THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

SHOULDER DYSTOCIA

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SHOULDER DYSTOCIA

No financial conflicts

SHOULDER DYSTOCIA

GOALS

- Understand causes of SD
- Recognize Risk Factors
- Develop a Treatment Approach

Recognize Complications

SD > DEFINITION

Once:

>60 second interval between head and body delivery

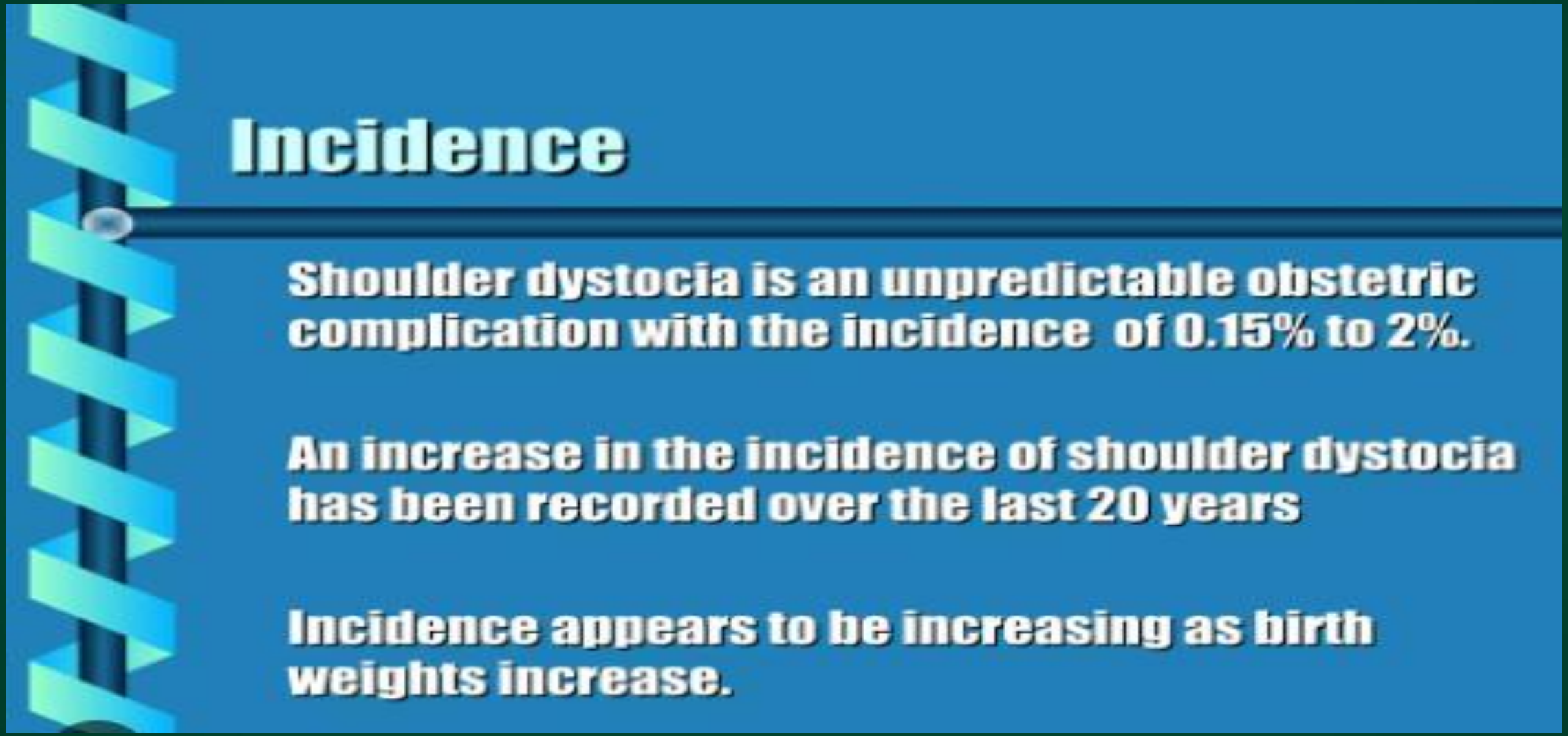
Now:

Condition requiring additional (other than normal) delivery maneuvers following failure of shoulder delivery after normal traction of the fetal head.

Or:

Condition of impaction of the fetal anterior shoulder against the symphysis pubis after delivery of the fetal head.

SD > INCIDENCE



SD > RISK FACTORS

ANTEPARTUM

Fetal Macrosomia
Maternal Obesity
Diabetes Mellitus
Postterm Pregnancy
Male Gender
Advanced Maternal age
Excessive Weight Gain
Prior Shoulder Dystocia
Platypelloid/Contracted Pelvis
Prior Macrosomic Infant
Macrosomia

INTRAPARTUM

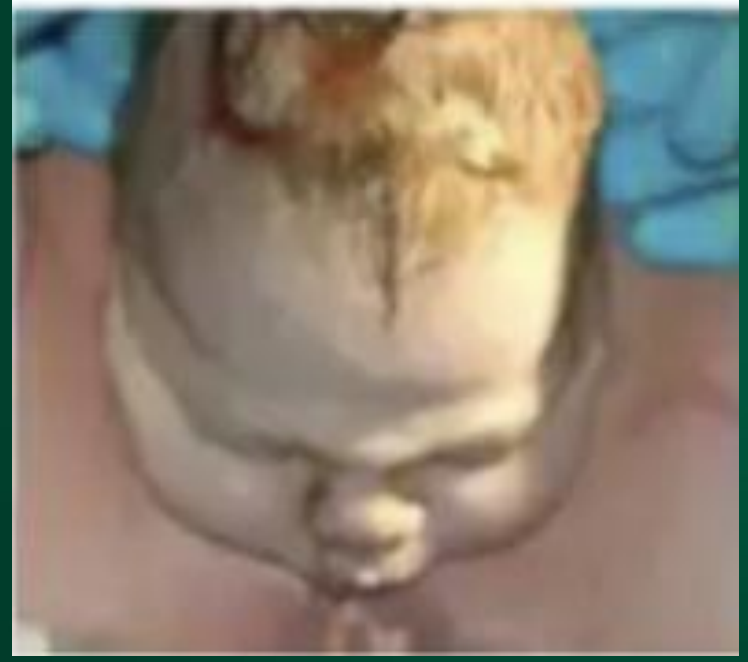
1st Stage Labor Abnormalities
    Protraction Disorders
    Arrest Disorders
Prolonged 2nd Stage
Oxytocin Augmentation of Labor
Vacuum/Forceps Delivery
Epidural Analgesia

