ENT Emergencies
Pearls & Pitfalls

UHN Emergency Medicine Conference 2015

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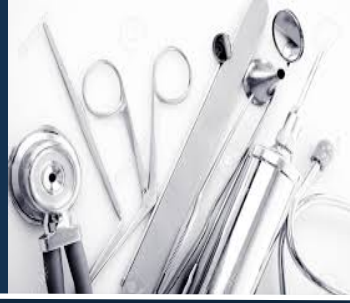
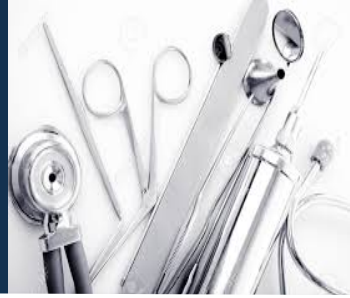
Disclosure



We have no financial interest or affiliation that could be perceived as a conflict of interest in the context of the subject of this presentation

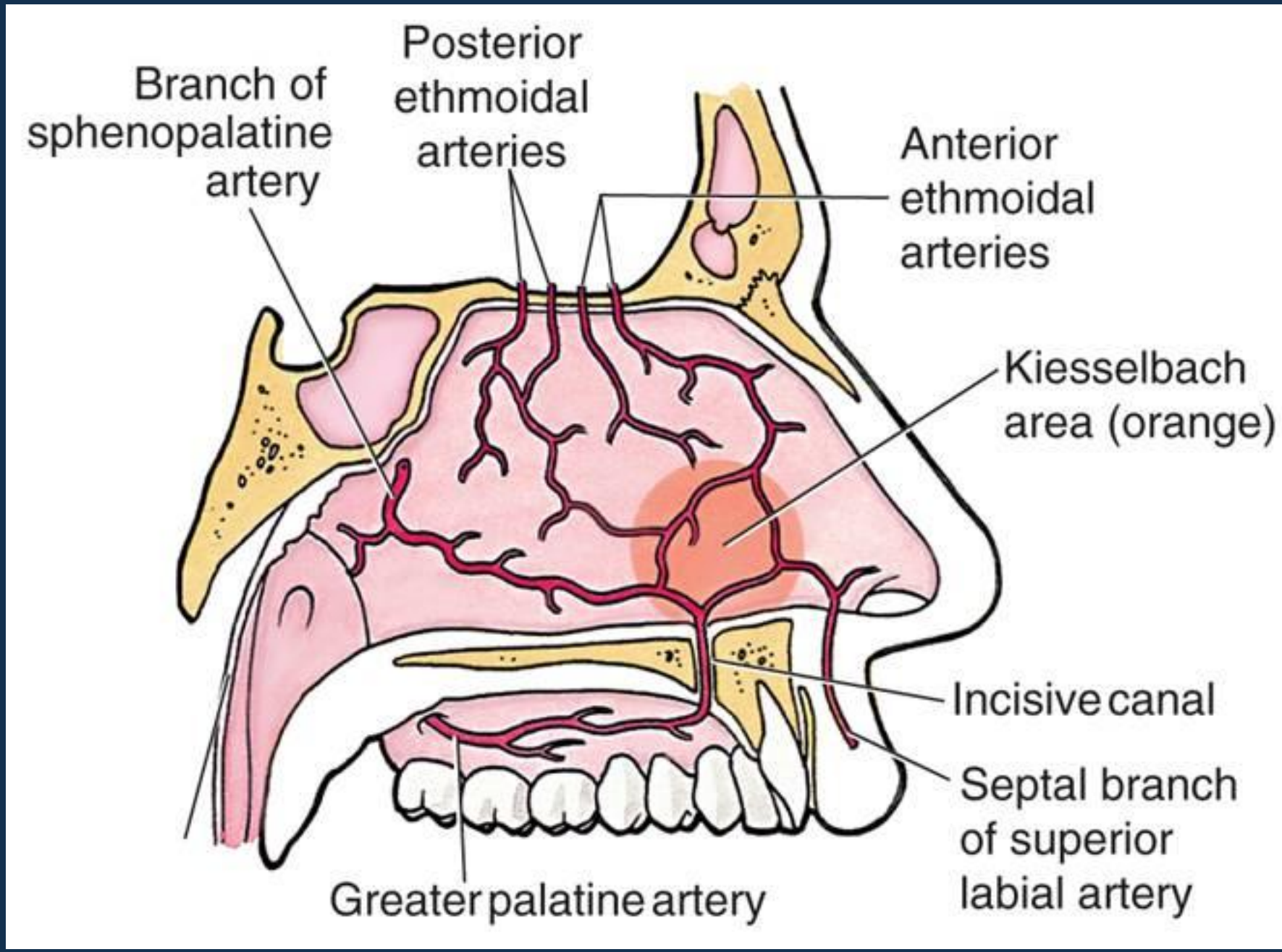
Objectives



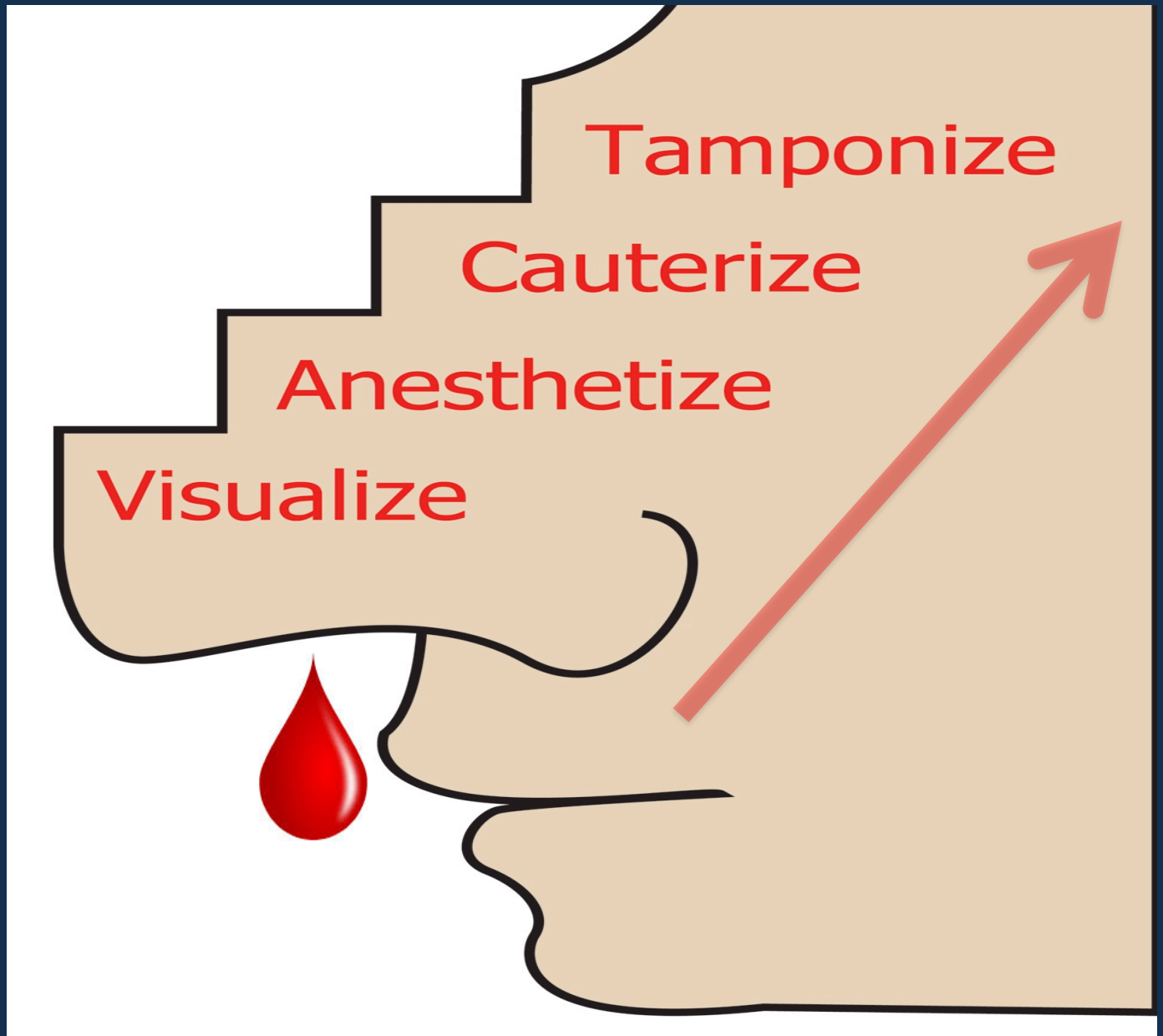
At the end of this workshop you will be able to:

- Describe an evidence based step-wise approach to the management of epistaxis
- Identify a variety of tools and techniques that may be used to remove FBs from the ear & nose
- Describe approaches to the management of auricular hematomas
- Describe an approach to reducing jaw dislocations

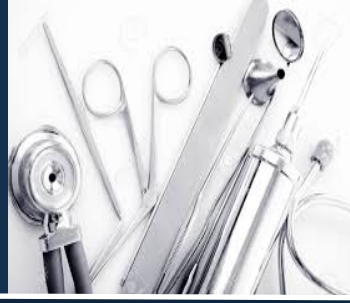
Ice?	Ice in mouth can reduce nasal mucosal blood flow by 23%
HTN?	No evidence that HTN triggers epistaxis, more likely reactive
Check INR?	Check INR in patients on coumadin if bleeding > minor, but if controlled (anterior) in ED do NOT hold dose


Branch of sphenopalatine artery
Posterior ethmoidal arteries
Anterior ethmoidal arteries
Kiesselbach area (orange)
Incisive canal
Septal branch of superior labial artery
Greater palatine artery

