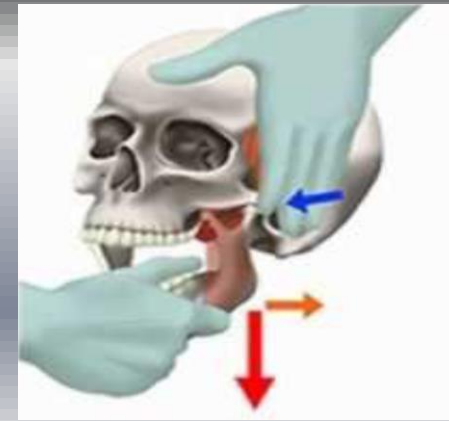


Dealing With Upper Jaw Trauma On Expedition – Primary Management



**WILDERNESS
EXPEDITION
DENTISTRY**

www.wildernessdentistry.com



Diagnosis of **Maxillary (Upper Jaw)** Fractures. **Control Epistaxis**- i)Posterior Nasal Packing Technique ii) Anterior Nasal Packing Technique.

Upper jaw fracture with catastrophic bleeding and medivac not available!!!

Burjor Langdana

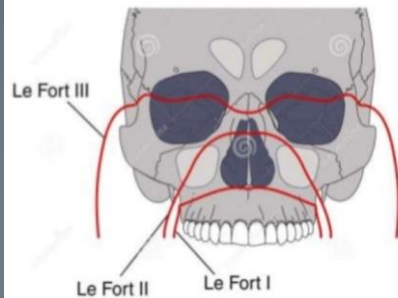
Maxillary Fractures; Clinical features - Physical Examination “Look with fingers and eyes”.



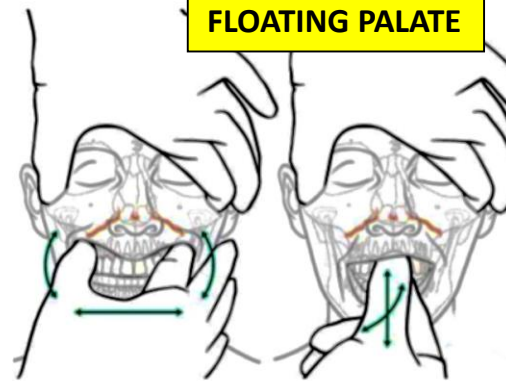
Differentiating Leforts

Pull forward on maxillary teeth

- Lefort I: maxilla only moves
- Lefort II: maxilla & base of nose move:
- Lefort III: whole face moves:



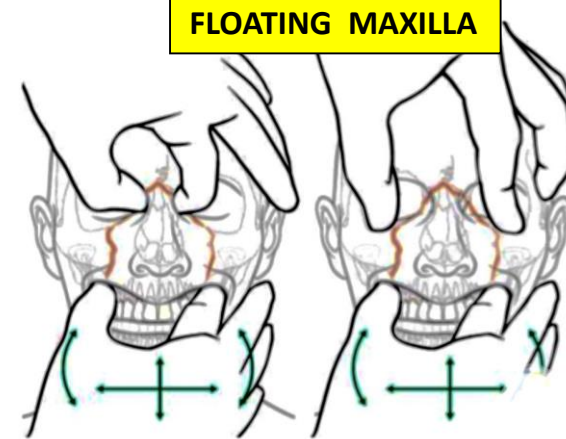
FLOATING PALATE



- Mobility of the midface may be tested by grasping the anterior alveolar arch and pulling forward while stabilizing the patient with the other hand.

ONLY TEETH & HARD PALATE MOVE

FLOATING MAXILLA



- testing for mobility of the central midface
- HARD PALATE & NOSE MOVE- NOT EYES**

