

Aurisita Maganis Delos Reyes,MAN

# Essential Intrapartum and Newborn Care

## Four Priorities

# A. FOUR PRIORITIES OF EINC



## Unang Yakap

“  
Essential  
Newborn Care

A simple, cost-effective  
newborn care intervention  
that can improve neonatal  
as well as maternal care.



“Yakap ng Ina, Yakap ng Buhay”

Unang Yakap stimulates breathing, and  
keeps baby warm, calm and healthy.

### 4 CORE STEPS:

- ① Immediate and Thorough Drying
- ② Early Skin-to-Skin Contact
- ③ Properly-Timed Cord Clamping
- ④ Non-separation of Newborn  
from Mother for Early  
Breastfeeding





## 1. Immediate and Thorough

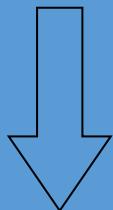
### Drying of the Skin

- = rubbing 30 secs or until the NB responds by Crying
- = stimulates lung expansion
- = Assess Breathing
- = Suction if Necessary ( mouth before nose x 5 to 10 secs.)
- = Position NB prone on top of Mom

# LUNG EXPANSION=



- *INCREASE PRESSURE IN THE LEFT SIDE HEART*



- *CLOSURE OF FETAL STRUCTURES  
(FORAMEN OVALE AND DUCTUS ARTERIOSUS)*



## 2. Early Skin to Skin contact

- = Place a Bonnet over head
- = Initial bath at 6 to 8 hours after birth
- = Benefits from Skin to Skin contact
  - a. Transfer heat
  - b. Transfer of normal bacterial flora
  - c. Transfer love to the NB (Bonding)

### 3. Properly Timed Cord Clamping

= done after 1 to 3minutes or after placental pulsation has stopped

= Benefits:

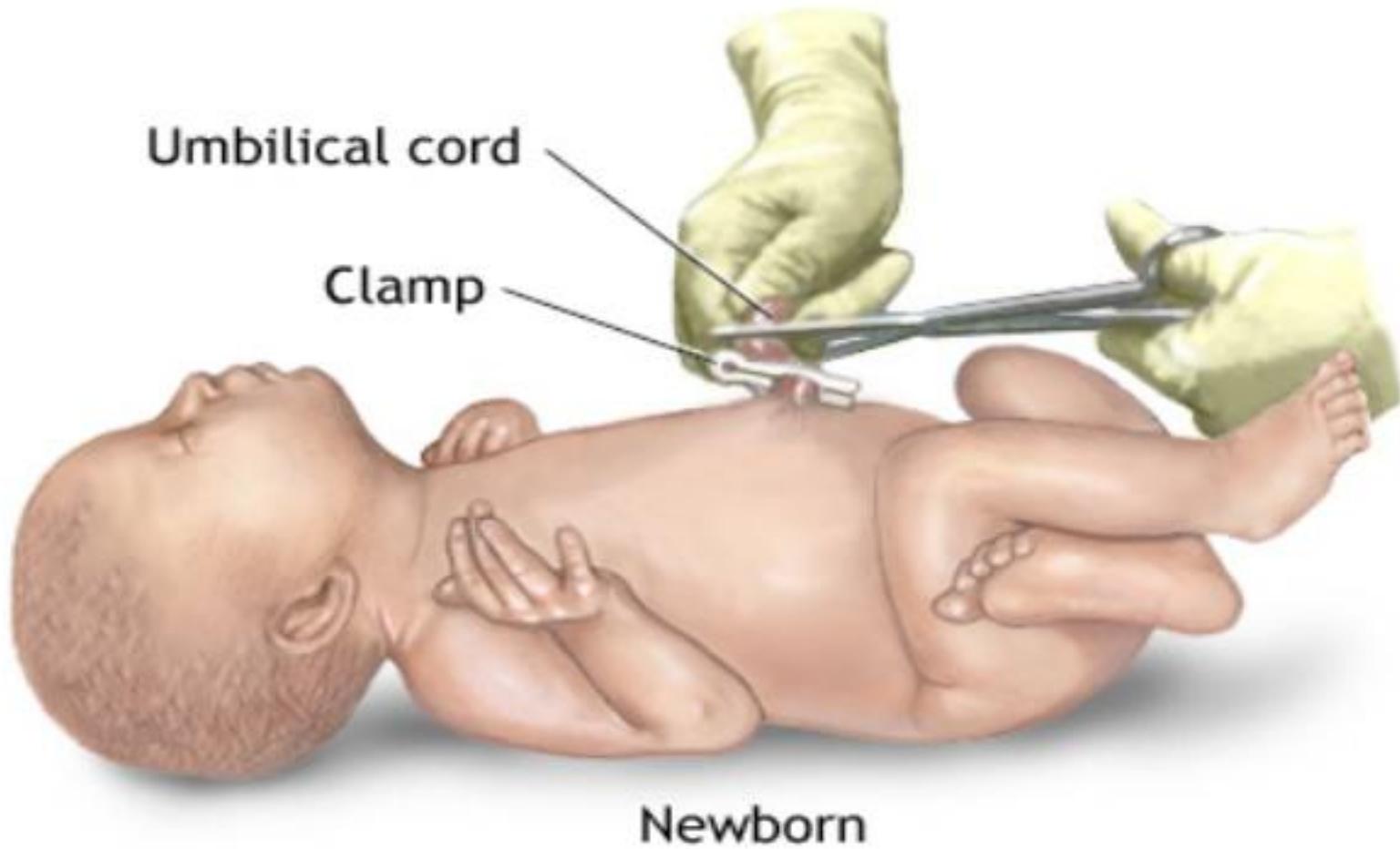
= additional 50 to 100 ml of blood ( more Fe, more antibodies,hormones, enzymes)

= decrease pressure in the R side of the heart promotes closure of fetal accessory structures

= apply cord clamp 2cm from base

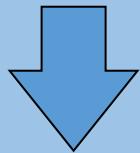
= apply forcep 5cm from base

= cut after cord clamp ( no milking)



# Cutting of the umbilical cord

- DECREASE PRESSURE IN THE **RIGHT SIDE OF THE HEART**



- CLOSURE OF THE **DUCTUS VENOSUS AND UMBILICAL BLOOD VESSELS**



- ***PROMOTE ADEQUATE CIRCULATION***
- ***FACTORS THAT INFLUENCE CIRCULATORY CHANGES AFTER BIRTH***
- ***LUNG EXPANSION***
- ***CUTTING OF THE UMBILICAL CORD***



## 4. Non separation of the Newborn from the Mother for early Breastfeeding (90 minutes)

Purposes:

- = promote special mutual relationship between mother and baby ( Bonding)
- = stimulates the release of Colostrum and Breastmilk
- = stimulates the release of Prolactin by the APG (milk production) and Oxytocin by the Posterior Pituitary gland ( happy hormone and let down reflex)
- = stimulates uterine contraction post partum to prevent bleeding
- = promotes uterine involution



= stimulates the baby to pass out meconium early and more frequently which may promote excretion of bilirubin

= promotes infants brain development and intellect ( Taurine)

= boost baby's immune system

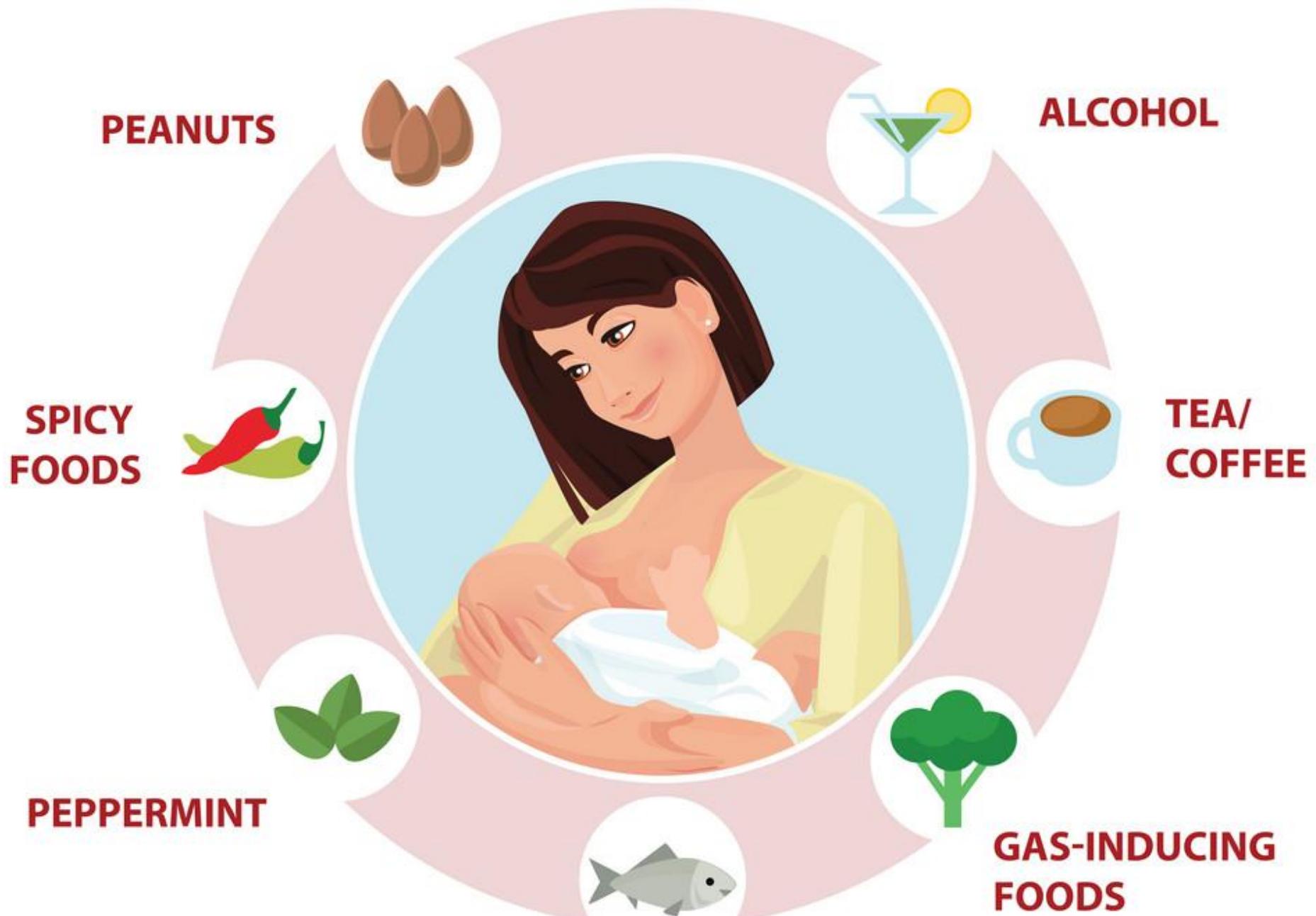
( WBC, Macrophages, IgA, Lactoferrin)

= economical and readily available

Note: if exclusive for 1st 6 mos, a natural contraceptive by inhibiting ovulation ( LAM)

= Advise to eat Galactagogues and drink a lot of water

# WILDE BREASTFEEDING



## B. OTHER PRIORITIES



1. IDENTIFICATION
2. CREDE'S PROPHYLAXIS
3. VITAMIN K INJECTION
4. IMMUNIZATION
5. NEWBORN SCREENING TEST
6. ANTHROPOMETRIC MEASUREMENT

# 1. IDENTIFICATION- preferably in the



**presence of the parents**  
**= include: Double banding**



## 2. CREDE'S PROPHYLAXIS



- Application of ophthalmic medication **to prevent**

### **OPHTHALMIA NEONATORUM**

- **MEDICATIONS:**
- **1. SILVER NITRATE-**
- One percent
- 1 drop / eye
- Lower conjunctival sac
- **2. OINTMENTS:**
- Terramycin
- Gentamycin
- Erythromycin
- Penicillin

### **Crede's Prophylaxis**



### 3. VITAMIN K INJECTION



- PURPOSE: TO PREVENT BLEEDING
- CAUSES:
  - = absence of Normal Bacterial flora ( e coli)
  - = DECREASE SYNTHESIS OF VITAMIN K
  - = PHYSIOLOGIC HYPOPROTHROMBINEMIA
- DOSE = 1 mg Term ( 0.1 ml)
- .5 mg Pre term ( 0.05 ml)
- Route: IM
- Site: Thigh muscle: Vastus lateralis  
Rectus Femoris



## **4. ANTHROPOMETRIC MEASUREMENTS**



- BIRTHWEIGHT- 2.5- 3.4 kg or 5.5-7.8 lbs***
- BIRTHLENGTH- 48-54 cm or 18-22 in***
- HEAD CIRCUMFERENCE- 33-35 cm or 13-14 in***
- CHEST CIRCUMFERENCE- 31-33 cm or 12-13 in***
- ABDOMINAL CIRCUMFERENCE- 29-31 cm or 11-12 in***



A [CROWN-HEEL LENGTH]



B [HEAD CIRCUMFERENCE]



C [CHEST CIRCUMFERENCE]



D [ABDOMINAL CIRCUMFERENCE]

# 5. IMMUNIZATION

## Schedule ng Pagbibigay ng Bakuna para sa mga Batang Isang Taon Pababa

BAKUNA	SAKIT NA MAIIWASAN	NIREREKOMENDANG EDAD NG BATA					
		PAGKA-PANGANAK	1½ BUWAN	2½ BUWAN	3½ BUWAN	9 BUWAN	1 TAON
BCG	Tuberkulosis	✓					
HEPATITIS B	Hepatitis B	✓					
PENTAVALENT VACCINE (DPT-Hep B-Hib)	Dipterya, Tetano, Hepa B, Pertussis, Pulmonya, Meningitis		✓	✓	✓		
ORAL POLIO VACCINE (OPV)	Polio		✓	✓	✓		
INACTIVATED POLIO VACCINE (IPV)	Polio				✓		
PNEUMOCOCCAL CONJUGATE VACCINE (PCV)	Pulmonya, Meningitis		✓	✓	✓		
MEASLES, MUMPS, RUBELLA (MMR)	Tigdas, Beke, German Measles					✓	✓



'Pag Kumpleto, Protektado'

### MGA PAALALA

Nagsisimula ang pagbabakuna ng bata sa kapanganakan.

Sundin ang schedule ng bakuna at siguruhing makumpleto ang mga ito hanggang sumapit ang kanyang unang kaarawan.

Ang mga bakunang hindi nakalista ay maaring makuha sa pribadong ospital o doktor.



Department of Health  
Kabaganihan, Kalusugan, Kapwa-Sugyan, Kapitbahayan, Dapat



# 6. NEWBORN SCREENING TEST



- RA 9288  
NEWBORN  
SCREENING ACT  
2004
- 48 TO 72 HOURS
- HEELSTICK
- 2 TO 3 WEEKS
- PHP 600
- DISEASES
  - PHENYLKETONURIA
  - GALACTOSEMIA
  - G6PDD
  - RETINISM
  - CAH
  - MSUD

# Purposes of RA 9288



1. Prevent Mental retardation
2. Prevent physical abnormalities
3. Prevent Death



# NEWBORN SCREENING TESTS

done when your baby  
is 24-48 hours old

@simplywellfamily

## NEWBORN SCREEN heel stick



Tests for rare genetic, hormone,  
& metabolic conditions

## HEARING SCREEN

Quick &  
painless

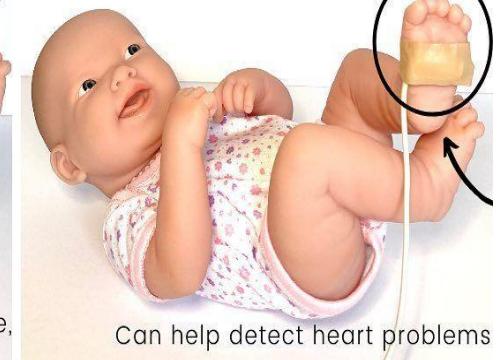
Can be  
done while  
baby  
sleeps



## PULSE OXIMETRY

Measures how  
much oxygen  
is in the blood

A sensor is  
placed on your  
baby



Can help detect heart problems



## WHAT IS THE HEARING SCREEN LIKE?



- The hearing screen can be done while your baby is sleeping.
- It is safe and will not hurt.
- Sound will be played into your baby's ears in order to measure a response from the ear.
- Screening can often be completed in less than ten minutes and the results can be available very quickly.



september 06, 1984



## C. ASSESSMENT TOOLS

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*september 06, 1984*

## **A. APGAR SCREENING TEST –**

**by DR. VIRGINIA APGAR**

**– *DONE TWICE AT 1 AND 5 MIN. RESPECTIVELY***

### **PURPOSES:**

- 1. TO DETERMINE THE DEGREE OF ACIDOSIS AND THE NEED FOR CPR**
  
- 2. TO EVALUATE ABILITY OF THE NB TO ADJUST EXTRAUTERINELY AND THE PROGNOSIS**

# DR. VIRGINIA APGAR



# CRITERIA



	Score 2	Score 1	Score 0
Apperance	 Pink	 Extremities blue	 Pale or blue
Pulse	> 100 bpm	< 100 bpm	No pulse
Grimace	Cries and pulls away	Grimaces or weak cry	No response to stimulation
Activity			
Respiration	Strong cry	Slow, irregular	No breathing
Apgar score			

# INTERPRETATION



- 0-3
- POOR, SERIOUS, SEVERELY DEPRESSED; CPR
- 4-6
- FAIR, GUARDED, MODERATELY DEPRESSED
- NEEDS SUCTIONING & FURTHER OBSERVATION
- 7-10
- GOOD, HEALTHY

# B. SILVERMANN AND ANDERSON

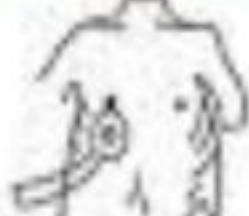
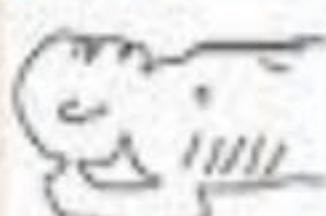
- **PURPOSE:**
- TO DETERMINE THE DEGREE OF RESPIRATORY DISTRESS
- HIGH RISK BABIES
- AS NECESSARY

*Journal of the American Medical Association*

September 06, 1984

# CRITERIA



	Upper chest	Lower chest	Xiphoid retract	Nares dilate	Exp. grunt
Grade 0					
Grade 1					
Grade 2					
	Syncromed	No retraction	None	None	None
	Lag on ISP	Just visible	Just visible	Minimal	Stethos only
	See-saw	Marked	Marked	Marked	Naked ear

# INTERPRETATION



- **0-3**
- **GOOD, HEALTHY, NO RESPIRATORY DISTRESS**
- **4-6**
- **FAIR, GUARDED, MILD RESPIRATORY DISTRESS**
- **7-10**
- **POOR, SERIOUS, SEVERELY RESPIRATORY DISTRESS;**

# C. BALLARD TOOL



GESTATIONAL MATURITY

1. NEUROMUSCULAR MATURITY

2. PHYSICAL MATURITY

	-1	0	1	2	3	4	5
Posture							
Square Window							
Arm Recoil							
Politeal Angle							
Scarf Sign							
Heel to Ear							

# Square window wrist sign



A

B

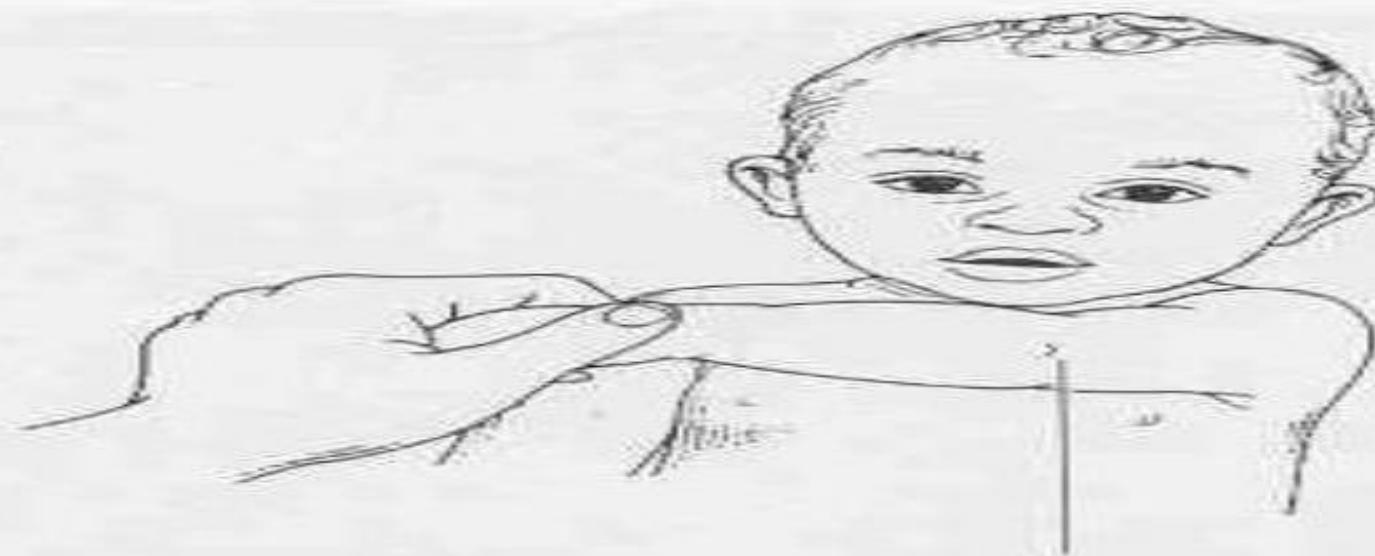
C

Fig. 16-20 Wrist flexion (square window). Flex the hand onto forearm and note the angle at which resistance is met. **A**, Postterm; **B**, term; **C**, preterm.

# Scarf Sign



A



B

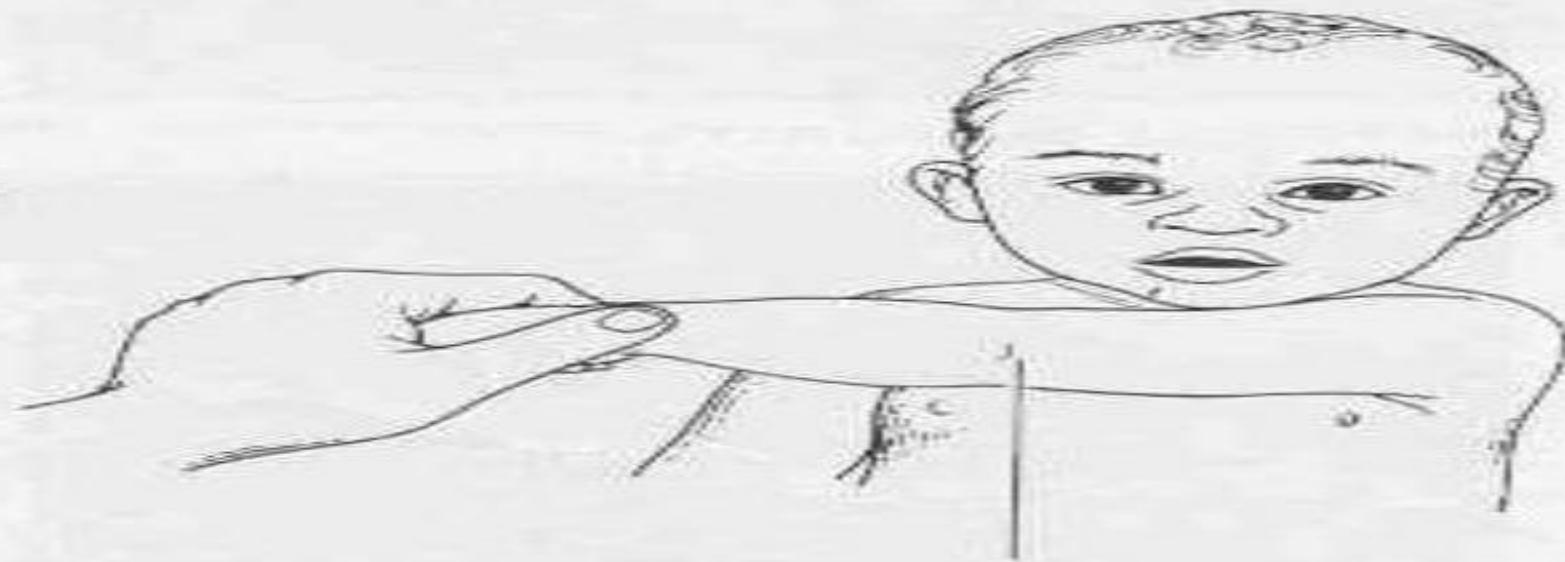


Fig. 16-21 Scarf sign. A, Term newborn; B, preterm newborn.