StepWIZE Approach to Epistaxis



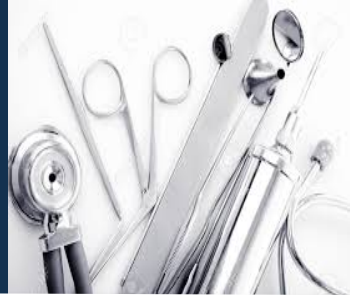
Visualize & Anesthetize



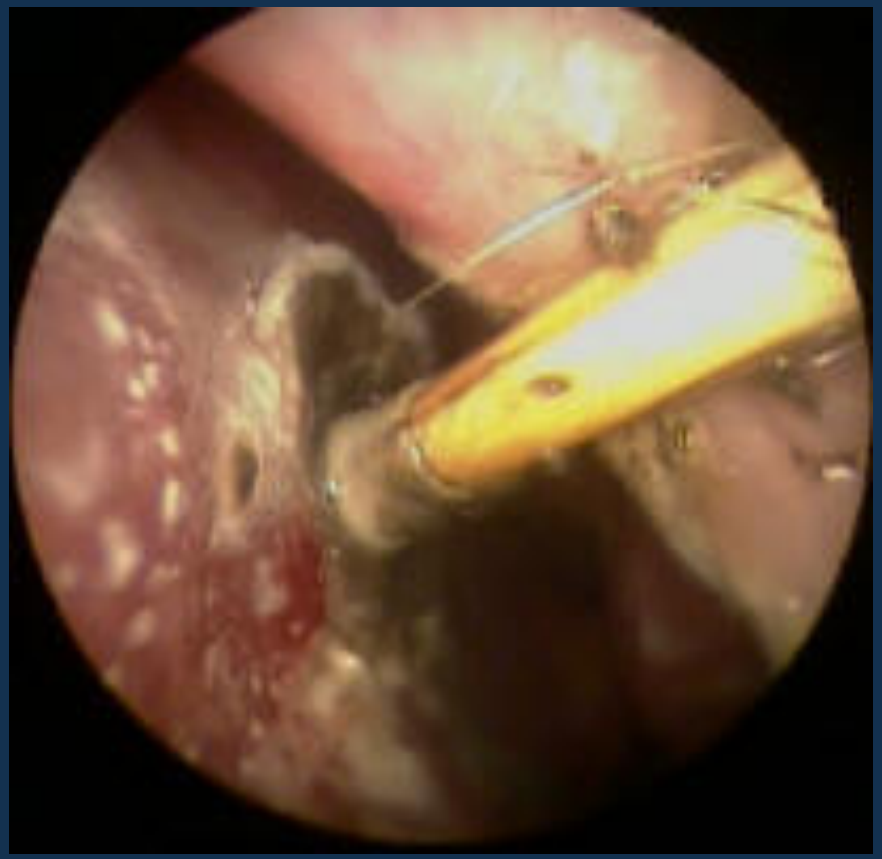
- Get patient to blow out clots
- Oxymetazoline + lido 1:1 cotton soaked pledget X5min while clamping nostrils

PEARL: *Use Oxymetazoline over Cocaine or Epi*

Cauterize



- Must achieve hemostasis first
- One side only, 5 sec x2 max
- If works apply petroleum jelly/Abx ointment + detailed d/c instructions

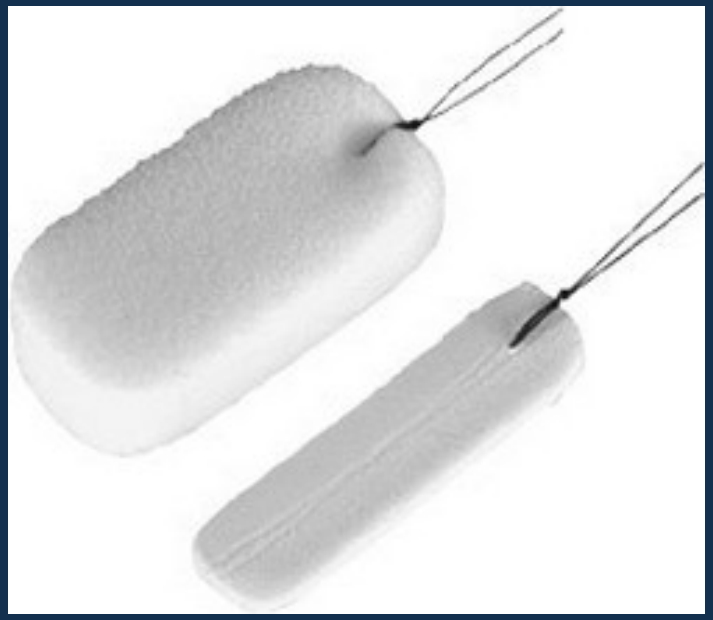


http://www.entusa.com

PEARL: *Consider intranasal tranexamic acid for patients with bleeding disorders*

Tamponize

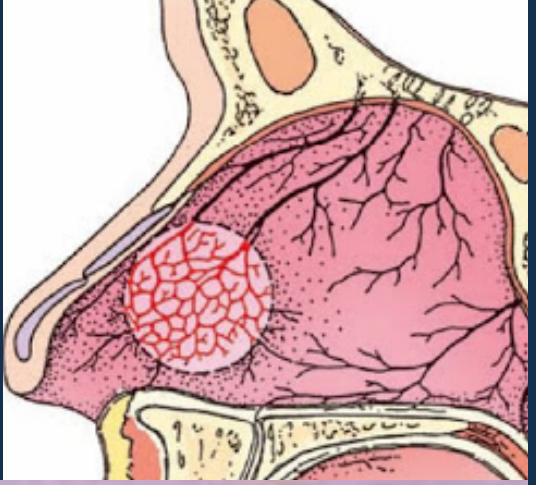
Merocel



Rapid Rhino

Rhino Rocket

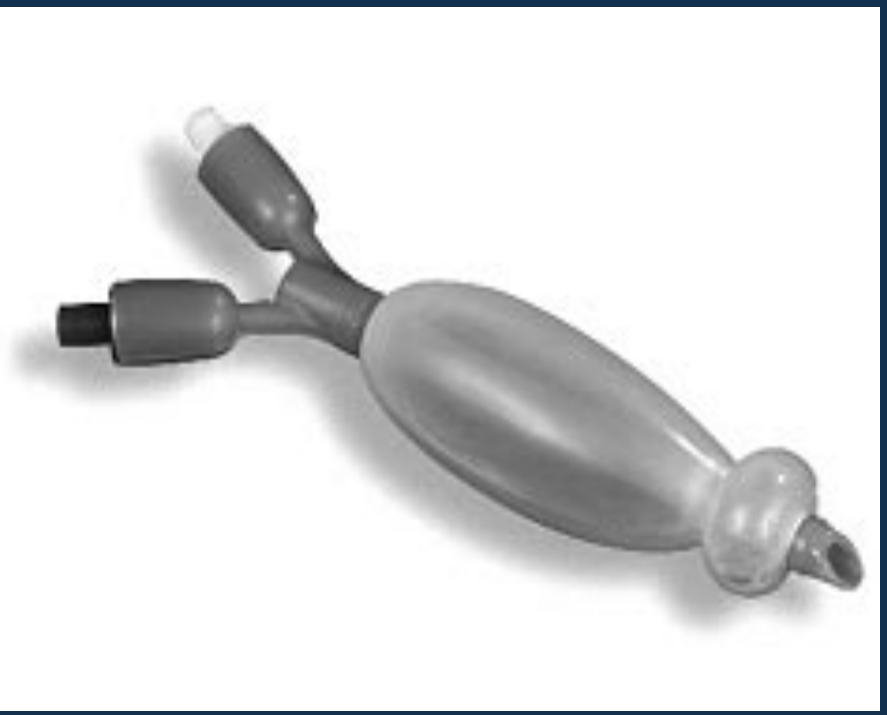
PEARL: *Consider Surgicel/Gel Foam in coagulopathic patients*



Tamponize

- Ensure placed enough posteriorly
- Prophylactic Abx not necessary
- Remove in 48-72hrs
- Rehydrate prior to removal

Tamponize:
The Posterior Pack

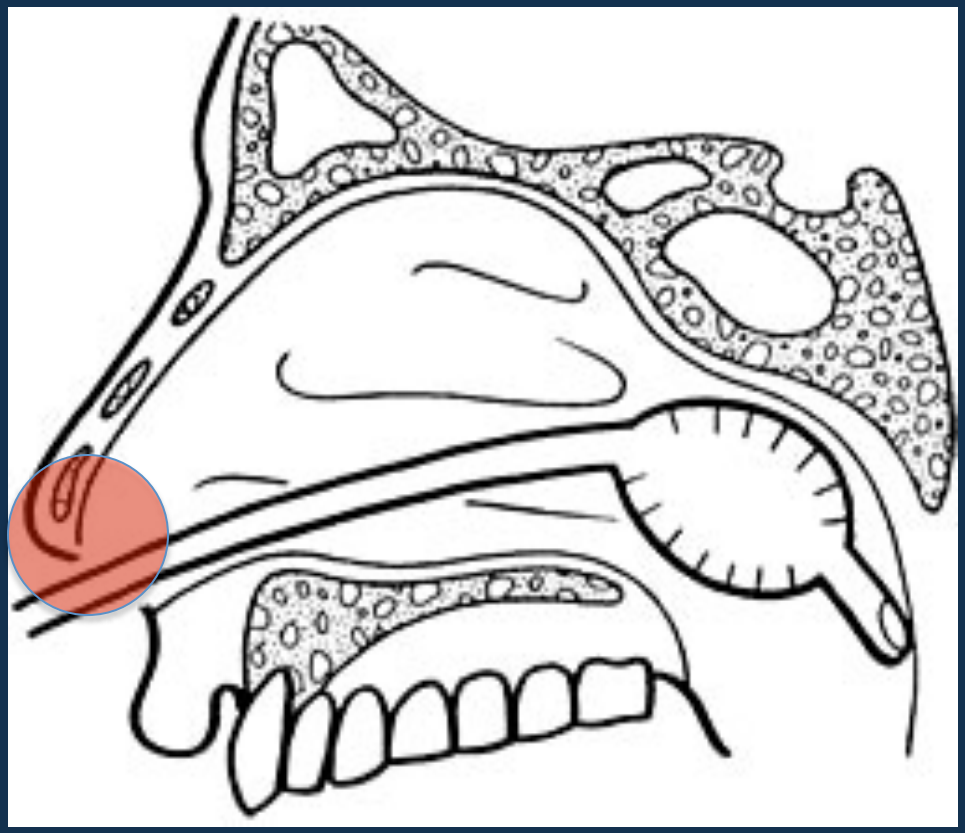


- IV Pain meds!
- Lubricate with Abx ointment & place along floor of nasal cavity as far back as possible
- Inflate 1/2way (5cc) then pull against middle turbinate
- Slowly fill rest of balloon (<5cc), STOP if pain
- Inflate anterior balloon <30cc