Unpredictable but Suspicioned

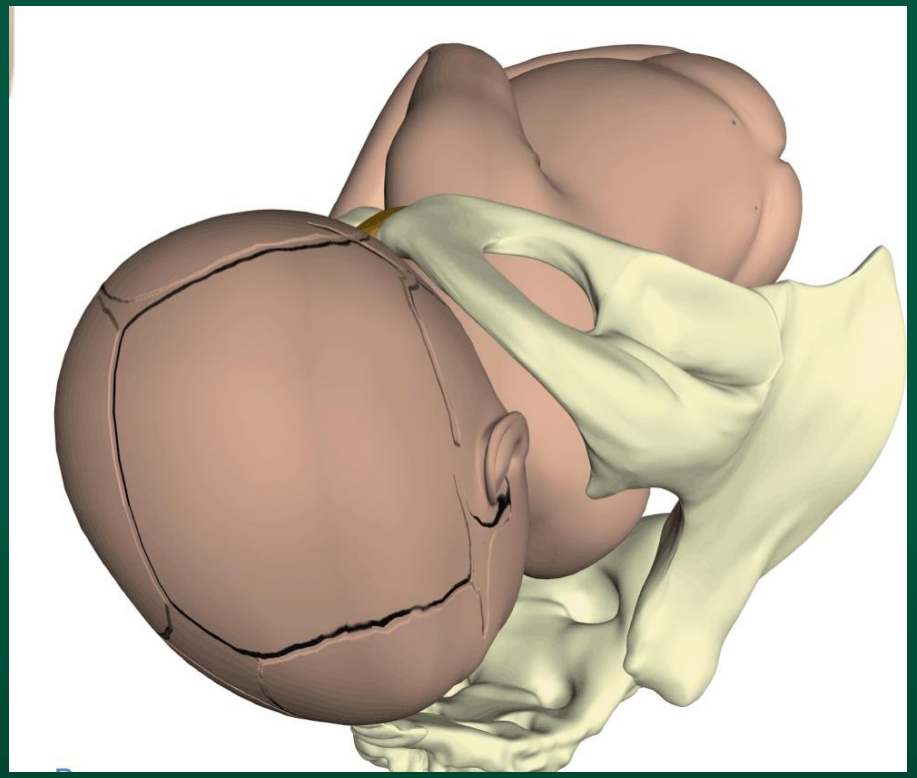
SD > RECOGNITION

1. Retraction of fetal Head after delivery
2. Failed Restitution
3. Failure of Shoulders to descend

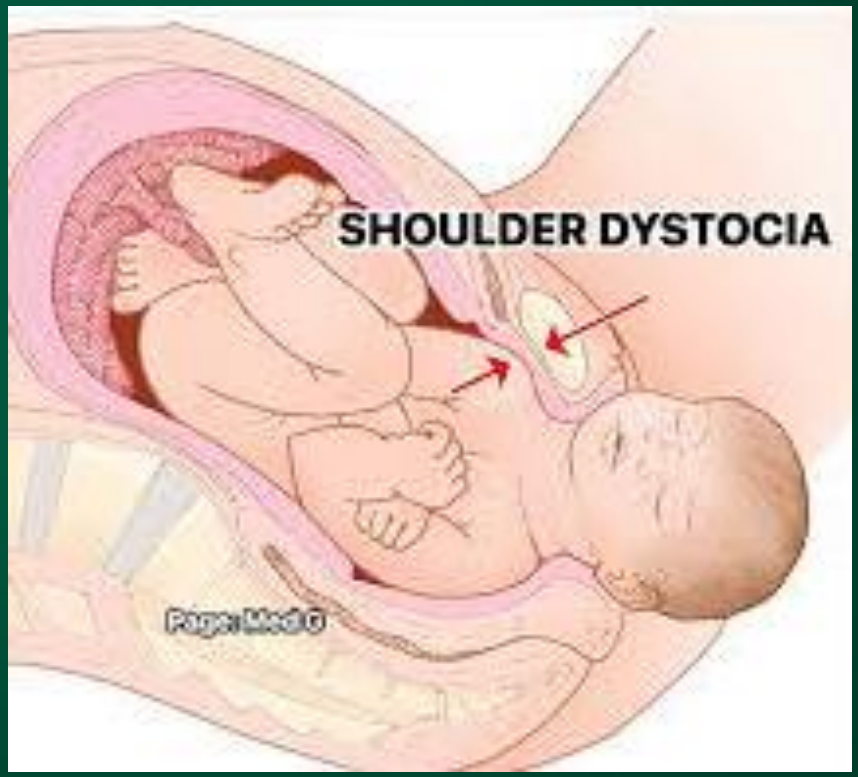
Turtle-Neck Sign



Head emerges & retracts against perineum



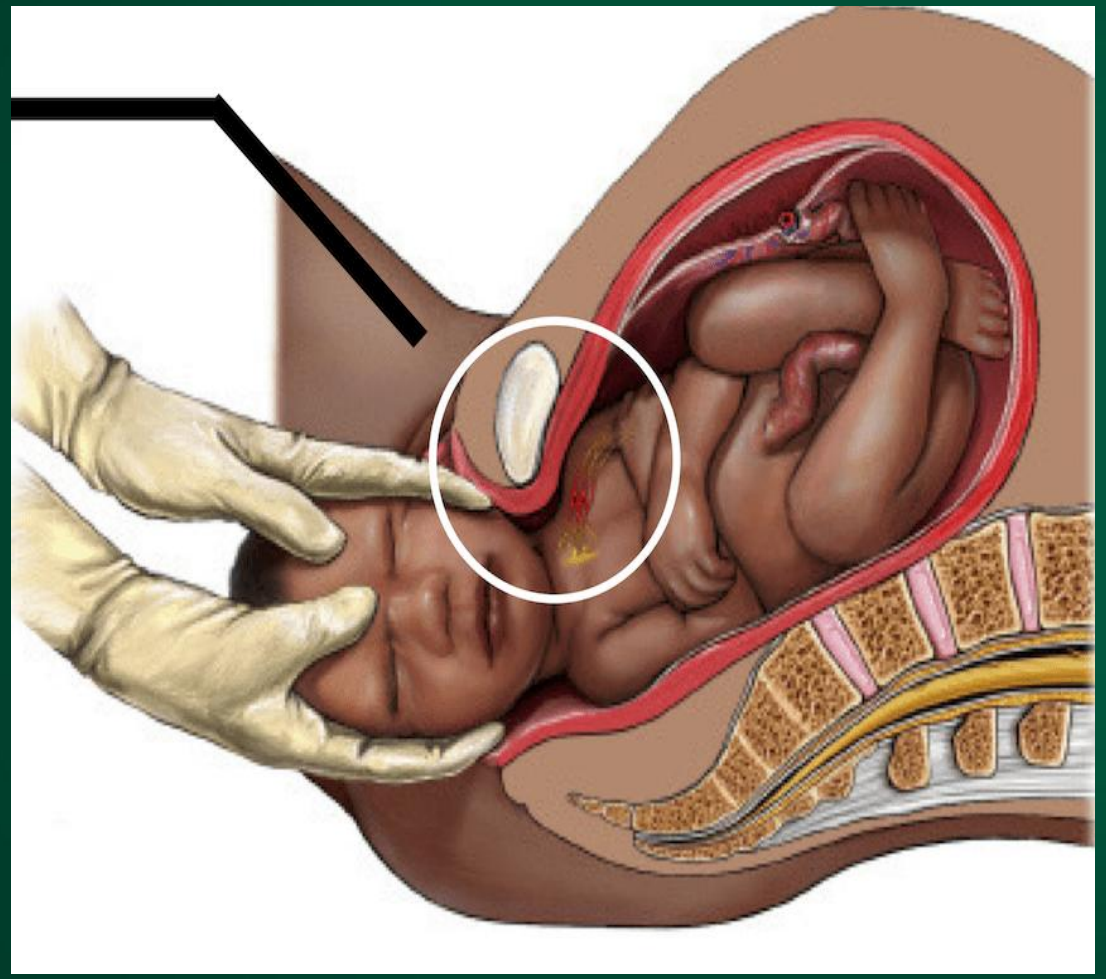
Failed Restitution

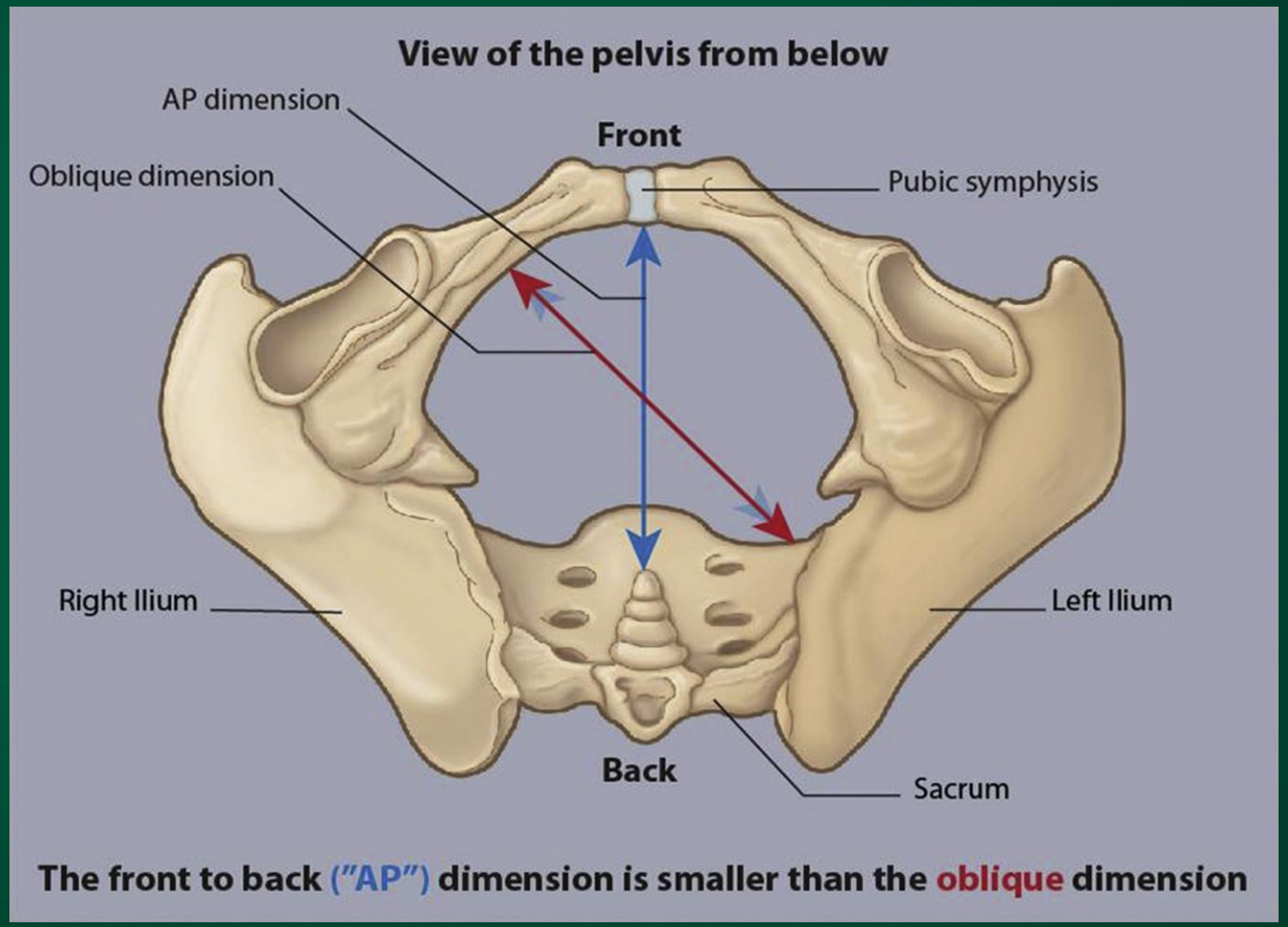


Impacted Anterior Shoulder

SD > TYPES

TYPE 1





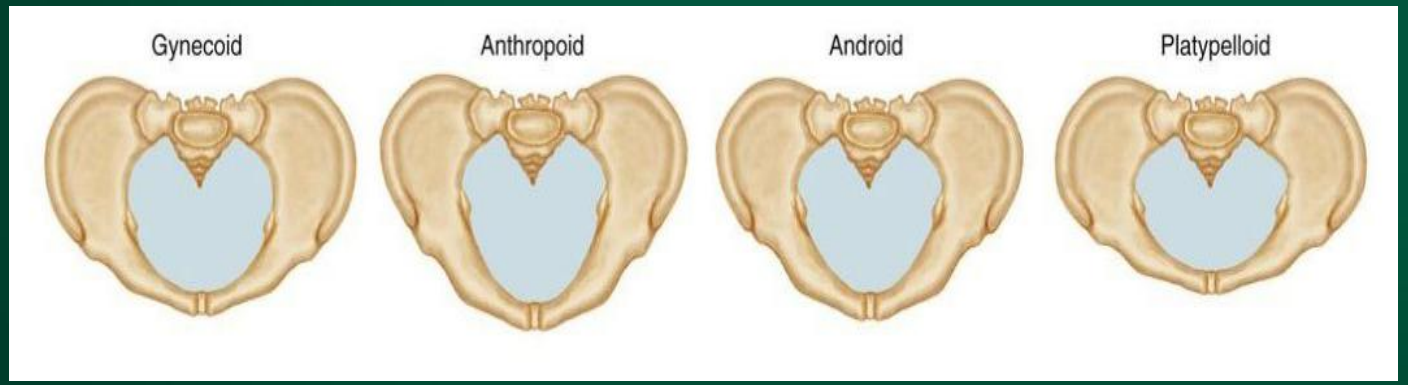
Persistent anterior-posterior position of the fetal shoulders

SD > TYPES

TYPE 2

TYPE 3

Combination of Types I & II



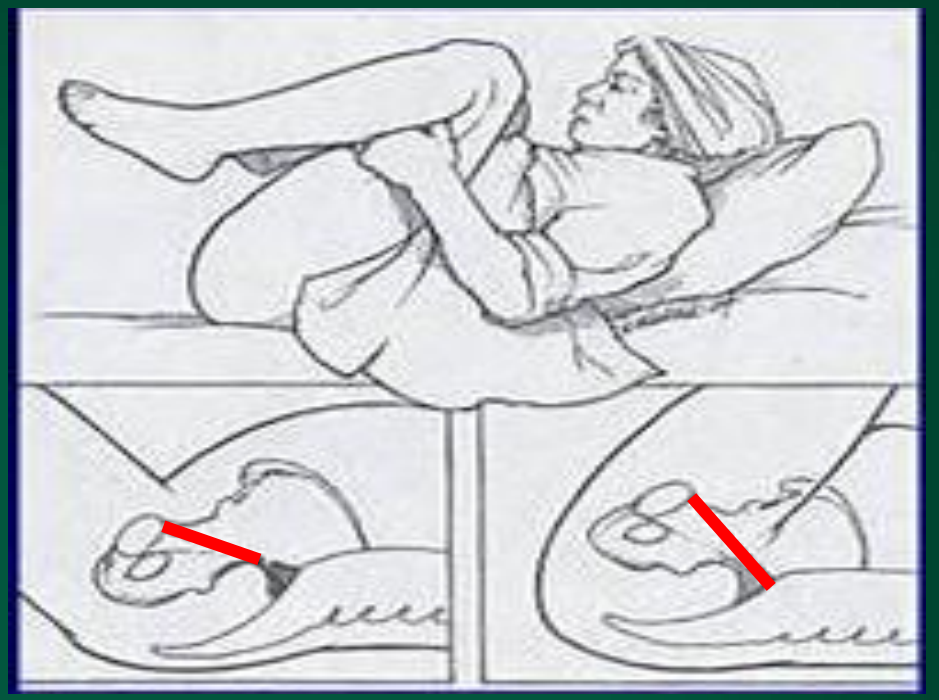
Fetal/Pelvic Mismatch
(Size/Shape)