FLOATING FACE



- testing for mobility of the midface.
- THE WHOLE FACE MOVES**



EYES AND PERIORBITAL REGION



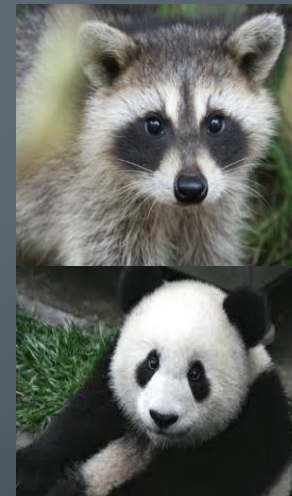
Circumorbital Edema & Ecchymosis



**Flame shaped hemorrhage
with posterior limit not seen
(Suspect # of the orbital
walls)**

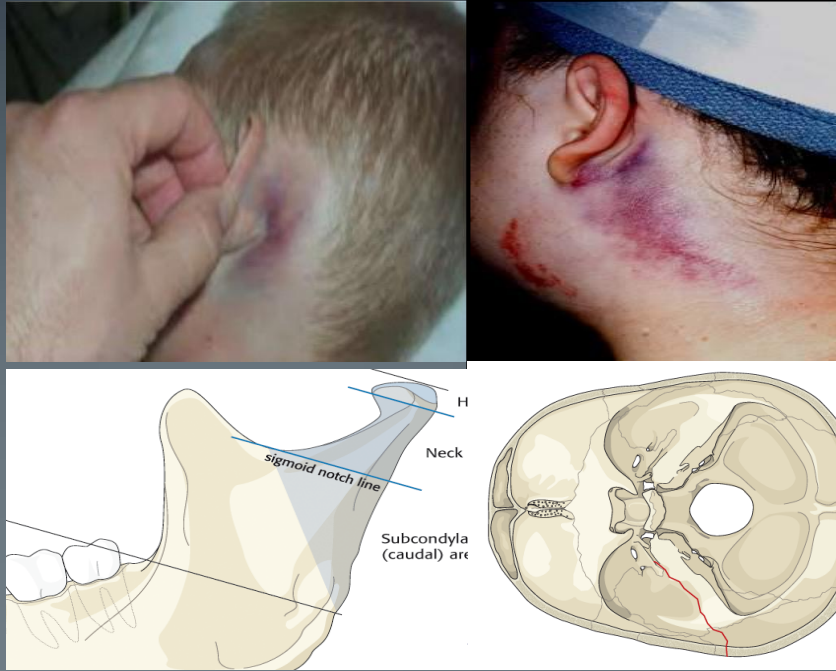



Subconjunctival Ecchymosis




Panda / Raccoon Eyes.

PERI AURICULAR REGION & PALATE



BATTLE SIGN . Post Auricular Bruising. Base of Skull Fracture
Condyle impacts above into the MCF fracturing the mastoid process . (Brit Surg; W.H Battle-1855-1936) 

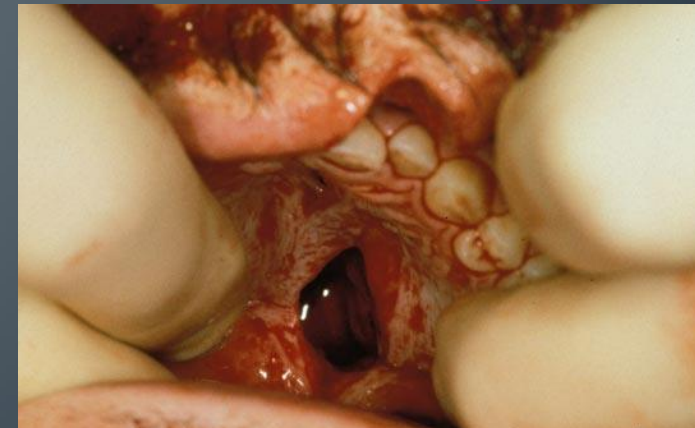


Blood in the ear canal may indicate skull base fractures or external auditory canal lesion resulting from a condylar fracture. 



Check for any CSF Ottorrhea 

Expedition Facial Trauma Workshop -Burjor
Langdana



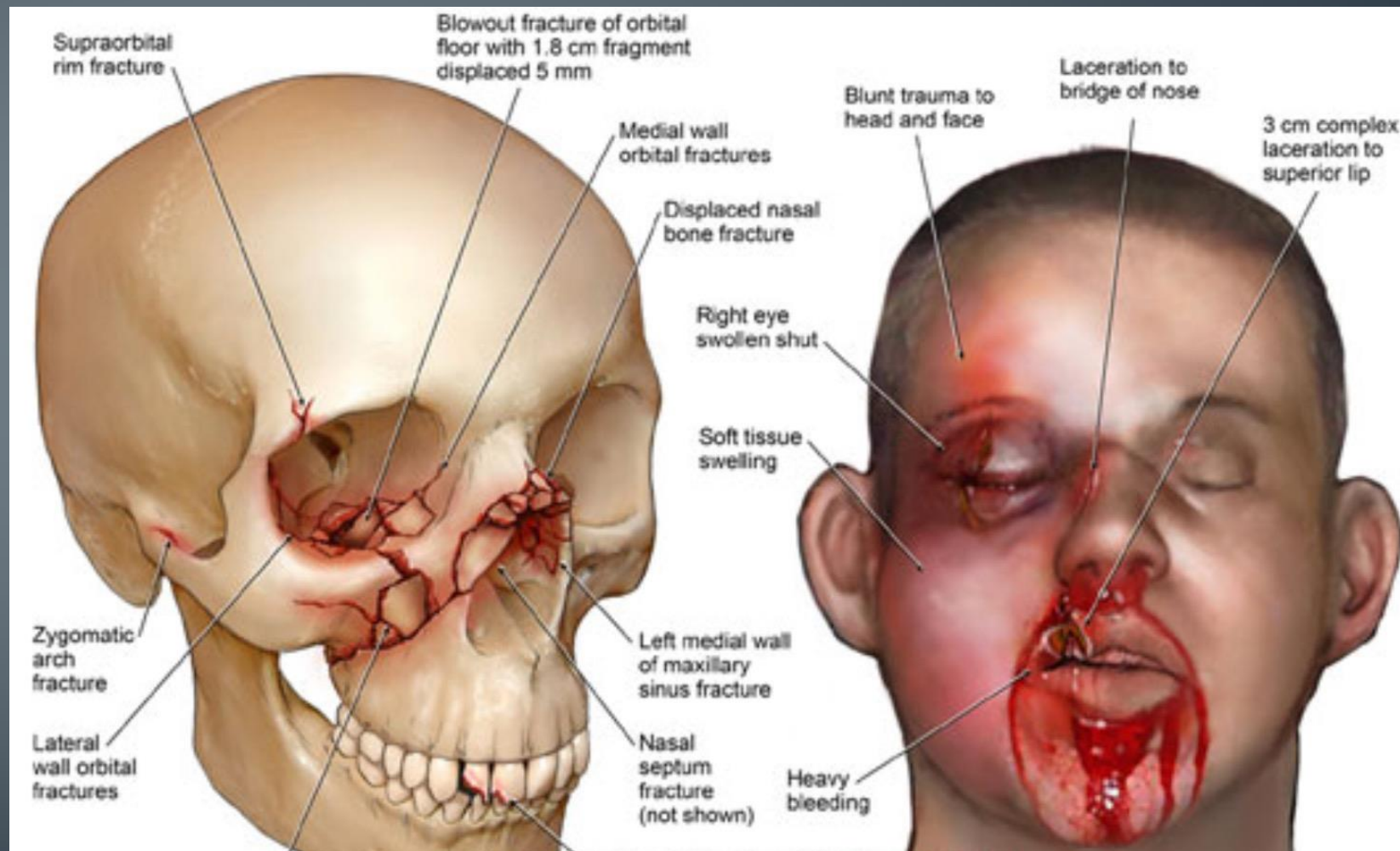
Palatal hematoma and/or palatal lacerations can be noted in the sagittally split palate.