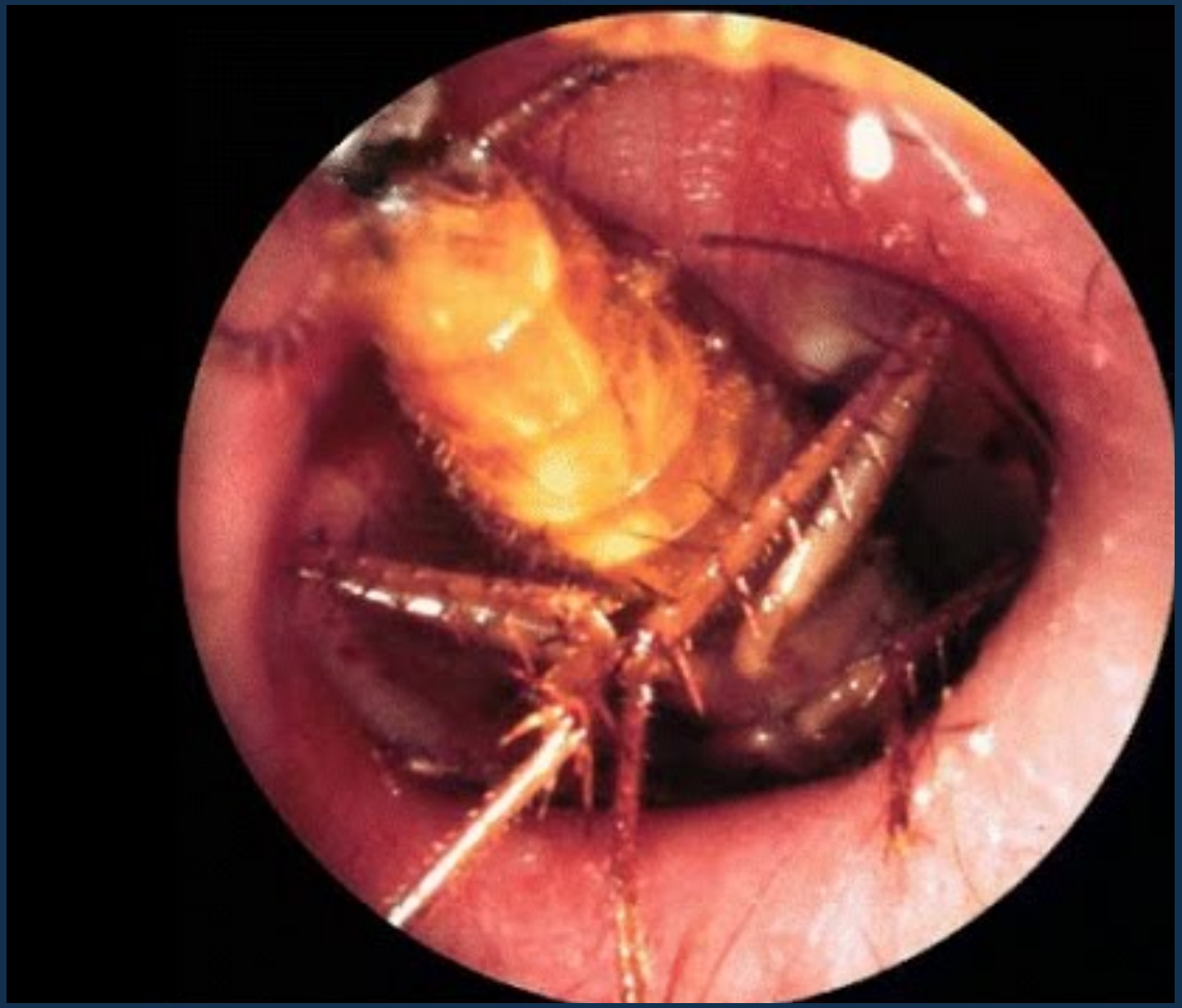
Pitfall: *Filling balloons all the way*

Tamponize: The Posterior Pack

- 12F foley inserted through naris into posterior pharynx
- Inflate balloon ½ way with 5cc NS
- Slowly pull it against middle turbinate and inflate another 5cc
- Place bilateral anterior packs



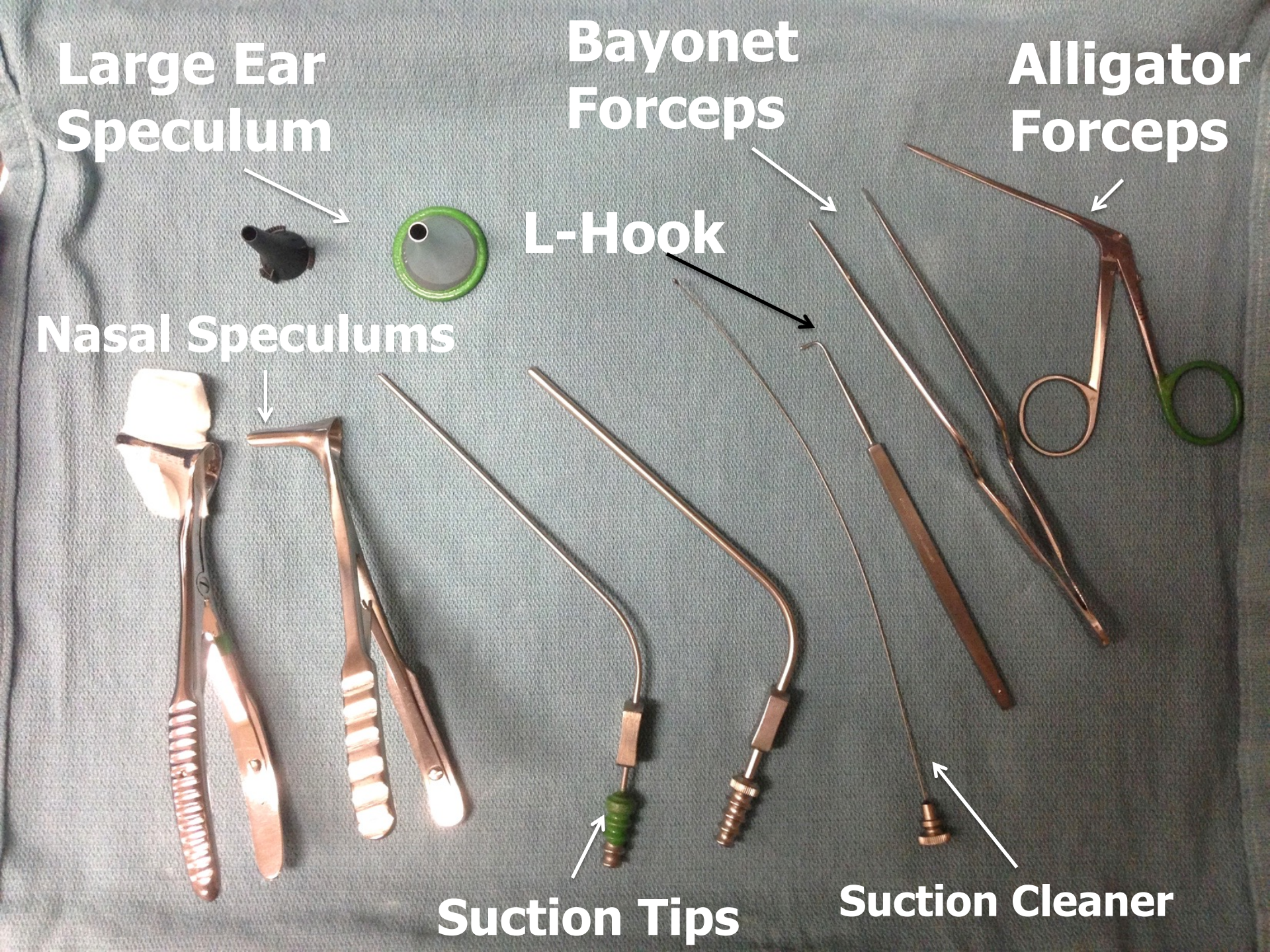
Pitfall: *Causing Alar Necrosis*



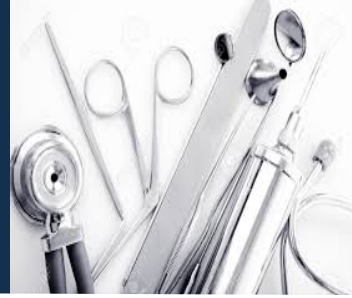
The Laryngoscope

What Are We Putting in Our Ears? A Consumer Product Analysis of Aural Foreign Bodies