# PHYSICAL MATURITY



- **PREMATURE**
- 1. SKIN = GELATINOUS, TRANSPARENT,  
VISIBLE BLOOD VESSELS
- 2. EAR CARTILAGE = ABSENT/ PLIABLE
- 3. BREAST NODULE = 1-2 mm
- 4. GENITALS
- MALE- TESTES- UNDESCENDED; SCROTUM-  
LESS SWOLLEN, FEW RUGAE
- FEMALE- CLITORIS AND MINORA- PROMINENT
- 5. SOLE CREASES= ANTERIOR TRANSVERSE
- 6. LANUGO =ABUNDANT

# TERM



- SMOOTH, PINK, SUPERFICIAL CRACKING, LESS VISIBLE VEINS
- FORMED AND FIRM WITH INSTANT RECOIL
- 3-5 mm
- PARTIALLY DESCENDED
- MORE SWOLLEN AND RUGAE
- PARTIALLY COVERED BY MAJORA
- 2/3 OF THE SOLE WITH CREASES
- LESS LANUGO  
*pelusa macinata delle rugae*

september 06, 1984

# POST TERM



- PARCHMENT, DEEP CRACKING,  
DESQUAMATES, NO VISIBLE BV
- THICK CARTILAGE AND STIFF
- 6 TO 10 mm
- FULLY DESCENDED; PENDULOUS
- MARKED SWOLLEN; EXTENSIVE RUGAE
- MAJORA COMPLETELY COVERS MINORA  
and CLITORIS
- ENTIRE SOLE with CREASES
- NO LANUGO

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# MATURITY RATING SCALE



TOTAL SCORE	AOG (weeks)	
-10	20 weeks	Below 35= PRETERM
- 5	22	
0	24	35-45 = TERM
5	26	
10	28	ABOVE 45= POSTERM
15	30	
20	32	
25	34	
30	36	
35	38	
40	40	
45	42	
50	44	

## D. VITAL SIGNS



- **RESPIRATORY RATE**- 80 breaths/min at birth; stabilize bet. 30-60 breaths/ min
- = *rapid, irregular, with normal physiologic apnea of <15 sec. per min*
- = *shallow but quiet*
- = *abdominal and diaphragmatic*

# PULSE RATE



- *PR- 180 beats per min*
- *= stabilizes between 120-160 bpm*
- *= rapid and irregular*
- *= usually increased when crying and low if asleep*
- *= sites= Apical pulse*  
*Brachial*
- *Femoral- if weak or absent suggest COA*
- *Pedal*



- **MAINTAIN APPROPRIATE TEMPERATURE**
- **= TEMP OF THE NB AT BIRTH-  
36.4- 37.2 ° C**
- **= USUALLY UNSTABLE AND  
TAKES 6-8 HOURS TO  
STABILIZE**

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# Factors affecting temperature of the NB

- 1. The thermoregulating center is immature
- 2. Shivering mechanism of the NB is underdeveloped.
- 3. Inadequate adipose tissues (Brown fat)
- 4. Neonates are prone to heat loss thru evaporation, radiation, convection, and conduction.
- 5. Neonates have large surface area

# complications



- 1. **HYPOGLYCEMIA** results from utilization of **glucose** in the form of **glycogen**
- NORMAL BLOOD SUGAR-  
– **35 – 60 MG%**
- 2. **METABOLIC ACIDOSIS- BREAKDOWN OF FATS- ACCUMULATION OF FATTY ACIDS**
- 3. **RESPIRATORY DISTRESS**

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*september 06, 1984*



## BLOOD PRESSURE- ( optional)

- = 80/46 mmHg at birth
- = at 10 days maybe 100/50 mmHg
- = higher in the LE and lower in the UE
- = maybe by Doppler or Flush methods

Note: no longer optional beginning 3 years of age

## E. PHYSICAL ASSESSMENT OF THE NEWBORN

- START WITH CHEST INSTEAD OF HEAD
- CEPHALOCAUDAL DIRECTION  
USUALLY START IN THE PRESCHOOL

*www.myanmar.edu.mm*

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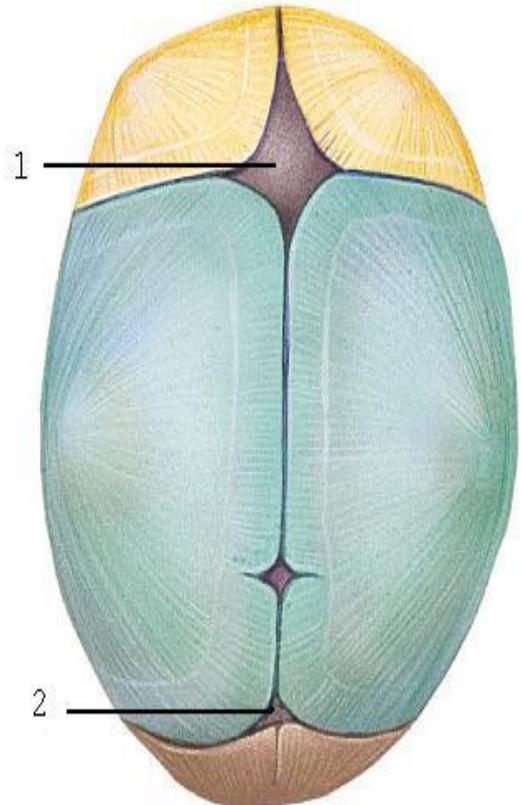
# 1.CHEST



- ASSESS :
  1. retractions
  2. BREATH SOUNDS
    - a. absence- in expansion of the lungs
    - b. wheezes; stridor; rales or crackles= obstruction
  2. **Witch milk**- colorless or transparent fluid caused by maternal hormones

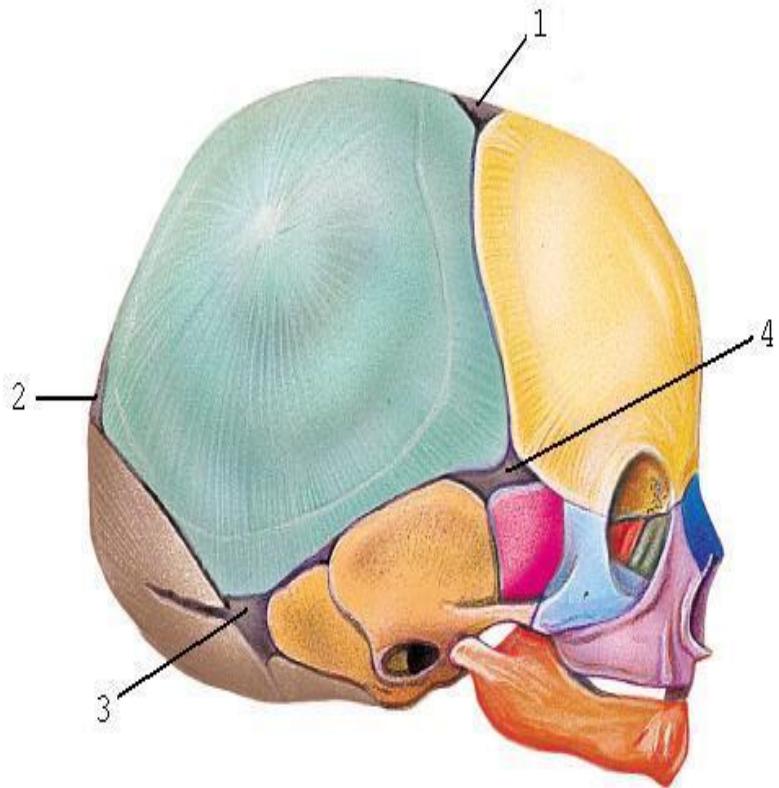


# FONTANELLES



**(a) Superior view**

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**(b) Lateral view**

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# ***TYPES OF FONTANELLES***



- **TYPES:**
- **1. PAIRED**
- = **ANTEROLATERAL ( SPHENOID )**
- = **POSTEROLATERAL ( MASTOID )**
- **2. SINGLE**
- = **ANTERIOR ( BREGMA )**
- = **POSTERIOR ( LAMBDA )**

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# CHARACTERISTICS:



- **ANTERIOR FONTANEL**
- = diamond shape
- = 3-4 cm long and 2-3 cm width
- = if > 5cm maybe a sign of  
**HYDROCEPHALUS and CRETINISM**
- = it closes 12 to 18 months

# Posterior fontanel



- Characteristics
- Triangle in shape
- Located between lambdoidal and sagittal sutures
- Measures 2 cm long and 1 cm wide
- Closes between 2 to 3 mos

# Craniosynostosis / Craniostenosis



- **Premature closure of the fontanels and sutures**
- **Complications**
- **1. INCREASE ICP**
- **2. MENTAL RETARDATION**
- **3. BRAIN HERNIATION**
- **4. DEATH**

# CAPUT SUCCEDANEUM

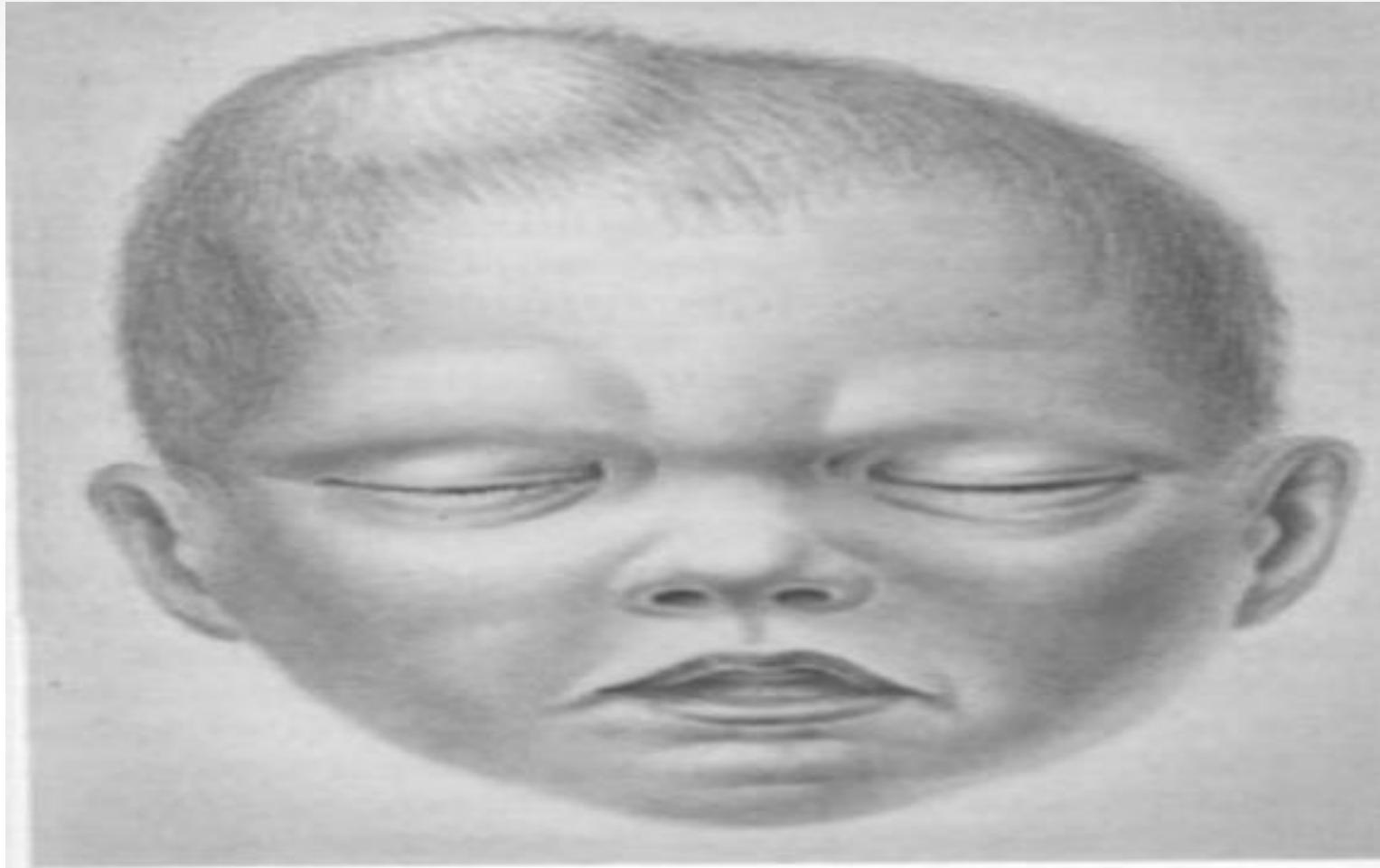


# CHARACTERISTICS



- = SWELLING OF THE SCALP
- CAUSED BY PROLONG SECOND STAGE OF LABOR
- IT CROSSES THE SUTURE LINE, THUS AFFECT BOTH SIDES
- DISAPPEARS IN 2-3 DAYS

# CEPHALHEMATOMA



J

# CEPHALHEMATOMA



- = COLLECTION/ ACCUMULATION OF BLOOD CAUSED BY RUPTURE OF PERIOSTEAL CAPILLARIES
- CHARACTERISTICS:
- IT DOES NOT CROSS THE SUTURE LINE THEREBY AFFECTS ONE (1) HEMISPHERE
- DISAPPEARS IN 3 TO 4 WEEKS

## d. Craniotabes



- **Localized softening of the cranial bones (PARIETAL)**
- **Cause= early lightening ( descent of the presenting part in the pelvic brim )**
- **Common to firstborn babies**
- **Disappears 6 weeks**

# MOLDING



Fig. 16-5 Overlapped cranial bones producing visible ridge in a small premature infant. Easily visible overlapping does not often occur in term infants.

### 3. Face



- = symmetrical
- \* assymetry indicates Bell's Palsy or also known as Facial Nerve Paralysis, Cranial Nerve 7 Paralysis.

# Management



- Feed baby with droppers and syringe
- Encourage Breastfeeding
- Aspiration Precaution
- RATIONALE: TO PREVENT  
PREMATURE DISAPPEARANCE OF  
THE SUCKING REFLEX

# BELL'S PALSY



G J Wassilchynko

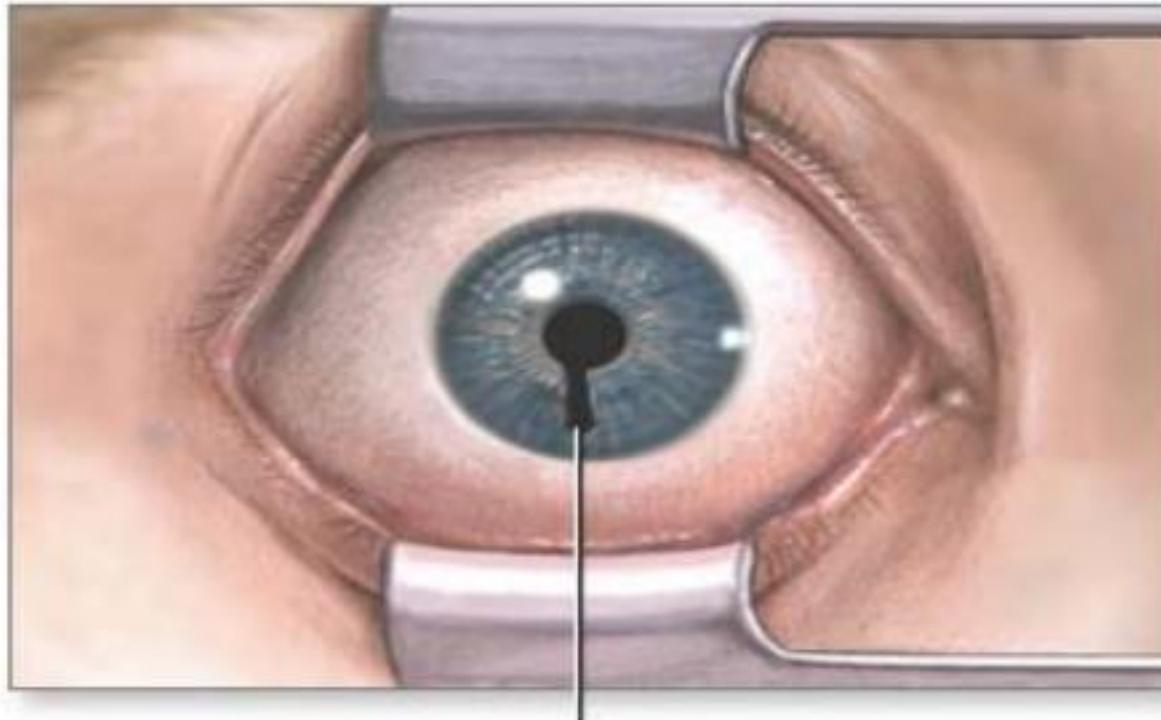
**Fig. 18-5** A, Paralysis of right side of face 15 minutes after forceps delivery. B, Same infant 24 hours later.

# 1. EYES



- = maybe slate blue or gray
- = pupils equal, round, reactive to light and accomodation
- = if keyhole COLOBOMA
- = lacrimal duct= immature ( tearless )
- TEST x BLINDNESS
- 1. DOLL'S EYE
- 2. GLABELLAR' TAP TEST
- = best done first ten days

# COLOBOMA



Coloboma of the iris

# EXOTROPIA STRABISMUS



au

def

# ESOTROPIA STRABISMUS



*aurisi*

*septem*

# MANAGEMENT

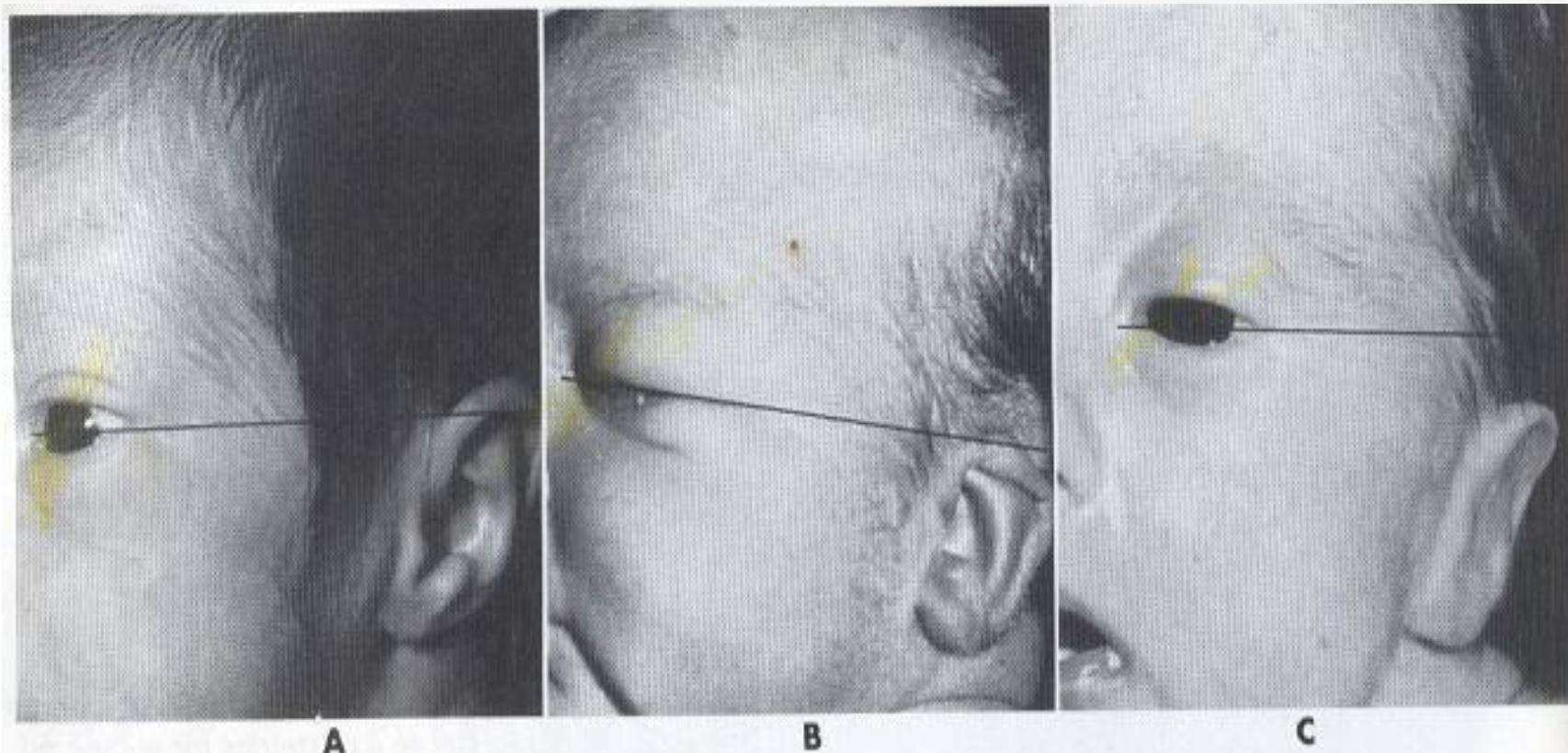


- Immediate treatment for non physiologic strabismus
- 1. Occlusion therapy
- 2 Surgery- SQUINT Operation
- 3. Corrective Glasses
- 4. Laser therapy

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## 2. EARS (PINNA ) ASSESSMENT

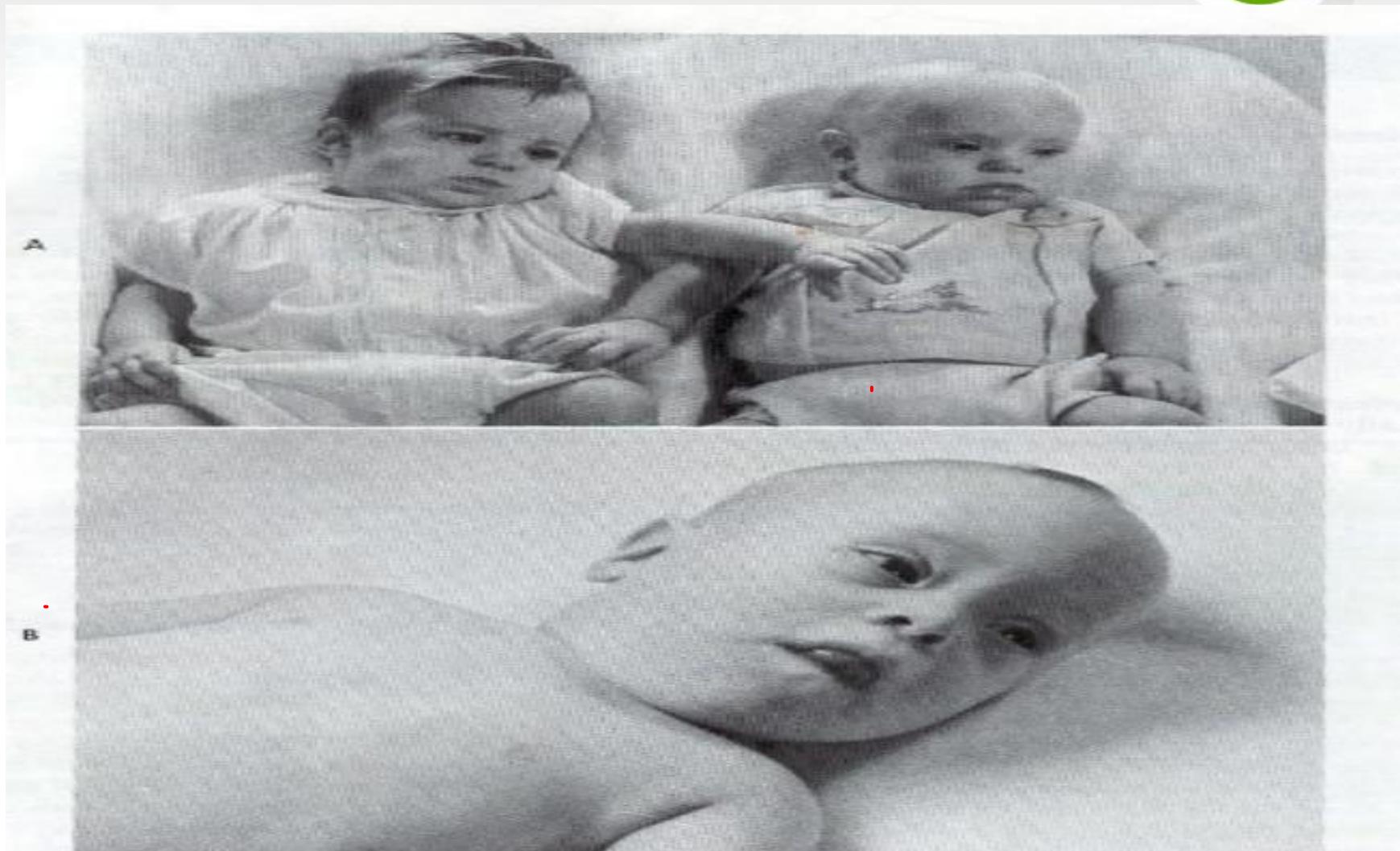


**Fig. 16-7** Ear placement in relation to line drawn from inner to outer canthus of eye. **A**, Normal position; **B**, abnormally angled ear; **C**, true low-set ear.