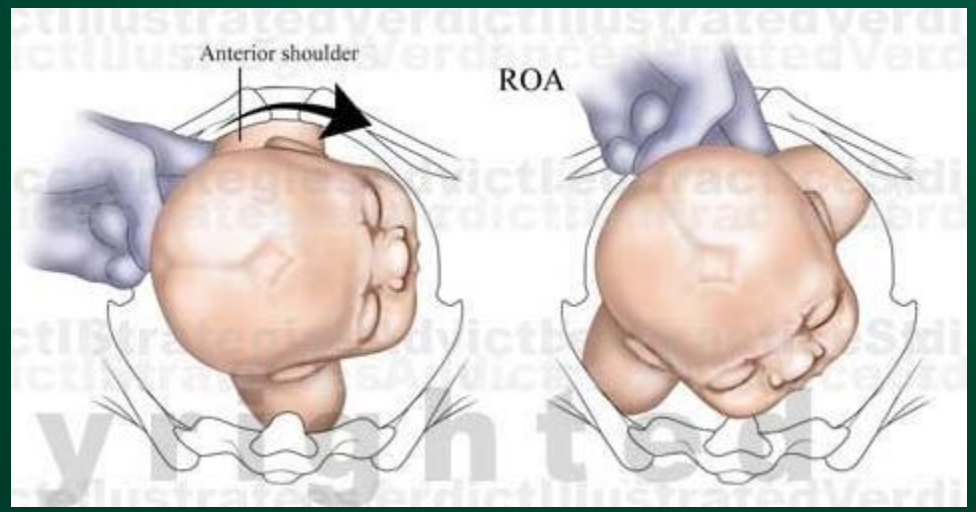
SD > TREATMENT

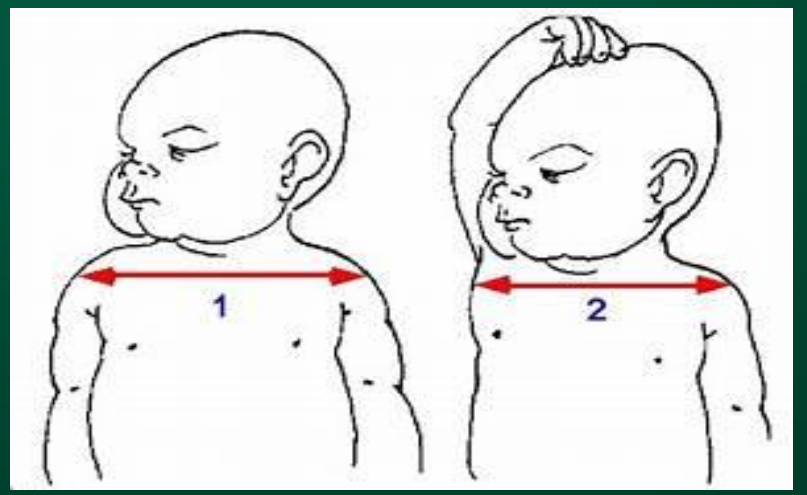
SD Maneuver Goals

Either:

- Increase pelvic dimension
- Decrease Fetal Bisacromial diameter
- Improve Bisacromial/pelvic fit







SD > TREATMENT

Many Different Maneuvers
All Work
Different Complexities

- McRoberts
- Gaskin
- Reverse Woods
- Post. Shoulder
- Rubins I
- Woods
- Mentigolu
- Symphysiotomy
- Rubins II
- Axillary Sling
- Zavanelli
- Many Others

SD > TREATMENT APPROACH

HAVE A PLAN !
KEEP IT SIMPLE
PRACTICE THE PLAN!

DON'T PANIC!

Shoulder Dystocia Interventions "HELPERR"

H Call for Help!
Evaluate for episiotomy
Legs *(McRoberts maneuver)*
Pressure *(suprapubic)*
Enter maneuvers
Remove posterior arm
Roll the client

Shoulder Dystocia

ALARM International

Ask for help
Lift - the buttocks
- the legs
} McRobert's Manoeuver
Anterior disimpaction
- rotate to oblique
- suprapubic pressure
Rotate the posterior shoulder - Woods' manoeuver
Manual removal of the posterior arm
Episiotomy - consider
Roll over

Management of Shoulder Dystocia

BE CALM

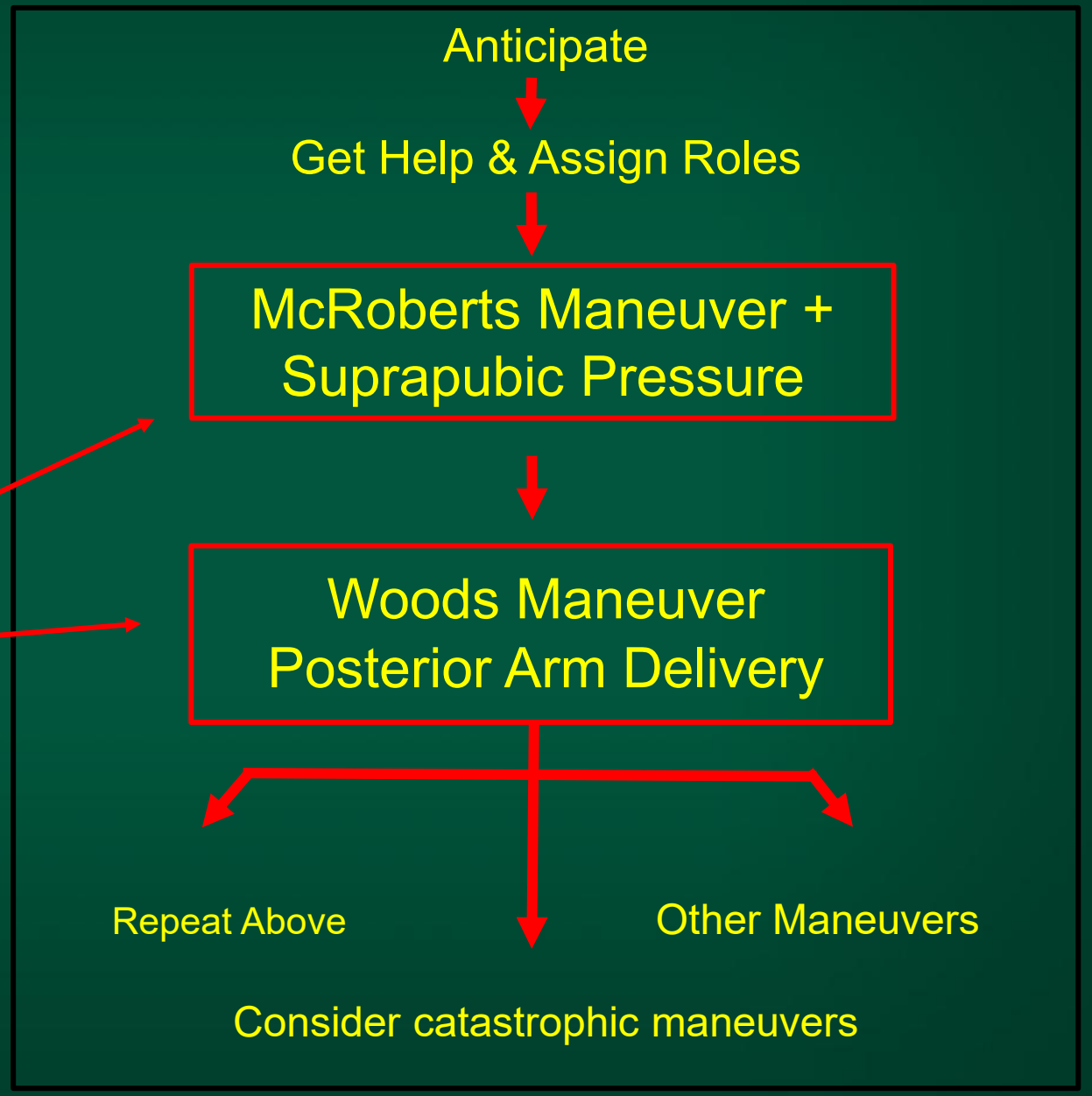
Breathe, do not push; lower head of the bed
Elevate legs into **McRoberts position** - sharp hip flexion while in supine position
Call for help - nurses, anesthesiologists, pediatricians, another physician
Apply **suprapubic pressure** - downward & lateral to release anterior shoulder
Enlarge vaginal opening with **episiotomy** to facilitate extra maneuvers
Maneuvers
- Delivery of posterior arm
- Pressure against baby's **posterior** shoulder either anteriorly or posteriorly & anterior rotation (Woods corkscrew or Rubin maneuver)
- Mother on hands & knees- "**all fours**" (Gaskin maneuver)
- Replacement of baby's head to vagina followed by cesarean delivery (Zavanelli maneuver)

RNpedia.com Quick Tips

SD > Treatment > PLAN

- No Authoritative Standard
- KISS (Keep it simple)
- Simple to Complex

2 + 2
Maneuver
99%
Effective

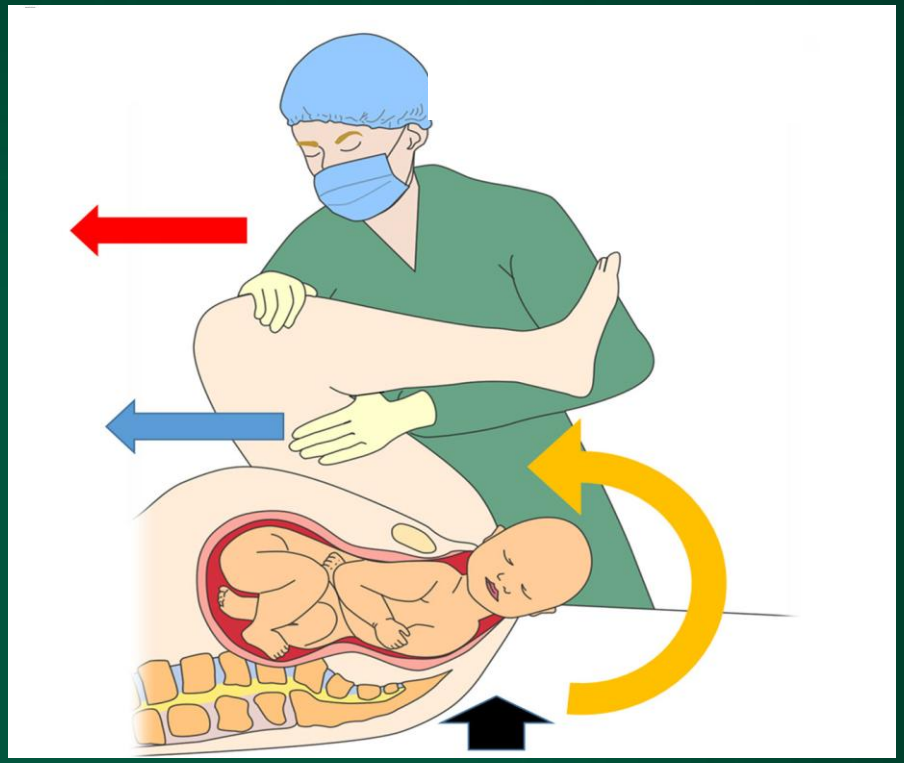


SD > TREATMENT

McRoberts Maneuver

Description:
- Usually 1st maneuver
- Requires 2 people (each leg)
- Hyperflexion + slight abduction
  - ** Flex thighs (not legs) onto torso
  - ** Elevate sacrum off bed

Mechanism of action:
- Rotates SP to cephalad (to horizontal)
- Flattens Lumbosacral angle
- ↑ Uterine Pressure
- ???????



