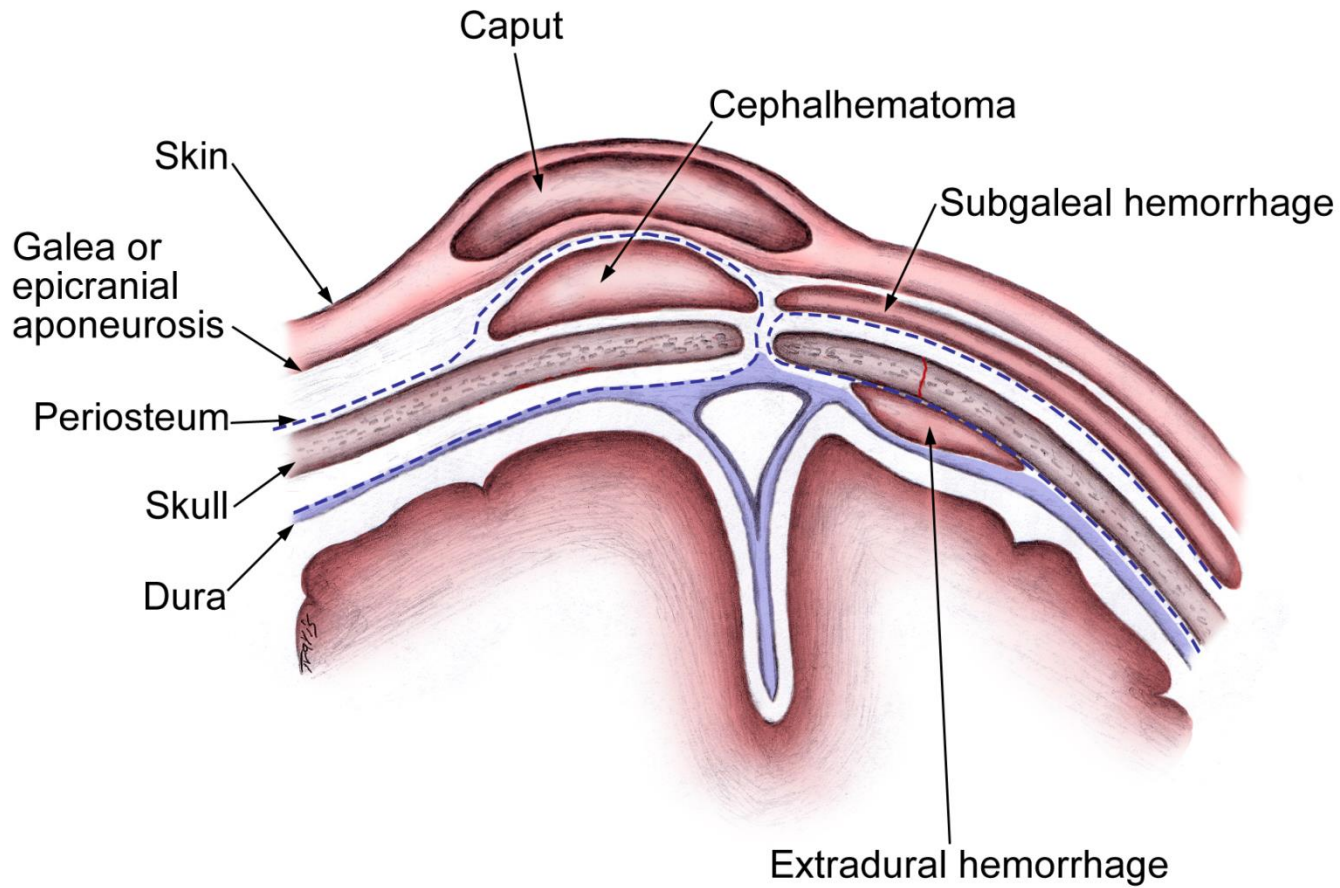
## **Management**

- Needs no treatment. The edema is gradually absorbed and disappears about the third day of life.

## **Complication**

- Jaundice – results as the bruise breaks down into bilirubin.

# CEPHALHEMATOMA



# CEPHALHEMATOMA

## Definition

- Cephalhematoma is a collection of blood between the periosteum of a skull bone and the bone itself. It occurs in one or both sides of the head. It occasionally forms over the occipital bone. The swelling with cephalhematoma is not present at birth rather it develops within the first 24 to 48 hours after birth.