- ***Note: if set lower- abnormal***
- ***Chromosomal defects- Down syndrome***
- ***= Patau syndrome***
- ***= Edward disease***
- ***Kidney defects***
- ***Craniofacial defects***

# DOWN SYNDROME



**Fig. 18-12** A. These children are brother and sister (fraternal twins). Boy manifests Down syndrome; his sister is unaffected. B, Close-up of the male twin. Note the large tongue and the eyes typical of the syndrome.

# ❖ DOWN SYNDROME/TRISOMY 21

- Cause = unknown
- Predisposing factor=ADVANCE PARENTAL AGE
- Basic defect= presence of three ( 3) chromosome 21 ( trisomy )
- Total no. 47
- Dx tests
- 1. Alpha feto protein = low
- 2. Chorionic villi sampling
- 3. Karyotyping
- LIFE SPAN= VARIABLE

# CHARACTERISTICS



- Microcephaly
- Low set ears
- Saddle nose
- Small mouth with large tongue ( macroglossia )
- Short neck
- Short and stubby digits with single transverse line ( SIMIAN CREASE )
- Hypotonic musculature
- Protuberant abdomen
- Small penis with undescended testes ( Cryptorchidism )
- MENTAL RETARDATION

# COMMON PROBLEMS



- **1. CARDIAC DEFECTS**
- **2. GIT DEFECTS- ESOPHAGEAL ATRESIA**
- **3. GUT DEFECTS**

# CRANIOFACIAL DEFECT



September 00, 1984

# NOSE



Normal nostrils



Flared nostrils



### 3. Nose



- Assess nasal flaring/ respiratory distress
- Causes
- 1. OBSTRUCTION
  - A. secretions
  - B. bone or membrane
  - Commonly blocking the choana or posterior nares CHOANAL ATRESIA
- 2. LACK OF SURFACTANT

# ❖ RESPIRATORY DISTRESS SYNDROME



=ALSO KNOWN AS **HYALINE  
MEMBRANE DISEASE**

**CAUSE: UNKNOWN**

**PREDISPOSING FACTORS:**

- 1. PREMATURITY**
- 2. LBW/ SGA**
- 3. BORN CS**
- 4. LGA**

# MANAGEMENT



- 1. **CPAP/ CPPB( CONTINUES + A AIRWAY PRESSURE)** AIMS TO KEEP ALVEOLI OPEN THUS PREVENT ATELECTASIS
- 2. **O<sub>2</sub> THERAPY-** KEPT AT 40 % TO PREVENT BLINDNESS ( RETROLENTAL FIBROPLASIA ) AND EMPHYSEMA ( BRONCHOPULMONARY DYSPLASIA )
- 3. **INCUBATION= PURPOSES**
  - A. **PROVIDE WARM ENVIRONMENT TO CONSERVE ENERGY**  
= TEMP- 34.4OC AND HUMIDITY @ 55-65%
  - B. **PREVENT INFECTION THRU REVERSE ISOLATION**
- 4. **MEDICATIONS:**
  - A. **STEROID ( BETAMETHASONE )= PROMOTE SURFACTANT MATURATION**
  - B. **SURFACTANT ( BERACTANT ) GIVEN INTRATRACHEAL**
  - C. **NA HCO<sub>3</sub>- CORRECT ACIDOSIS**
  - D. **GAMMA/ IMMUNOGLOBULIN**

- 4. MINIMAL HANDLING
- 5. TOUCH THERAPY
- 6. WATCH FOR COMPLICATIONS LIKE
  - A. **ANEMIA** RESULTS FROM SMALLER MASS OF RBC AND FREQUENT EXTRACTION OF BLOOD
- MANAGEMENT: BT WITH PRBC ( 50 ML )
- B. **HYPERBILIRUBINEMIA** MANAGED BY PHOTOTHERAPY AND EXCHANGE TRANSFUSION
- C. **MALNUTRITION RELATED TO TOO MUCH UTILIZATION OF OXYGEN RESULTING TO POOR GROWTH AND DEVELOPMENT**
- MANAGEMENT:
  - 1. **TPN**
  - 2. **GAVAGE**
  - 3. **BREASTFEEDING**

# Factors affecting prognosis



- 1. AGE
- 2. AVAILABILITY OF TREATMENT
- 3. RESPONSE TO TREATMENT

ananda magama - cse - uga

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## 4. Mouth



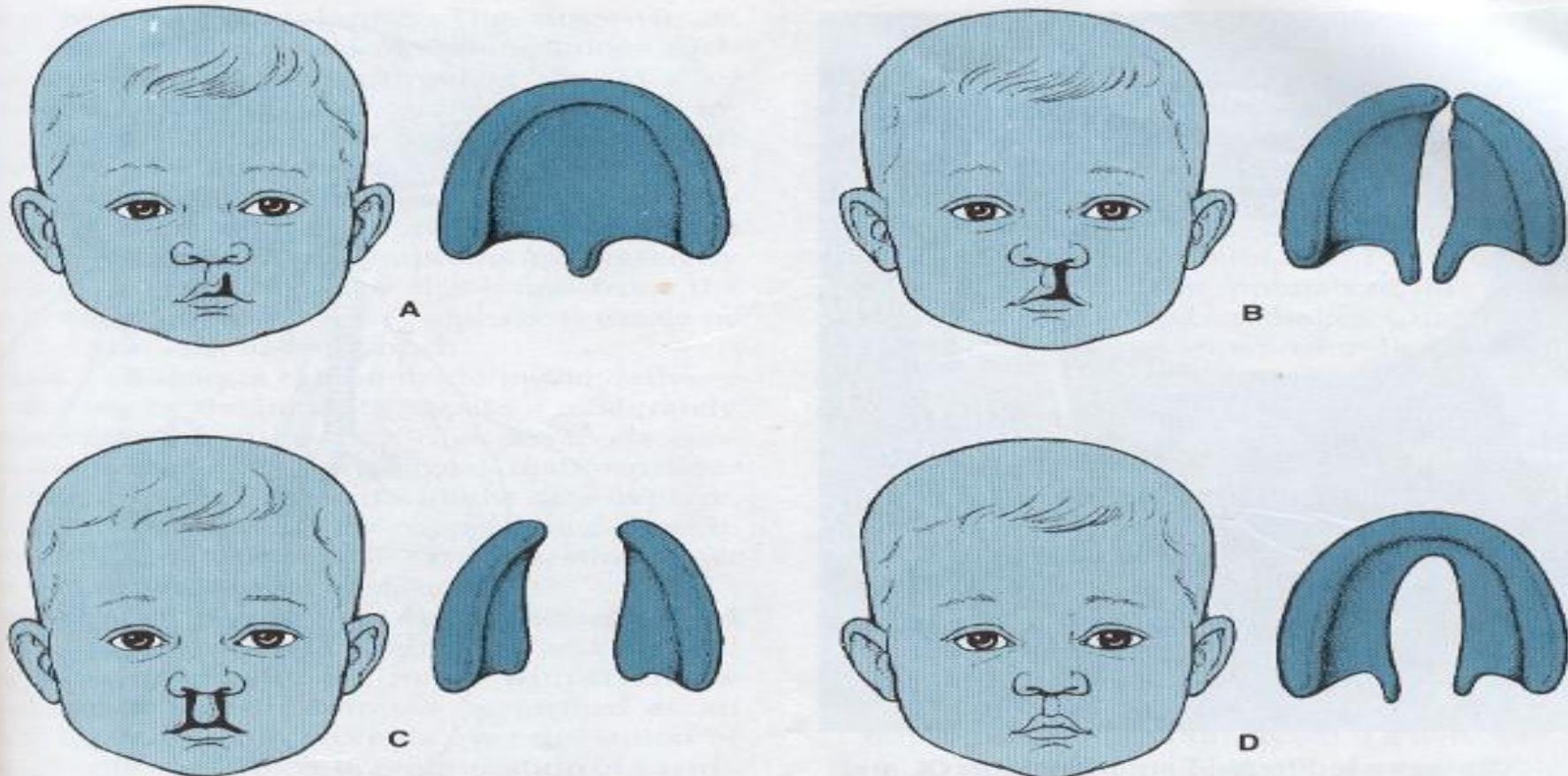
- assess
- ❖ 1. EPSTEIN PEARLS
  - White glistening epithelial cysts at the palate and gums, caused by extra load of Calcium
- ❖ 2. TOOTH
  - Needs extraction to prevent **ASPIRATION**
  - Caused by too much intake of vitamins
  - 3. excessive drooling of saliva **ESOPHAGEAL ATRESIA**
  - 4. **CLEFT LIP AND PALATE**
  - 5. **ORAL CANDIDIASIS**
  - 6. **Vomiting/ spitting up**

## ❖ vomiting



- Non-projectile- non obstructive
- 1. infection
- 2. chalasia or GERD
- PROJECTILE- obstructive
- 1. pyloric stenosis
- 2. intussusception
- 3. hirschsprungs disease

# ❖ CLEFT LIP and CLEFT PALATE



**Fig. 18-13** Variations in clefts of the lip and palate at birth. **A**, Notch at vermillion border. **B**, Unilateral cleft lip and palate. **C**, Bilateral cleft lip and palate. **D**, Cleft palate. (From Wong D: *Essentials of pediatric nursing*, ed 4, St. Louis, 1993, Mosby.)

# **CAUSES:**

## **GENETIC**

## **FOLIC ACID DEFICIENCY**



- **COMMON PROBLEMS:**
- **FEEDING DIFFICULTY**
- **INFECTIONS- UPPER RESPIRATORY AND EAR**
- **SPEECH DEFECT ( CLEFT PALATE )**
- **DENTAL DEFECT ( NASAL TWANG )**
- **ALTERED NORMAL BODY IMAGE**
- **RESPIRATORY DISTRESS**

# PRE OPERATIVE CARE

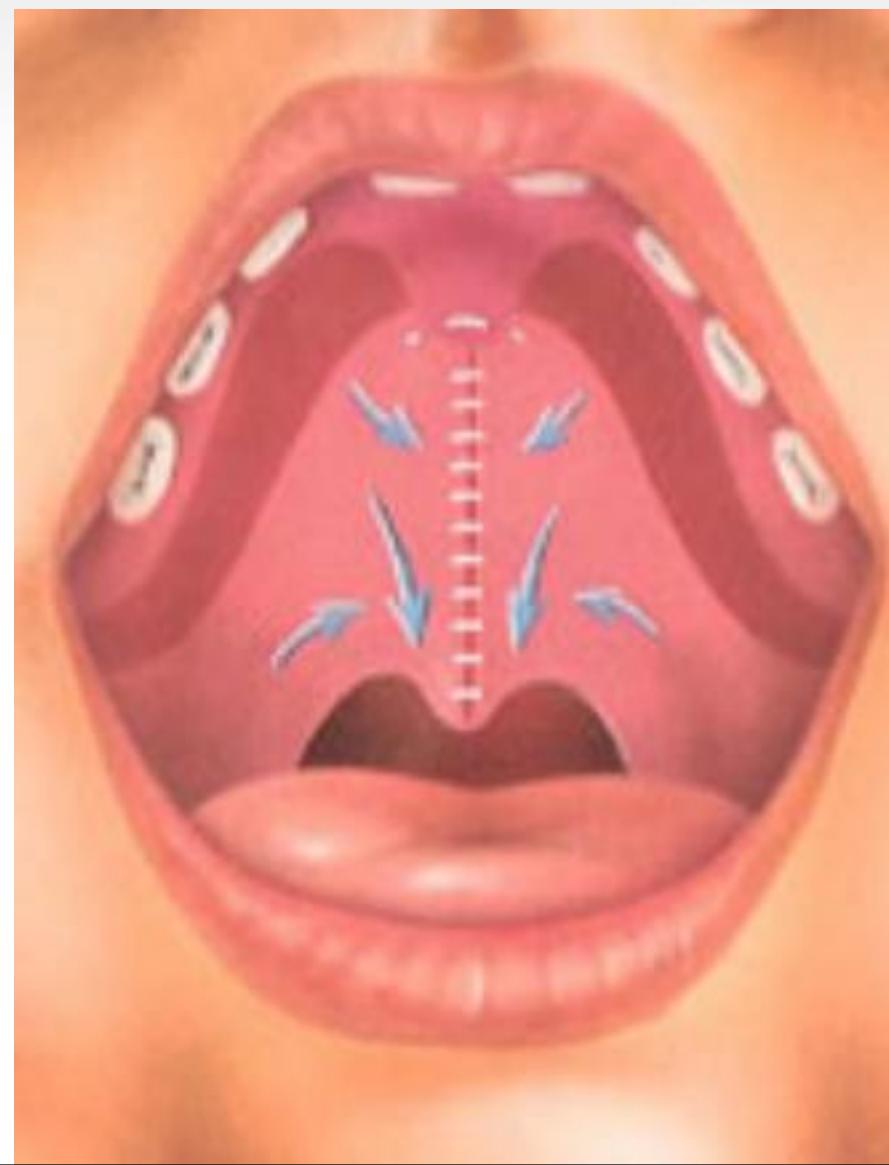


- **PROPER POSITIONING ESPECIALLY DURING AND AFTER FEEDING- UPRIGHT POSITION**
- **BURP OR BUBBLE THE NB MORE OFTEN**
- **FEED BABY WITH THE USE OF CROSS CUT LARGE HOLED NIPPLE OR BRECK FEEDER TECHNIQUE**
- **OBSERVE FOR SIGNS OF COMPLICATIONS- OTITIS MEDIA, ETC**
- **FOR DENTAL DEFECTS-M ORTHODONTIC EXERCISE AND SURGERY**
- **SPEECH THERAPY**

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# CHEILOPLASTY / PALATOPLASTY



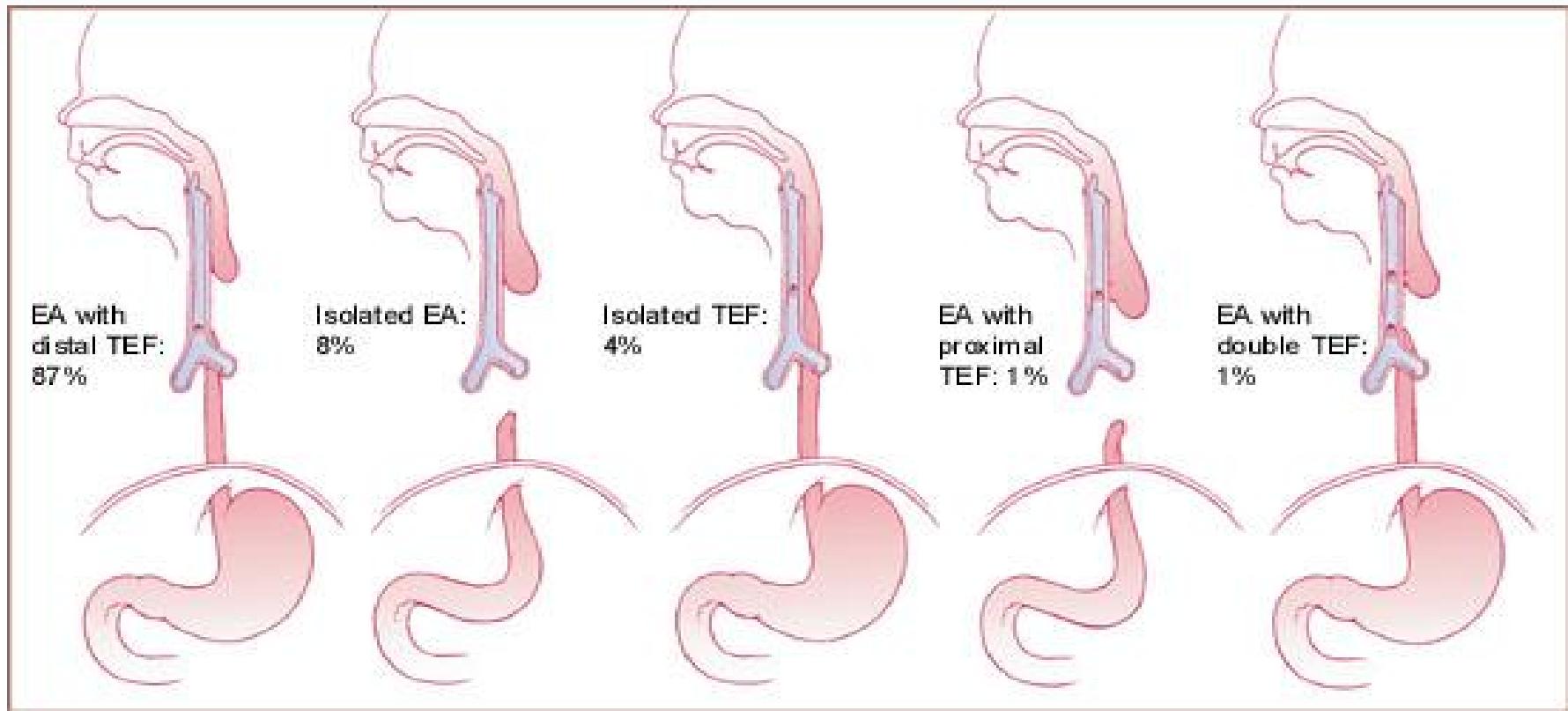
# **POST OPERATIVE CARE**



- **PROPER POSITIONING= PRONE X CLEFT PALATE AND SUPINE OR SIDE LYING X CLEFT LIP**
- **APPLY ELBOW RESTRAINT AND RELEASE EVERY 2 HOURS**
- **GIVE FEEDING WITH RUBBER TIPPED MEDICINE DROPPER AFTER CLEFT LIP AND PAPER CUPS AND SOUP SPOON AFTER CLEFT PALATE**
- **CLEANSE THE WOUND WITH HYDROGEN PEROXIDE**
- **GIVE POST OPERATIVE MEDS WHICH INCLUDE ANALGESIC AND ANTIBIOTIC**
- **AVOID SUCKING, SUCTIONING, BLOWING, POINTED AND SHARP OBJECTS ( SPOON, FORK, AND STRAW )**
- **MAKE SURE BABY DOES NOT SUCK THE LOGAN'S BAR OR BOW**



# ESOPHAGEAL ATRESIA



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# ESOPHAGEAL ATRESIA

- **FAILURE OF THE ESOPHAGUS TO FORM A CONTINUOUS PASSAGE BETWEEN THE MOUTH AND THE STOMACH**
- = A CONGENITAL DEFECT
- = OFTEN ASSOCIATED WITH OTHER DEFECTS
- = ASSESSMENT INCLUDE VACTERL
  - V- VERTEBRAL DEFECTS
  - A- NORECTAL DEFECTS
  - C- ARDIAC LIKE PDA ( MOST COMMON )
  - T- RACHEA AND
  - E- SOPHAGUS
  - R- ENAL DEFECTS
  - L- IMBS
- **CAUSE: UNKNOWN BUT COMMON IN CHILDREN WITH DOWN SYNDROME**

# Signs and Symptoms



- ***EXCESSIVE DROOLING OF SALIVA***
- ***CHOKE AFTER INITIAL FEEDING***
- ***RESISTANCE ON NGT INSERTION***
- ***RESPIRATORY DISTRESS***
- ***ABDOMINAL DISTENTION***
- ***CYANOSIS, TACHYPNEA***
- ***HX OF HYDRAMNIOS ( ANTEPARTUM )***

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# DIAGNOSTIC TESTS: X-RAYS



- ***TREATMENT: SURGERY- DEPENDS ON THE TYPE OF DEFECT***
- ***CREATION OF GASTROSTOMY AND CERVICAL ESOPHAGOSTOMY***
- ***DIVISION OF FISTULA AND ESOPHAGEAL ANASTMOSIS***
- ***CLOSURE OF THE GASTROSTOMY***

# **NURSING CARE:**



- ***PROPER POSITIONING- ELEVATE HEAD AT 20-30 DEGREES ANGLE***
- ***REGULAR SUCTIONING***
- ***ADMINISTER OXYGEN IF CYANOTIC***
- ***ADMINISTER TPN- PRIMARY SOURCE OF NUTRITION***