- **Why you should know about management of epistaxis ?**



- **Very common +/- Facial Injury**
- **Causes significant concern**
- **Will have to be managed in the field. Anterior +/- Posterior Epistaxis**

Facial Trauma Resulting in Epistaxis



REFERENCE ARTICLE – DIRECT LINK THROUGH EXPEDITION DENTAL ARTICLE LIBRARY ON THIS WEBSITE

Journal of Emergencies, Trauma, and Shock

Wolters Kluwer -- Medknow Publications

Management of maxillofacial trauma in emergency: An update of challenges and controversies

Anson Jose, Shakil Ahmed Nagori, [...], and Ajoy Roychoudhury

J Emerg Trauma Shock. 2016 Apr-Jun; 9(2): 73–80.

doi: [10.4103/0974-2700.179456](https://doi.org/10.4103/0974-2700.179456)

PMCID: PMC4843570

PMID: [27162439](https://pubmed.ncbi.nlm.nih.gov/27162439/)

[Anson Jose](#), [Shakil Ahmed Nagori](#), [Bhaskar Agarwal](#), [Ongkila Bhutia](#), and [Ajoy Roychoudhury](#)

Department of Oral and Maxillofacial Surgery, All India Institute of Medical Sciences, New Delhi, India

INITIAL STEPS

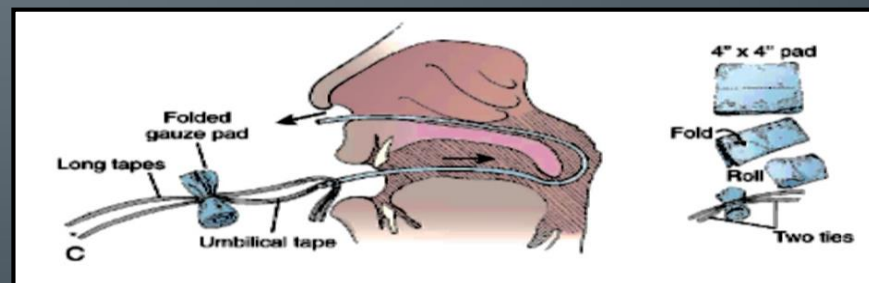
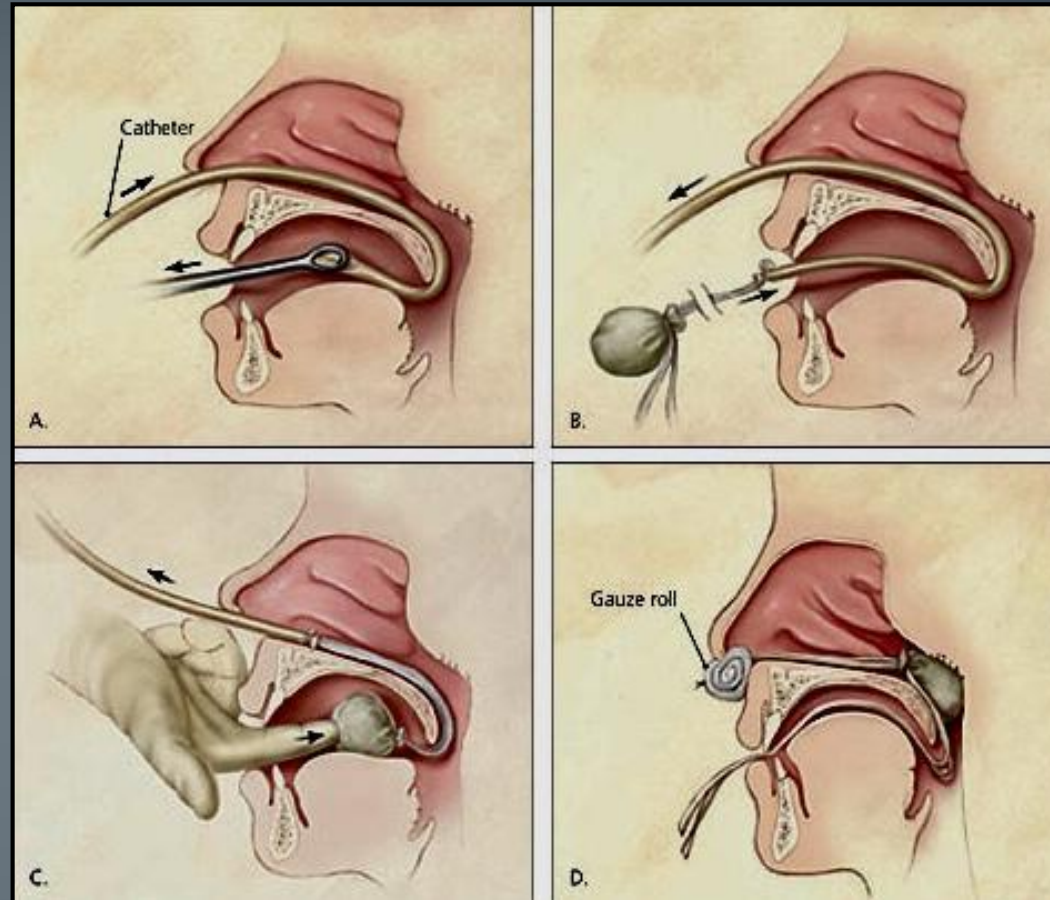
- Assessment of general condition
- Resuscitation if required
- Initial medical review