SD > Treatment > SUPRAPUBIC PRESSURE

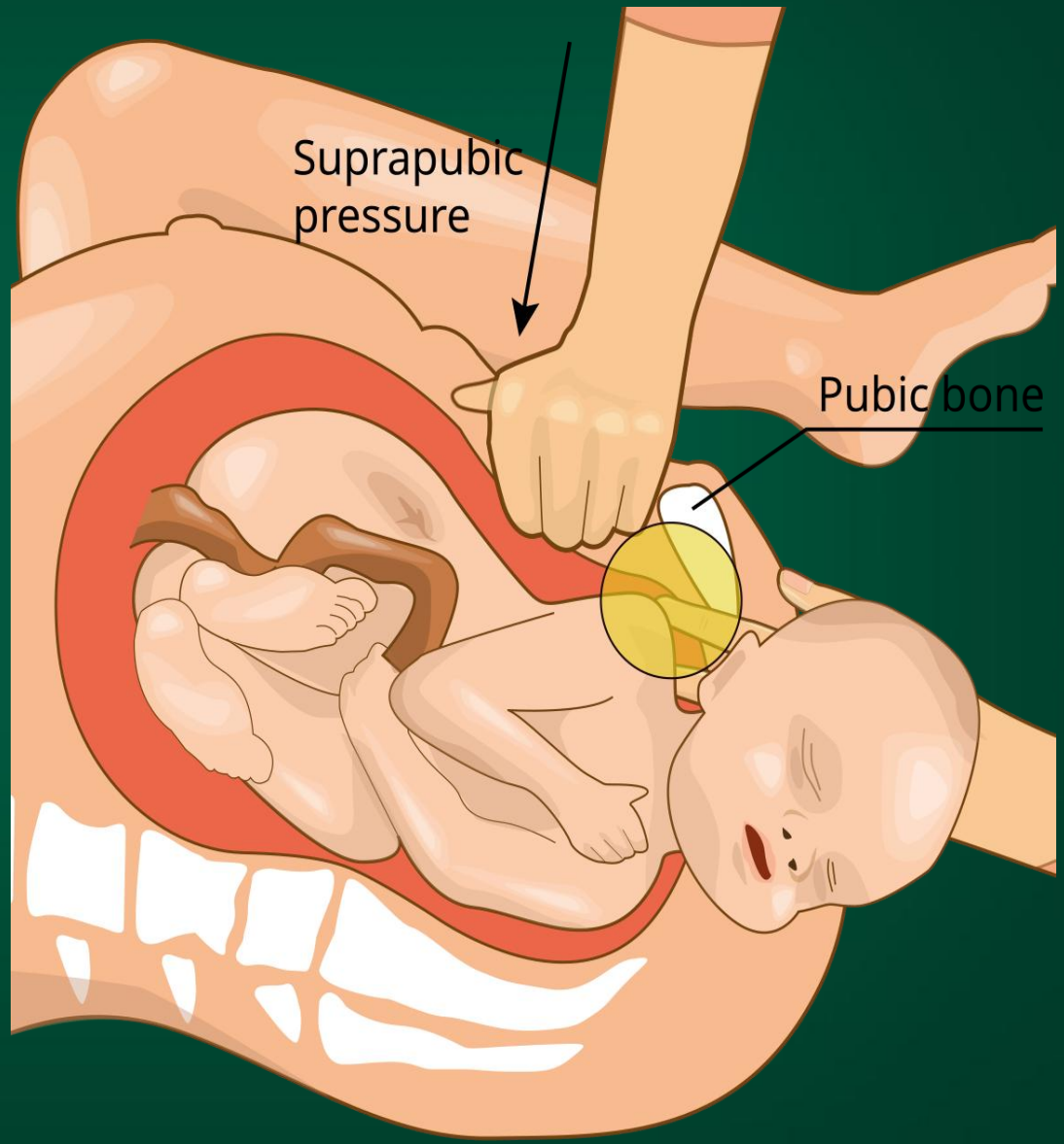
AKA: External Rubin/Rubin's I Maneuver

Description:

- **Unilateral** (one side only)
- Palm ("CPR")/Fist pressure;
- Just above SP
- Downward (posterior) & lateral pressure
- Against post. aspect of ant. shoulder
- May be performed with other maneuvers

Mechanism of Action:

- Decreases bis-acromial diameter
- Rotates shoulders into oblique pelvic diameter



McROBERT'S/SUPRAPUBIC MANEUVER SUMMARY

- Simplest
- Safest
- 75 - 90% Effective

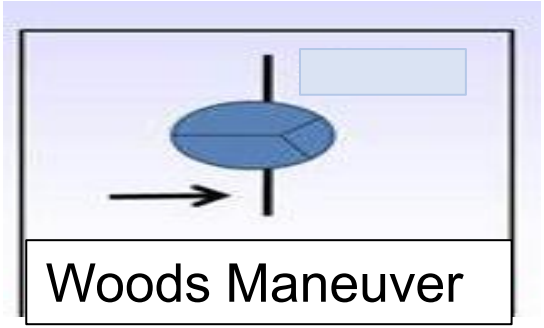
SD > Treatment > WOODS SCEW MANEUVER

"Clavicle +/- Scapula" technique

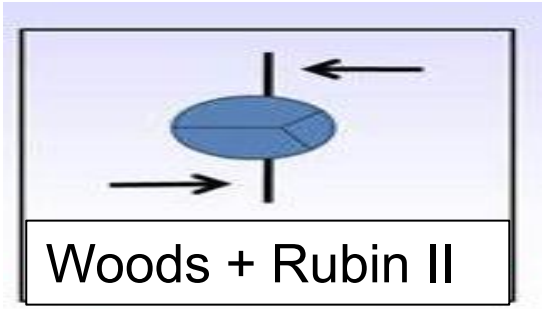
"Palm to Chest"
- Insert hand (not fingers)
  - Forcep like entry
    - Lubricant back of hand
    - +/- Episiotomy
- Target lateral chest/acromion

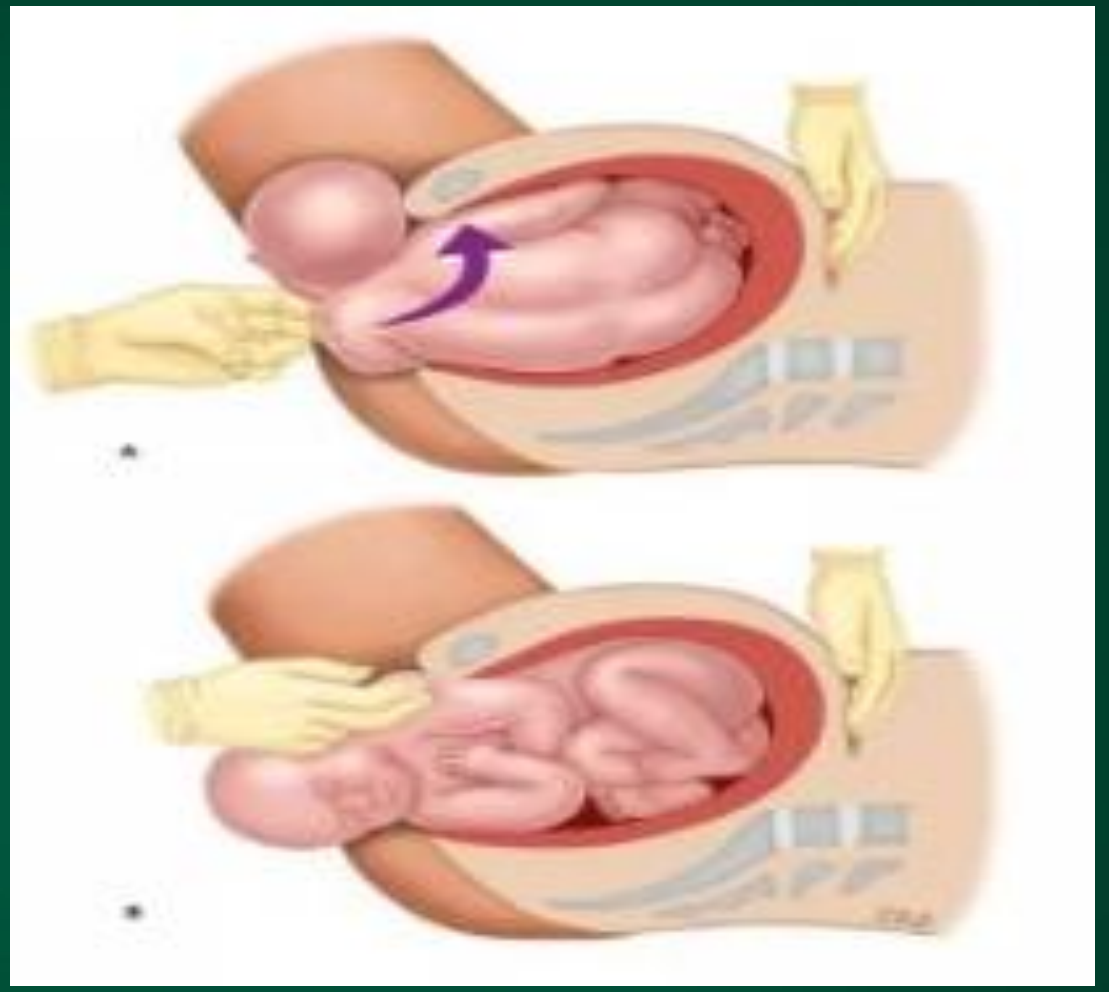
Discontinue any Suprapubic Pressure

Rotate fetus until "new" anterior shoulder emerges from behind SP (45-180°)