*anissa magana cisco ageo*

*september 06, 1984*

# TOTAL PARENTERAL NUTRITION OR IV HYPERALIMENTATION



- = INTRODUCTION OF HYPERTONIC SOLUTION INTO THE SVC THRU A CENTRAL LINE INSERTED IN THE NECK, ARM, AND GROIN VEINS
- = THE SOLUTION CONTAINS SUGAR, FATS ,PROTEIN, MINERALS AND VITAMINS

ananda magana - cisco - type

september 06, 1984

\* ORAL MONILIASIS/CANDIDIASIS



# *MONILIASIS/ CANDIDIASIS*

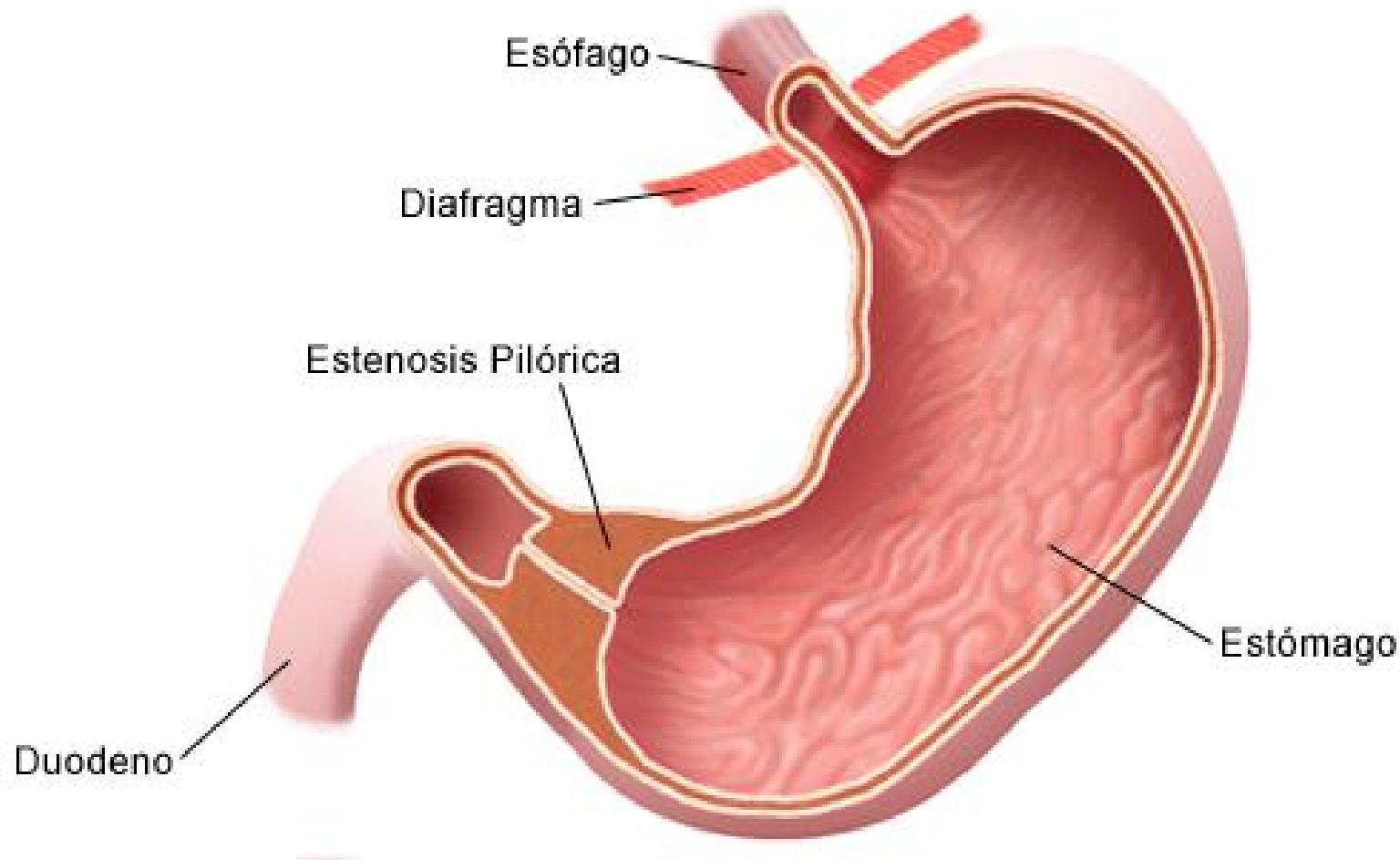


- Acquired by the baby during passage
- Cause: *Candida Albicans*
- Management:
- Antifungal ( Nystatin ) spread with gloved finger

# ❖ Pyloric Stenosis



## Estenosis Pilórica



# Narrowing of the pylorus due to thickening of the pyloric muscle



- Signs and Symptoms
- 1. projectile vomiting ( maybe bloody )
- 2. visible peristalsis
- 3. palpable olive shaped mass
- 4. irritable and restless

anand magana case report

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# NURSING CARE



- 1. Give thickened formula
  - = Rice Cereal and Milk thru gavage
- 2. Prevent and correct dehydration
  - = IV fluids
- 3. Measure I and O
- 4. Monitor for Complications such as:
  - a. Metabolic alkalosis and acidosis
  - b. Dehydration

# Surgical mgt



- FREDET RAMSTED PROCEDURE
- ( PYLOROMYOTOMY )
- = separation of the hypertrophied muscle of the pylorus without mucosal incision
- LAPAROSCOPY

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# 5. Neck



- Short
- THYROID GLAND- normally not palpable in the newborn
- test for CRETINISM –T3 T4 det
- Thyroid Scan
- MENTAL RETARDATION
- Tx- SYNTHROID

*ananda magana venu raju*

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# ❖ CONGENITAL TORTICOLLIS



## ❖ Congenital torticollis



- = ALSO KNOWN AS WRY NECK
- = CONTRACTION OF THE STERNOCLÉIDOMASTOID MUSCLE
- = MAYBE TREATED BY:
  - EXERCISE
  - APPLICATION OF WARM PACKS OR COMPRESS
  - TENOTOMY- SURGICAL RELEASE OF CONTRACTED MUSCLE

6.

## ABDOMEN

- ASSESS THE FOLLOWING:
- 1. NORMALLY DOME and CYLINDRICAL
- IF SCAPHOID- MAY INDICATE PRESENCE OF DIAPHRAGMATIC HERNIA
- 2. THE ORGANS NORMALLY PALPABLE ARE:
  - A. LIVER= 2-3 cm BELOW RIGHT COSTAL MARGIN
  - B. KIDNEYS= 1-2 cm above umbilicus
  - C. SPLEEN= left quadrant
- 3. PRESENCE OF OMPHALOCELE OR GASTROSCHISIS
- 4. Gastric capacity is 90 ml; WITH SHORT EMPTYING TIME AND RAPID PERISTALSIS, MORE SECRETORY GLANDS AND LARGER SURFACE AREA FOR ABSORPTION IN THE INTESTINE.
- 5. REVERSE PERISTALSIS IS COMMON

# ❖ Diaphragmatic Hernia



Before



After hernia  
repair



- **A BIRTH DEFECT RESULTING TO CROWDING OF THE ABDOMINAL ORGANS IN THE CHEST CAVITY THUS LEADING TO COLLAPSE OF THE LUNGS**
- **= TWO TYPES**
- **LEFT SIDED- BOCHDALEK HERNIA**
- **RIGHT SIDED-MORGAGNI HERNIA**



# Signs and Symptoms

- ***DIFFICULTY BREATHING***
- ***FAST BREATHING***
- ***FAST HEART RATE***
- ***CYANOSIS (BLUE COLOR OF THE SKIN)***
- ***ABNORMAL CHEST DEVELOPMENT, WITH ONE SIDE BEING LARGER THAN THE OTHER***
- ***ABDOMEN THAT APPEARS CAVED IN (CONCAVE)***
- ***A BABY BORN WITH A MORGAGNI HERNIA MAY OR MAY NOT SHOW ANY SYMPTOM***

# Treatment may include:



- neonatal intensive care
- Mechanical ventilator
- Extra corporeal membrane oxygenator
- Surgery

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# ❖ OMPHALOCELE



## ❖ OMPHALOCELE



- Protrusion of the abdominal organs thru the umbilicus
- Usually contained in a sac
- Prone to infection
- Management:
- Cover the defect with sterile saline dressing and preferably change every two hours

# ❖ GASTROSCHISIS



# ❖ **GASTROSCHISIS**



- **Protrusion of abdominal organs thru a defect or a hole in the abdominal wall**
- **Very prone to Infection**
- **Management:**
  - **1. Reduction Process thru a Silastic Silo**
  - **2. Use overhead warming unit**
  - **3. Prophylactic antibiotic**
  - **4. Surgery**

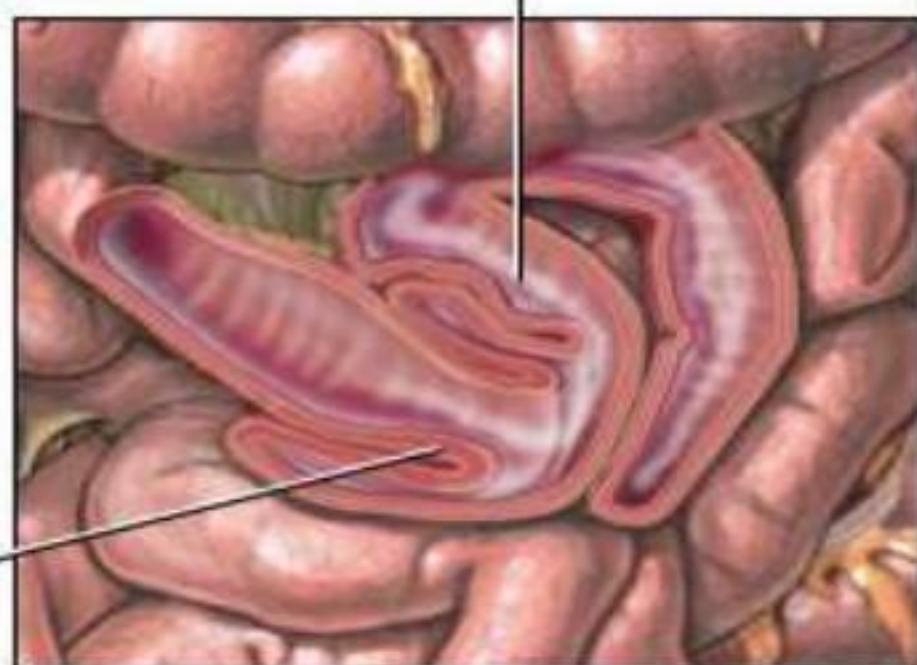
# ❖ INTUSSUSCEPTION



Barium enema

Intussusception

Barium traveling  
in affected intestine





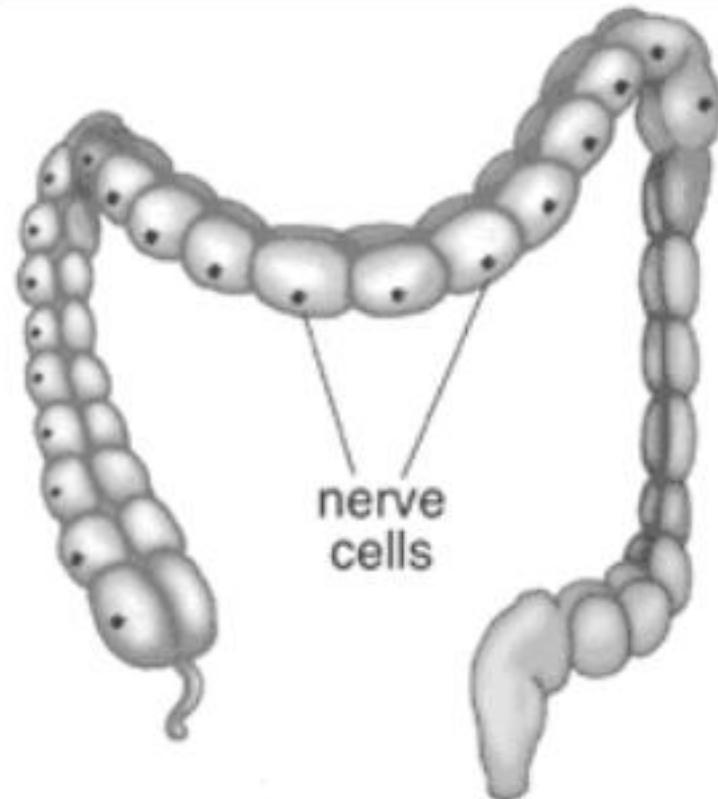
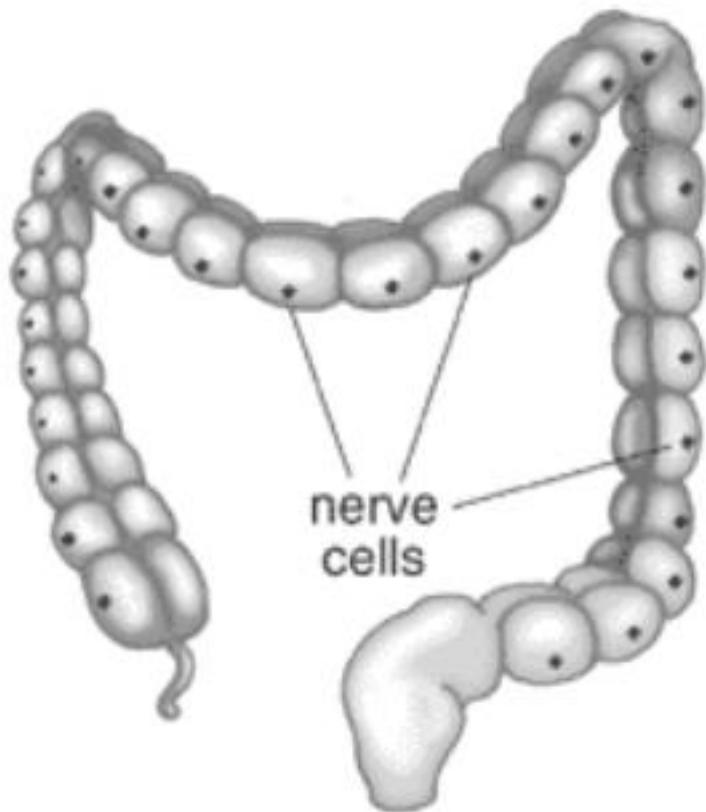
- = **INVAGINATION OR THE TELESCOPING OF THE SMALL BOWEL INTO THE LARGE BOWEL**
- = **MAY OCCUR AS EARLY AS 3 WEEKS OLD MANIFESTED BY**
  - **ABDOMINAL PAIN- earliest sign**
  - **PROJECTILE VOMITING WITH BILE OR FECALOID**
  - **SAUSAGE SHAPED MASS**
  - **PASSAGE OF CURRANT JELLY- BLOODY AND MUCOID STOOL**

# **DX: LGIS OR BARIUM ENEMA- REVELS A COILED SPRING OR STAIRCASE SIGN**



- TX: **BARIUM ENEMA**
- **SURGERY: BOWEL RESECTION  
WITH END TO END ANASTOMOSIS**
- **BOWEL MILKING**

# ❖ HIRSCHPRUNGS DISEASE



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# ❖ **HIRCHSPRUNGS/ AGANGLIONIC MEGACOLON**



- Absence of ganglion nerve cells resulting to the absence of peristalsis in the affected segment
- Accumulation of intestinal materials leading to
- MEGACOLON

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# Signs and symptoms:



- ***NON PASSAGE OF MECONIUM***
- ***VOMITING AND ABDOMINAL DISTENTION***
- ***CHRONIC CONSTIPATION***
- ***PASSAGE OF RIBBON-LIKE OR PELLET STOOL***
- ***ANOREXIA, SHORTNESS OF BREATH***

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# Treatment:Surgery



- **COLOSTOMY**
- **SWENSON AND SOAVE**
- **CLOSURE OF COLOSTOMY**

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# NURSING CARE: PRE OPERATIVE



- 1. Daily enema- for retention olive oil or diluted antibiotic**  
*i.– for non retention- isotonic saline solution*
- 2. Small but frequent meals of low residue**
- 3. Measure abdominal circumference daily**
- 4. Position with head elevated to ease breathing**
- 5. Administer drugs as ordered. Ex. Stool softeners**
- 6. Oral hygiene**
- 7. Psychosocial support**

aurisila maganis delos reyes

september 06, 1984

## 7. ANOGENITAL



- THE NB IS EXPECTED TO PASS OUT STOOL ON THE FIRST 24 HOURS
- = FAILURE TO DO SO MEANS OBSTRUCTION WHICH CAN BE:
  - 1. IMPERFORATE ANUS
  - 2. HIRCHSPRUNGS DISEASE
  - 3. CYSTIC FIBROSIS
- THREE TYPES OF STOOLS
- 1. MECONIUM- green black , sticky, odorless, passed 4X per day
- TRANSITIONAL- yellow-green, slimy, 6X or more
- MILK
  - a. *aurisila maganis delos reyes*  
September 06, 1984 Breast fed baby stool
  - B. Bottle fed baby stool

# BREAST FED BABY STOOL



- CHARACTERISTICS:
  - ***GOLDEN YELLOW***
  - ***MUSHY AND SOFT***
  - ***SWEET ODOR***
  - ***PASSED EVERY AFTER  
BREASTFEEDING***

*aurisita maganis delos reyes*

*september 06, 1984*

# BOTTLE FED BABY STOOL

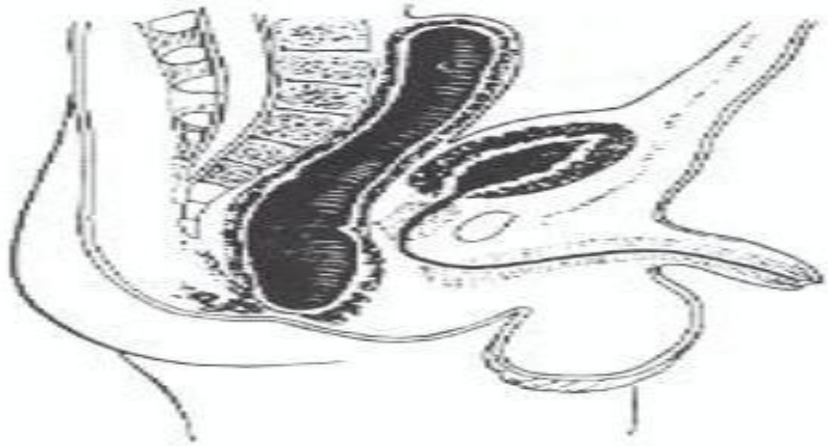


- CHARACTERISTICS:
  - ***PALE YELLOW***
  - ***HARD AND FORMED***
  - ***OFFENSIVE, FOUL ODOR***
  - ***PASSED ONCE/ DAY***

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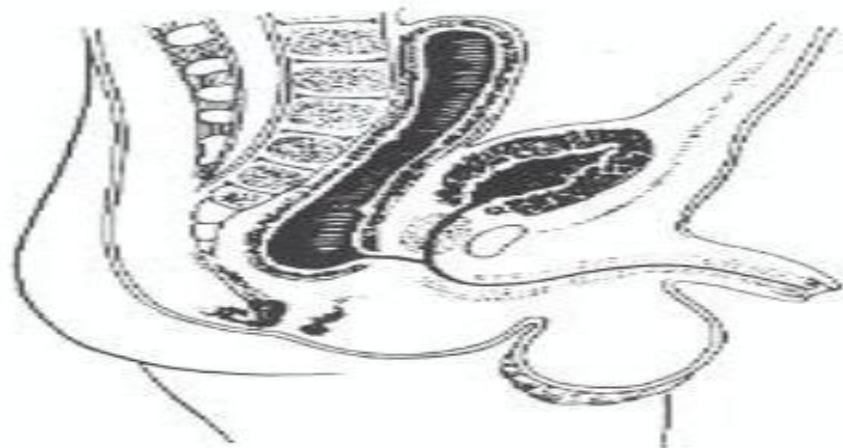
## ❖ IMPERFORATE ANUS



Thin membrane over anus  
Both sexes



Blind rectal pouch with  
normal anus  
Both sexes



Blind rectal pouch  
Rectourethral fistula  
In males



Blind rectal pouch  
Rectovaginal fistula  
In females

Fig. 18-16 Types of imperforate anus in the newborn infant.