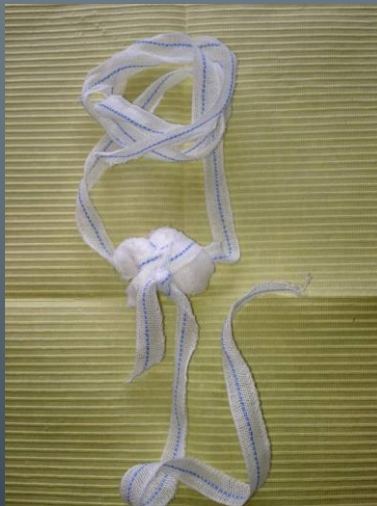


FIRST AID

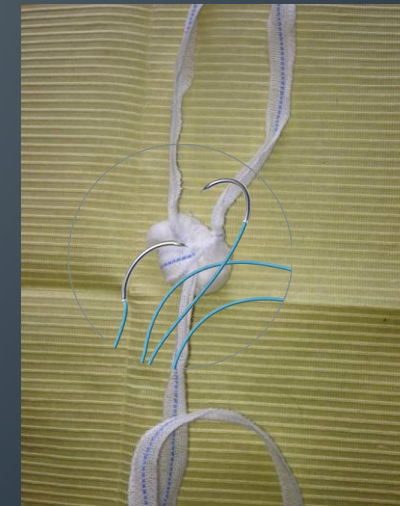


NASAL PACKING - POSTERIOR





Post Nasal Pack



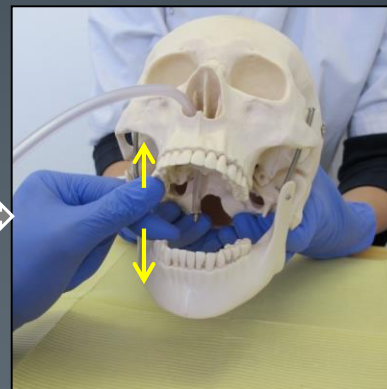
Posterior Nasal Packing



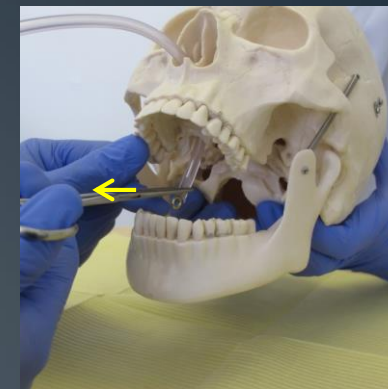
1) Slide catheter along nasal floor



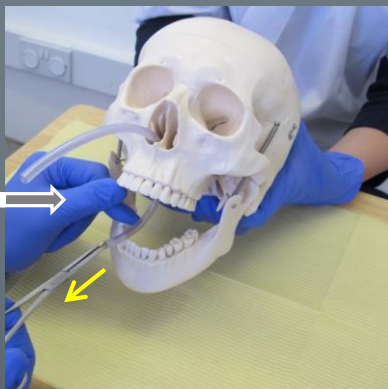
2) Pushing gently to Posterior aspect



3) Open the mouth- By Crossing thumb and index Finger. Thumb pushing upwards Index finger downwards



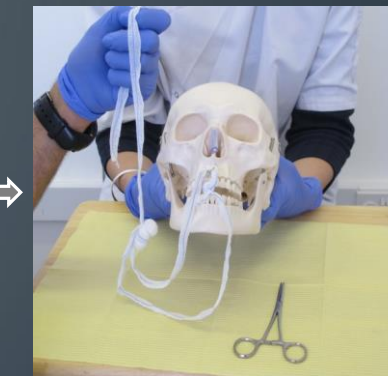
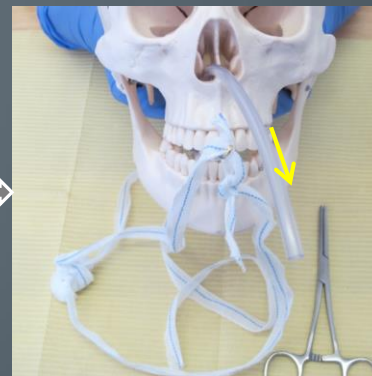
4) Grasp Catheter as it Emerges from posterior aspect of palate with artery clip