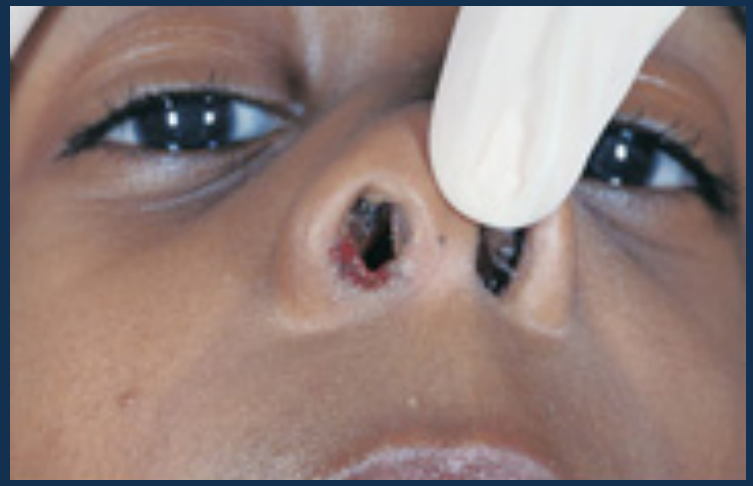
Peter F. Svider, MD; Angela Vong, MD; Anthony Sheyn, MD; Dennis I. Bojrab 2nd, MD; Robert S. Hong, MD, PhD; Jean Anderson Eloy, MD, FACS; Adam J. Folbe, MD

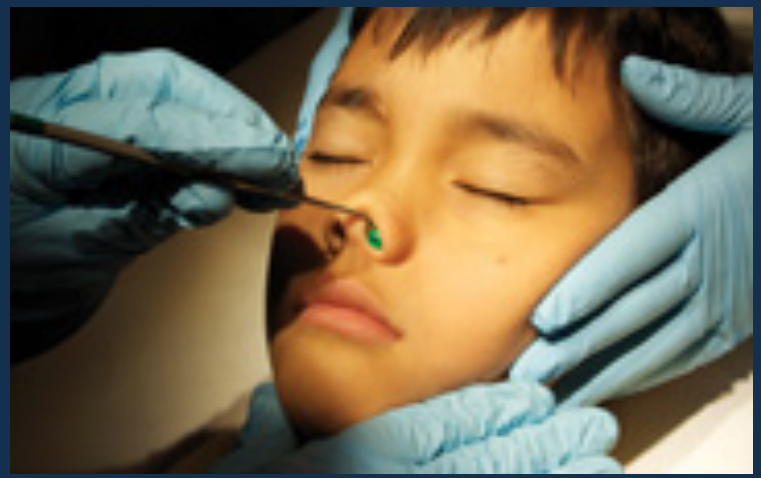

Large Ear Speculum
Bayonet Forceps
Alligator Forceps
L-Hook
Nasal Speculums
Suction Tips
Suction Cleaner

Nasal FB Removal



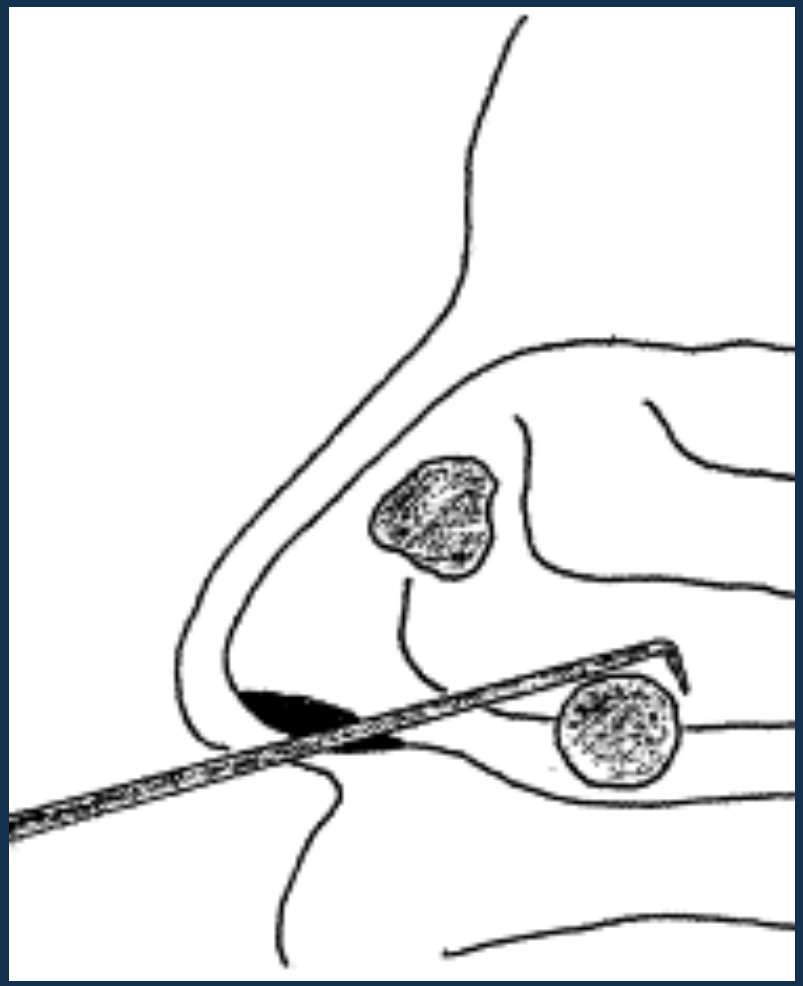
- Lighting (head lamp or assistant)
- Proper placement of nasal speculum or hold tip of nose up
- Oxymetazoline/ Lidocaine 1:1



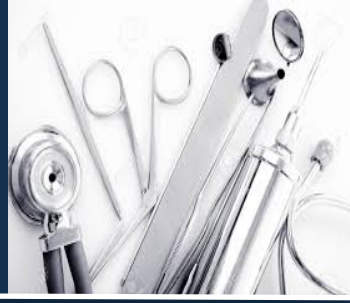


Pitfall: *Using liquids in button batteries!*

L-Hook

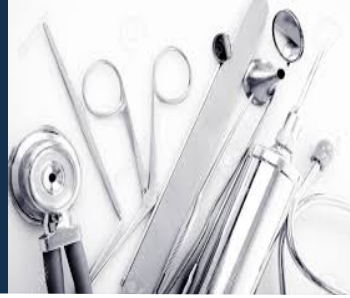


Nasal FB Removal



- Alligator/Bayonet forceps
- L-Hook
- Suction tip catheter
- Positive Air Pressure
  - "Parent's Kiss" >60% success!
  - High Flow O2 with nasal prongs
  - Bag Valve Mask

Nasal FB Removal



- Alligator/Bayonet forceps
- L-Hook
- Suction tip catheter
- Positive Air Pressure
  - "Parent's Kiss" >60% success!
  - Nasal Prongs
  - Bag Valve Mask
- Katz Extractor