# Signs and Symptoms



- absence of anal opening
- misplaced anal opening
- anal opening very near the vaginal opening in the female
- no passage of first stool within 24 to 48 hours after birth
- stool passed by way of vagina, base of penis or scrotum, or urethra
- abdominal distention

# TREATMENT: SURGERY



- ***STAGE I: COLOSTOMY ( NEWBORN)***
- ***STAGE II: PULL THRU***
- ***STAGE III: CLOSURE OF  
COLOSTOMY***

# 7. UROGENITAL



## ASSESS:

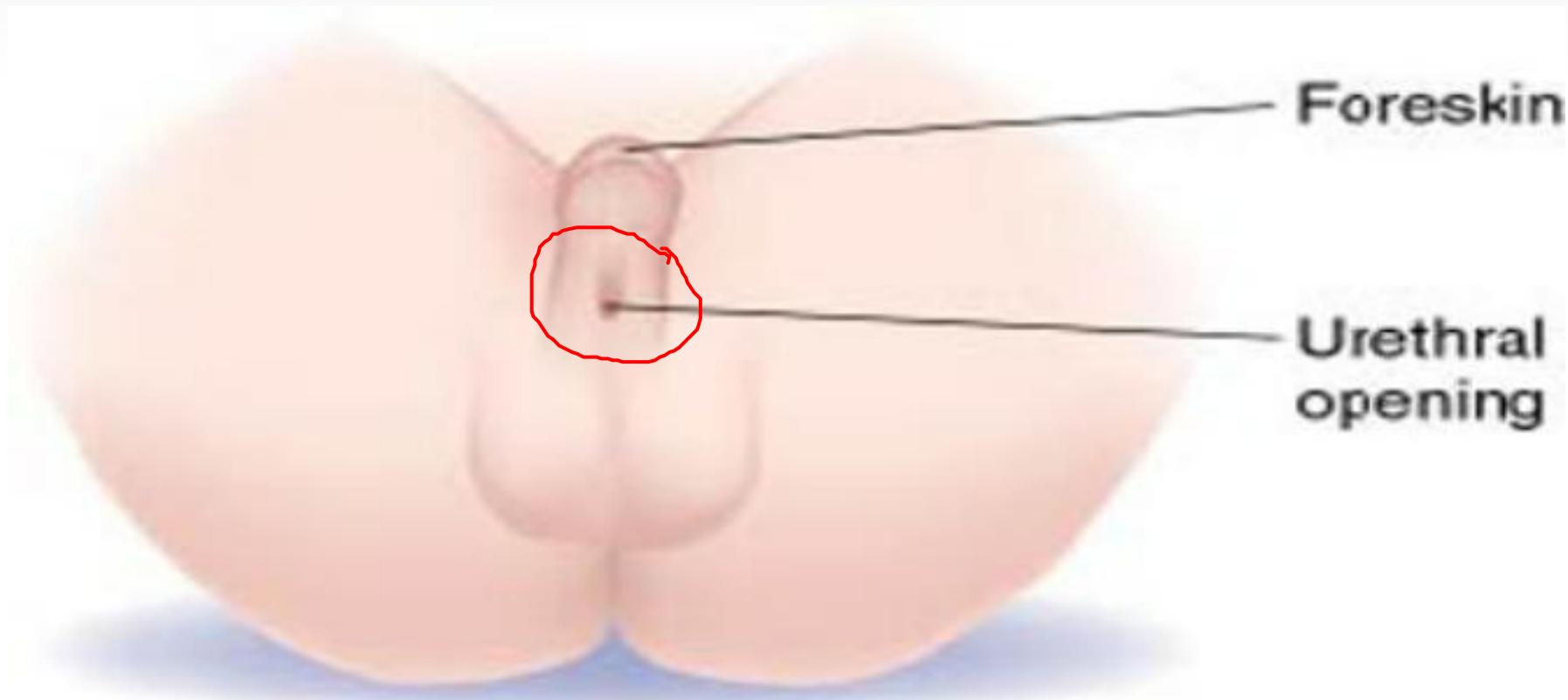
**1. THE NB is expected to void 6 to 8x on 1<sup>st</sup> 24 hours**

- = failure may suggest dehydration or absence of urinary meatus
- = After 24 hrs= 12 to 20X/ day
- = failure means **Renal Agenesis**
- - Unable to concentrate urine
- = bladder is stretched and emptied with 15 ml of urine

- ASSESS:
- 2. DIRECTION OF THE URINE FLOW:
- FOR MALE : a small projected arc suggest the urinary meatus at the middle portion of the penis, however,
  - A. *if arc is too high may indicates urinary meatus at the dorsal or above the penis known as EPISPADIAS*
  - B. *if arc is absent or flow is directed downward indicates urinary meatus below or ventral surface of the penis known as HYPOSPADIAS*
- 3. PALPATE THE SCROTUM to check for UNDESCENDED TESTES KNOWN AS CRYPTOORCHIDISM

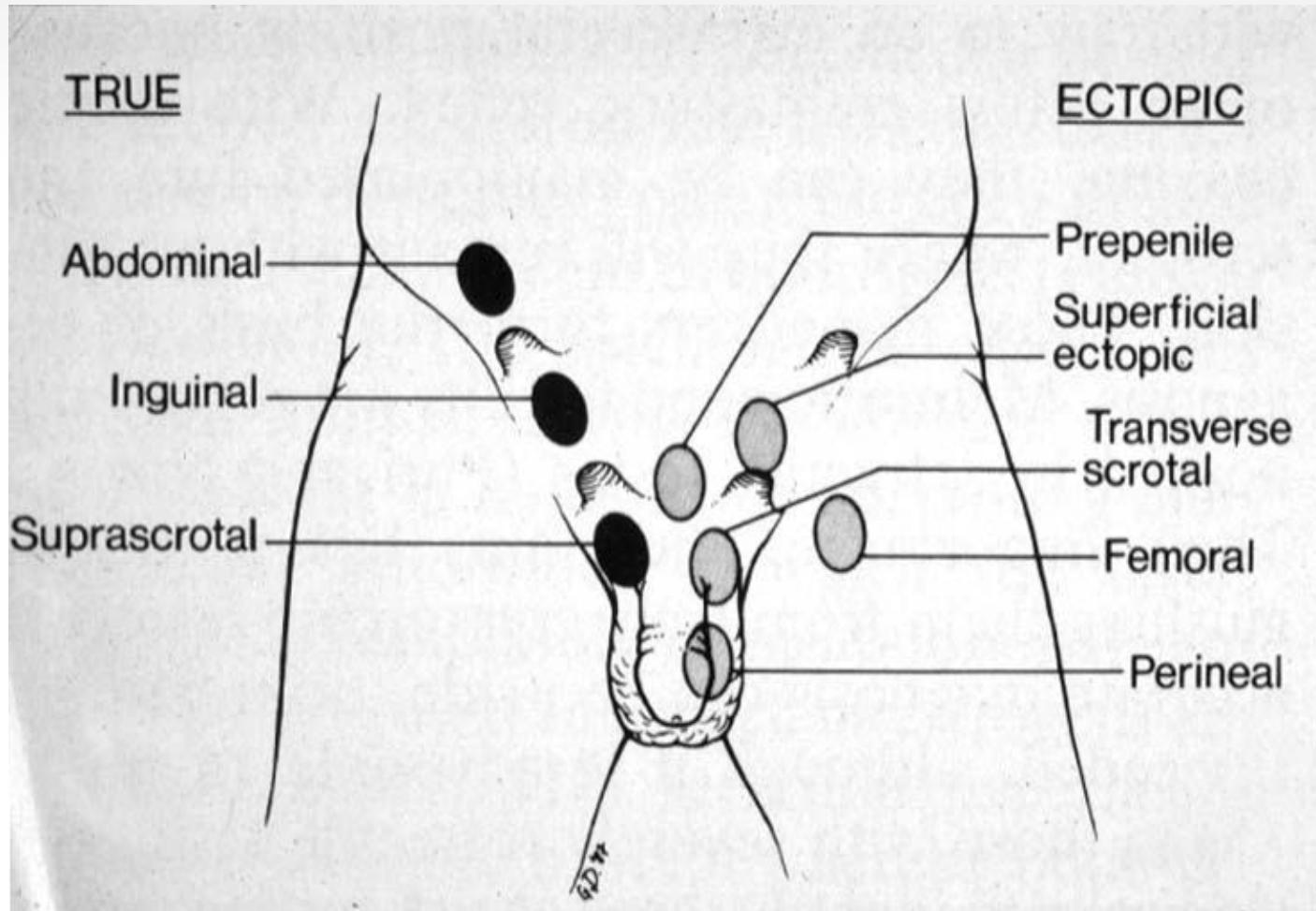
- 4. TRANSILLUMINATON OF THE SCROTUM MAY REVEAL
  - ❖ A. TRANSPARENT FLUID (intraabdominal) KNOWN AS HYDROCELE
- B. presence of loop of intestines in the scrotum called scrotal hernia
- 5. most male babies have PHIMOSIS (tight foreskin)
  - =note: never retract the foreskin as it may cause laceration)
  - =usually disappears n 6 months to 1year
  - = if not: will be treated with circumcision
- 6. for female babies: assess for Psuedomenstruation (false menstruation) passage of small amt/ of blood
  - Caused by withdrawal of maternal hormones
- 7. URIC CRYSTALS- pink or brick red crystals caused by urates

# ❖ HYPOSPADIAS



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# ❖ CRYPTOORCHIDISM



# ❖ CRYPTOORCHIDISM



- undescended testes
- COMPLICATIONS:
  - 1. Inguinal Hernia
  - 2. Testicular cancer
  - 3. Sterility
  - Management:
    - 1. Hormonal tx- HCG & TESTOSTERONE
    - 2. ORCHIOPEXY or ORCHIDOPEXY

# HYDROCELE



# ACCUMULATION OF INTRAABDOMINAL FLUID IN THE SCROTUM



- TYPES:
- 1. NON- COMMUNICATING
- 2. COMMUNICATING needs elective repair to prevent HERNIA
- NOTE: Trans illumination may reveal fluid or loop of intestines

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# 8. EXTREMITIES



- Assess for
- 1. with symmetrical movements of the arms
- If assymetrical suggests: weakness or paralysis ( **Erb's palsy or Brachial Plexus** paralysis)
- 2. Note the following abnormalities
- A. **Amelia**- absence of entire limb
- B. **Phocomelia**- absence of arms or legs
- C. **Hemimelia**- absence of hands or feet

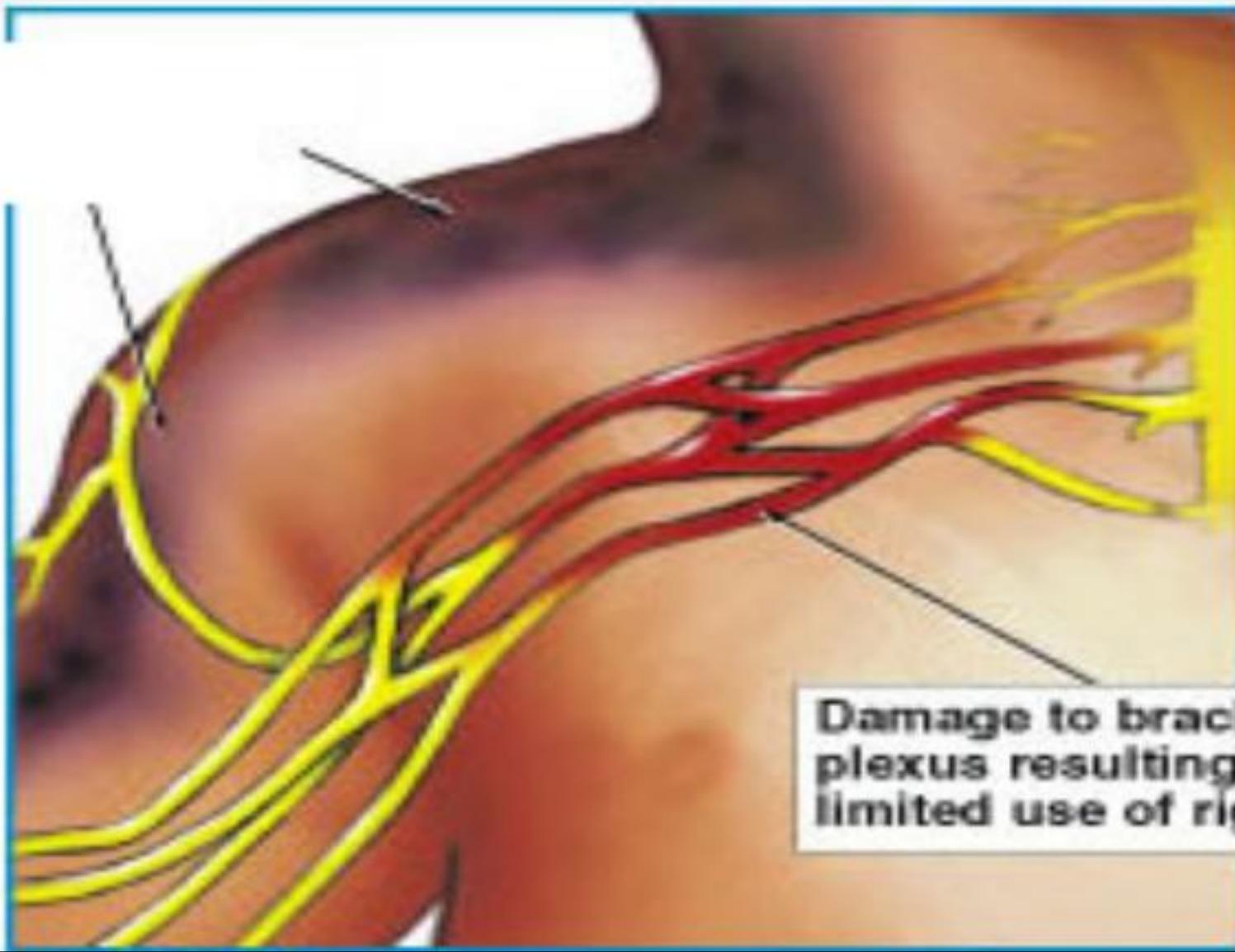
- 3. MD will perform a diagnostic tests called **Ortolani test** to determine the presence of **Hip Dysplasia or Hip dislocation**
- 4. legs of the NB are normally bowlegged or varus until toddlerhood
- 5. feet of the NB are flat due to fat deposits and usually points outward however, by the time they walk it will point straight upward.
- assess for:
  - **A. Equinous**- toes points downward
  - **B. Varus**- toes points inward
  - **C. Valgus**- toes points outward
  - **D. Calcaneous**- toes points upward
- Most common defect **EQUINOVARUS (clubfoot)**

# ❖ PHOCOMELIA

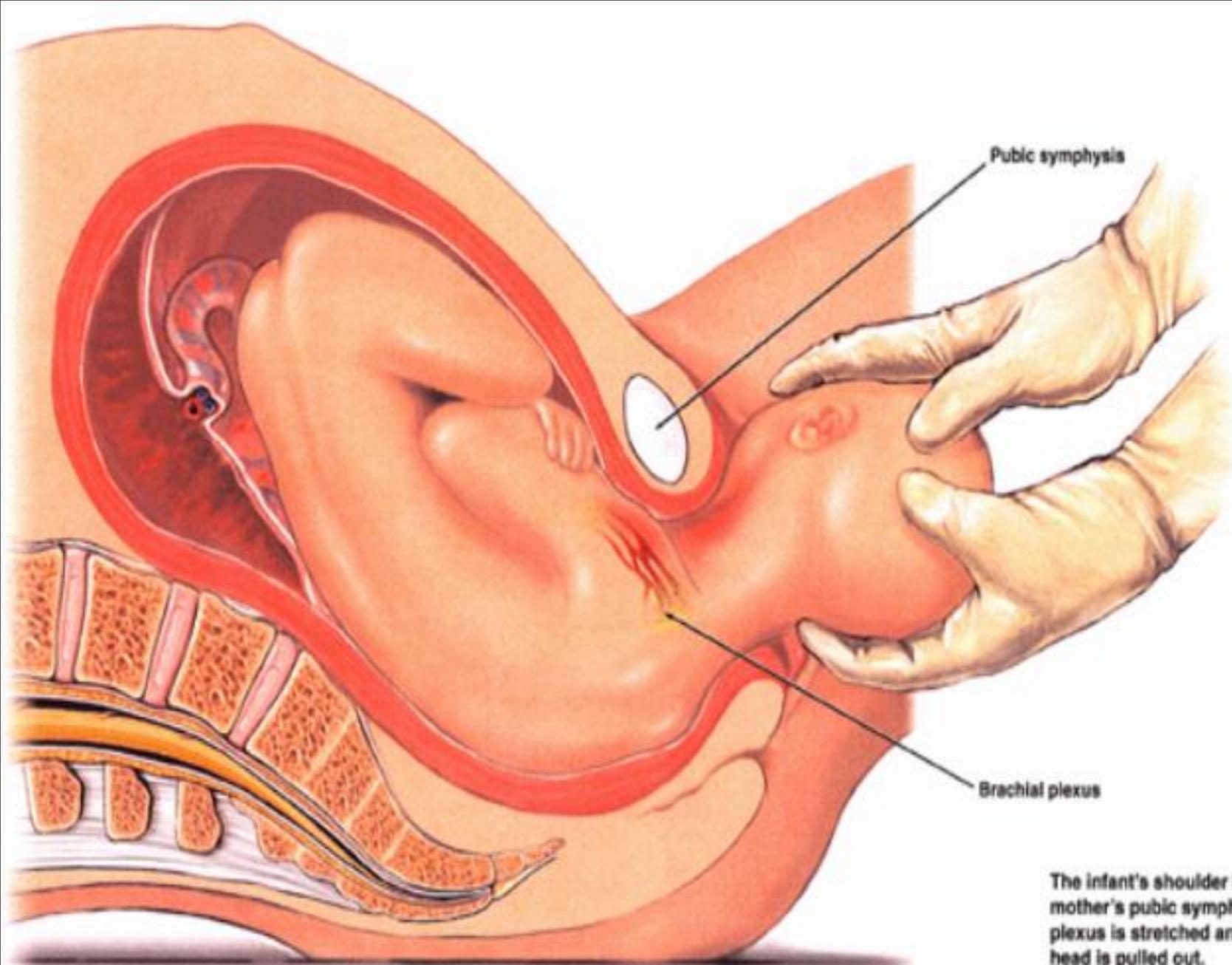




# ERBS PALSY



**Damage to brachial plexus resulting in limited use of right arm**



Midsagittal View of Infant in Utero

The infant's shoulder is caught behind the mother's pubic symphysis. The brachial plexus is stretched and damaged as the head is pulled out.

# SIGNS AND SYMPTOMS



- 1. ABSENCE OF MORO RERLEX IN THE AFFECTED SIDE
- 2. INCOMPLETE TONIC NECK REFLEX
- 3 DECREASE SENSORY AND MOTOR FUNCTION

*anand mayank chauhan*

september 06, 1984

# TREATMENT



- Abduction with external rotation of the affected arm and immobilize with  
**FIGURE EIGHT or AIRPLANE SPLINT**

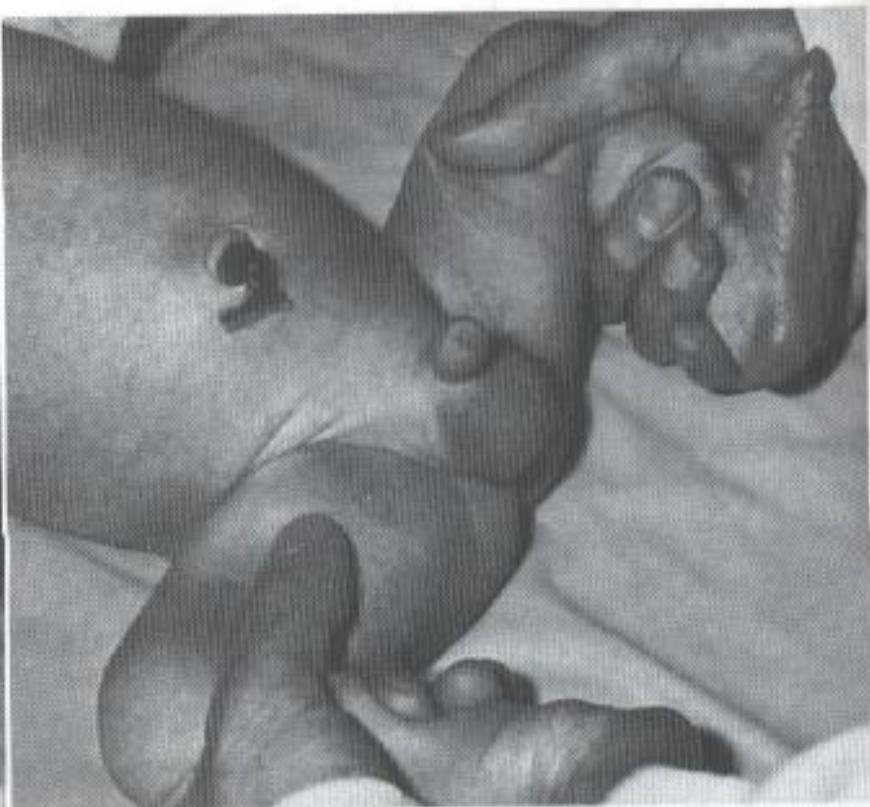
*aurisila maganis delos reyes*

*september 06, 1984*

# ORTOLANI TEST



A



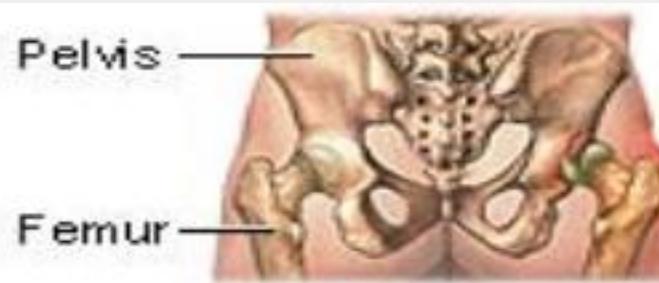
B

**Fig. 16-13** Assessing for hip dysplasia (dislocation) using Ortolani's maneuver. **A**, Examiner's middle fingers are placed over greater trochanter and thumbs over inner thigh opposite lesser trochanter. **B**, Gentle pressure is exerted to further flex thigh on hip, and thighs are rotated outward. If hip dysplasia is present, examiner can feel head of femur slip forward in acetabulum and slip back when pressure is released and legs returned to their original position. A click or clunk is sometimes heard (Ortolani's sign). (Courtesy Mead Johnson, Evansville, IN.)