5) Emerged end of catheter Is pulled out from the mouth

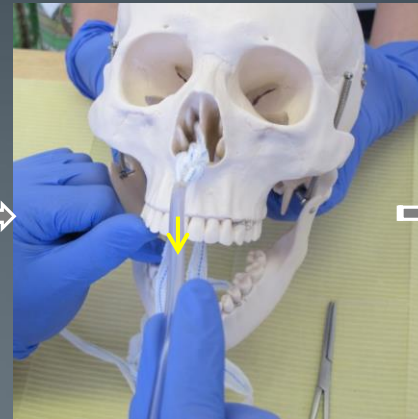


6) Double ended tail(Umbilical) of posterior nasal pack is tied to catheter

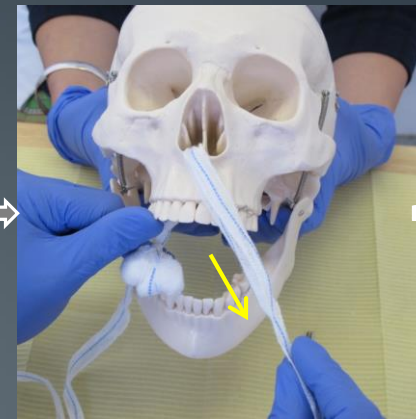




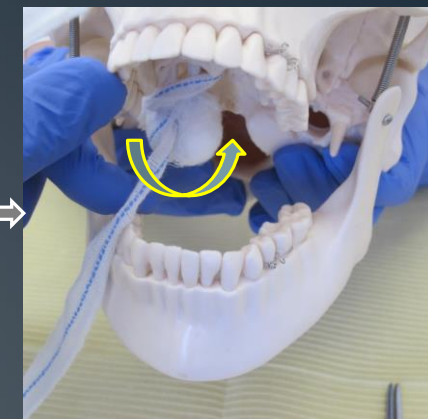
7) Catheter is pulled out Gently



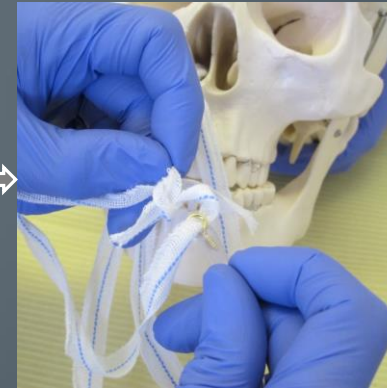
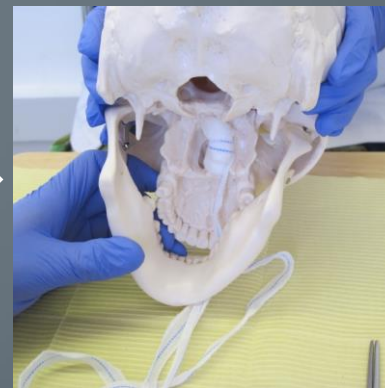
8) Double ended tail (Umbilical) of tied post nasal pack comes out with catheter



9) Guide post nasal pack around the back of the Hard palate as you pull gently on the double Ended tail



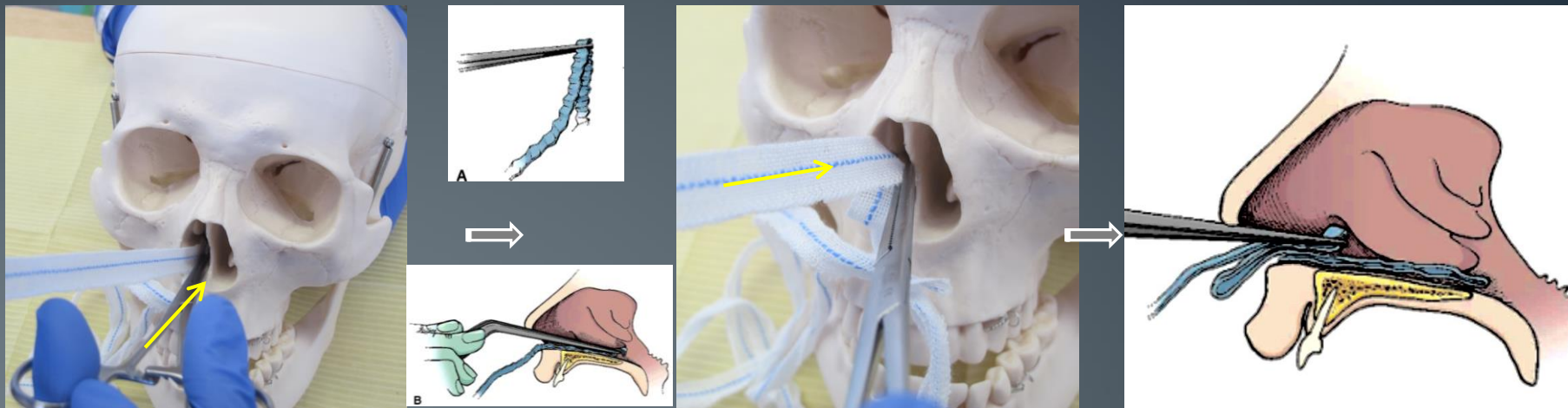
10) Using index finger tuck in to firmly seat the post nasal pack.