Katz Extractor®

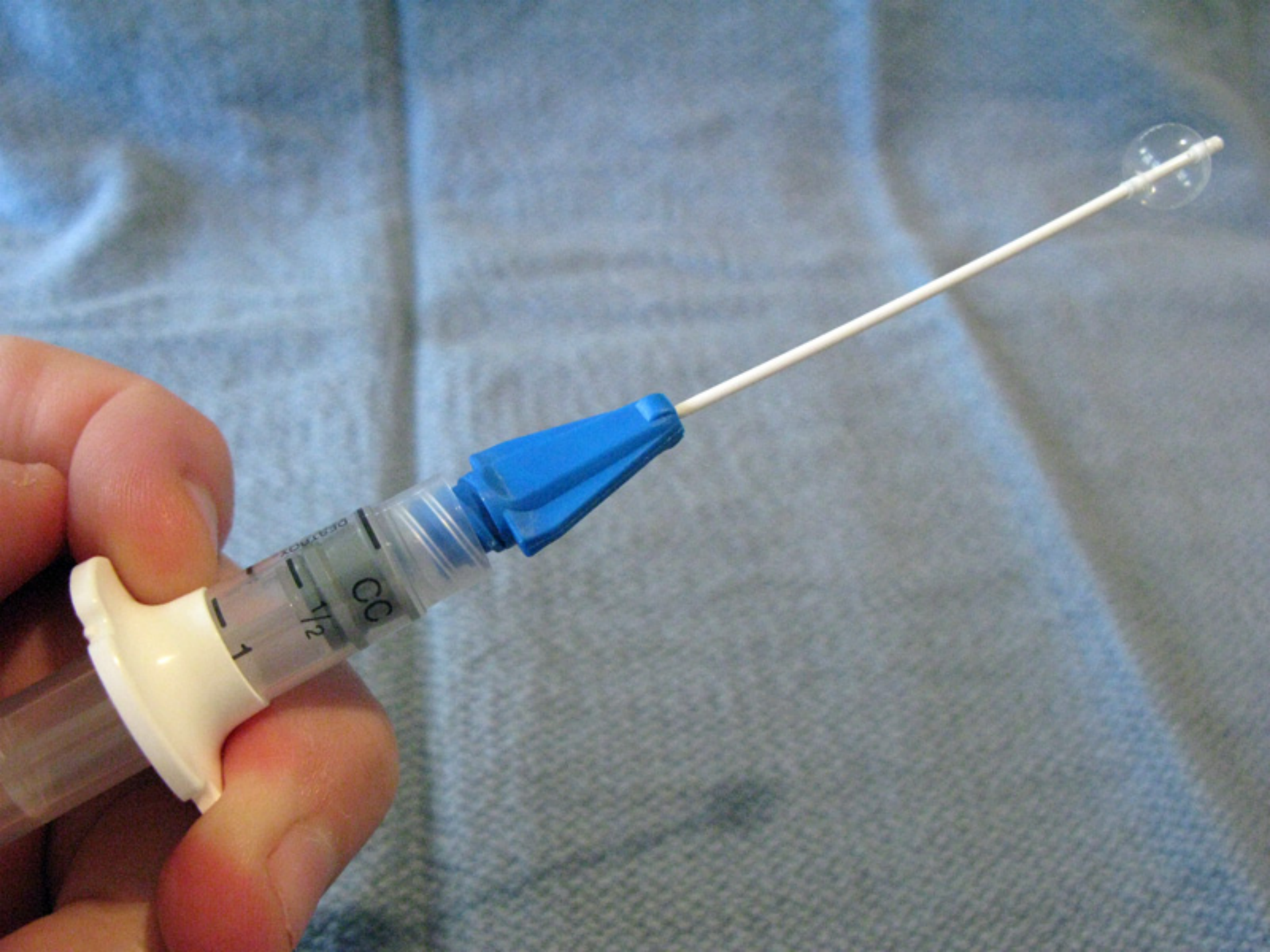
OTO-RHINO FOREIGN BODY REMOVER

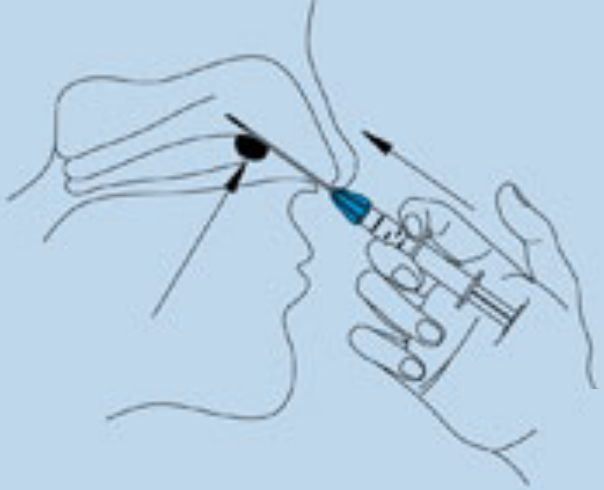
Oto-Rhino Fremdkörper-Entferner / Otorrino de cuerpos extraños / Extracteur de corps étrangers d'oto-rhinologie / Dispositivo per la rimozione di corpi estranei per applicazioni otorinoiatriche / Oto-Rhino verwijderingshulpmiddel voor vreemde lichamen / Removedor de corpos estranhos otorrino

1 Insert
Einführen / Insertar / Insérer / Inserire / Insteken / Inserir

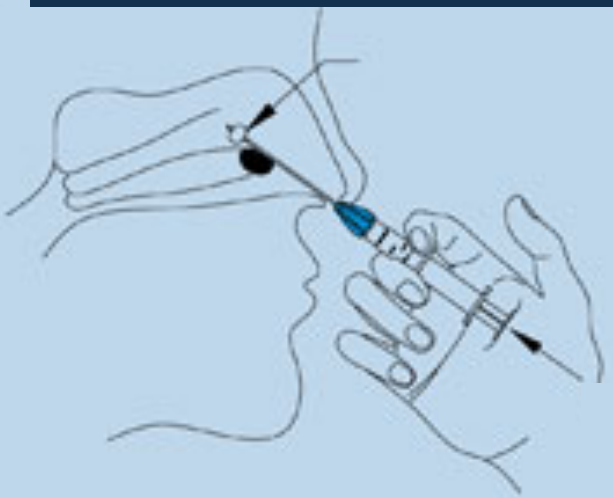
2 Inflate
Aufpumpen / Inflar / Gonfler / Gonfiare / Opblazen

3 Extract
Herausnehmen / Extraer / Extraire / Estrarre / Verwijderen / Extrair

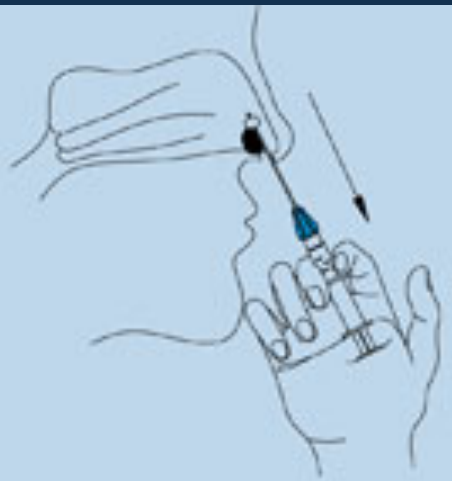

CC
1/2
1



STEP ONE
INSERT



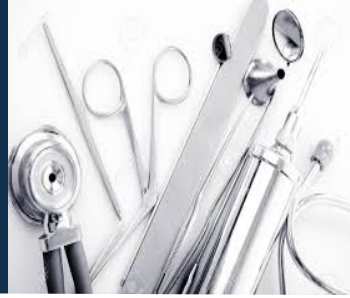
STEP TWO
INFLATE



STEP THREE
EXTRACT

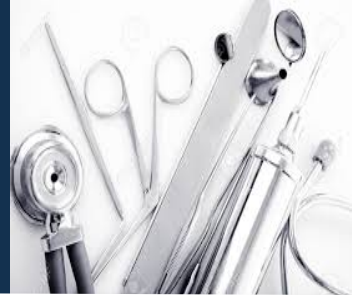
Pearl: Use a 5F fogarty embolectomy catheter in place of a katz

Nasal FB Removal

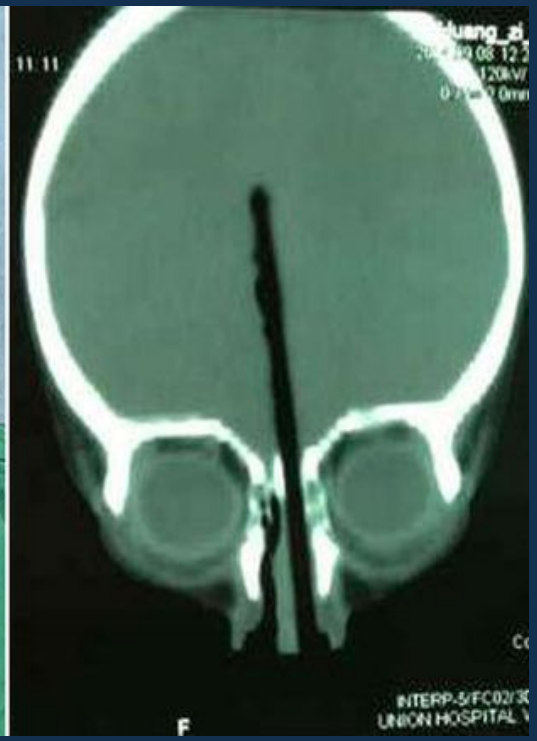


- Alligator/Bayonet forceps
- L-Hook
- Suction tip catheter
- Positive Air Pressure
- Katz Extractor
- Tissue Adhesive

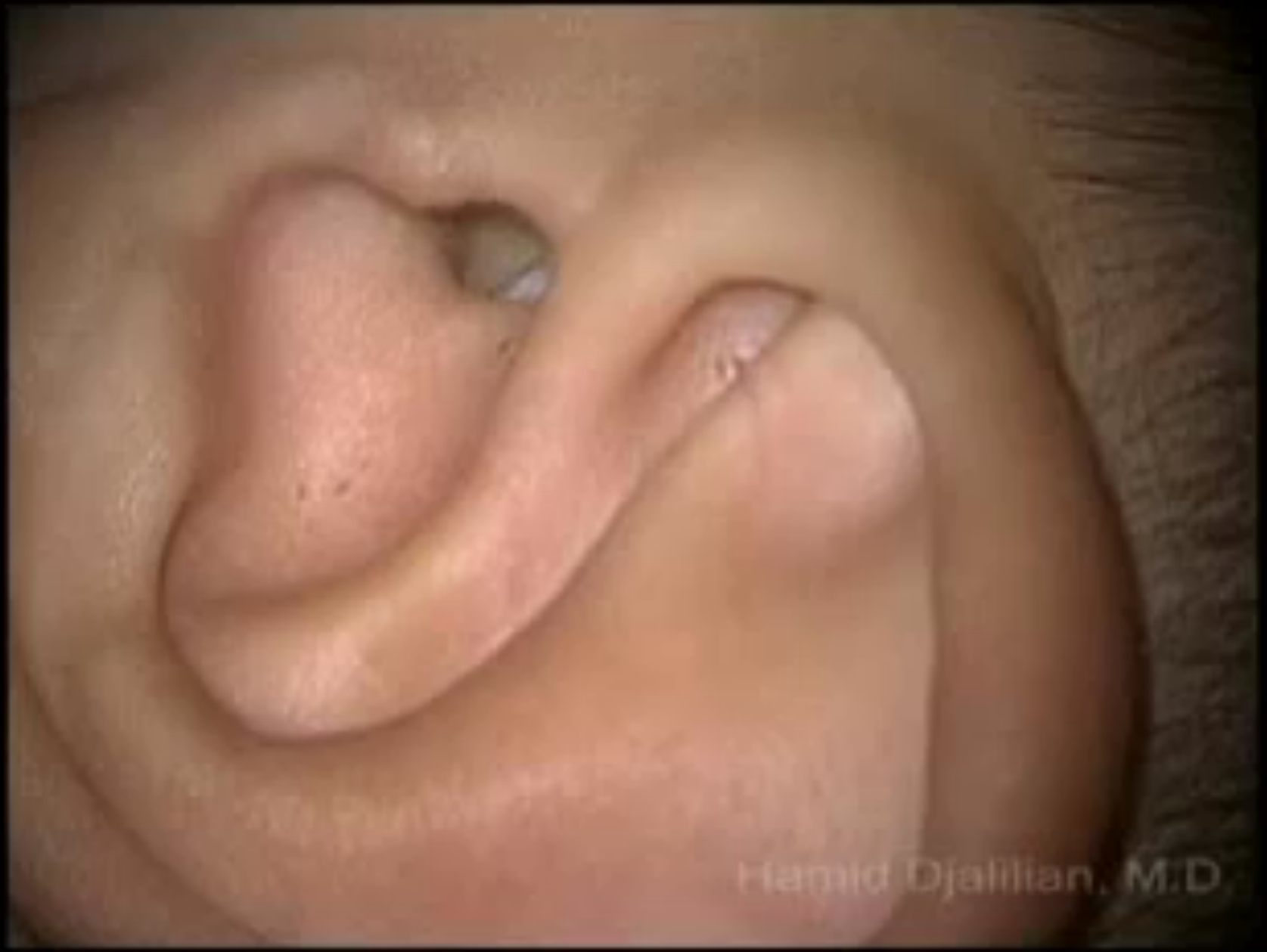
Nasal FB Removal



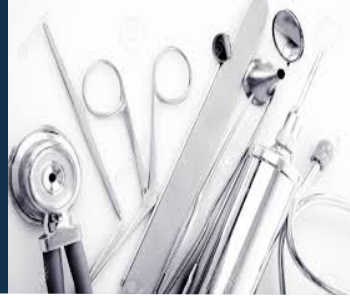
- Refer:
  - Posterior FBs
  - Chronic/ impacted
  - Penetrating FB
  - Failed 2nd attempt



Pitfall: *Not checking the other naris/ears*


Hamid Djalilian, M.D.