Woods Maneuver

If Needed; Add Rubin's II
- Add anterior hand against fetal scapula


Woods + Rubin II



SD > Treatment > WOODS SCEW MANEUVER

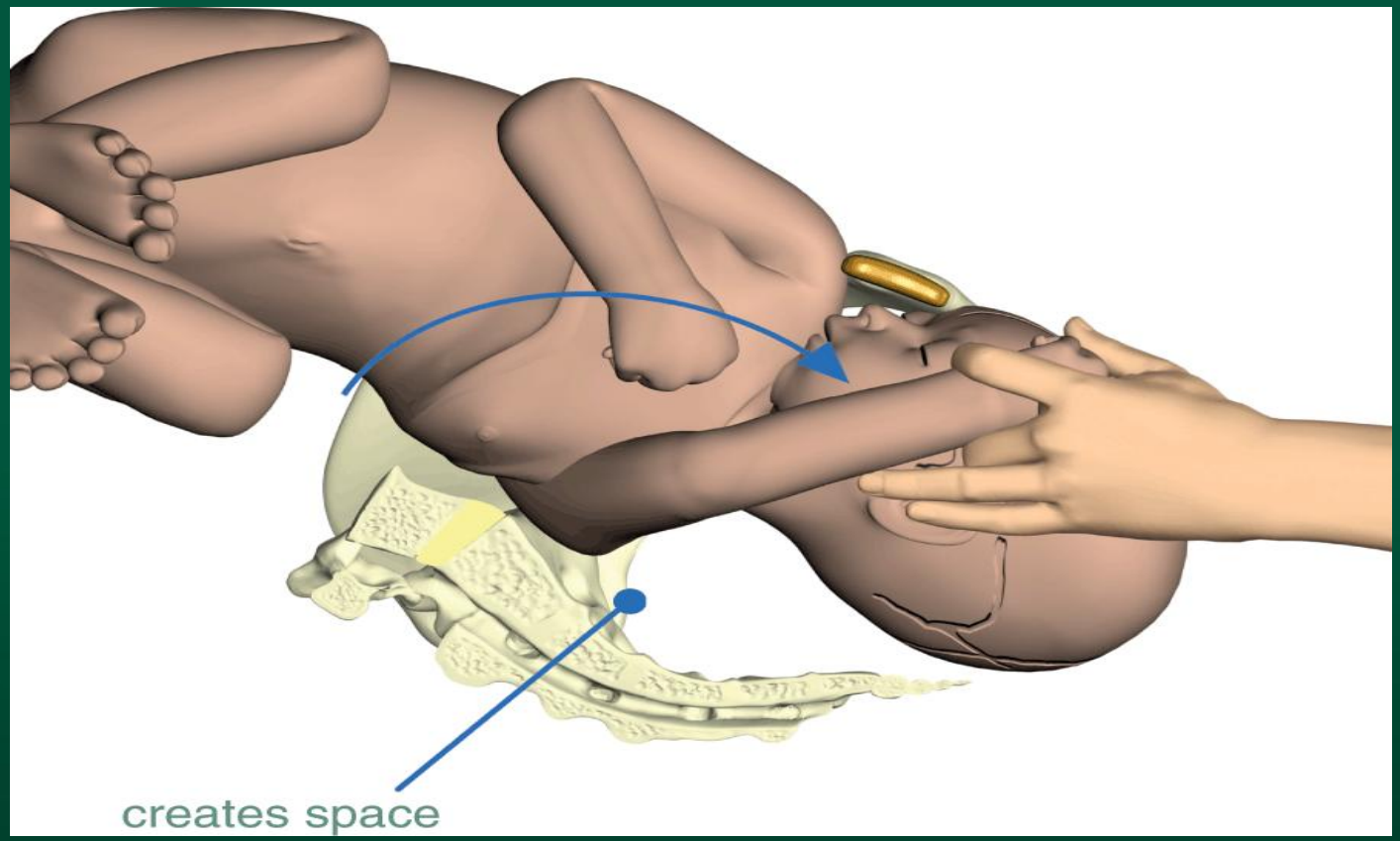
Woods/Reverse Woods
Woods + Rubin
Anterior Shoulder/Posterior Shoulder
Clockwise/Counter Clockwise

NOT Rocket Science
Just Turn the Fetus

SD > Treatment > POSTERIOR ARM DELIVERY

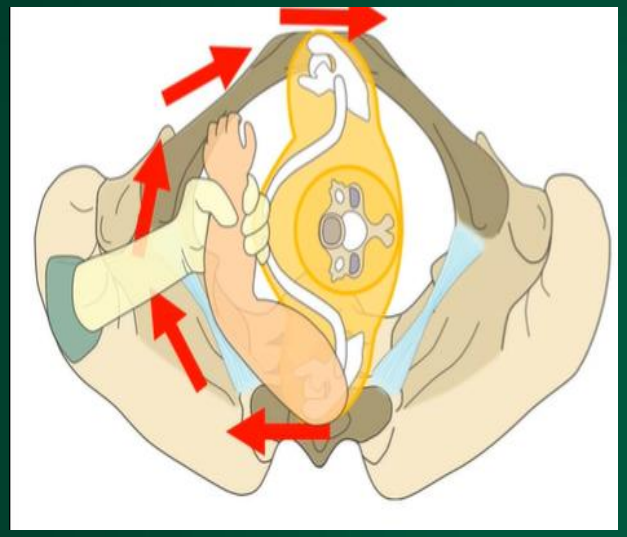
Several Variations
- Shoulder Shrug, etc.

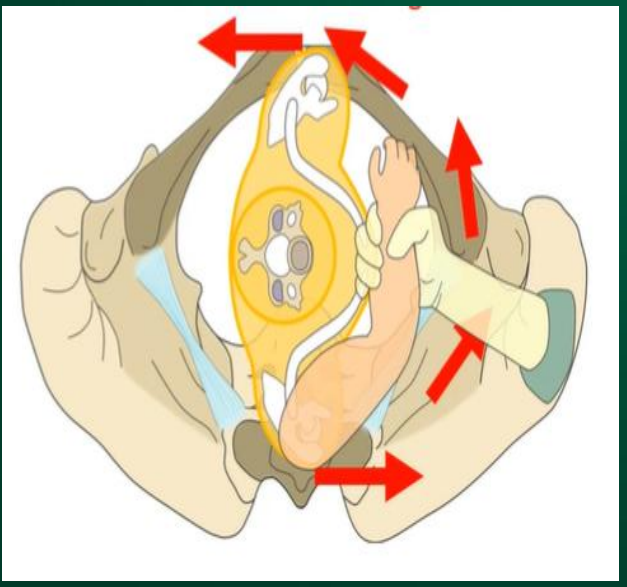
Most Common: (Jacquemier)-Barnum maneuver



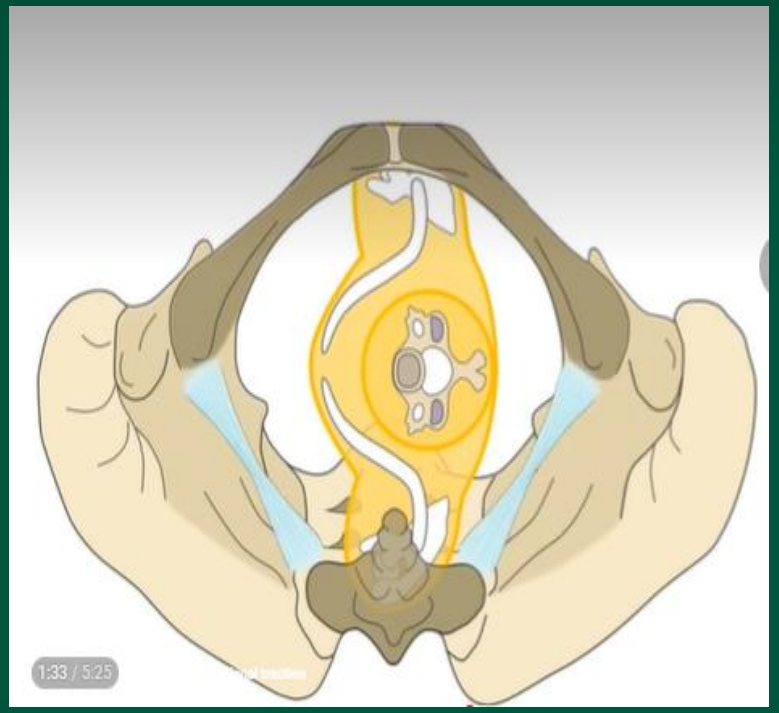
SD > Treatment > VAGINAL ENTRY

Correct Hand





Correct Location



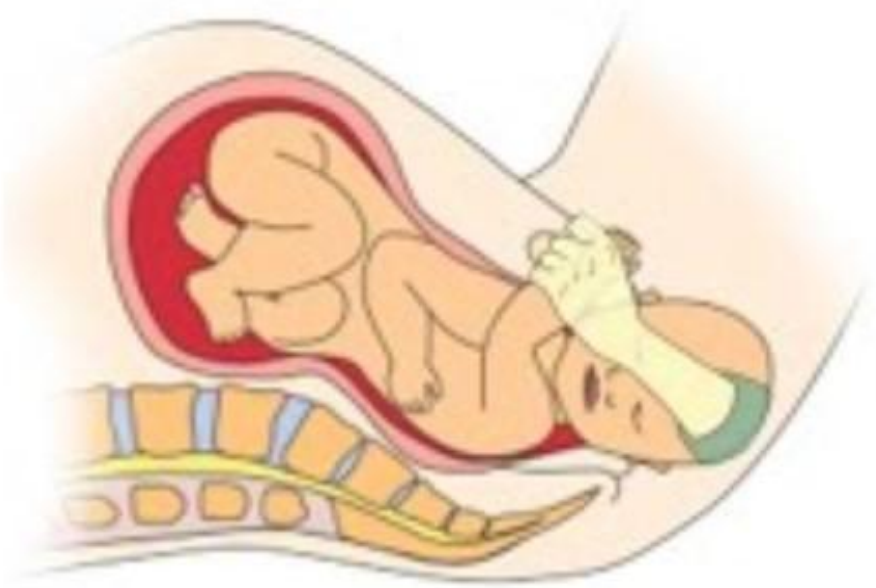
Posterio-Lateral vaginal entry
(non-bony space