## Causes

- Rupture of a periosteal capillary due to the pressure of birth
- Instrumental delivery

# CEPHALHEMATOMA

## **Signs and Symptoms**

- Swelling of the infant's head 24-48 hours after birth
- Discoloration of the swollen site due to presence of coagulated blood
- Has clear edges that end at the suture lines

## **Management**

- Observation and support of the affected part.
- Transfusion and phototherapy may be necessary if blood accumulation is significant

## **Complication**

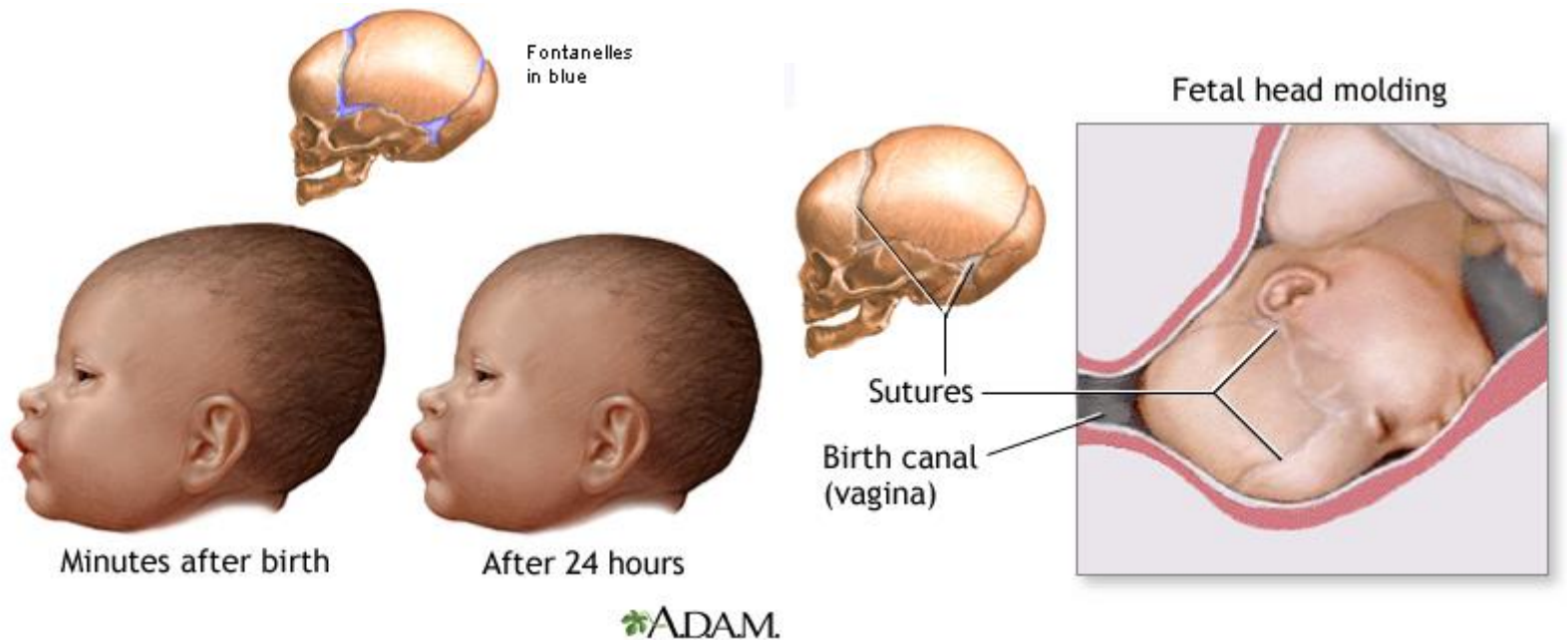
- Jaundice

# Difference Between Caput Succedaneum and Cephalhematoma

INDICATORS	CAPUT SUCCEDANEUM	CEPHALHEMATOMA
Location	Presenting part of the head	Periosteum of skull bone and bone
Extent of Involvement	Both hemispheres; CROSSES the suture lines	Individual bone; DOES NOT CROSS the suture lines
Period of Absorption	3 to 4 days	Few weeks to months
Treatment	None	Support



# Newborn Molding



# Newborn Molding

- Newborn head molding is an abnormal head shape that results from pressure on the baby's head during childbirth.
- Also called Newborn cranial deformation; Molding of the newborn's
- The bones of a newborn baby's skull are soft and flexible, with gaps between the plates of bone.
- The spaces between the bony plates of the skull are called cranial sutures. The front (anterior) and back (posterior) fontanelles are two gaps that are particularly large. These are the soft spots you can feel when you touch the top of your baby's head.
- When a baby is born in a head-first position, pressure on the head in the birth canal may mold the head into an oblong shape. These spaces between the bones allow the baby's head to change shape. Depending on the amount and length of pressure, the skull bones may even overlap.

