

PAEDIATRIC NEURO-TRAUMA



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Secondary Injury

- **Hypoxia**
- **Hypotension**
- **Increased Intracranial Pressure**

One size doesn't fit all



Modified Glasgow Coma Score for paediatric patients

Infant best verbal response

5 coos babbles

4 irritable cry

3 cries to pain

2 moans to pain

1 no response

Children < 4 year best verbal response

5 orientated smiles

interacts follows objects

4 confused disorientated
uncooperative

3 inappropriate words
persistent cry

inconsolable inconsistent
awareness etc

	Mild	Moderate	Severe
GCS	13-15	9-12	3-8
PTA	< 1 hr	1-24 hr	1-7 days

PLAY SET



PATIENT RECORD

Name: _____
 Address: _____
 Age: _____ Sex: _____
 Height: _____ Weight: _____
 Blood group: _____

DAYS	DESCRIPTION	
A	NO	3
B	NO	3
C	NO	3
D	NO	4



WARNING:

CHOKING HAZARD - Small parts.
 Not for children under 3 years.



Tonic phase

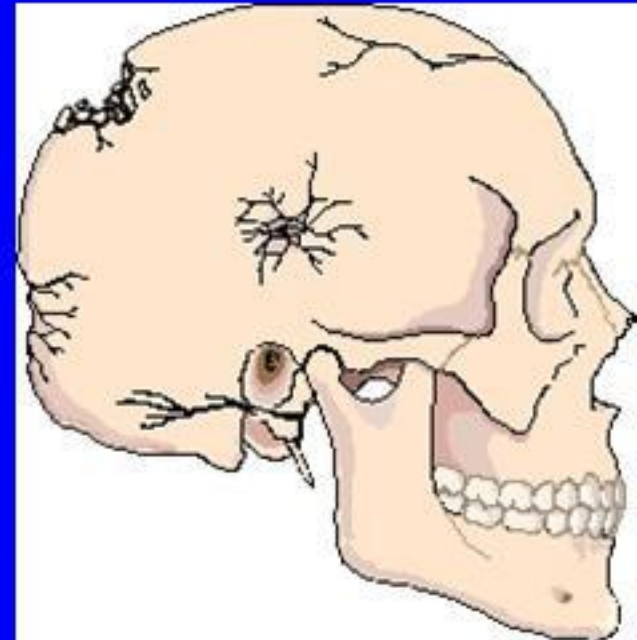
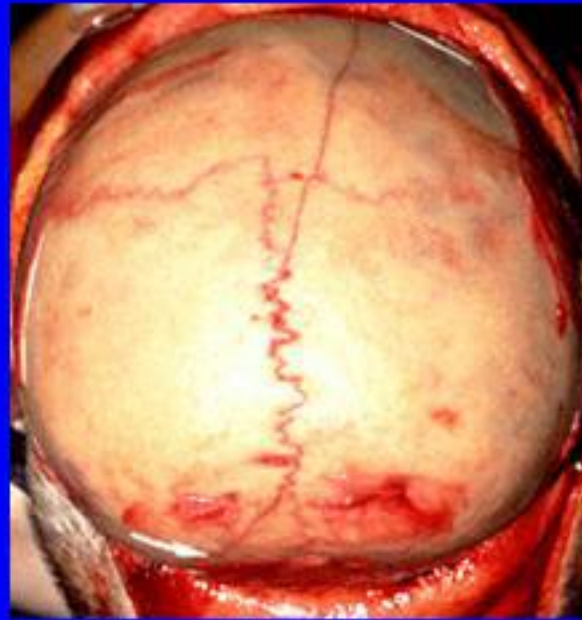