Correct Posture

"Mano a borsa"
"Pinched Fingers" Gesture
Used to express disbelief, frustration

Sophie

Shoulder Dystocia: Resolution by Posterior Arm Delivery



Produced by Prof Tak Yeung LEUNG

& Maternal Fetal Medicine Team

Department of Obstetrics and Gynaecology

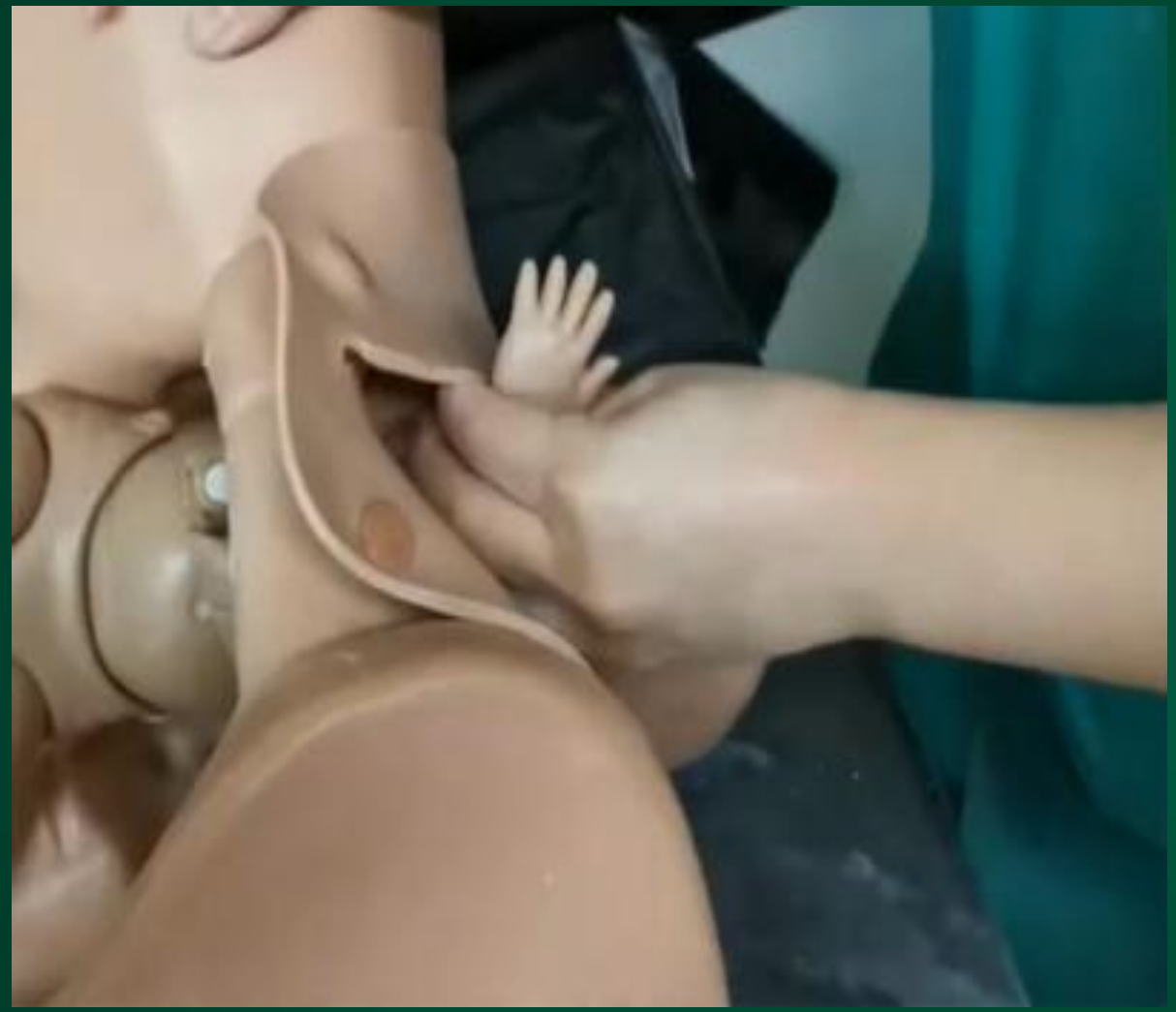
The Chinese University of Hong Kong

SD > Treatment > Post. Arm Delivery

Flex the Elbow
Antecubital fossa pressure

"OK" Wrist/Lower Forearm

SD > Treatment > Post. Arm Delivery



Sweep Arm Across Chest
Upward & Outward

Outward Rotational Motion Turns Fetus

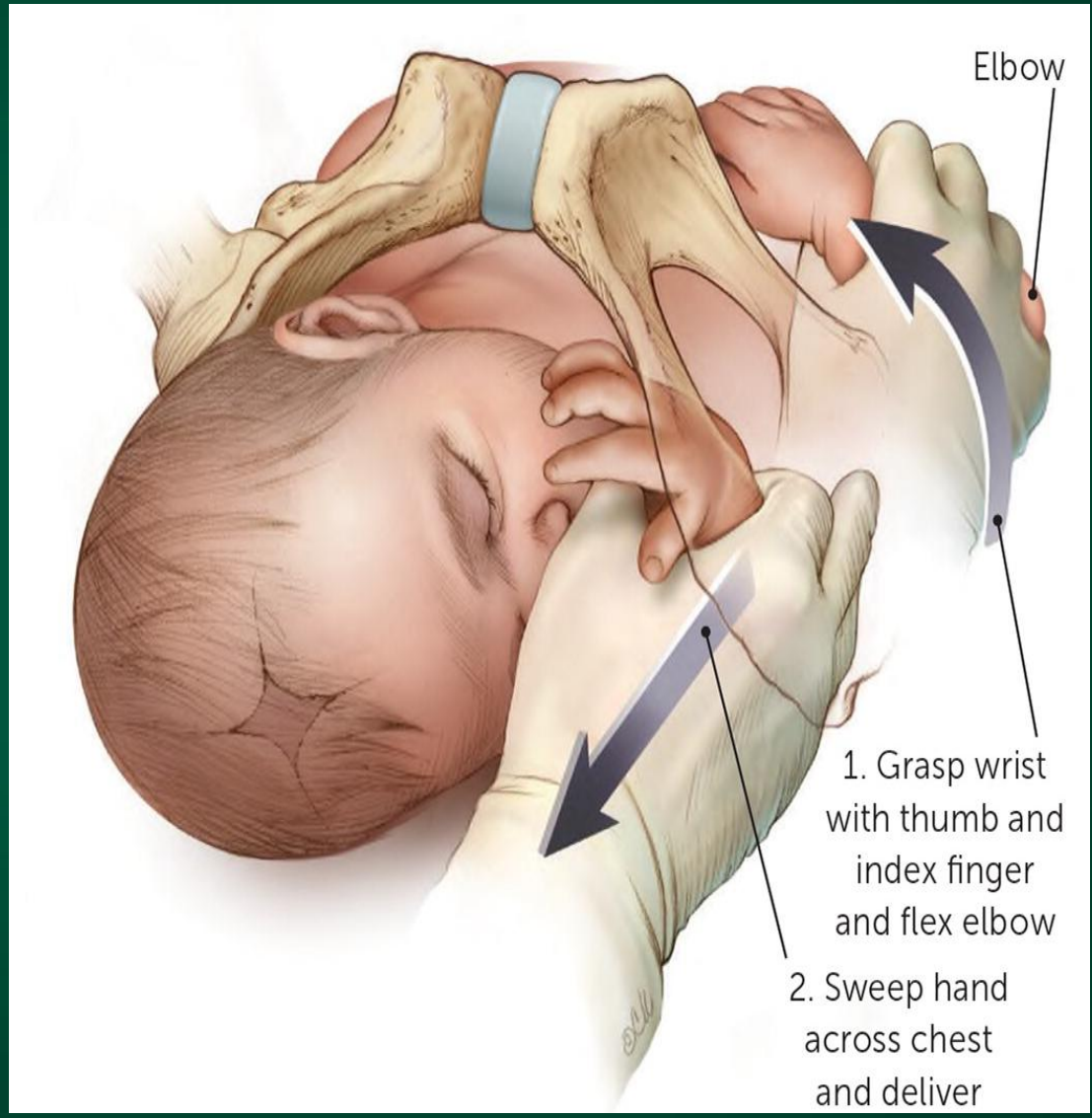
SD > TREATMENT > POSTERIOR ARM DELIVERY SUMMARY

Description:

- **Determine correct hand:** Operator Palm to Fetal Chest
  Opposite hand lifts head.
- **Position provider hand:** "Puckered Fingers"
- **Vaginal Entry**: Posterior-Lateral vaginal entry
- Insert an “Italian” hand into vagina & locate posterior arm.
- **Flex the elbow:** If extended, apply thumb pressure to the antecubital fossa to flex the forearm and bring it forward.
- **Grasp wrist/forearm:** Once flexed, use "OK" sign to grasp lower forearm/wrist.
- **Apply Traction:** UPWARD (not downward) and Rotational traction, gently sweep arm across the fetal chest to deliver

- **Rotate the shoulders:** Upward and rotational arm traction helps the anterior shoulder rotate and emerge from under pubic symphysis.

Note: May require Gel/Episiotomy



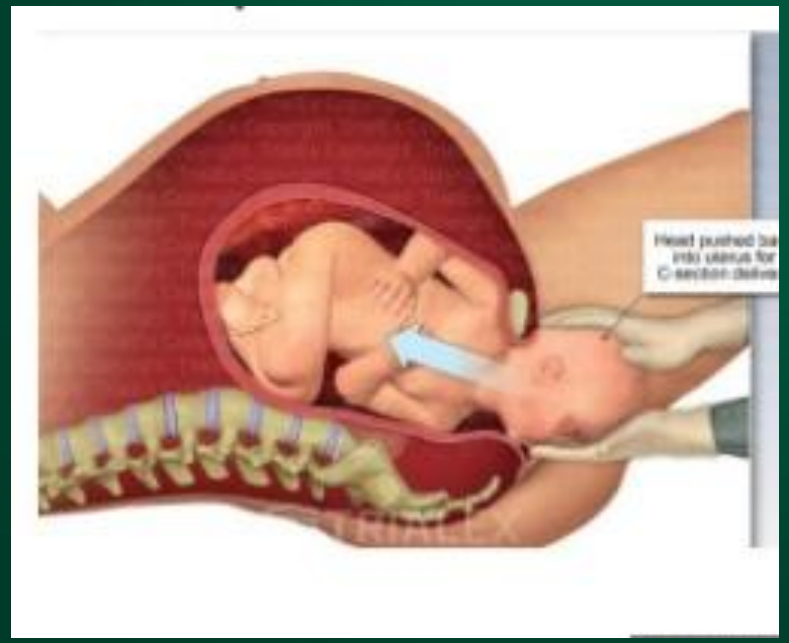
SD > TREATMENT

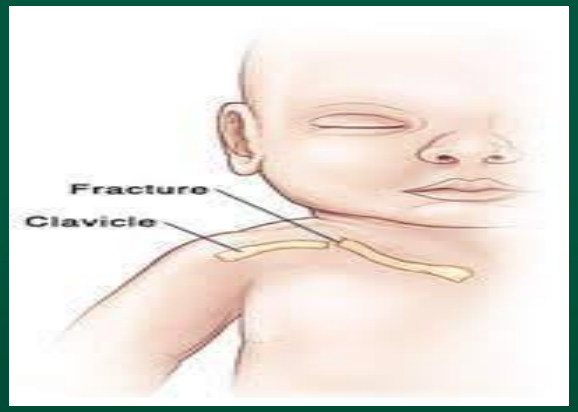
Catastrophic Maneuvers

Zavanelli Maneuver: Reversal of Cardinal movements, then CS

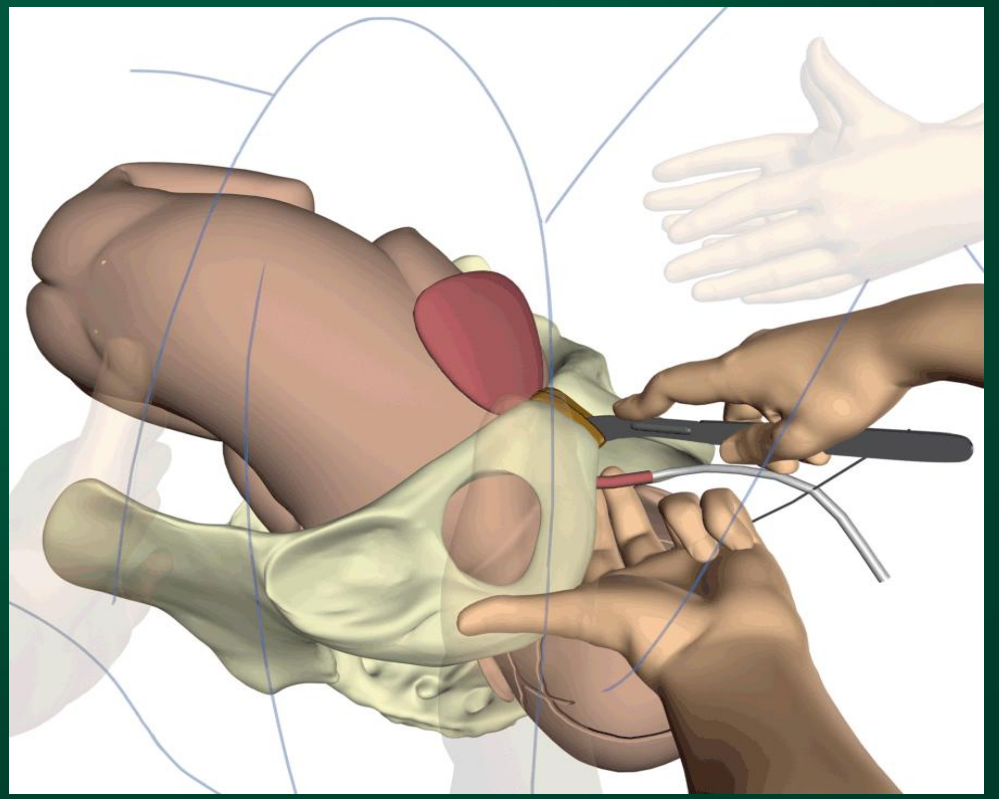
Intentional clavicular fracture

Symphsiotomy





Direct upward pressure on mid-portion of fetal clavicle; reduces bisacromial diameter