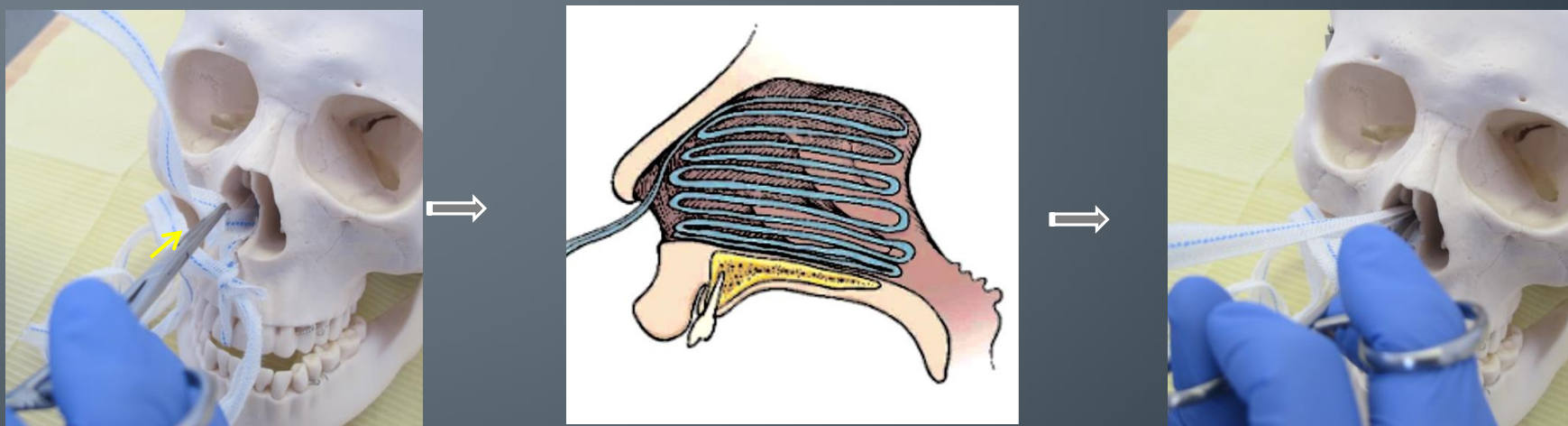
11) Untie the Double ended Tail(Umbilical) from the catheter

12) Ends are tied to Stabilise.

Anterior Nasal Packing



Hold the end of the ribbon gauze and slide it along the nasal floor. Fold the rest slowly in layers to the apex of the nasal cavity