Clonic phase

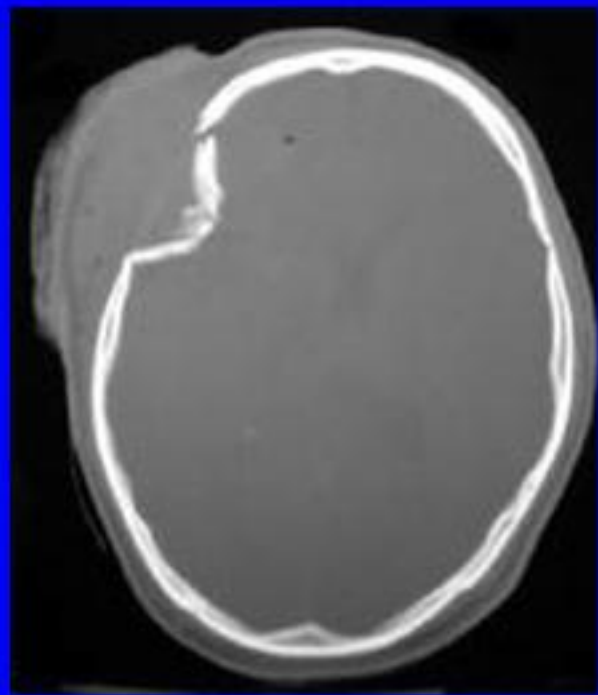




Fractures



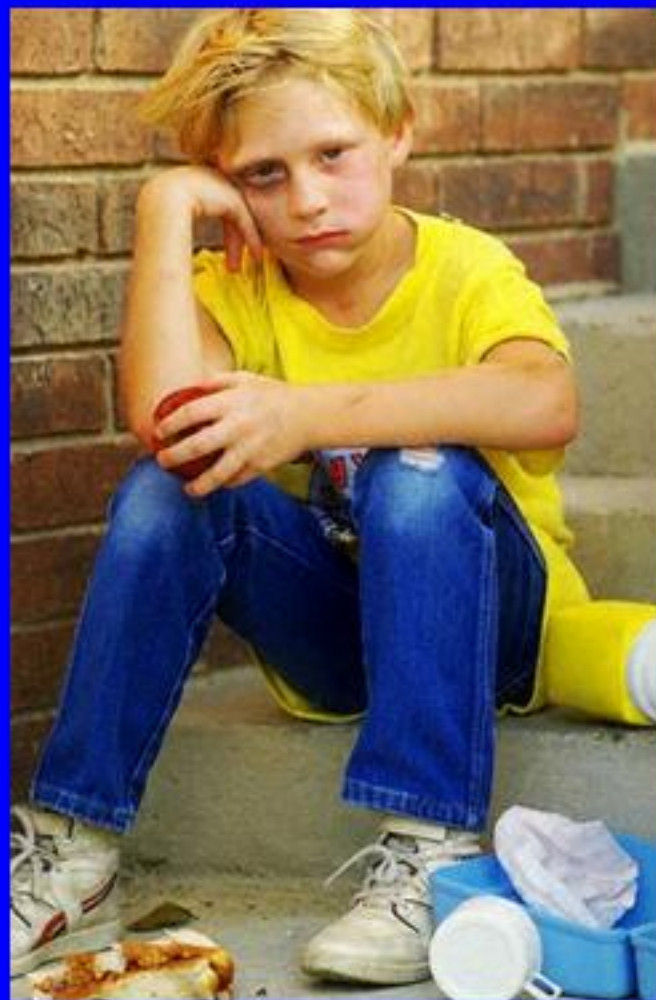
Depressed Skull



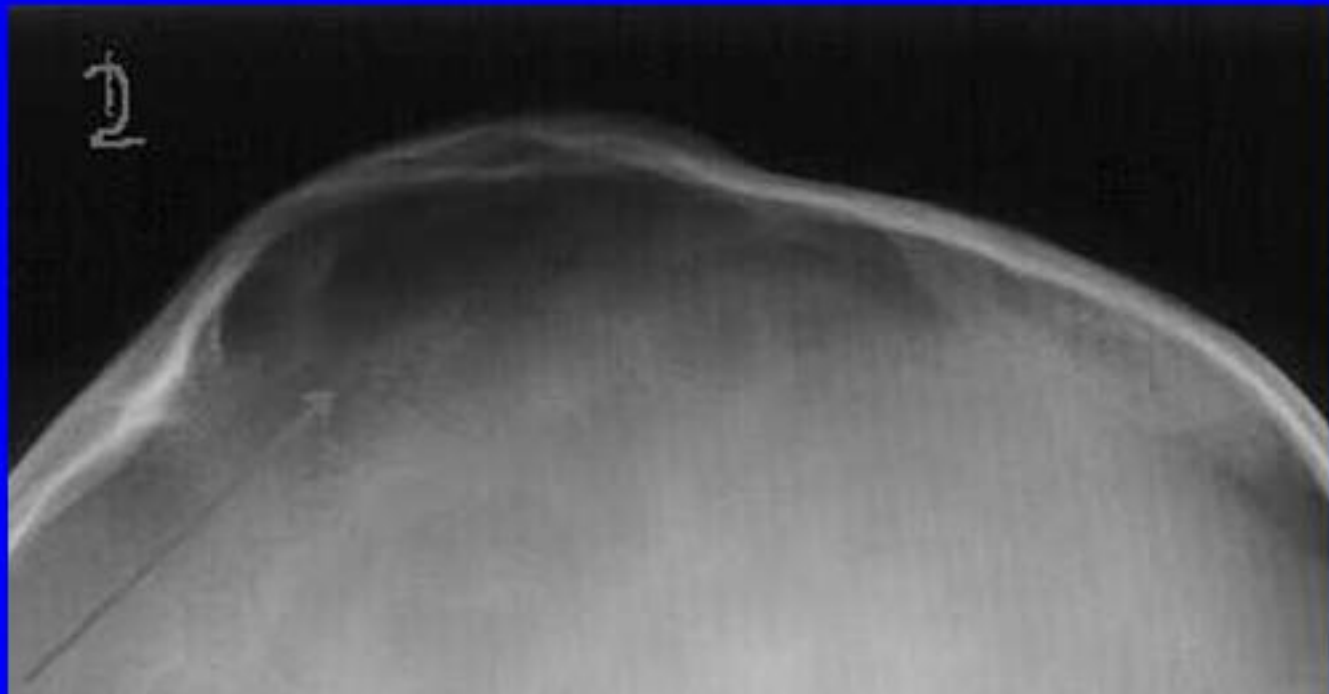


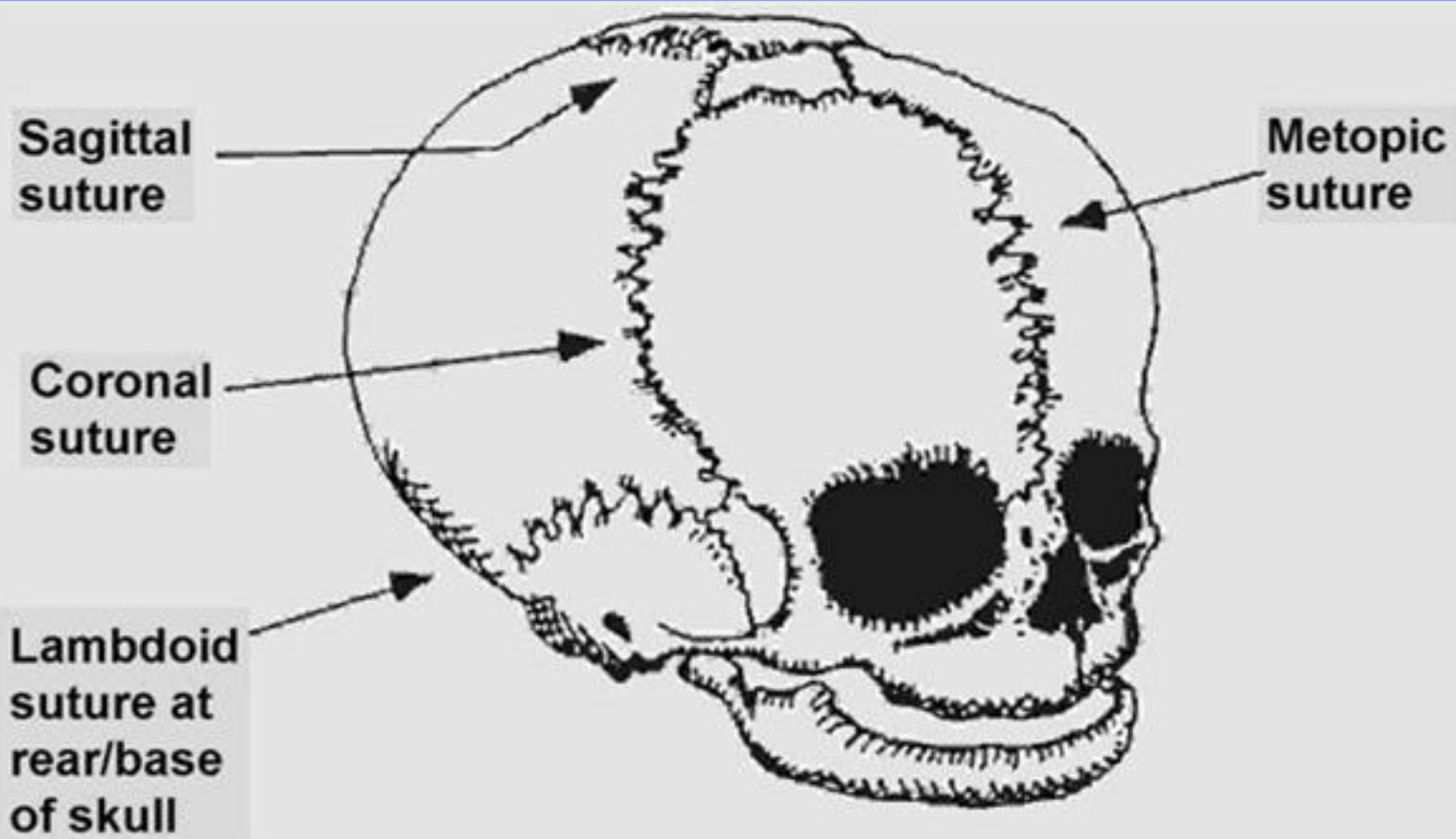
Basal skull #

Battle sign



Growing

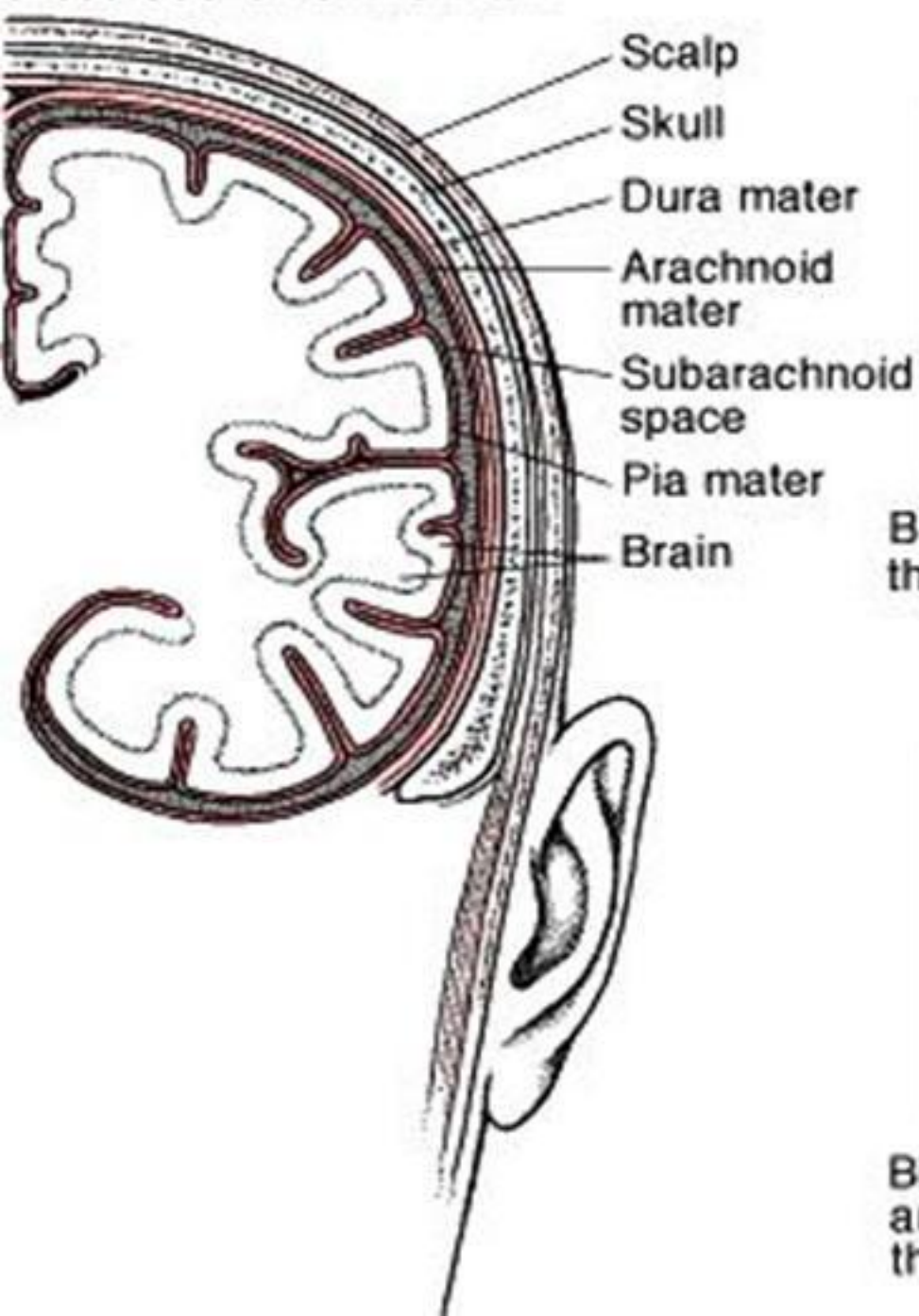