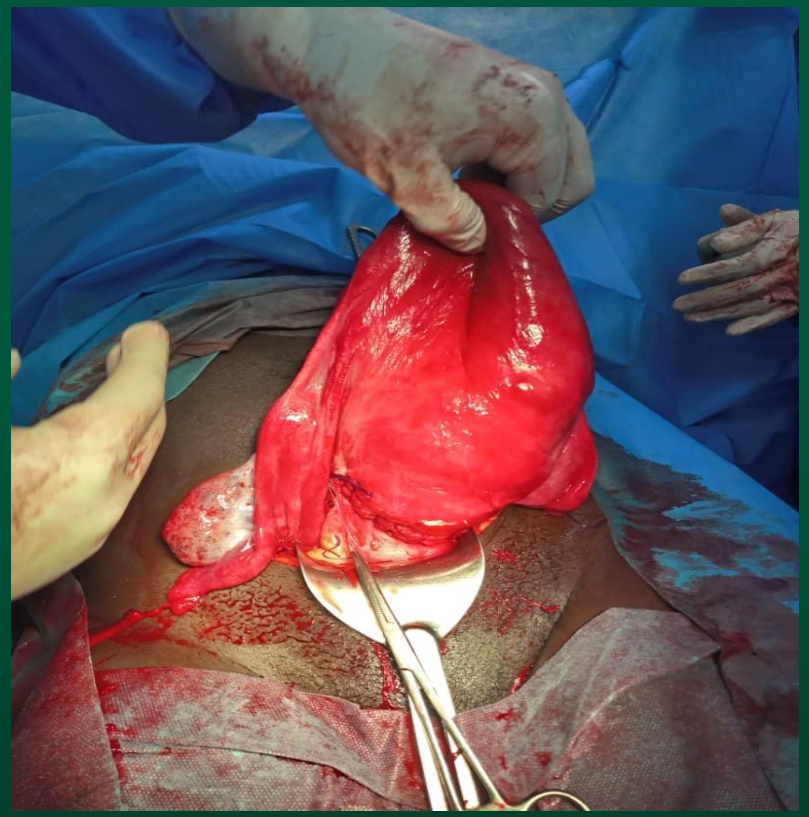
SD > COMPLICATIONS > MATERNAL

"TRIFECTA"