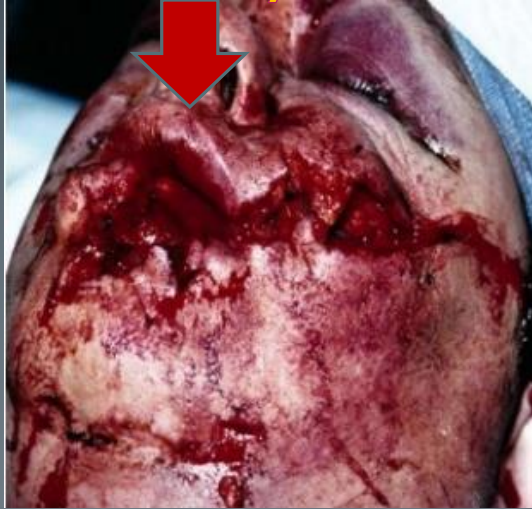


**You are working as a VSO in Malawi.
Rural Hospital- Anaemic Medivac Service...**

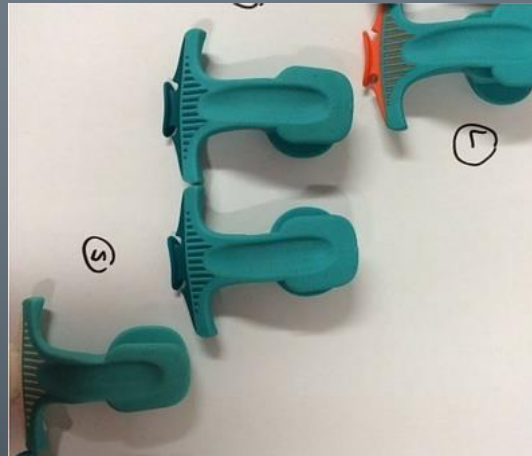


Expedition Facial Trauma Workshop -Burjor Langdana

Splinting of MidFace Fracture- Control Bleeding- Epistat /Foleys Catheter Module



THERE IS A LOT OF BLOOD. HIS AIRWAY IS OBSTRUCTING

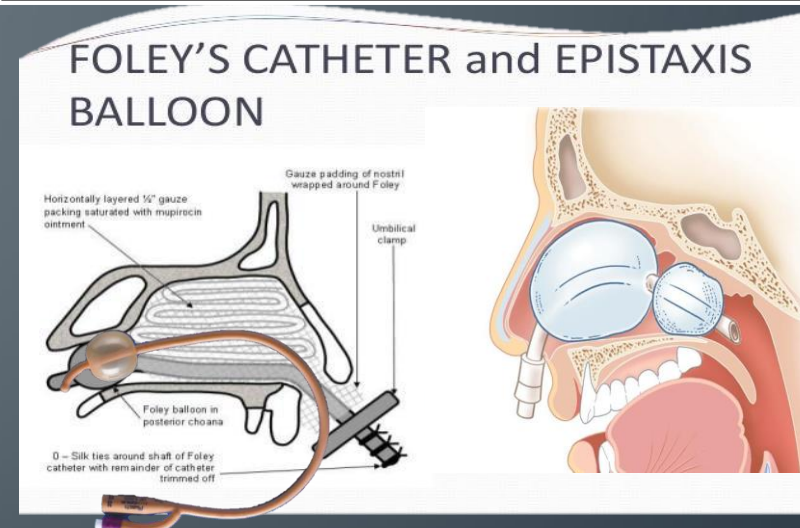


THE HARD PALATE IS HELD IN PLACE AGAINST THE STABLE MANDIBLE BY THE BITE BLOCKS

CREATE A RIGID VERTICAL STRUCTURE



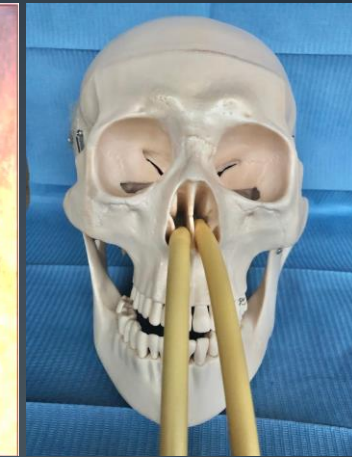
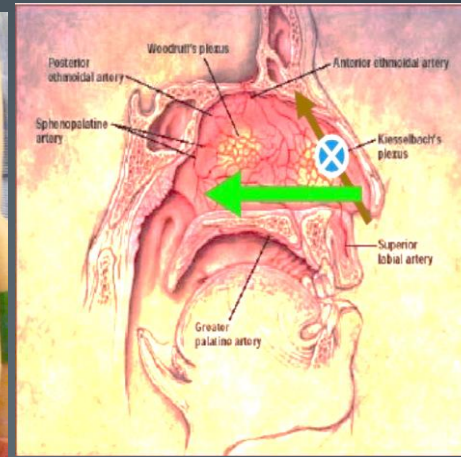
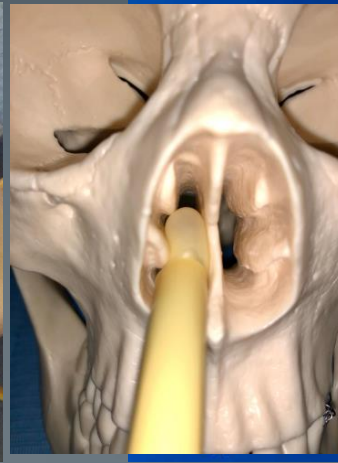
MANDIBLE IS STABILISED ON TOP OF SEMI-RIGID CERVICAL COLLAR



THE MAXILLA IS FIXED IN POSITION BY THE EPISTATS



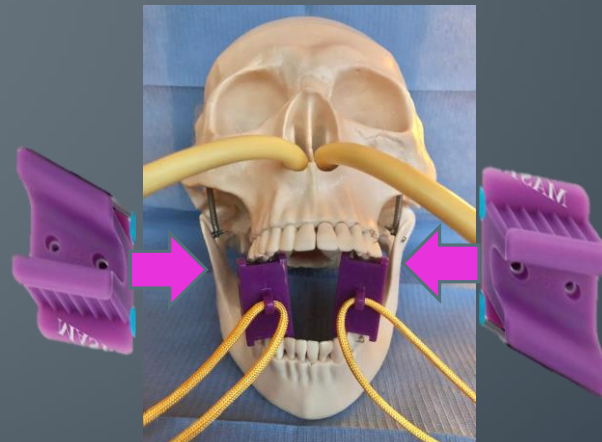
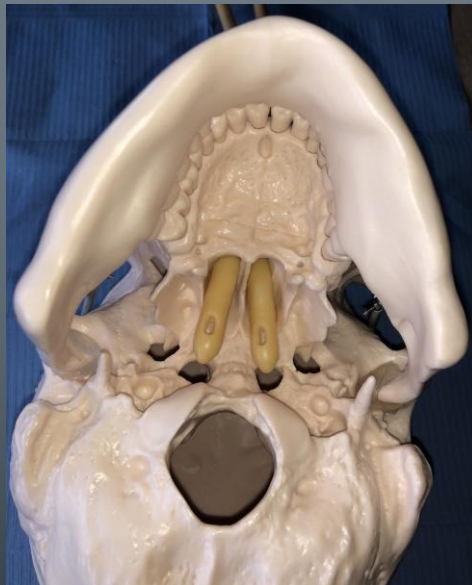
Splinting of MidFace Fracture– Control Bleeding.



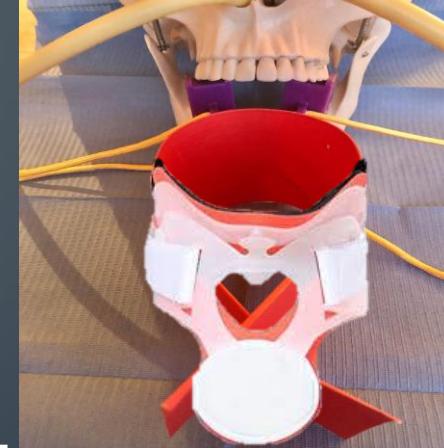
INFLATE POSTERIOR **BALLOON (30)** WITH 10 ML
INFLATE ANTERIOR **BALLOON (50)** WITH 10 ML
NOTE ANTERIOR INFLATES ONLY SUPERIORLY