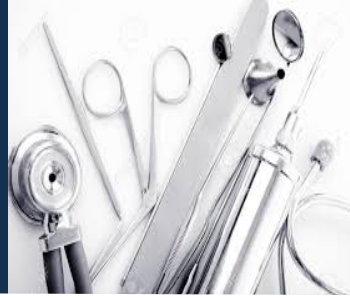
Ear FB Removal



- Small alligator/bayonet forceps (cotton)
- L-Hook (beads with hole)
- Glue (good for smooth round objects difficult to grasp)
- Suction tip catheter (esp round objects)
- Irrigation (if TM intact) and object not prone to swell (good for dirt)
- Mineral Oil or Lidocaine to kill insects

Pearl: Use a larger ear speculum or a nasal speculum to better visualize FBs in the ear

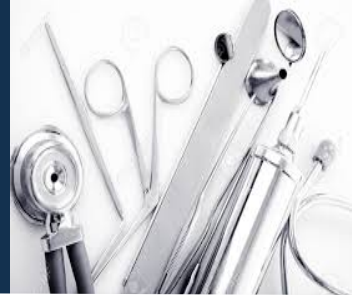
Ear FB Removal



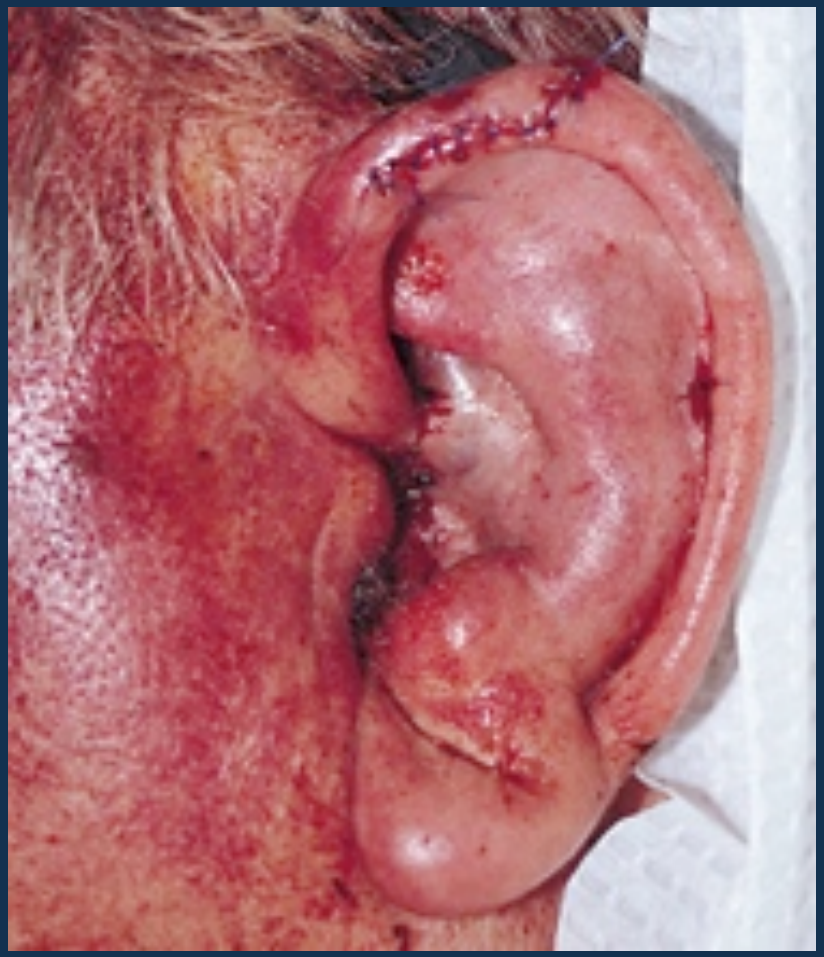
- Ciprodex if trauma to external canal
- Urgent Referral:
  - Button battery
  - Penetrating FBs (bobby pin, pencil etc.)
  - TM injury (otorrhea, vestibular symptoms)
- Elective Referral:
  - Sharp edged FB (glass)
  - FB against TM
  - Spherical or tightly wedged FB
  - Failed 2nd attempt


hands
on

Auricular Hematomas



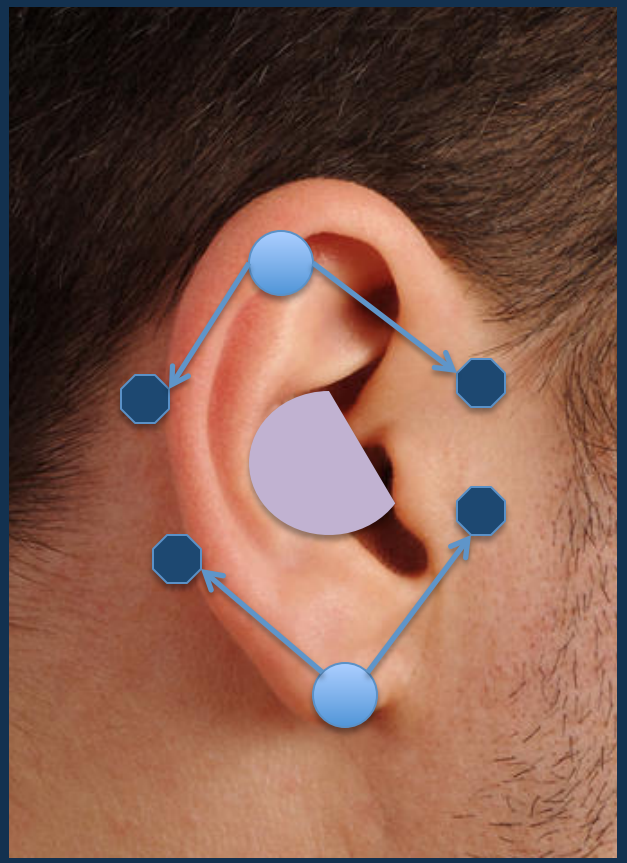
- Shearing forces
- Subperichondial hematoma separates perichondrium from cartilage
- Development of new cartilage deforms auricle (Cauliflower ear)



http://academiclifeinem.blogspot.ca/2011/08/trick-of-trade-splinting-ear.html

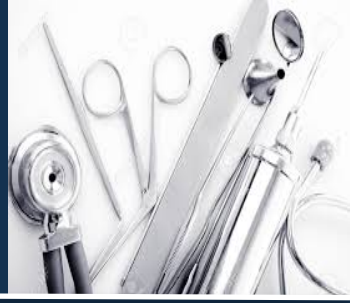
Auricular Nerve Block

- 10CC of 1% lidocaine w25-27G 1.5"needle
- "Diamond block": Inject just below the ear posteriorly up to 5cc then redirect anteriorly up to 5cc (form a V)
- Inject just above the ear in same way (an inverted V)