Ping-pong



Cross Section of the Brain

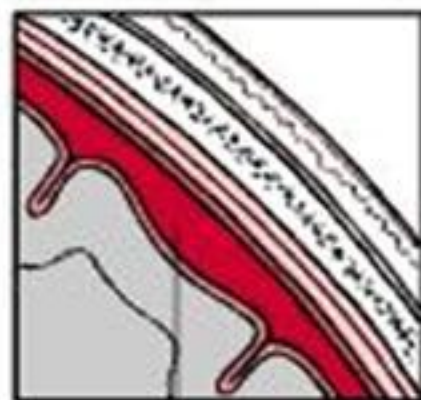


Intracerebral Hemorrhage



Bleeding inside the brain

Subarachnoid Hemorrhage



Bleeding in the subarachnoid space

Subdural Hemorrhage

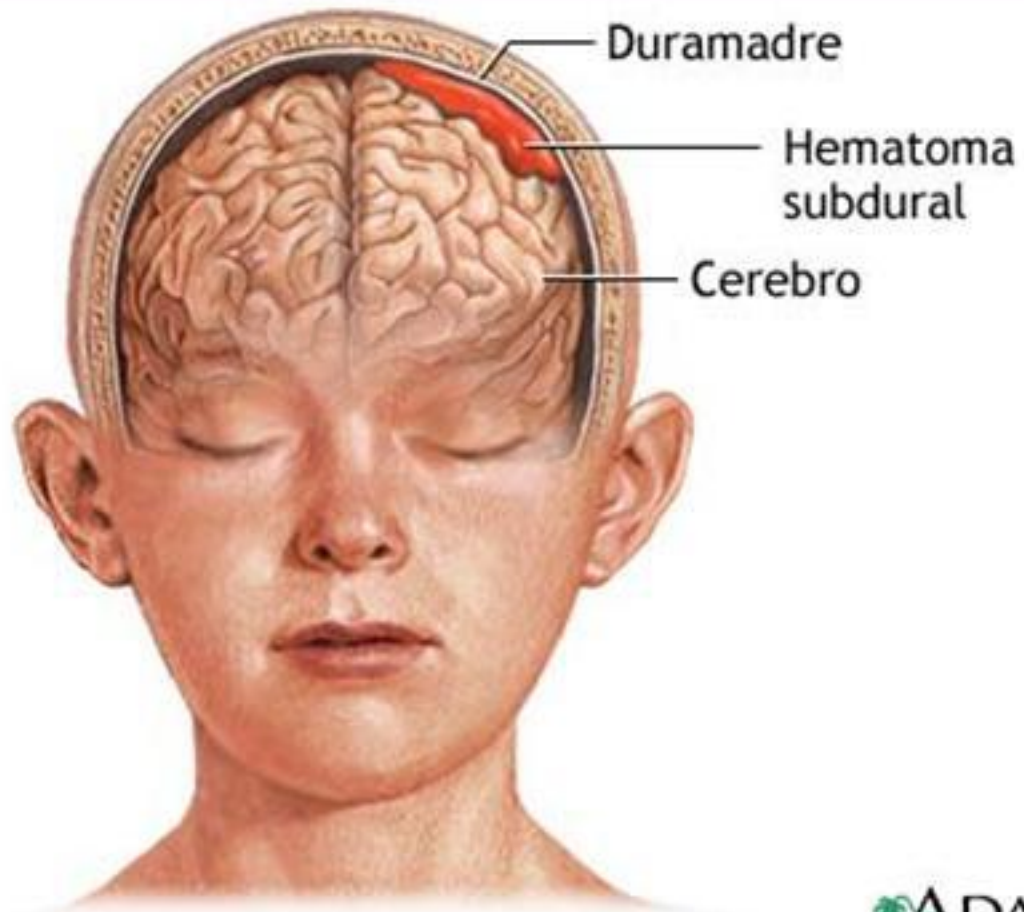