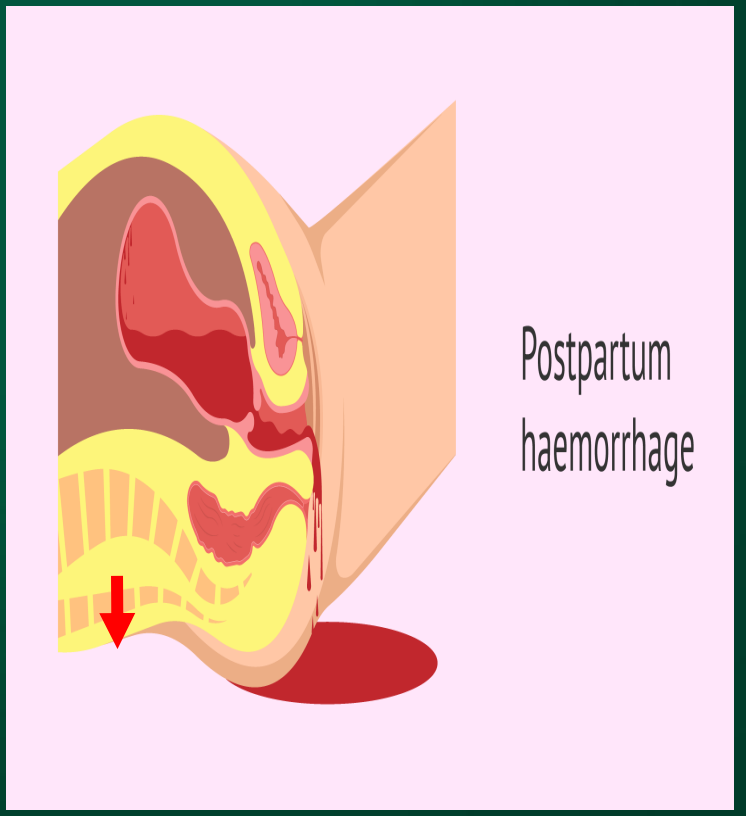
Trauma

- Lacerations
- Perineal
- Vaginal
- Hematomas
- Vulvar

Atony

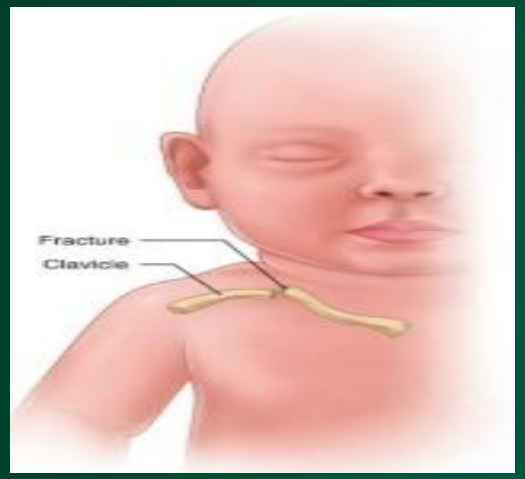


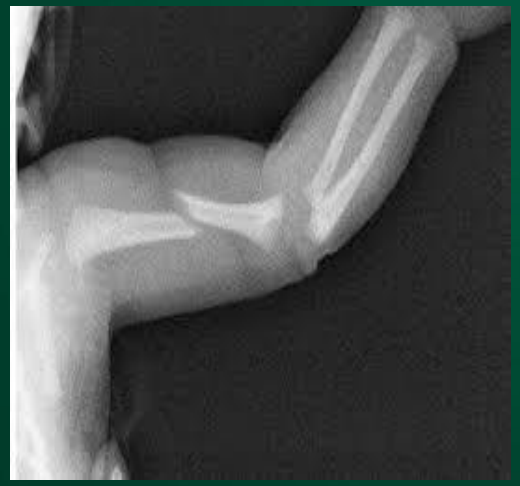
PPH



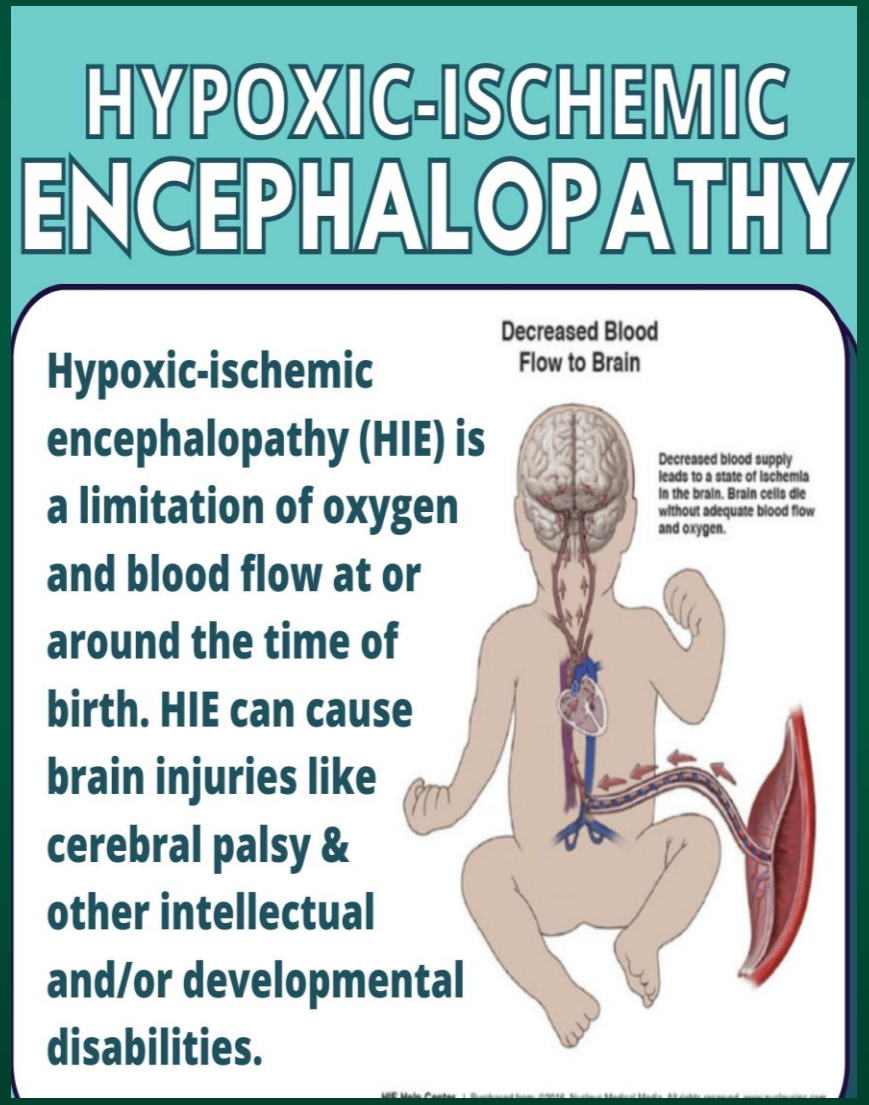
SD > COMPLICATIONS > FETAL

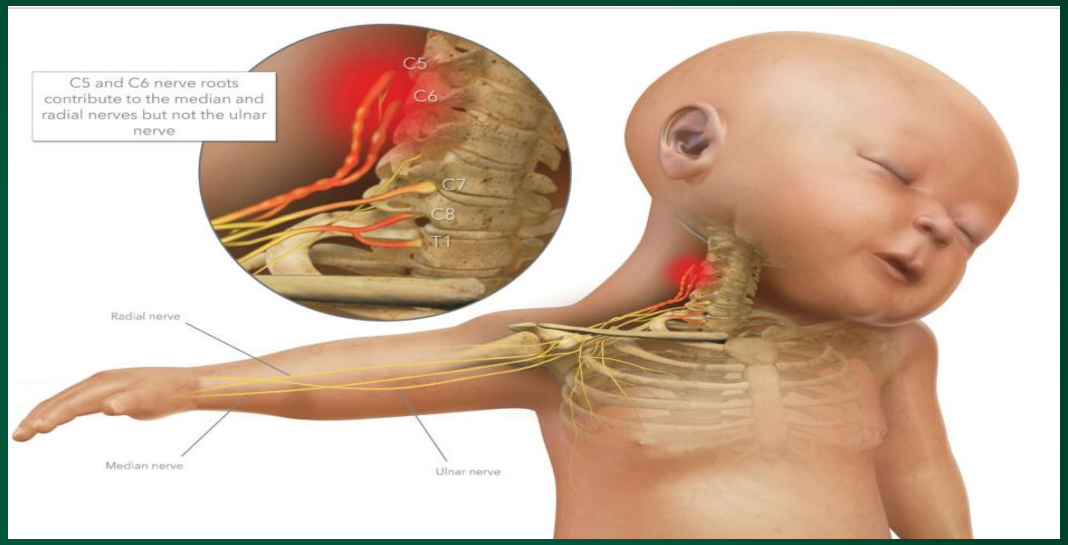
Skeletal

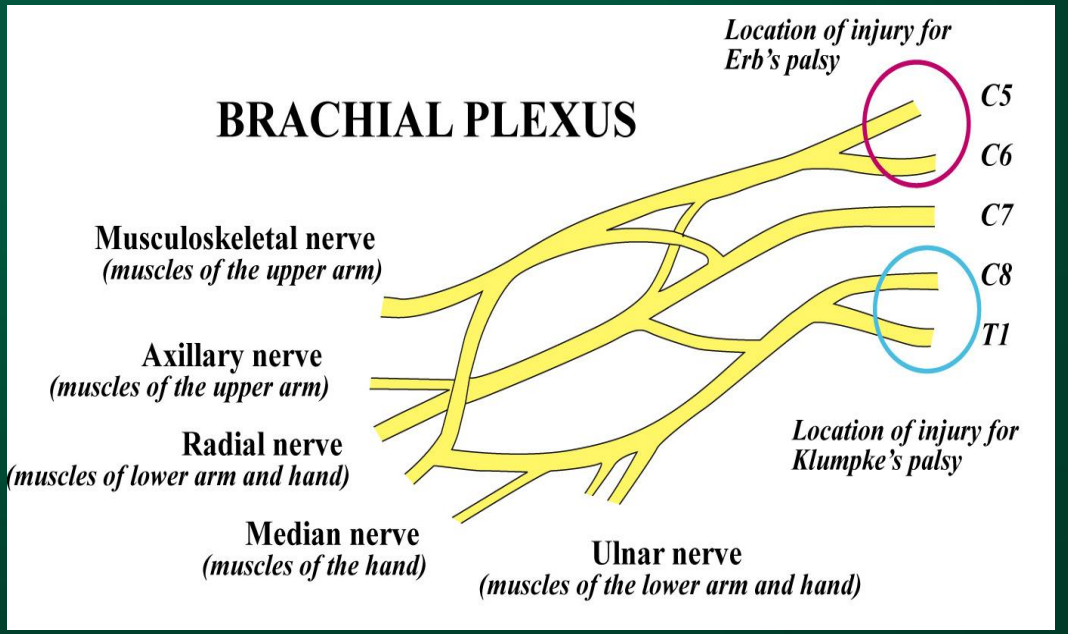




Neural







SD > COMPLICATIONS > FETAL

Transient Brachial Plexus injuries in up to 20% of SD.
Most Resolve, 10% permanent neurologic injury

Head-to-Body delivery interval not predictive of fetal asphyxia

SD > COMPLICATIONS > LEGAL

PHYSICIAN

Fetal/Maternal Trauma
Poor Outcome
Active Litigant Area

Legal: Automatic blame

SD > SUMMARY

Anticipate

Practice the Plan

Have a Plan

Stay Calm

Trust the Plan

QUESTIONS ?

SD > TREATMENT

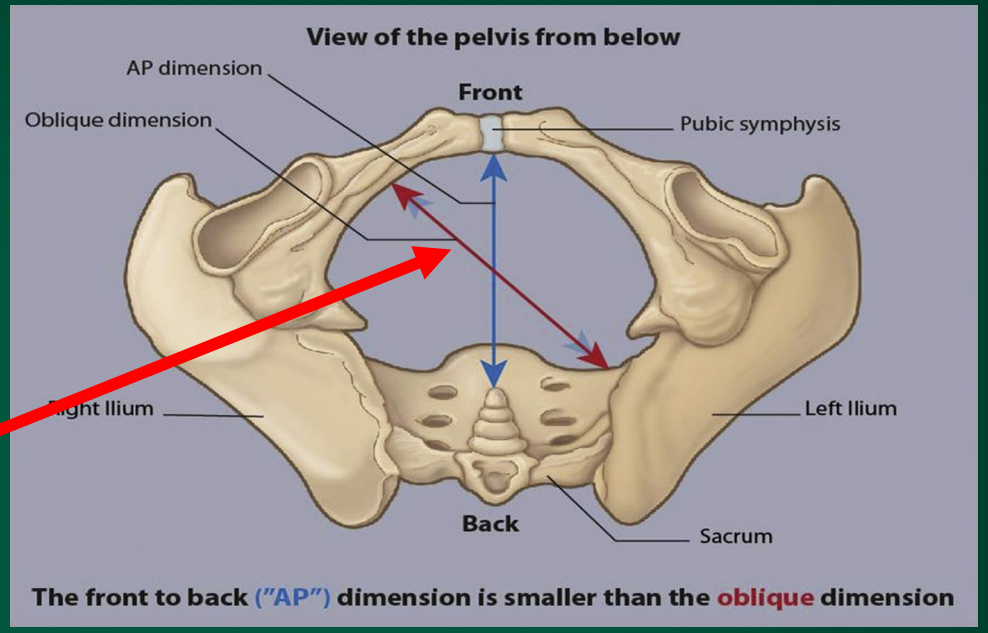
Rotational Maneuvers ("Enter")

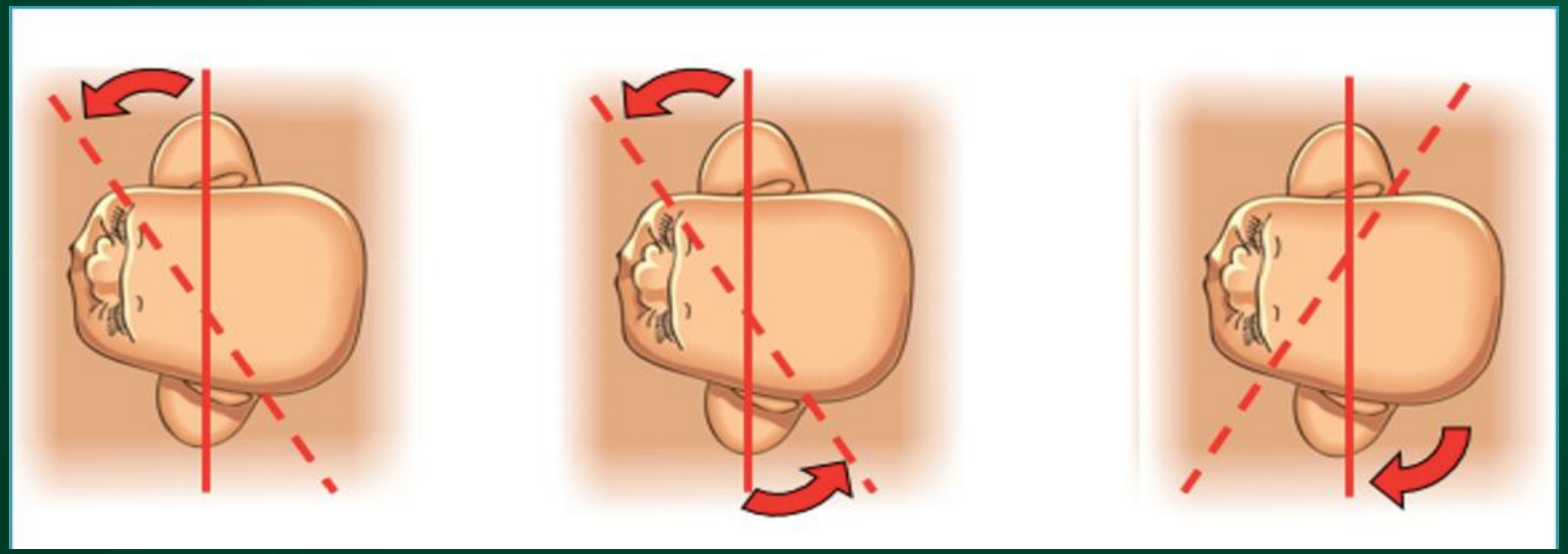
Description:

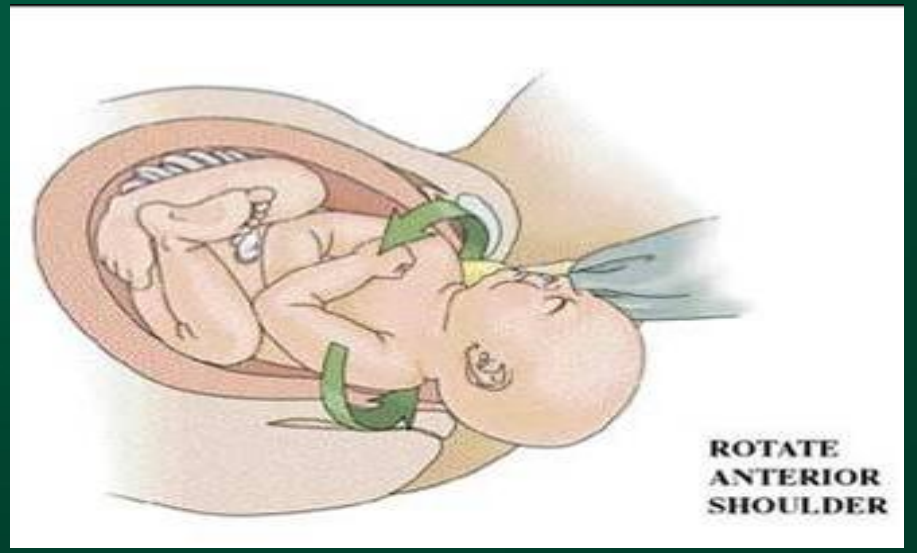
Intravaginal hand applies pressure to the anterior/posterior/both shoulder(s) to rotate fetal shoulders into oblique pelvic axis

May require episiotomy

Mechanism: Oblique diameter is largest







SD > Treatment > Rotational Maneuvers > WOODS MANEUVER

Sophie

Shoulder Dystocia: Management with Rotational Maneuvers

Produced Prof Tak Yeung LEUNG

& Maternal Fetal Medicine Team

Department of Obstetrics and Gynaecology

The Chinese University of Hong Kong

SD > TREATMENT > MENTICOGLOU MANEUVER SUMMARY

How the maneuver is performed Menticoglou

- An assistant gently supports the fetal head, but does not pull.
- The obstetrician kneels or gets into a position that allows them to reach the fetal pelvis.
- The middle finger of each hand is inserted into the fetal posterior axilla, with fingers overlapping to create a "pincer grip".
- Gentle downward and outward traction is applied to the fetal posterior shoulder to help it emerge along the curve of the sacrum.

•This motion should lead to the delivery of the posterior shoulder, followed by the posterior arm.

SD > TREATMENT

Gaskin All 4s position

Description:
Position gravida onto all 4 limbs.
May not be possible with epidural anesthesia

Mechanism of Action:
Gravity helps dislodge baby's shoulder, widens pelvic outlet, and changes the baby's position