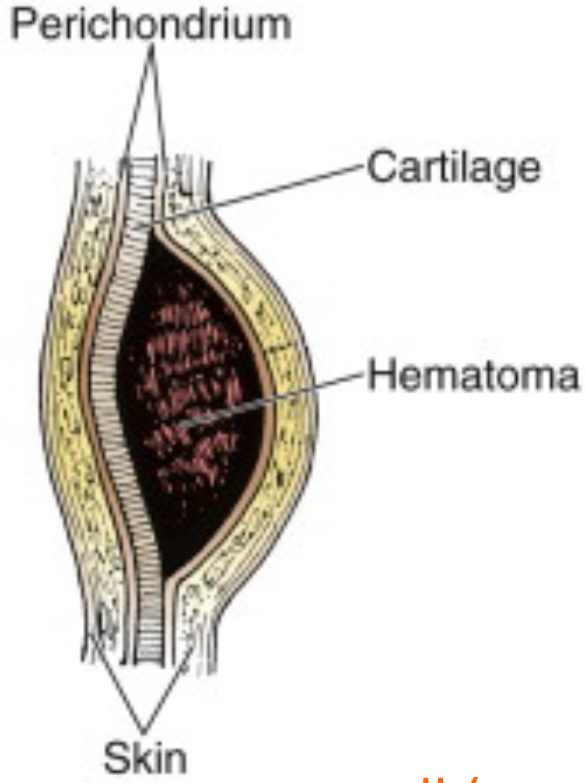
PEARL: *Epi can be used*

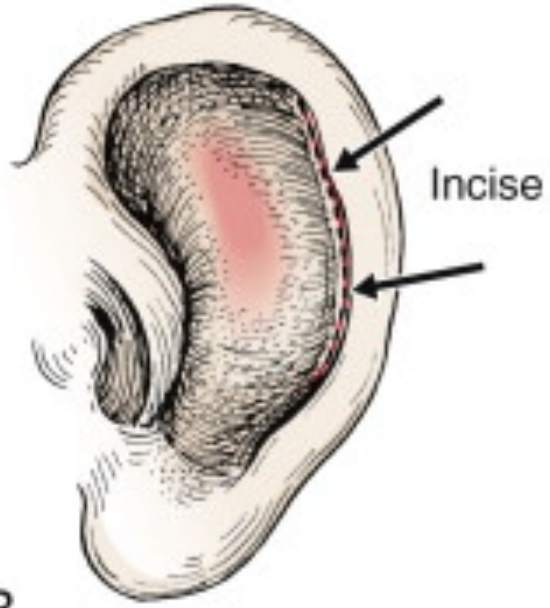
Auricular Hematomas



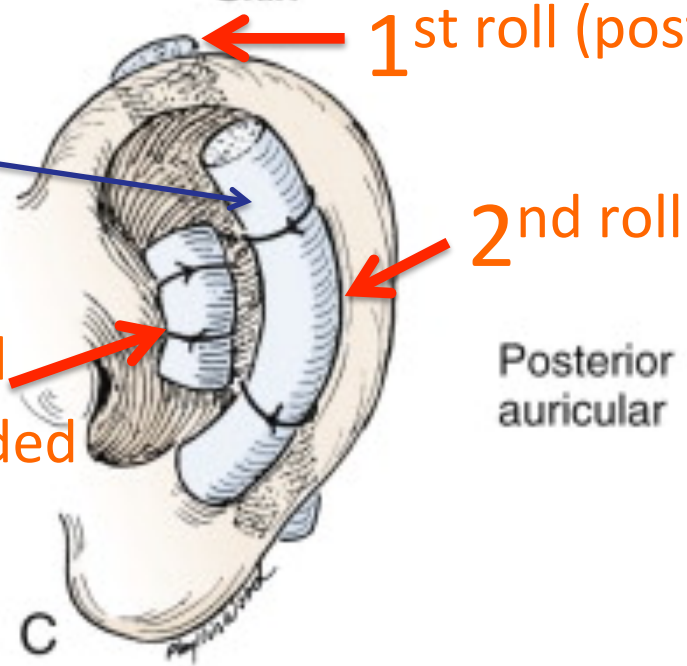
- Incise edge of hematoma along natural skin fold with 15Blade Separate skin from perichondrium and express hematoma with small hemostat
- Irrigate with NS using 18G angiocath

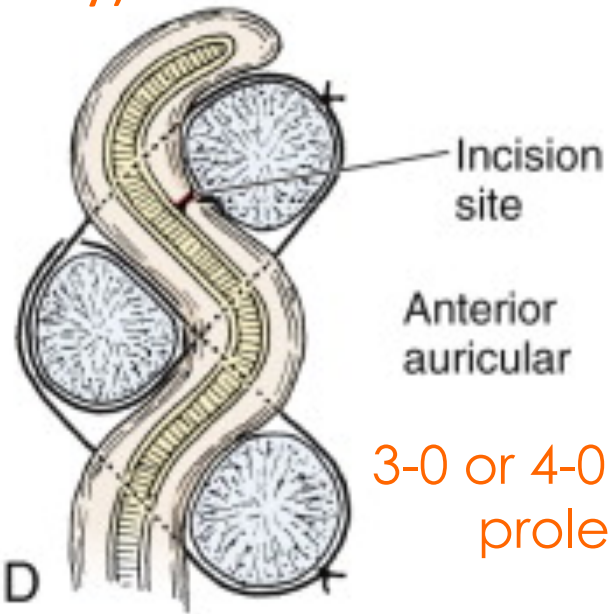
Pitfalls: *Managing with needle aspiration*





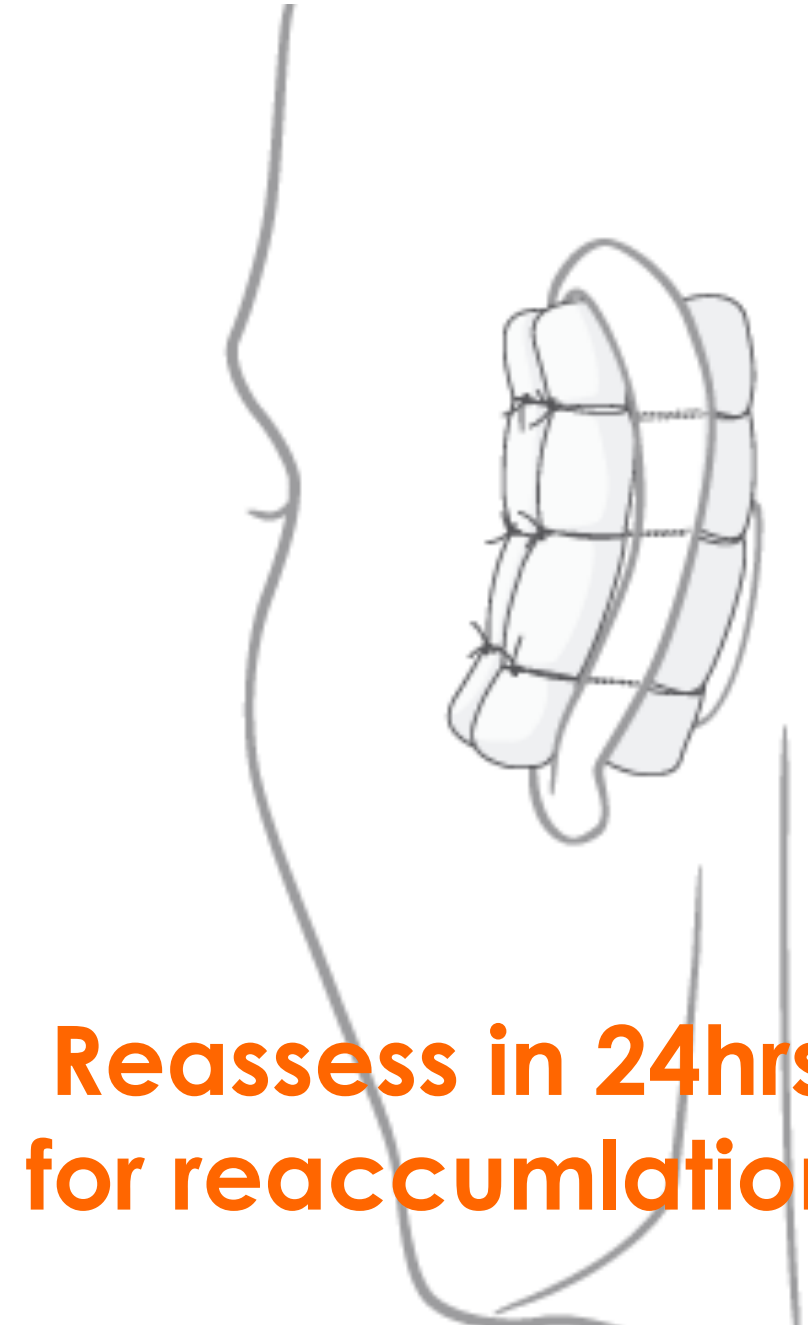
Can also suture <u>through</u> roll vertically instead of around roll



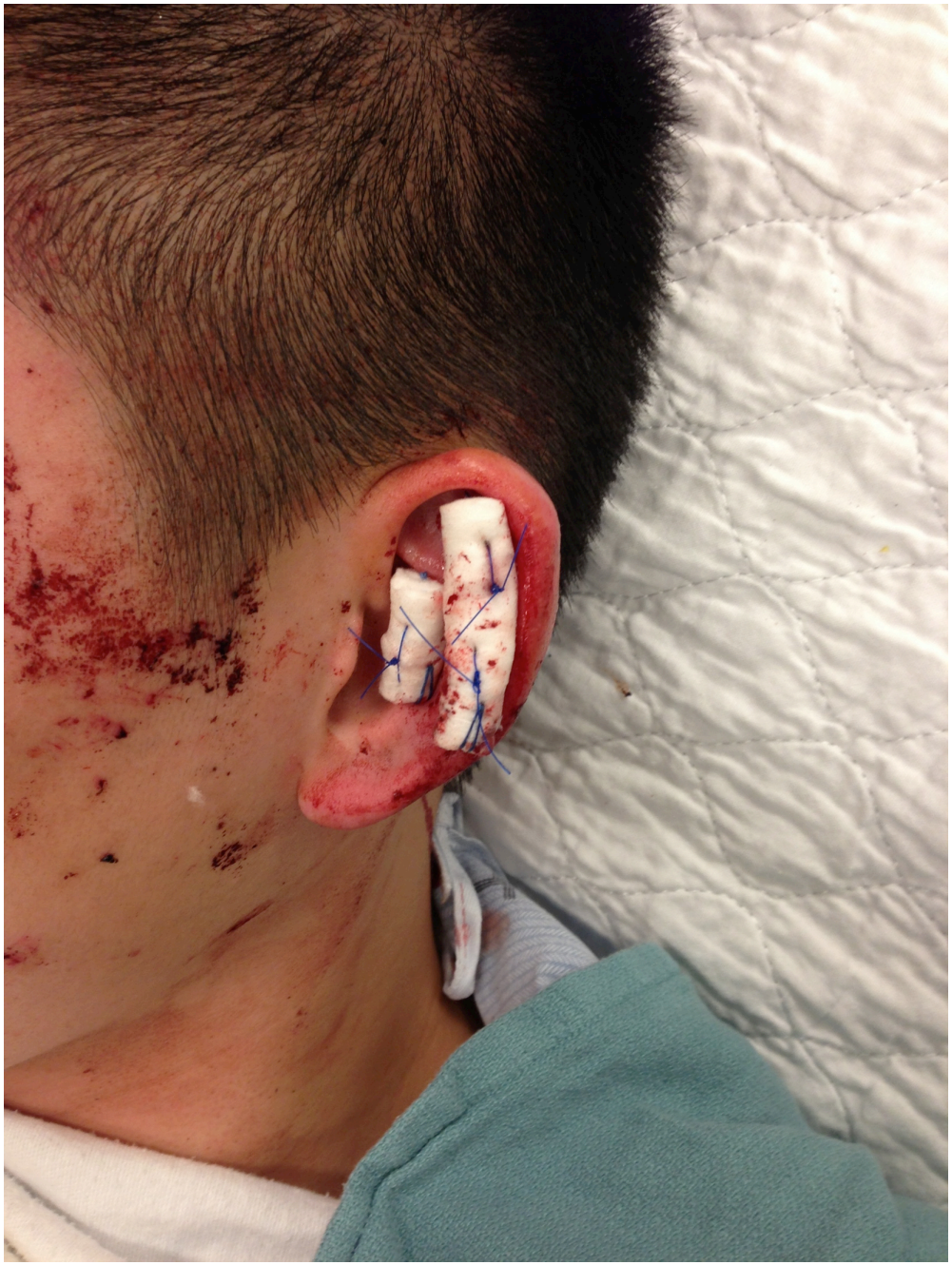


3-0 or 4-0 nylon/ prolene

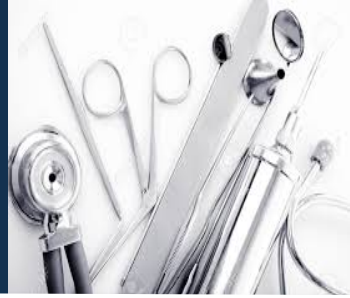
Cummings CW [ed]: Otolaryngology—Head and Neck Surgery, 2nd ed. St. Louis, Mosby–Year Book, 1993