# Newborn Molding

- These spaces also allow the brain to grow inside the skull bones. They will close as the brain reaches its full size.
- Fluid may also collect in the baby's scalp (caput succedaneum), or blood may collect beneath the scalp (cephalohematoma). This may further distort the shape and appearance of the baby's head.

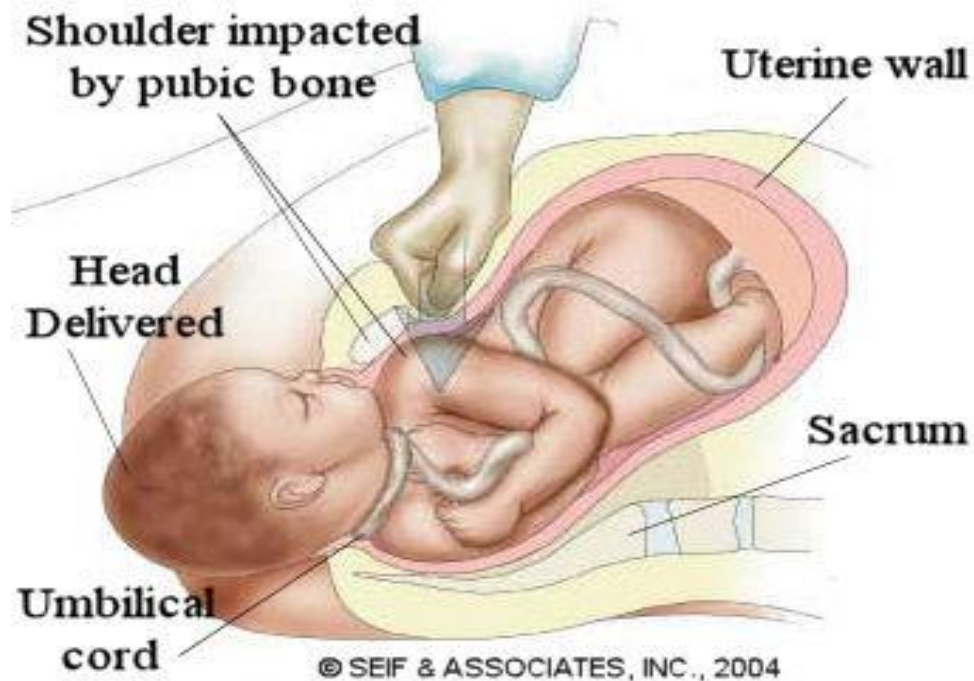
# Newborn Molding

- Treatment
- The baby's head shape will most likely even out on its own, but changes in the way the mother positions her baby can minimize the molding and hasten its resolution.
- For example:
- Change direction. Continue to place the baby on his or her back to sleep, but alternate the direction the baby's head faces when you place him or her in the crib.
- Hold your baby. Holding the baby when he or she is awake will help relieve pressure on your baby's head from swings, carriers and infant seats.
- Try prone position. With close supervision, place the baby on his or her abdomen to play. Make sure the surface is firm.
- Never rest the baby's head on a pillow or other type of soft bedding.

# Clavicle Fracture in Newborns



# Clavicle Fracture in Newborns



# Clavicle Fracture in Newborns

## **Definition:**

A clavicle fracture is a break in the collar bone and occurs as a result of a difficult delivery or trauma at birth.

Clavicle, also known as collar bone, fractures are the most common injury sustained by newborns during birth.

Factors that may increase a risk for a clavicle fracture:

- large size newborn
- the newborn's shoulder getting stuck during delivery
- a narrow birth canal
- the use of tools to assist with the delivery.

# Clavicle Fracture in Newborns

## **The symptoms of a clavicle fracture in a newborn:**

- Crying with movement of the affected arm due to pain in the clavicle(the most common)
- pain with lifting him or her under the arms
- The newborns themselves may not move the affected arm as much as the uninjured arm
- If injury has occurred to the nerves of the arm, the infant may not be able to move the arm at all and it may hang limp at the infant's side.
- The affected shoulder may appear slightly lower than the uninjured shoulder
- After a few weeks of birth, healing of the bone may cause a lump to develop at the area of the fracture, which may be felt when the area is touched.



# Clavicle Fracture in Newborns

## **Possible Complications**

- There are usually no complications, because infants heal well.
- Rare significant complication, the inability to move the arm due to an injury to the brachial plexus, or collection of nerves of the arm.

## **How is a clavicle fracture diagnosed?**

- When a clavicle fracture is suspected, an x-ray the bone is ordered to confirm that it is broken.

## **Treatment**

- In most cases, clavicle fractures in newborns heal very quickly without any problems.
- Usually no treatment is required
- the arm on the affected side may be immobilized, most often by simply pinning the sleeve to the clothes.