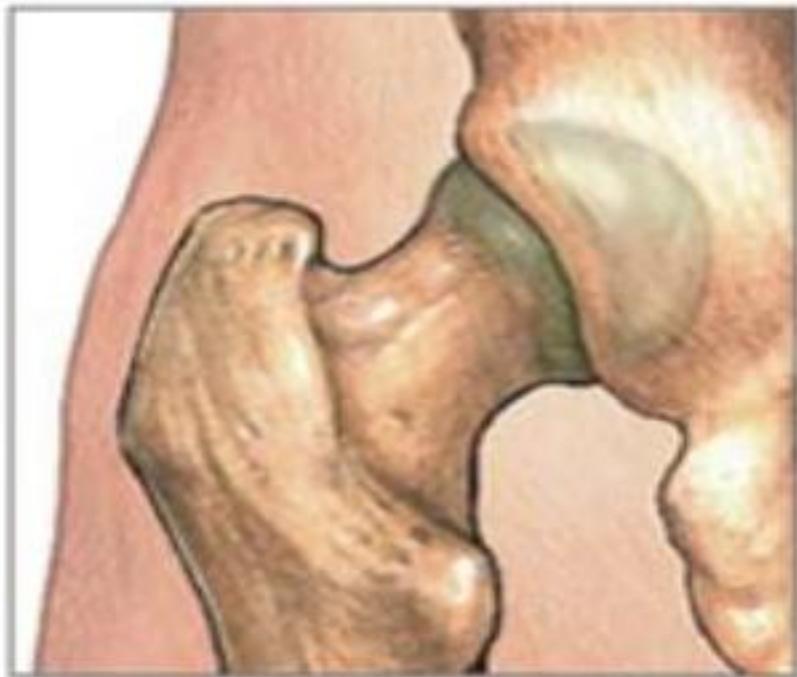


HIP

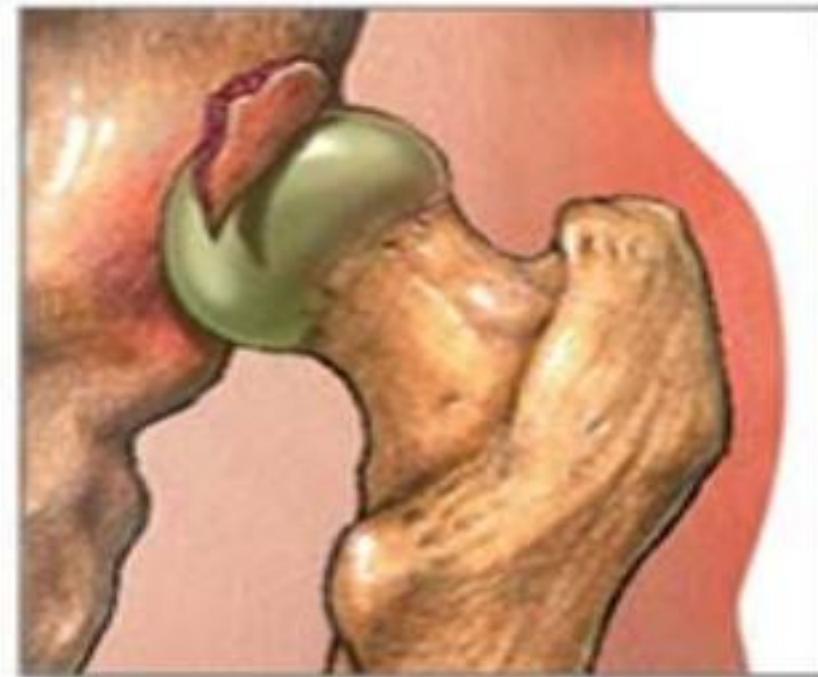
# DISLOCATION/DYSPLASIA



Normal location



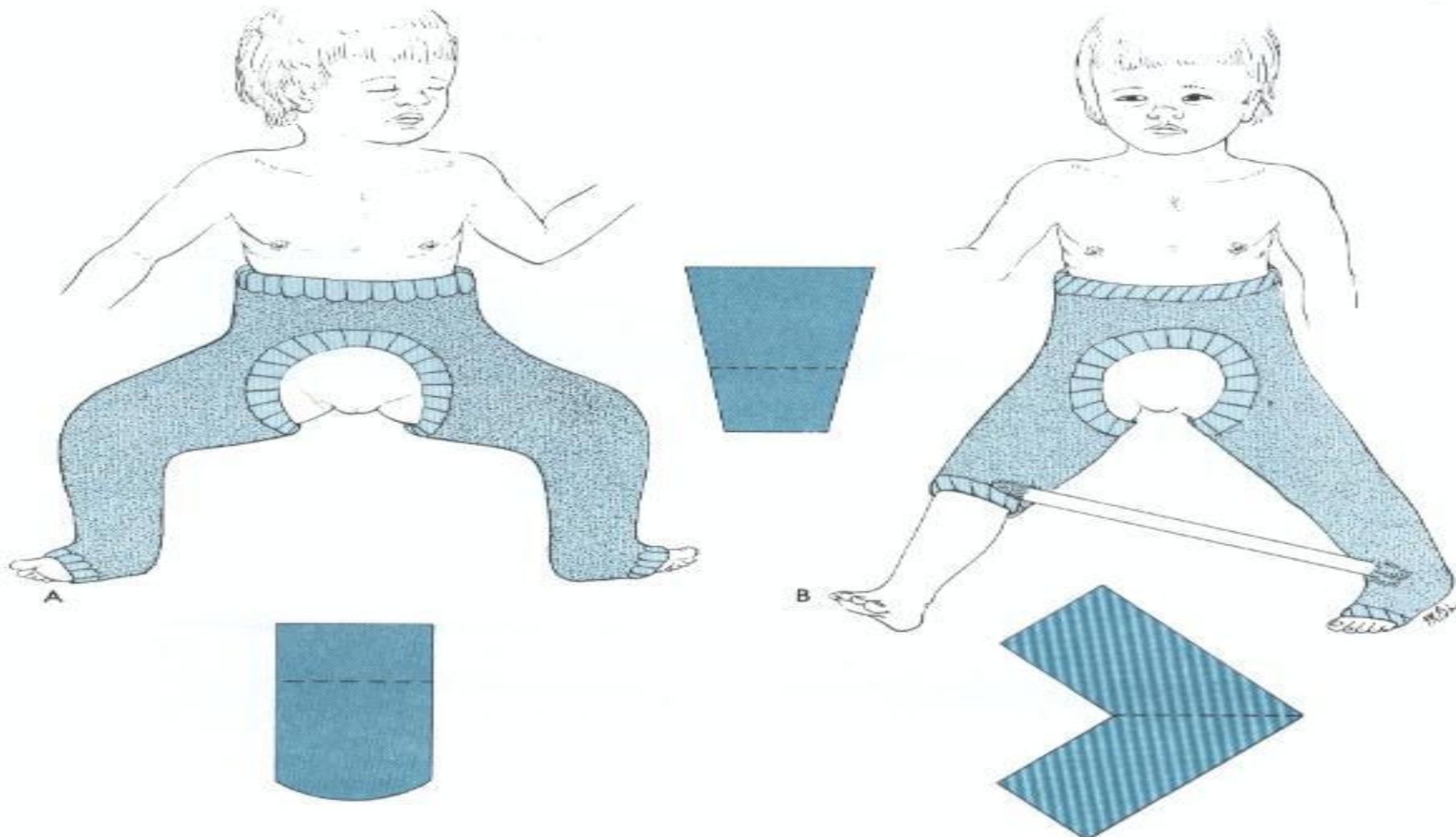
Dislocation



# PAVLIK HARNESS

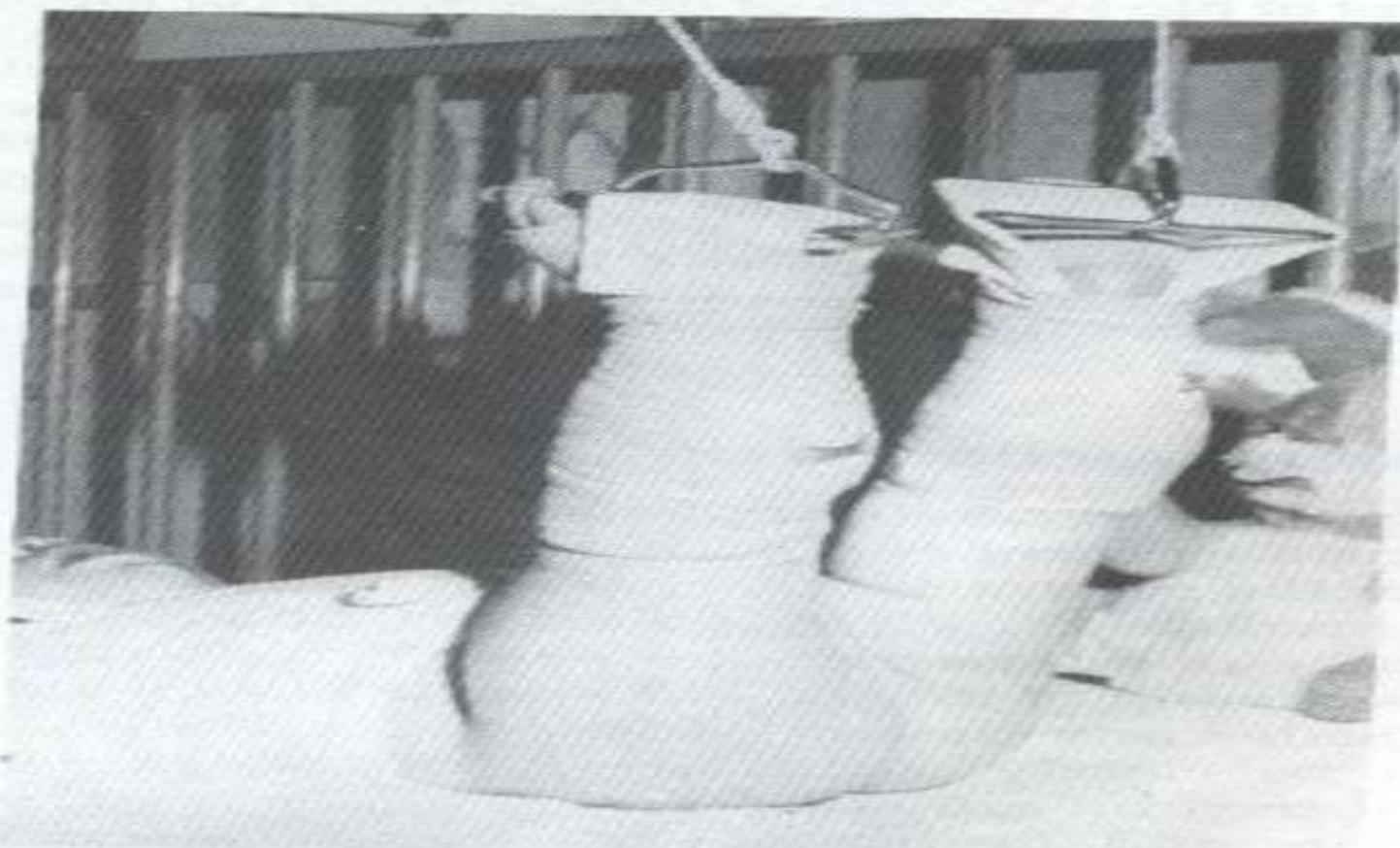


# HIP SPICA CAST

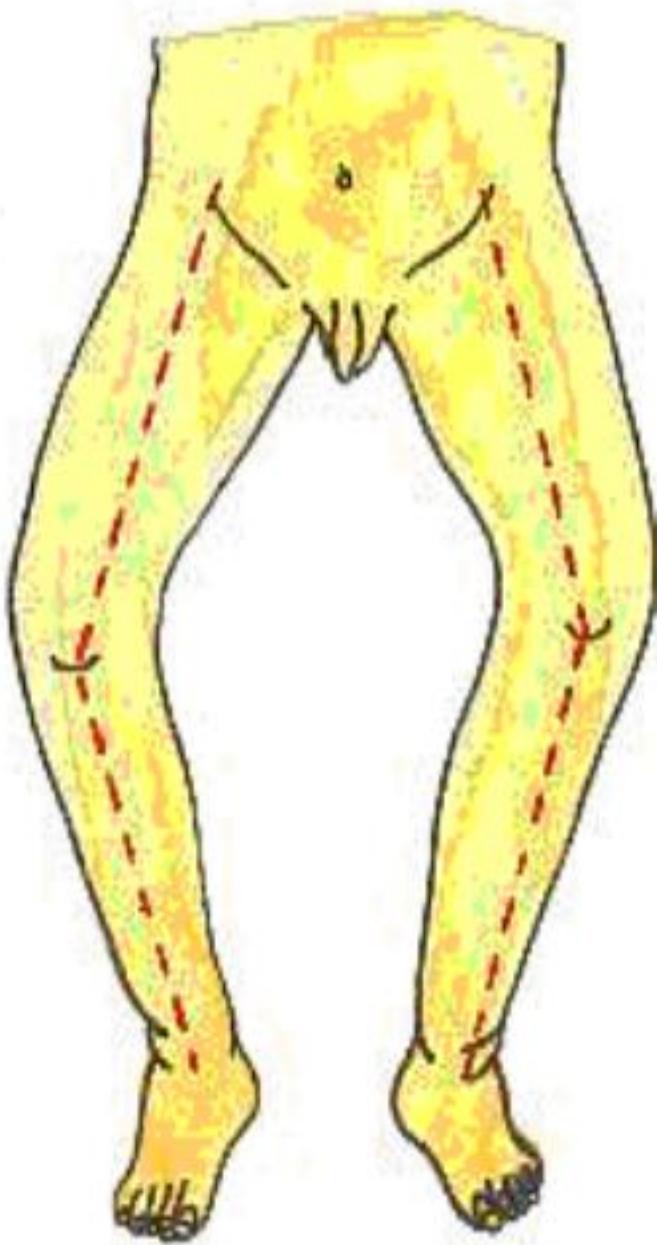


**Fig. 33-12** Different types of petaling. **A**, Bilateral hip spica cast. **B**, Unilateral hip spica cast with abductor bar.

# BRYANT'S TRACTION



**Fig. 33-2** Bryant's or vertical traction may be used for infants or young children weighing less than 30 pounds. Pelvis is no longer lifted above mattress by traction, since this has been associated with circulatory problems in legs. Knees should be slightly flexed. Both legs are placed in traction even though only one may be fractured. Better alignment is maintained. (Courtesy Children's Hospital and Health Center, San Diego, Calif.)



**varum**



**valgum**

❖ EQUINOVARUS





- **CHARACTERIZED BY:**
- = **PLANTAR FLEXION ( TOES POINTING DOWN )**
- = **INVERSION ( TOES POINTING INWARD )**
- **OTHER TYPES:**
- = **EVERSION ( TOES POINTING OUTWARD )**
- = **CALCANEUS ( TOES POINTING UPWARD )**

# Management:



- 1. ***EXERCISE***
- 2. ***APPLICATION OF CAST***
- 3. ***ARTHRODESIS***
- 4. ***DENNIS BROWNE APPLICATION***

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# LEG CASTING



## 9. Back



- FLAT AND STRAIGHT
- LUMBAR CURVE FORMS AT 6 MONTHS
- NOTE FOR TUFT OF HAIR, DIMPLE OR MASS
- MAY INDICATE ***SPINA BIFIDA***

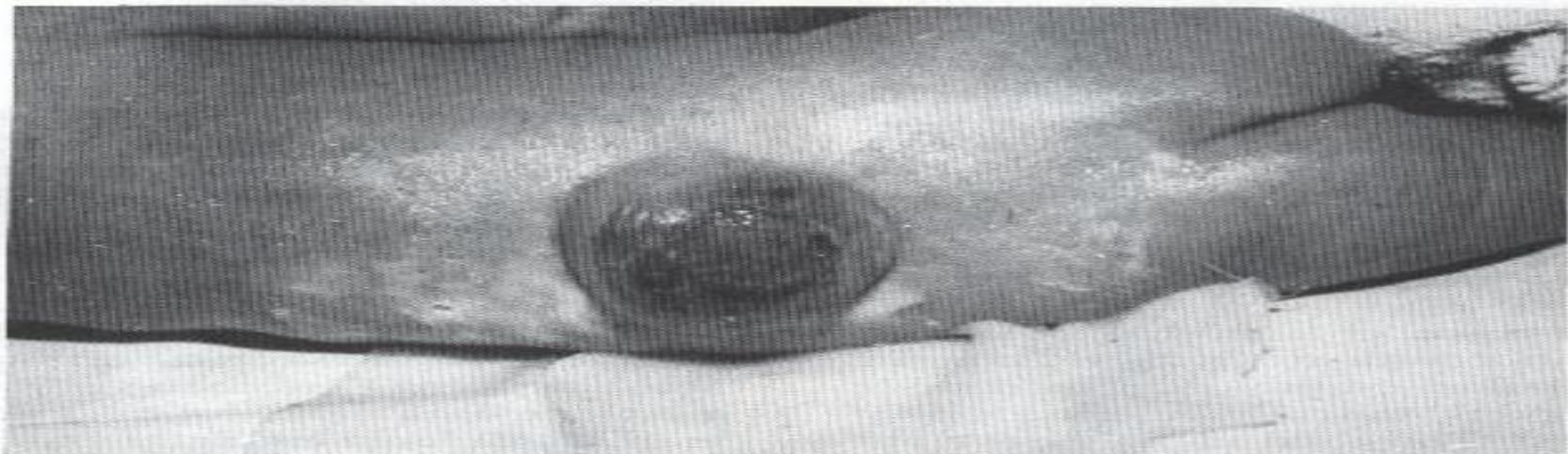


- FLAT AND STRAIGHT
- LUMBAR CURVE FORMS AT 6 MONTHS
- NOTE FOR TUFT OF HAIR, DIMPLE OR MASS
- MAY INDICATE **SPINA BIFIDA**

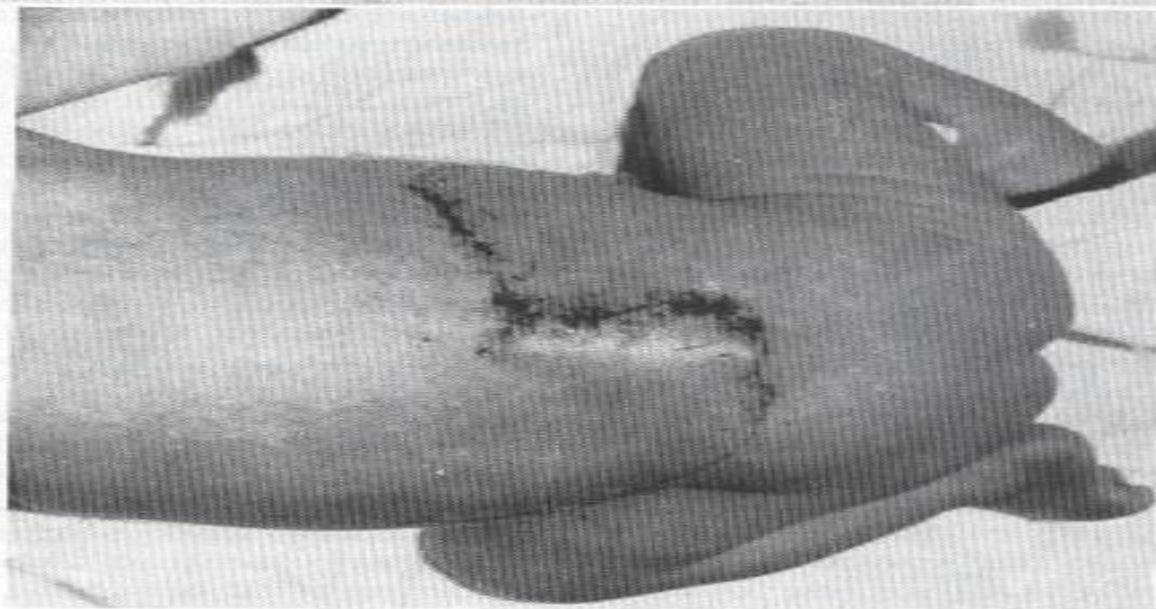
# ❖ SPINA BIFIDA



A



B



**Fig. 18-9** A, Myelomeningocele before surgery (An antibacterial dressing was used.). B, Repair of same patient. (Courtesy Gleason MC, San Diego, CA.)



**Fig. 18-10** This youngster's myelomeningocele was repaired shortly after photograph was taken. (Courtesy Children's Hospital and Health Center, San Diego, CA.)

# Incomplete closure of the vertebrae



- Types:
- 1. **OCCULTA**- HIDDEN; no protrusion of Spinal contents tho manifested by tuft of hair, dimple and small mass
- 2. **CYSTICA**- with protrusion of the spinal contents; maybe
- A. **Meningocele**- protrusion of meninges and CSF
- B. **Myelomeningocele**- protrusion of CSF, Nerve roots, Meninges, and Spinal cord
- C. **Rachischisis**- protrusion of SC and Meninges

# ❖ HYDROCEPHALUS



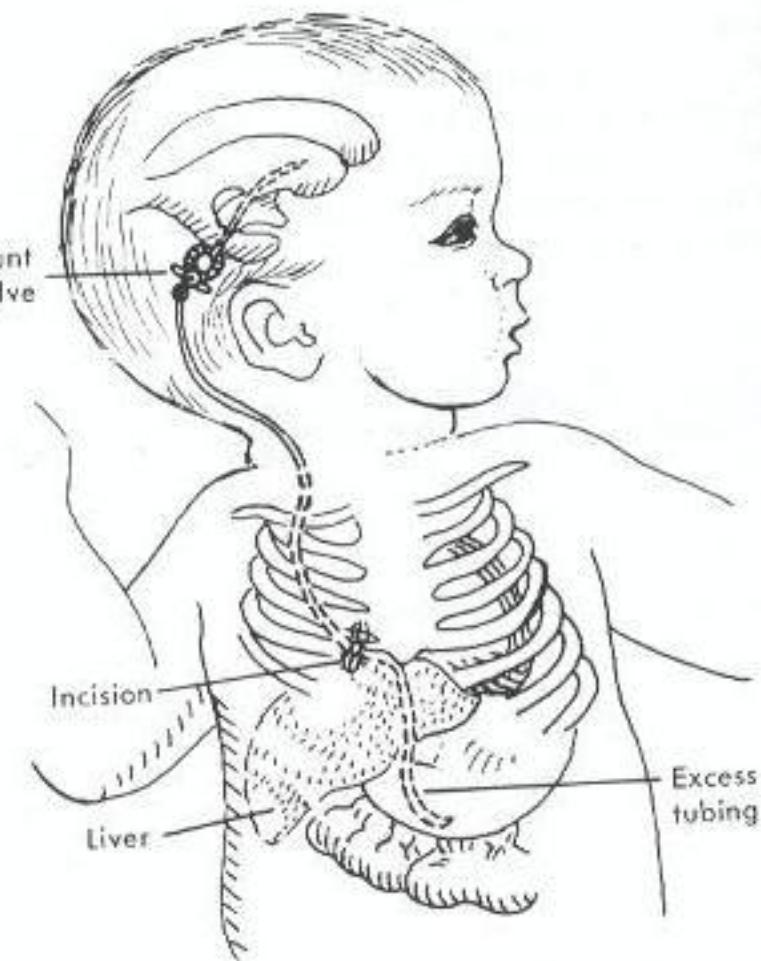
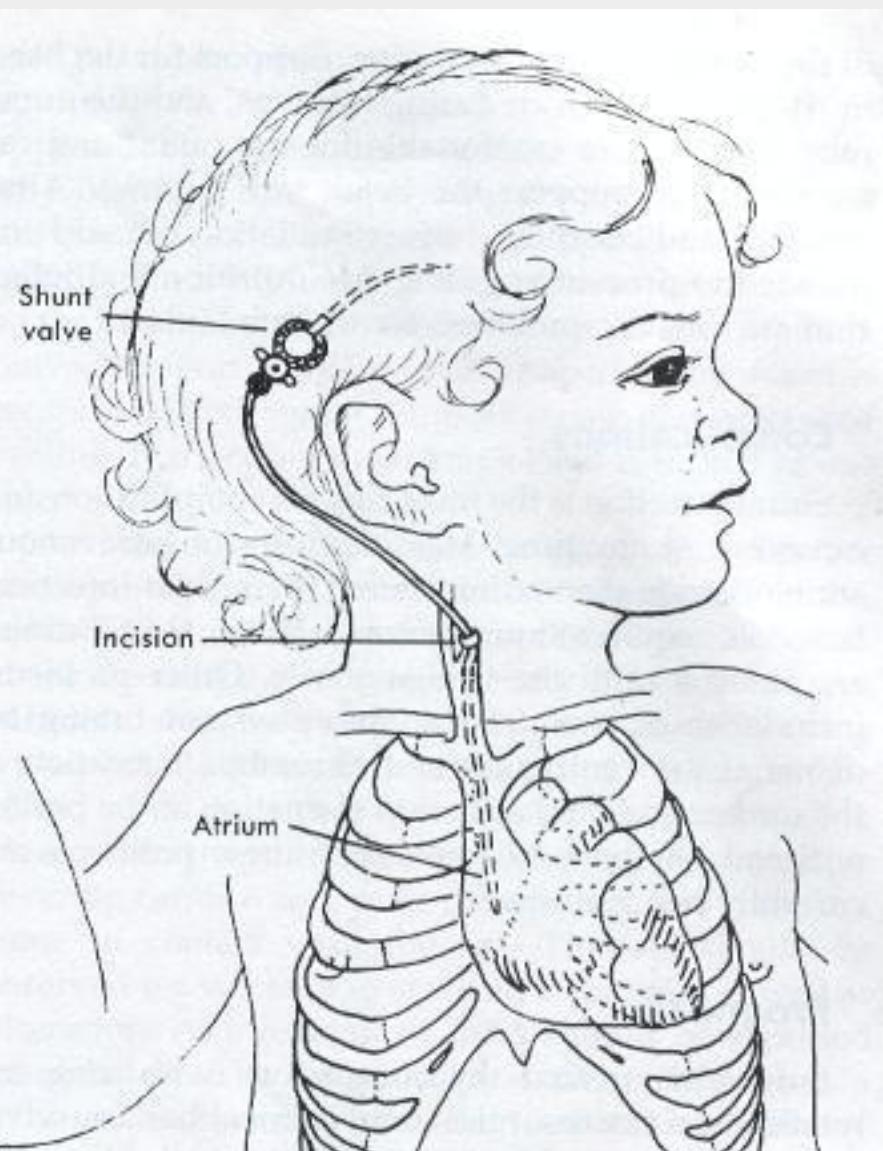
- 1. SAC AT THE BACK
- MANAGEMENT:
- A. PROTECT THE SAC FROM RUPTURE THRU
- = PRONE WITH HIPS ABDUCTED AND HEAD SLIGHTLY ELEVATED
- = APPLY STERILE DONUT RING
- = COVER WITH STERILE SALINE DRESSING AND CHANGE EVERY TWO HOURS
- 2. INCREASE ICP RELATED TO HYDROCEPHALUS W/C INCLUDE
  - A. **MACEWEN- CRACKED POT SOUND**
  - B. **BOSSING- PROTUBERANT FOREHEAD**
  - C. **SUNSET- IRIS LOWER THAN SCLERA**
  - D. **BULGE AND TENSE FONTANEL**
  - E. **HIGH PITCH AND SHRILL CRY**
  - F. **CHANGE IN LOC**
  - G. **CHANGE IN VS**



1. EXCISION OF THE SAC
2. **SHUNTING**- divert CSF to decrease and prevent increase ICP
  - A. **VENTRICULOPERITONEAL**
  - B. **VENTRICULO ATRIAL**

***NOTE: OBSERVE FOR SIGNS OF SHUNT MALFUNCTION***

# SHUNTING



**Fig. 18-6** Ventriculoperitoneal shunt drains cerebral spinal fluid from ventricles of brain into peritoneal cavity where it is absorbed.