Bleeding between the arachnoid mater and the dura mater

Epidural Hemorrhage

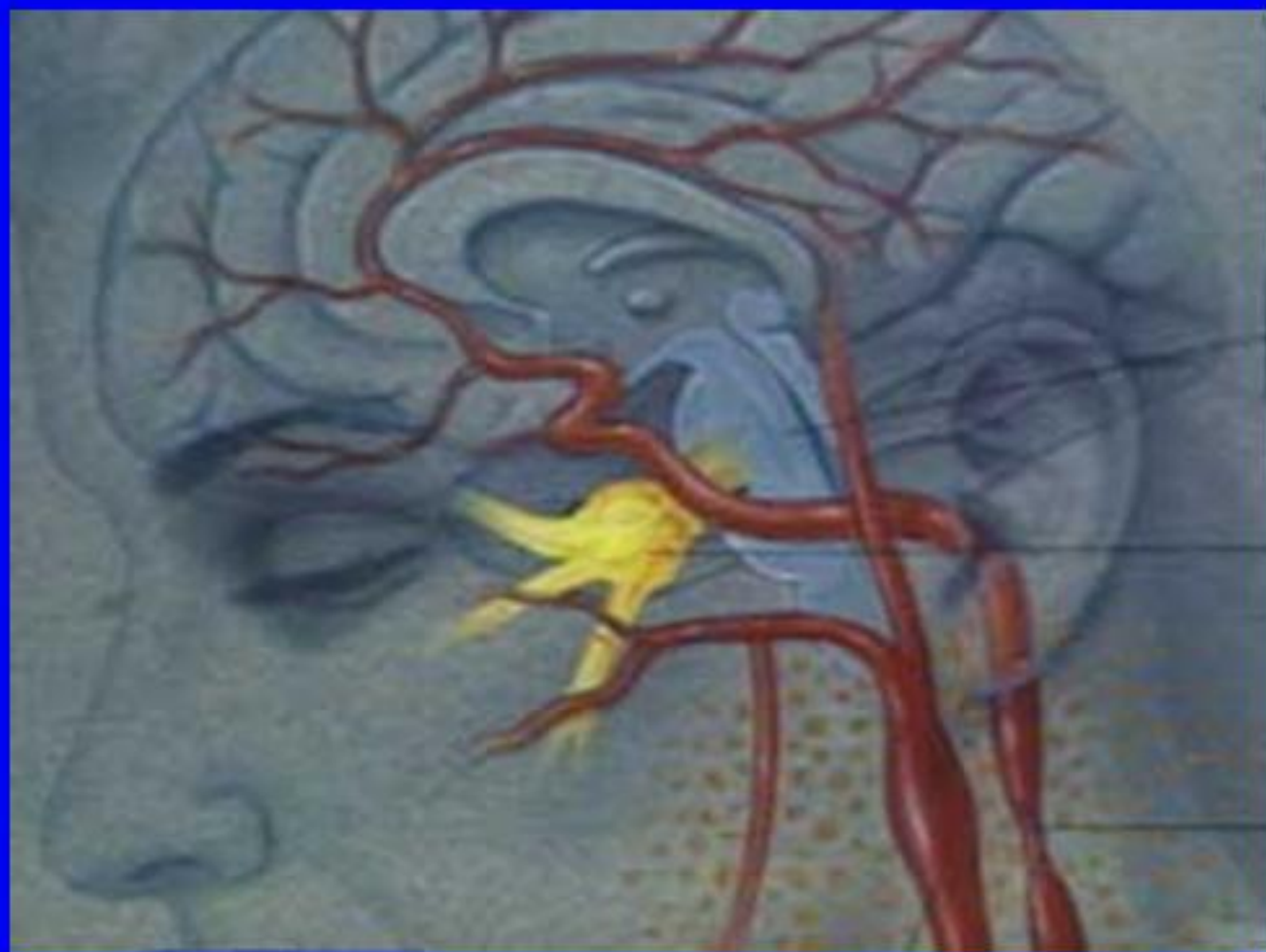


Bleeding between the dura mater and the skull



Extradural Haematoma





Ongoing Problems

- Intellect
- Emotions
- Control
- Fatigue
- Headaches
- Seizures



Key Points

- **Listen to the Parents**
- **Always maintain a high level of suspicion**
- **Early and accurate diagnosis is essential**
- **Refer to protocols and guidelines**
- **Normal CT does not exclude problems**

Cont.....

- Rapid resuscitation and early transfer to children's trauma centre**
- A deteriorating child requires intubation prior to transfer**
- Do not over infuse and use hypotonic solution > 2 yrs**
- Avoid measures that decrease ICP at expense of cerebral blood flow**

Ask the **NEUROSURGEON**



Prevention of

- Primary Injury
- Secondary Injury



Don't add insult to injury