NOTE- CATHETER WILL BE INSERTED
ORIENTERING AS ABOVE. SUCH THAT
INFLATED ANTRIOR FACES NASAL ROOF

DEFLATE- INSERT –
CORRECTLY ORIENTEERING

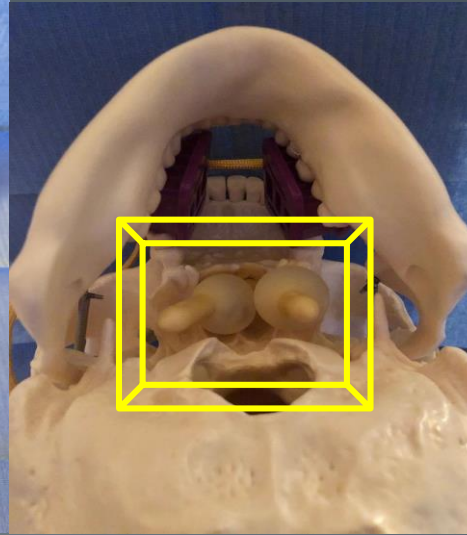


INSERT THE BITE BLOCKS- **NARROW END**
GOES IN FIRST- BITE BLOCKS MUST ALWAYS
HAVE TIES ON THEM



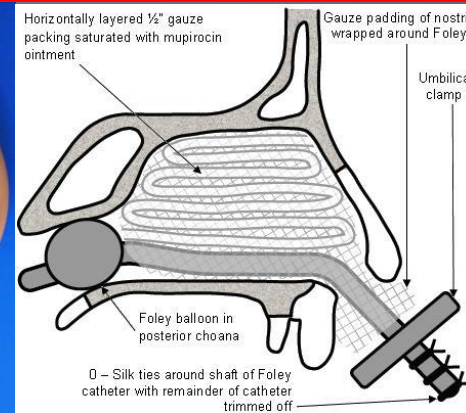
ADJUST- C-SPINE COLLAR

Splinting of MidFace Fracture– Control Bleeding.



POSTERIOR BALLOON (30 PORT) SIMULTANEOUSLY. EPISTAT- 10 ML SALINE SIMULTANEOUSLY

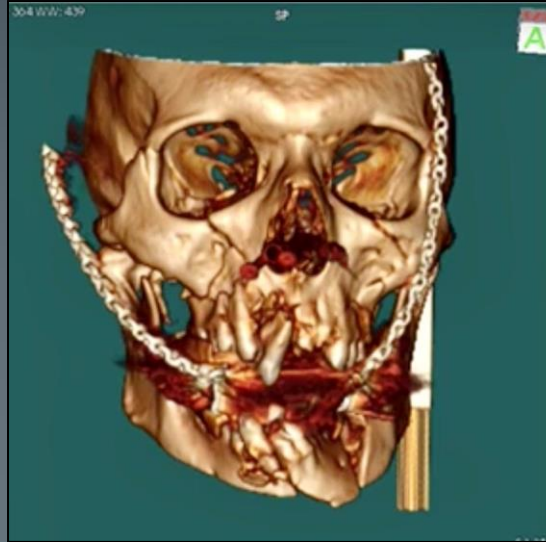
LEFT SIDE FOLLEYS CATHETER EXERCISE- HANDS ON



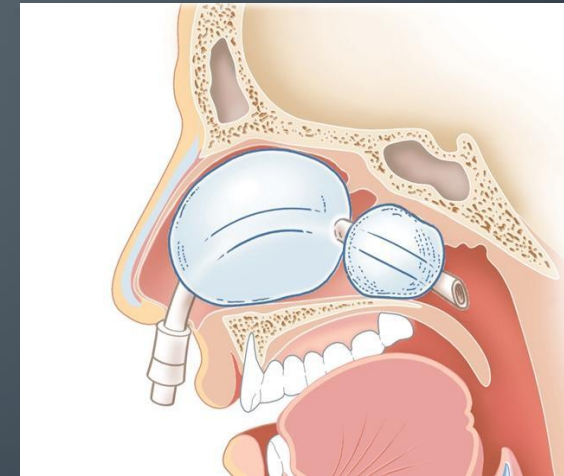
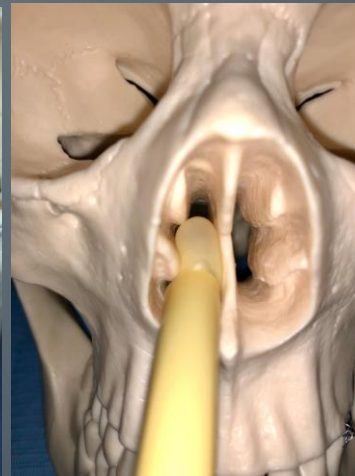
PLACE ANTERIOR NASAL PACK AROUND CATHETER



Splinting of MidFace Fracture– Control Bleeding.



ANTERIOR BALLOON (50 PORT) SIMULTANEOUSLY. EPISTAT- 30 ML SALINE SIMULTANEOUSLY.
IN 10 ML INCREMENTS



- Best to place patient on antibiotics to decrease risk of sinusitis and toxic shock syndrome
- Advise patient to avoid straining, bending forward or removing pack early



REFERENCE ARTICLE – DIRECT LINK THROUGH EXPEDITION DENTAL ARTICLE
LIBRARY ON THIS WEBSITE

RCEM
LEARNING



Floating in the Face of Danger: MaxFax injuries in the ED

THANK YOU.....



**WILDERNESS
EXPEDITION
DENTISTRY**

Expedition Dentistry Workshop - Burjorangi
www.wildernessdentistry.com