# prognosis



- Depends on:
- 1. location of the defect- the lower the defect the better chance
- 2. Availability of treatment

*aurisila maganis delos reyes*

*september 06, 1984*

# 10. SKIN



- Assess the color and marks:
- Note: **PINK –(ruddy)** maybe due to high rbc
- 1. RBC- 4.4 to 7.5 million/mm<sup>3</sup>
- 2. HGB- 14.5 to 22.5 g/ dl
- 3. HCT- 45 to 65 %
- 4. WBC- 5,000 to 35,000 / mm<sup>3</sup>

*www.myanmar.edu.mm*

september 06, 1984

# Abnormal skin colors



- 1. **BLUE-** means HYPOXIA
- 2. **PALLOR-** means ANEMIA
- = maybe due to:
  - a. ABO and RH INCOMPATIBILITY
  - b. BLEEDING
- = maybe due to decrease synthesis of Vit. K
- = deficiency or absence of clotting factors  
**HEMOPHILIA**
- = deficiency or lack of platelets **WISCOTT- ALDRICH**

# Abnormal skin colors



- 1. **BLUE**- means **HYPOXIA**
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- = maybe due to:
  - a. **ABO and RH INCOMPATIBILITY**
  - b. **BLEEDING**
- = maybe due to decrease synthesis of Vit. K
- = deficiency or absence of clotting factors
- = deficiency or lack of platelets
- 3. **YELLOW /JAUNDICE**

# **TWO TYPES OF JAUNDICE**



## ***NORMAL***

**ONSET :** **2<sup>nd</sup> day**

**DURATION:** **2 to 7 days (Term)**  
**2 to 14 days(Preterm)**

**BILIRUBIN** **5 mg/day**  
**12 mg on 3<sup>rd</sup> day**

**TREATMENT** **Sunlight**  
**Phototherapy**

## ***ABNORMAL***

**1<sup>st</sup> day**  
**1 to > 7 days**  
**1 to > 14days**

**> 5 mg / day**  
**> 12 mg/ day**

**Phototherapy**  
**Exchange**  
**transfusion**



Healthy baby



Baby with severe jaundice





Fluorescent light



Baby with mild jaundice

# SKIN MARKS



## 1. HEMORRHOIDAL

- STRAWBERRY MARKS
- PORTWINE STAINS
- FELLOWSCEDESSES NEVUS

## 2. CONGENITAL MARKS

# STRAWBERRY MARKS



# STRAWBERRY MARKS-(Nevus vasculosus)



- ELEVATED AREAS FORMED BY IMMATURE CAPILLARIES AND ENDOTHELIAL TISSUES
- ***PORTWINE STAINS-(NEVUS FLAMMEUS )***
  - ***A MACULAR PURPLE OR DARK RED LESION OR PATCHES***
  - ***CAN BE SEEN FACE, BUTTOCKS, THIGH AND GENITALS***

# PORTWINE STAINS(NEVUS FLAMMEUS)



# TELANGIECTASIS NEVI



- =flat , red areas of capillary dilatation commonly seen at the glabella, upper eyelid, and upper lip

*anterior magnum view eyes*

september 06, 1984

#### 4. Common skin marks

- **A. mongolian spot-** slate blue or gray patches caused by accumulation of melanocytes commonly seen t the buttocks and back. Disappears in preschool
- **B. lanugo-** fine downy hair seen at the back, upper arm, and shoulder
- Common in preterm. Disappears n two weeks
- **C. vernix caseosa-** white cheesy substance seen all over the body. Disappears in 24 hours



**D. erythema toxicum**- pink papules wth superimposed vesicles seen at the face. Disappears in two weeks . First rash of the newborn.

**E. milia**- white spotscommonly seen at the tip of the nose. Caused by clogged sebaceous glands. Also called whiteheads of the nb

**F. desquamation**-dry peeling-off the skin

# COMMON MARKS (not to be use in ID)



- MONGOLIAN SPOTS



# MILIA



# LANUGO



# VERNIX CASEOSA



# NEWBORN RASH/FLEABITE RASH ( ERYTHEMA TOXICUM )



# DESQUAMATION



# 10. Neurological assessment (REFLEXES)



- Reflexes are involuntary movements or action. Some are spontaneous or maybe a response to certain actions. It helps identify normal brain function and nerve activity.

1. MORO
2. TONIC NECK REFLEX
4. STEPPING
5. BABINSKI
6. PLANTAR
7. DANCING
8. GRASP/ PALMAR
9. landau reflex

# • 1. Moro reflex( Embrace reflex)

- = maybe elicited by jarring the crib, dropping an object or allowing the head to drop by 30 degrees angle
- = response of the baby:
- Extends the arms with the hands open and the middle and thumb in “ C” position
- = disappears in 4 to 5 months
- = absence of moro reflex indicate a neurological problem.



## b. Tonic neck reflex ( fencing reflex)



**To illicit this reflex:** turn the head to one side The response of the newborn is to extend hs arm to the direction where the head is turned and opposite arm in flexion.

**-- disappears in 5 to 7 months**

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september 06, 1984

# Stepping reflex or dance reflex



- = elicited by holding the baby upright and the baby take steps and dance when touching a solid surface..
- Disappears in two months

*www.manyame.com.ng*

september 06, 1984

# Grasp or palmar reflex



- **Illcited by touching the anterior surface of the hand**
- **Response of the baby is to close his/her hands around the object**
- **Diasppears in 5 to 6 months**

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*september 06, 1984*

# Crawl reflex



- **Illicited by placing the baby In prone positon**
- **Response of the baby is to bend the knees and moves forward**
- **Disappears when baby starts to stand and cruises around 10 months**

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# c. stepping/ grasp/ crawl



Tonic  
neck  
reflex



Grasp  
reflex



Step  
reflex

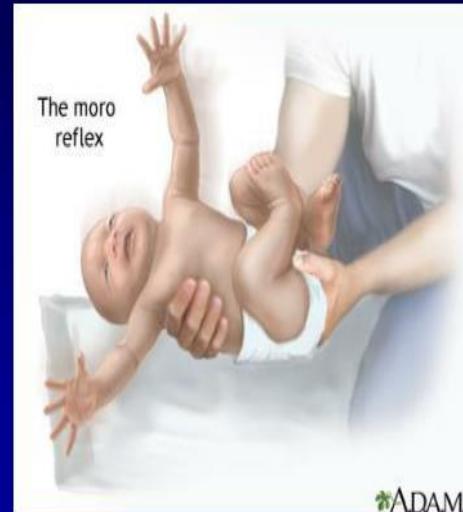
Crawl reflex





## Moro Reflex

The Moro reflex is a normal reflex for an infant when he or she is startled or feels like they are falling. The infant will have a "startled" look and the arms will fling out sideways with the palms up and the thumbs flexed. Absence of the Moro reflex in newborn infants is abnormal and may indicate an injury or disease.



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Illustration by: SCOTT D. STURZBECHER, M.D., F.R.C.P.C.



Step reflex

- *Duration:* About two months
- *Reason:* May prepare baby developmentally for walking several months from now



## • Plantar/grasp reflex

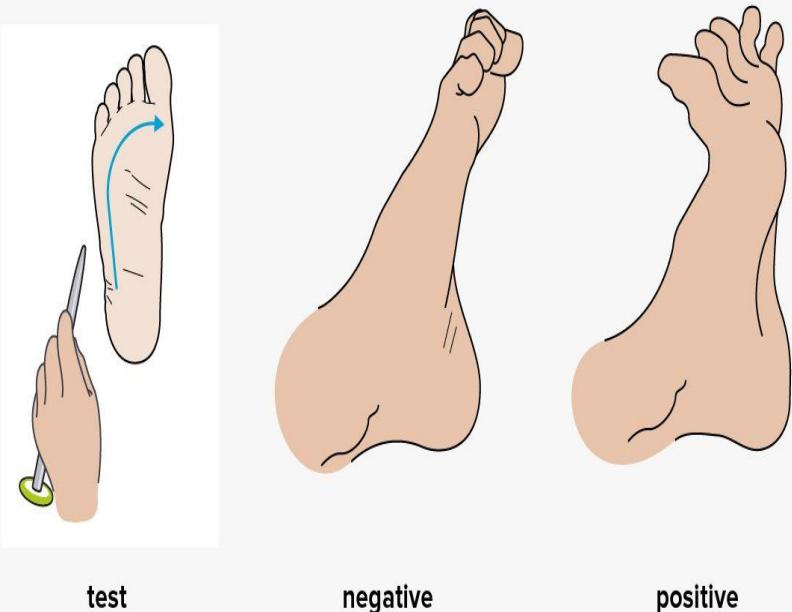
- Placing object or finger beneath the toes causes curling of toes around the object
- Present at 32 weeks of gestation
- Disappears at 9-12 months



## • Clinical significance :

- This reflex is referred to as the "readiness tester".
- Integrates at the same time that independent gait first becomes possible.

## The Babinski Reflex



# Plantar reflex



- **Illcited when the ball of the foot is pressed**
- **Response is to flex his/her toes toward the object**
- **Disappears when baby is ready o walk at 9 to 10 months**

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# Babinski reflex



- **Illicited by stroking the foot of the baby from the heel towards the big toe in inverted “j” curve fashion**
- **Response is to fan the toes with big toe curved inward**
- **Disappears in 12 to 18 months**

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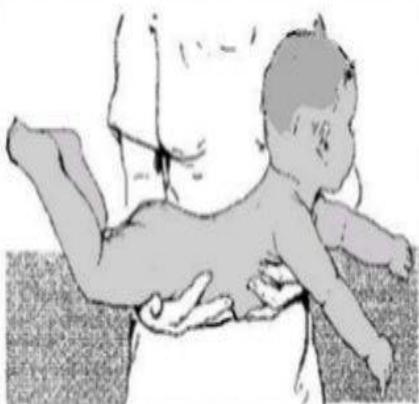


andrea magana como nació

september 06, 1984



# Landau Reflex



- When the infant is held in a horizontal prone position, the infant will lift head and extend the neck and trunk. When the neck is passively flexed, the entire body will flex. This reflex is present by 6 months and hypotonicity (low tone) indicates motor system deficits.

## Glabellar tap

- Tap the child with your finger on the forehead just above nose. He blinks/closes eyes (protective value)
- Appears at 32 weeks gestation

Clinical implications of persistence ?

- persistence of this reflex associated Parkinson's disease

# FEEDING REFLEXES



- 1. ROOTING REFLEX
- 2. EXTRUSION/ SPIT OUT/ PROTRUSION
- 3. SUCKING/ SUCKLING
- 4. SWALLOWING

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# rooting



- **Illcited by strokig the cheek or cornerr of the mouth with an object (nipple or hand)**
- **Response is to move hs head with the mouth locating the object**
- **Disappears in 3 to 4 months**

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*september 06, 1984*

# Extrusion/protrusion reflex



- **elicited by placing an object in the anterior surface of the tongue**
- **Response is to push the object away from the mouth**
- **Protects the baby from aspiration**
- **Disappears in 4 to 5 months when the baby is ready for solid**

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# Sucking reflex



- **Illcited by placing an object in between the lips**
- **Response is to open the mouth and grab the object**
- **Disappears at 6 months**

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# PROTECTIVE REFLEX



- 1. GLABELLAR'S / BLINK
- 2. GAG REFLEX
- 3. SNEEZING
- 4. COUGHING

*anatomical diagram from ayres*

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# PEDIATRIC DISEASES

## CARDIOVASCULAR DISEASES

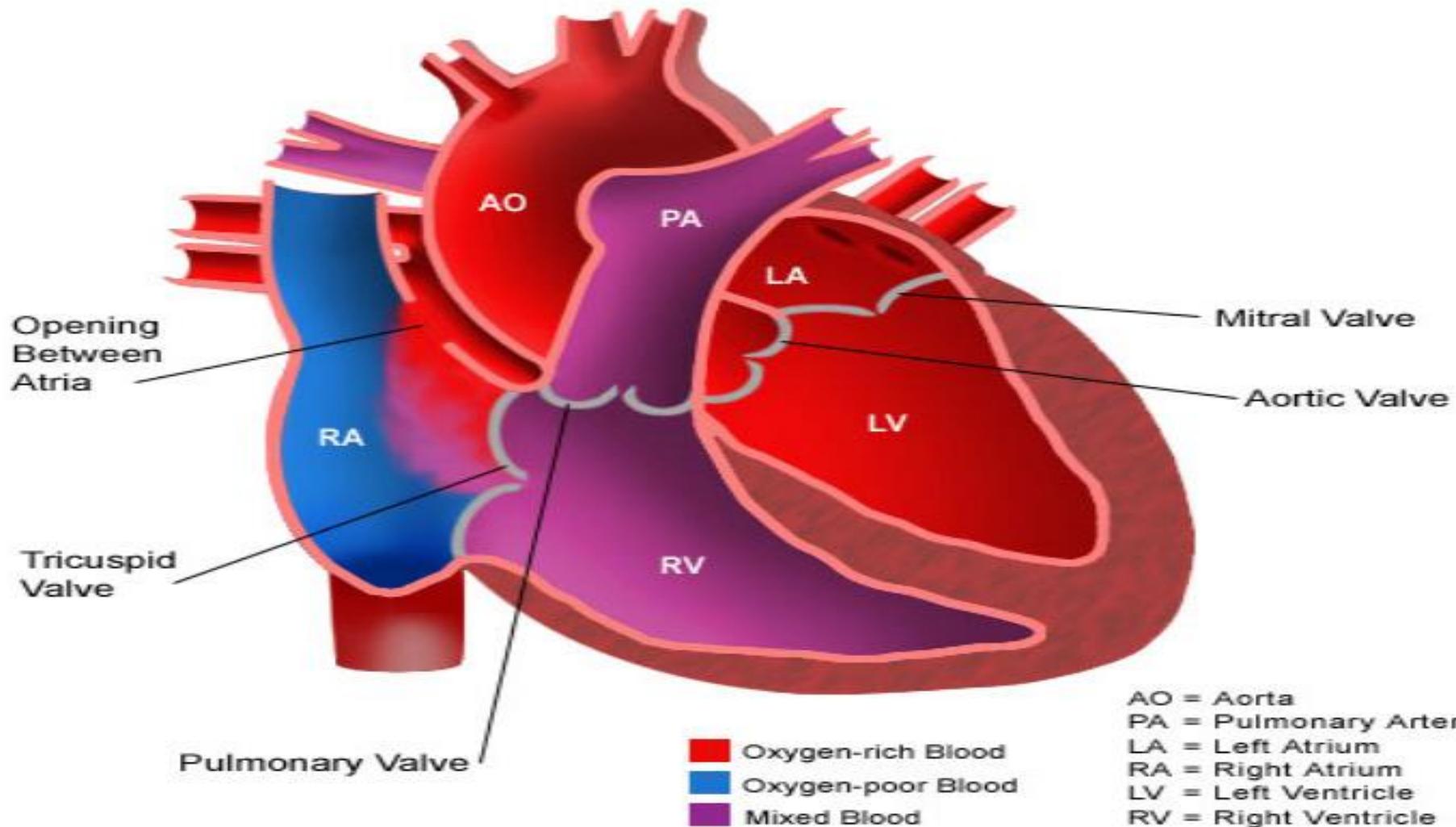
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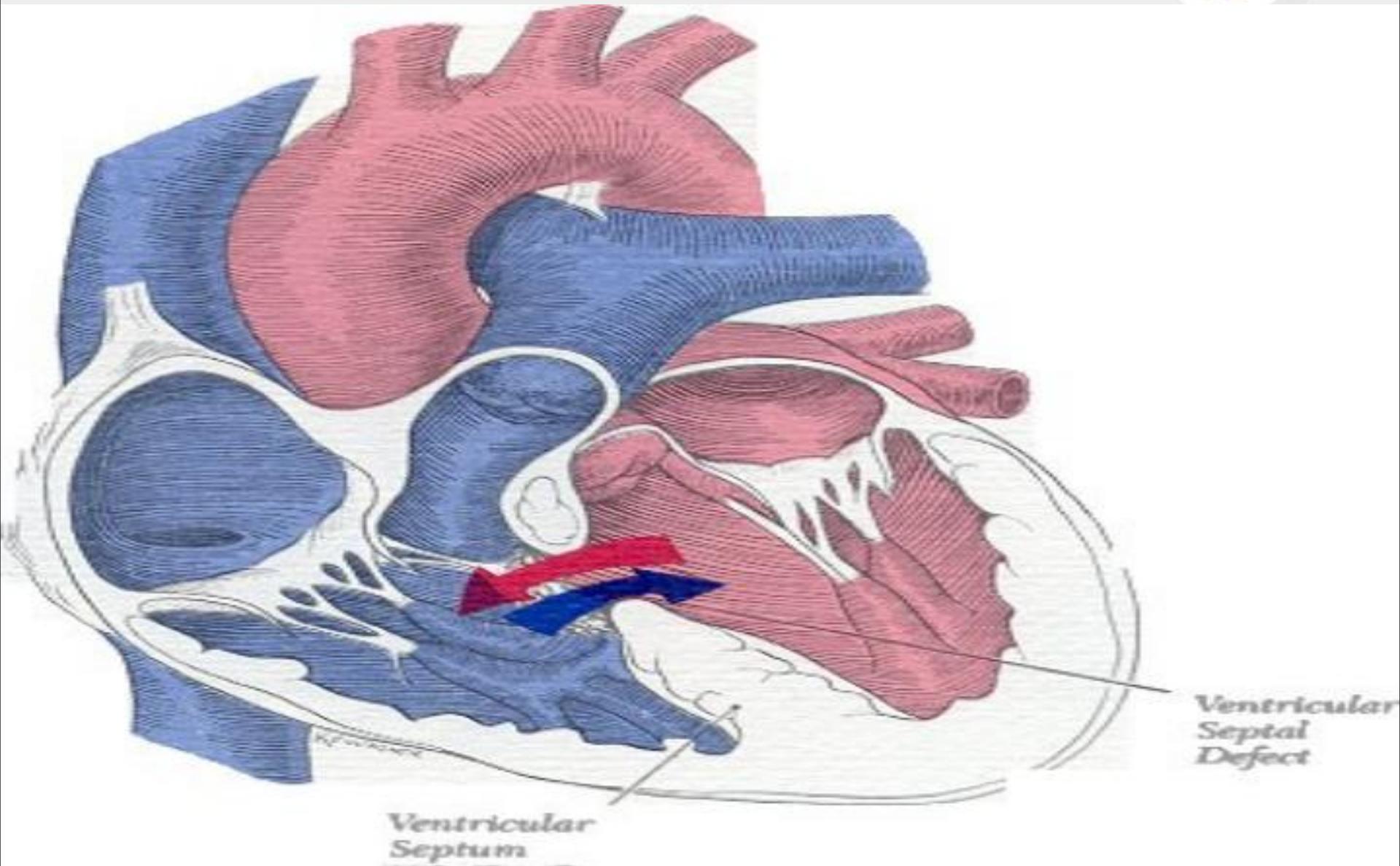
# ACYANOTIC DEFECTS



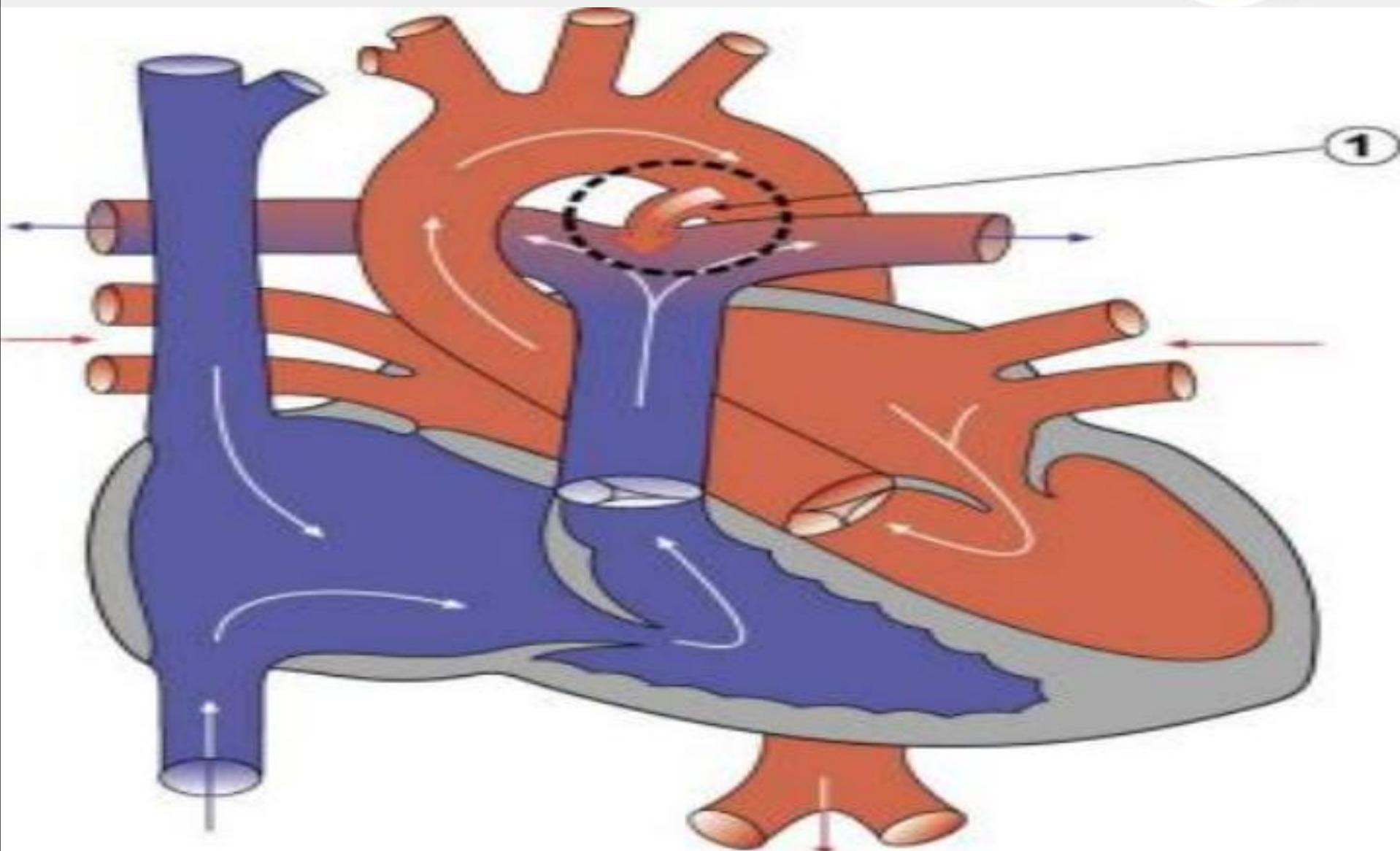
## Atrial Septal Defect (ASD)



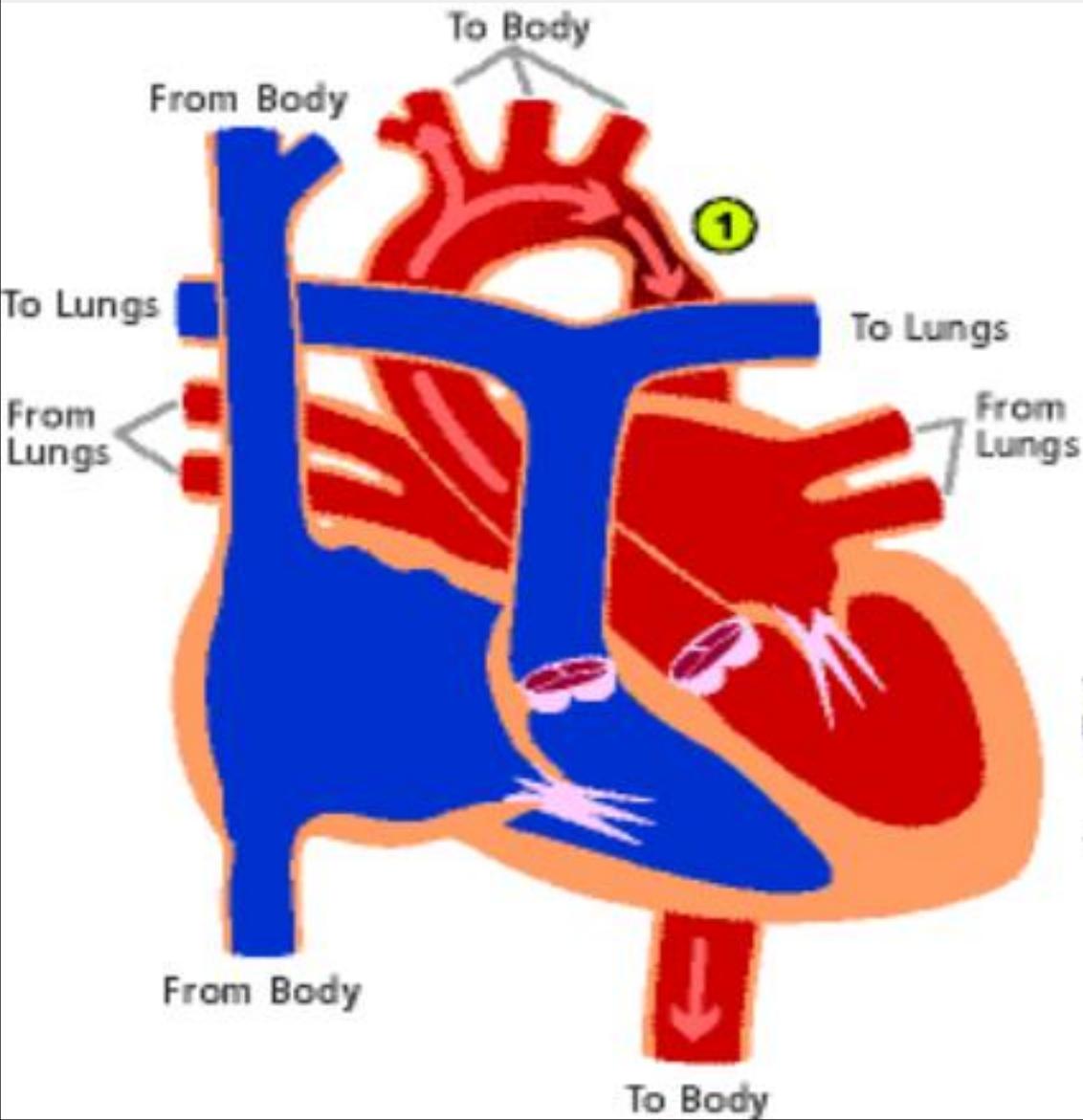
# VENTRICULAR SEPTAL DEFECT



# PATENT DUCTUS ARTERIOSUS



# COARCTATION OF THE AORTA



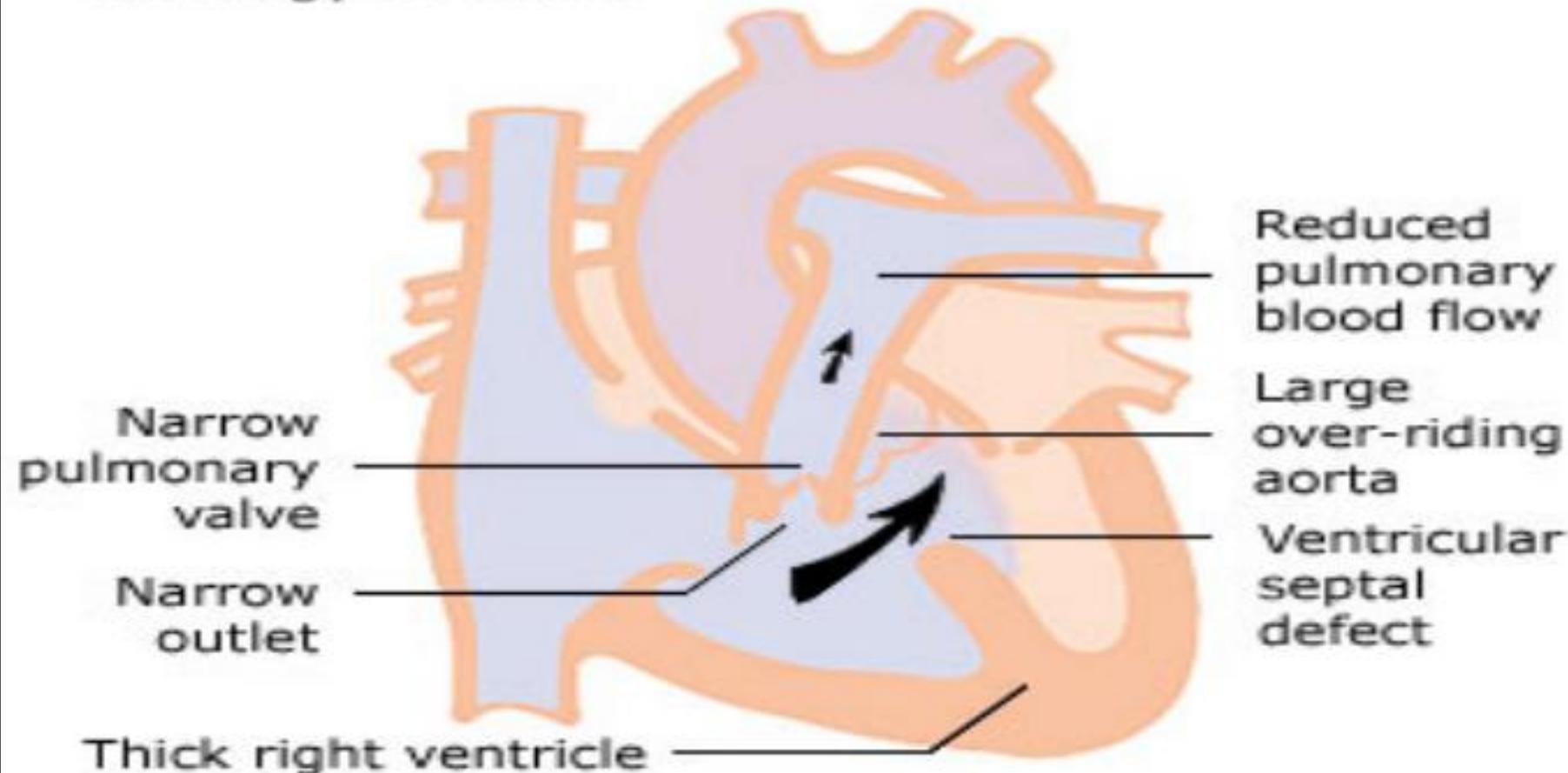
1

Narrowed aorta  
obstructs flow

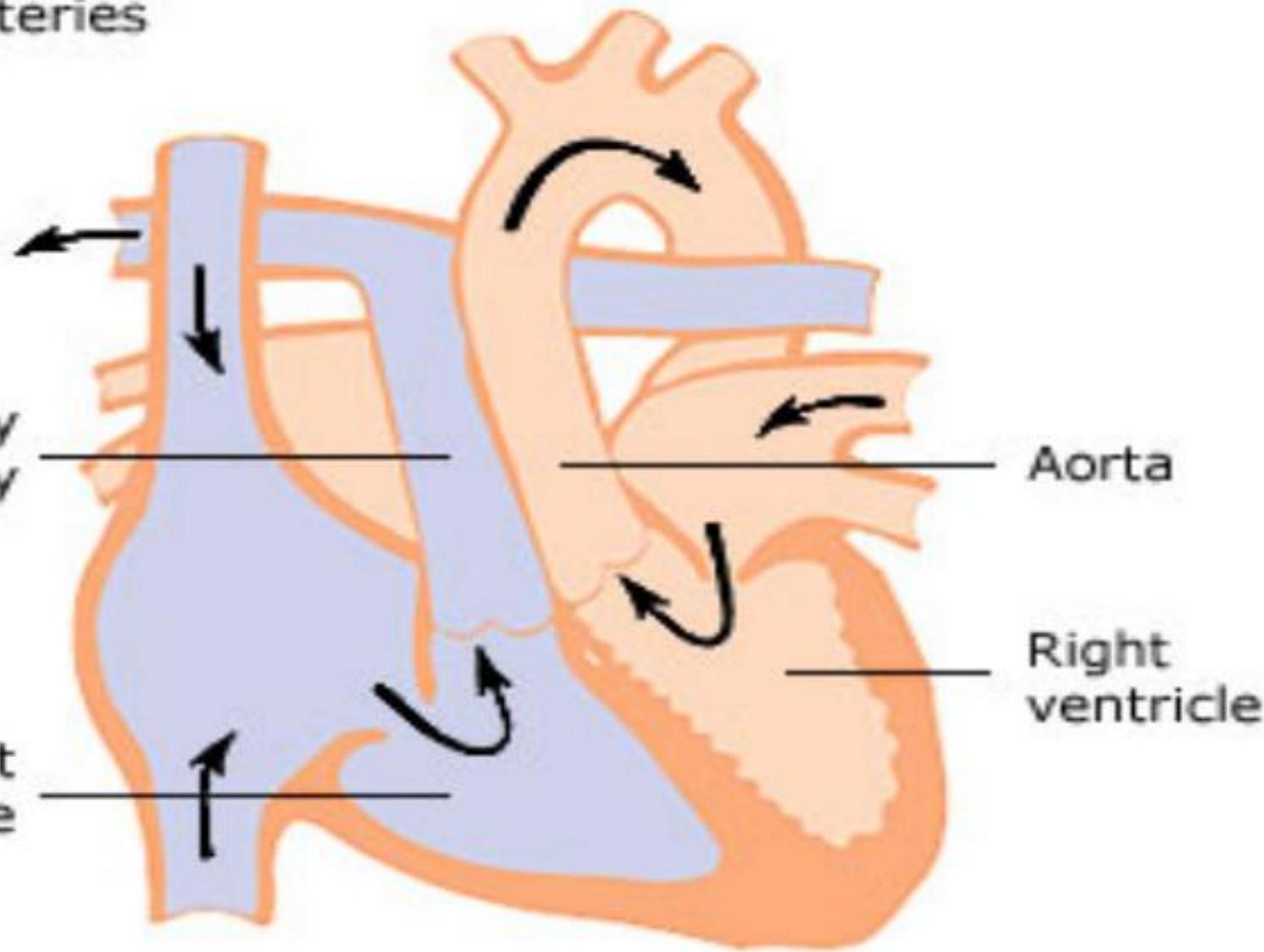
# CYANOTIC DEFECTS



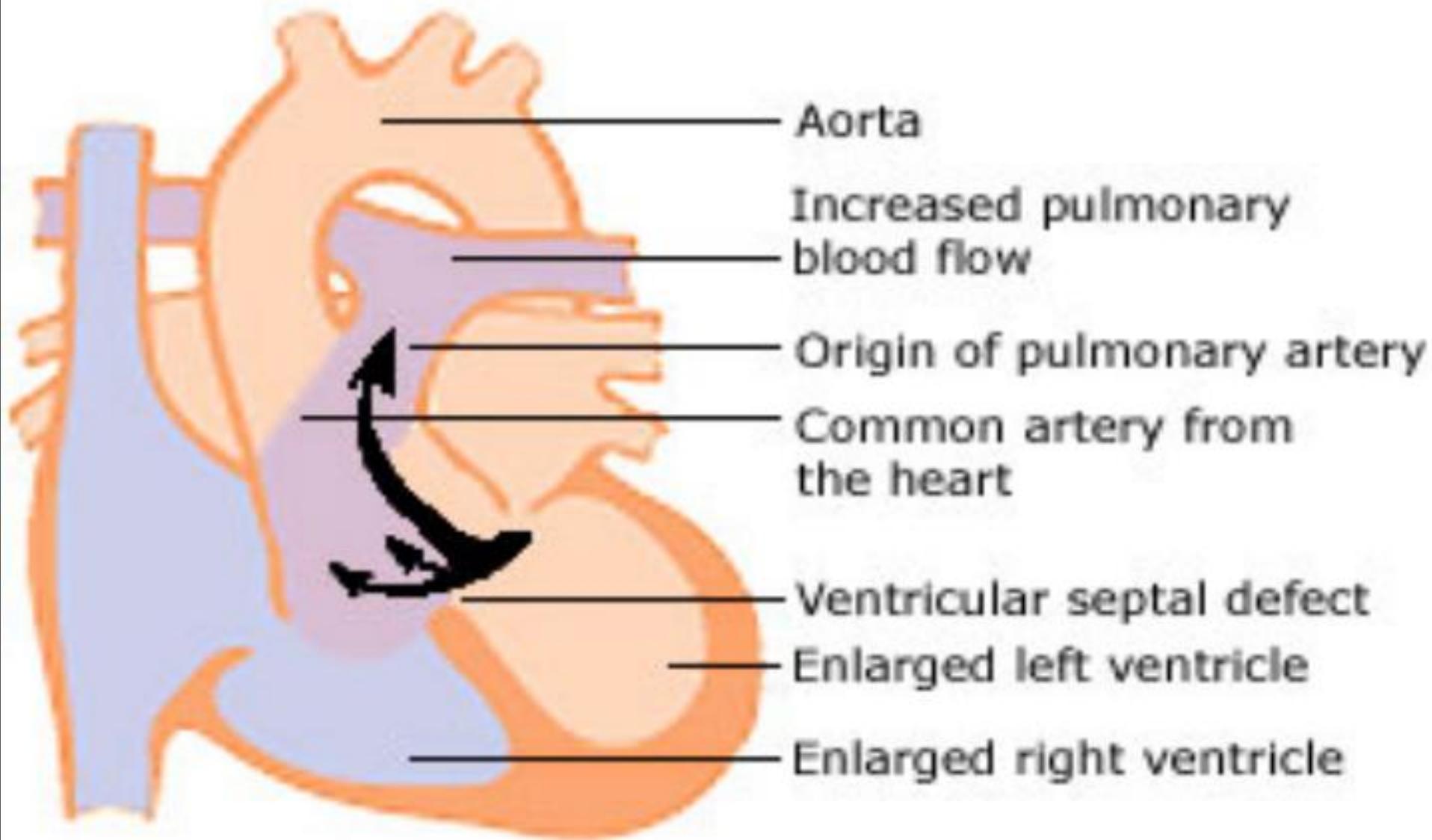
## Tetralogy of Fallot



## Congenitally Corrected Transposition of the Great Arteries

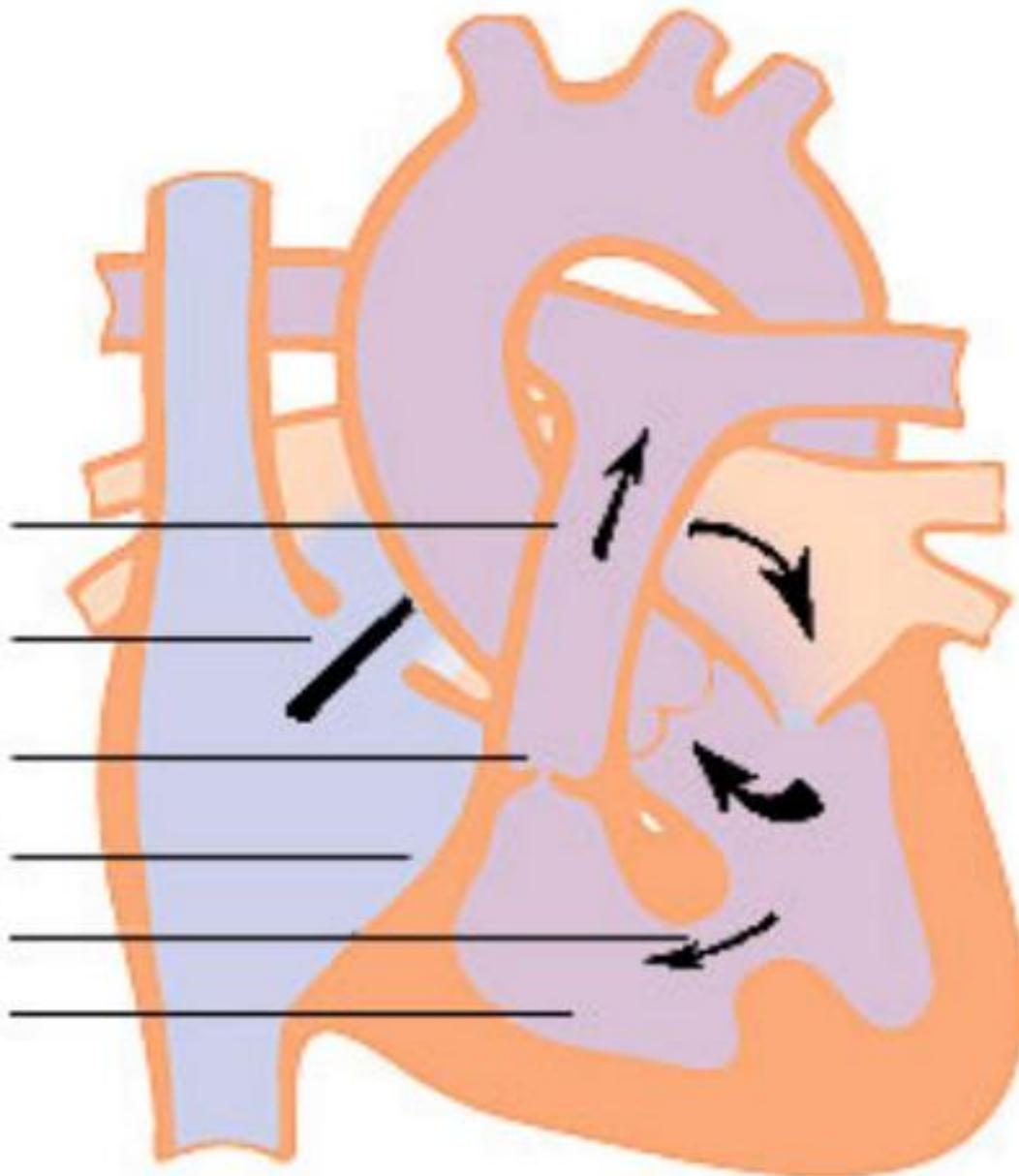


## Truncus Arteriosus



# Tricuspid Atresia

- Reduced pulmonary flow
- Atrial septal defect
- Narrow pulmonary valve
- Absent tricuspid valve
- Ventricular septal defect
- Small right ventricle



# DIFFERENCES



- **ACYANOTIC**

- LEFT TO RIGHT
- EFFECTS:
  - 1. DECREASE CO
  - 2. CHF
  - 3. LVH

- **CYANOTIC**

- RIGHT TO LEFT
- EFFECTS:
  - 1. CYANOSIS
  - 2. DEC. CEREBRAL AND PERIPHERAL PERFUSION
  - 3. POLYCYTHEMIA
  - 4. MULTI ORGAN MALFUNCTION

# SIGNS AND SYMPTOMS



- **TIRING QUICKLY**
- DYSPNEA
- EDEMA
- DIAPHORESIS
- OLIGURIA
- GROWTH RETARDATION
- CYANOSIS BECOMES SEVERE WITH EXERTION
- SYNCOPES
- HYPERCYANOTIC SPELLS OR TET SPELLS



- ***DIAGNOSTIC TESTS***
- = ***CHEST X-RAY***
- = ***2 D ECHO***
- = ***ABG***
- = ***CARDIAC CATHETERIZATION***

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- **CLOSED HEART OPERATION**
- **OPEN HEART OPERATION**
- **OPERATES ON THE PRINCIPLE OF:**
- **1. HYPOTHERMIA- DECREASE O<sub>2</sub> CONSUMPTION**
- **2. CARDIOPULMONARY BYPASS- BLOODLESS FIELD THEREBY PREVENT BLEEDING AND FACILITATES REPAIR**

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- **FOR TETRALOGY OF FALLOT**
- 1. **Blalock Taussig**- anastomosis between subclavian artery and pulmonary artery
- 2. **Potts procedure**- anastomosis between Aorta and Pulmonary artery
- 3. **Brock**- correction of PS but not VSD

*aurisita maganis delos reyes*

*september 06, 1984*

# TOGA (TRANSPOSITION OF GREAT ARTERIES)



- 1. **BLALOCK HANLON**- ENLARGE FORAMEN OVALE
- 2. **RASHKIND PROCEDURE**-  
INTERATRIAL BALLOON  
SEPTOSTOMY
- 3. **PROSTAGLANDIN INFUSION** ( to  
maintain the Ductus Arteriosus)

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# PRINCIPLES IN THE CARE OF PATIENT WITH CARDIAC DEFECTS



- ***IMPROVE THE EFFICIENCY OF CARDIAC FUNCTION THEREBY INCREASE THE CARDIAC OUTPUT***
- ***DECREASE THE CARDIAC WORKLOAD***
- ***DECREASE EDEMA***
- ***IMPROVE TISSUE PERfusion***



## OTHER PEDIATRIC DISEASES:

### RESPIRATORY INFECTIONS:

1. Bronchiolitis is a viral infection

### RESPIRATORY Syncytial Virus

expiratory wheezing

2. Croup or Acute Laryngo tracheo bronchitis

maybe viral or bacterial

\* inspiratory stridor



## types

1. Acute Infectious Laryngitis
  2. Acute Spasmodic Laryngitis
  3. Acute Laryngotracheo bronchitis
  4. Acute Epiglotitis
- \* Never depress the tongue as this may cause complete airway obstruction



*aurisita maganis delosreyes*

*september 06, 1984*