Reassess in 24hrs for reaccumlation

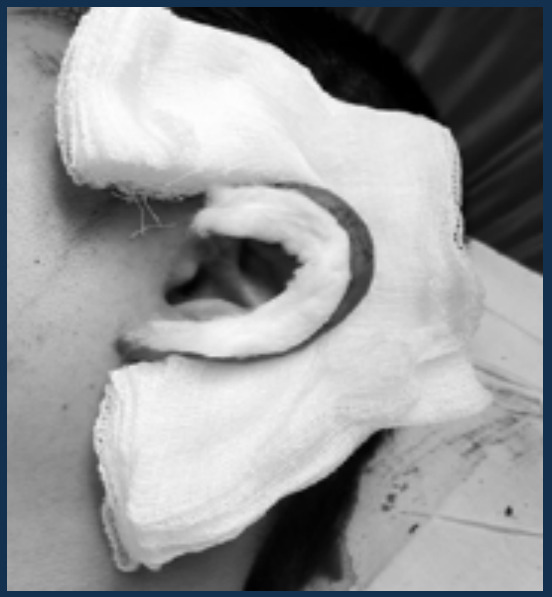


Plaster Bolster



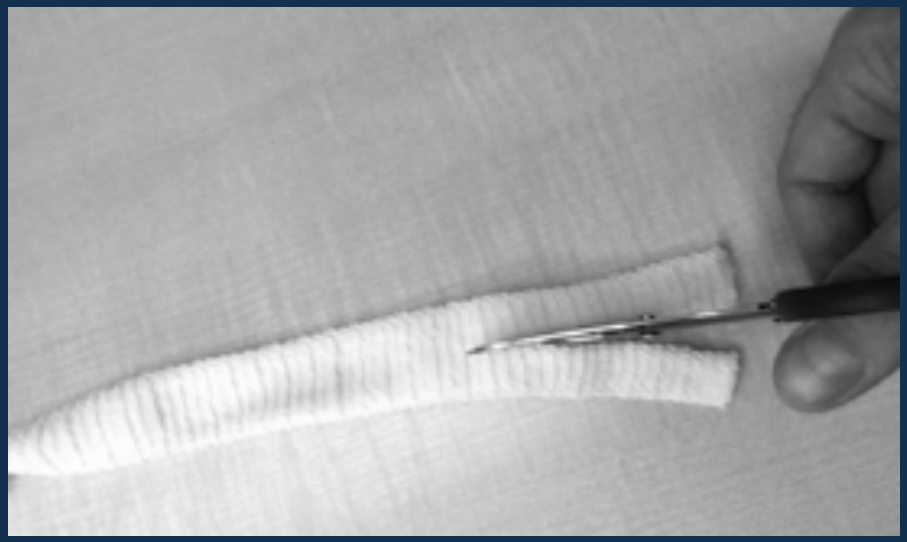
- Michelle Lin's "Trick of the Trade"
- Plaster mold
- Dressing with "beanie hat"

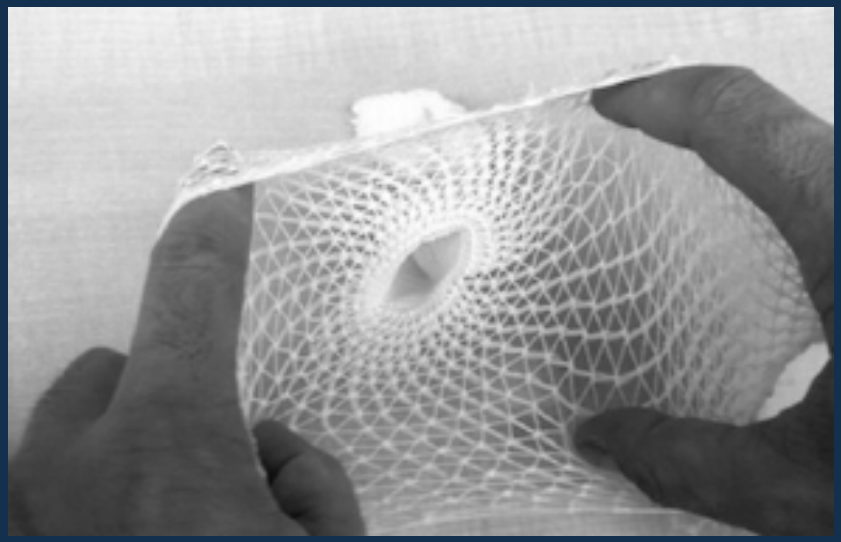
Plaster Bolster



Tip by Dr Michelle Lin

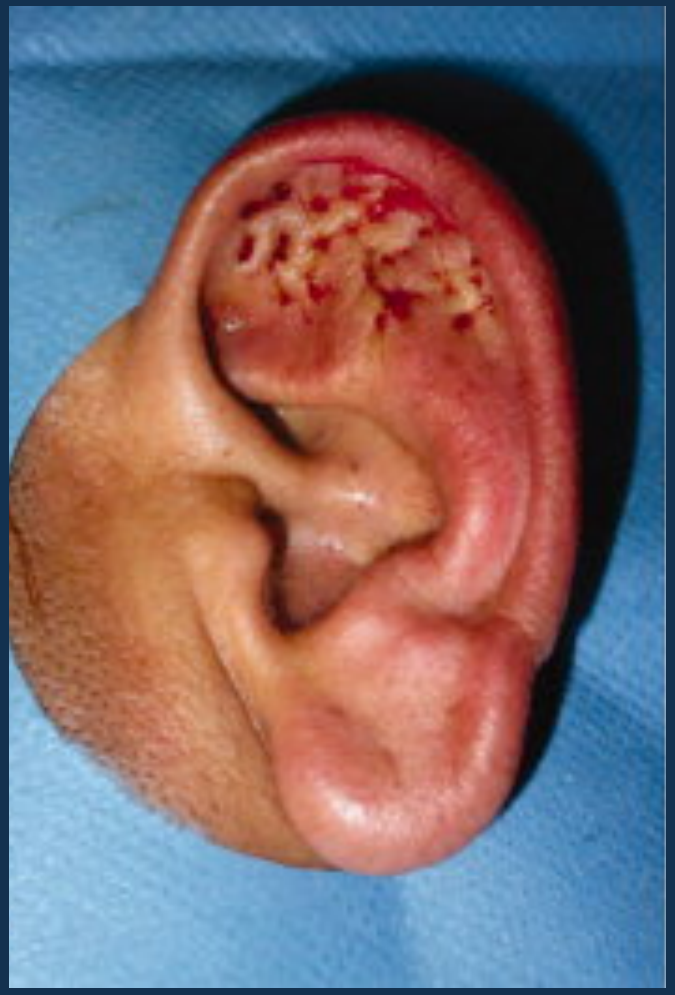
Beanie Hat Dressing





Tip by Dr Eric Silman

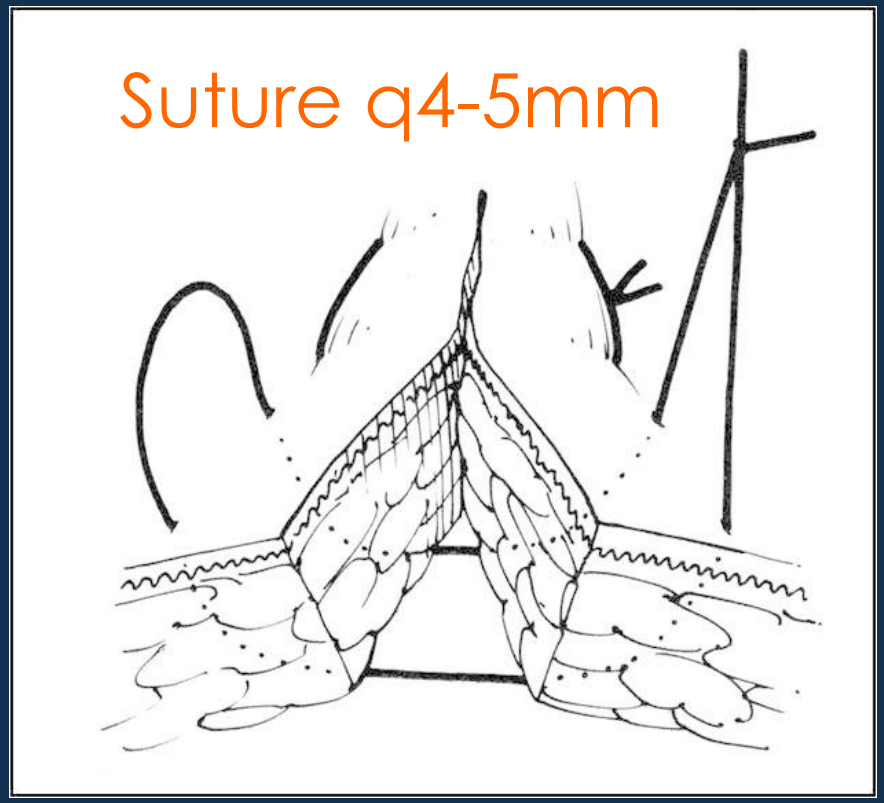
Bolsterless Technique



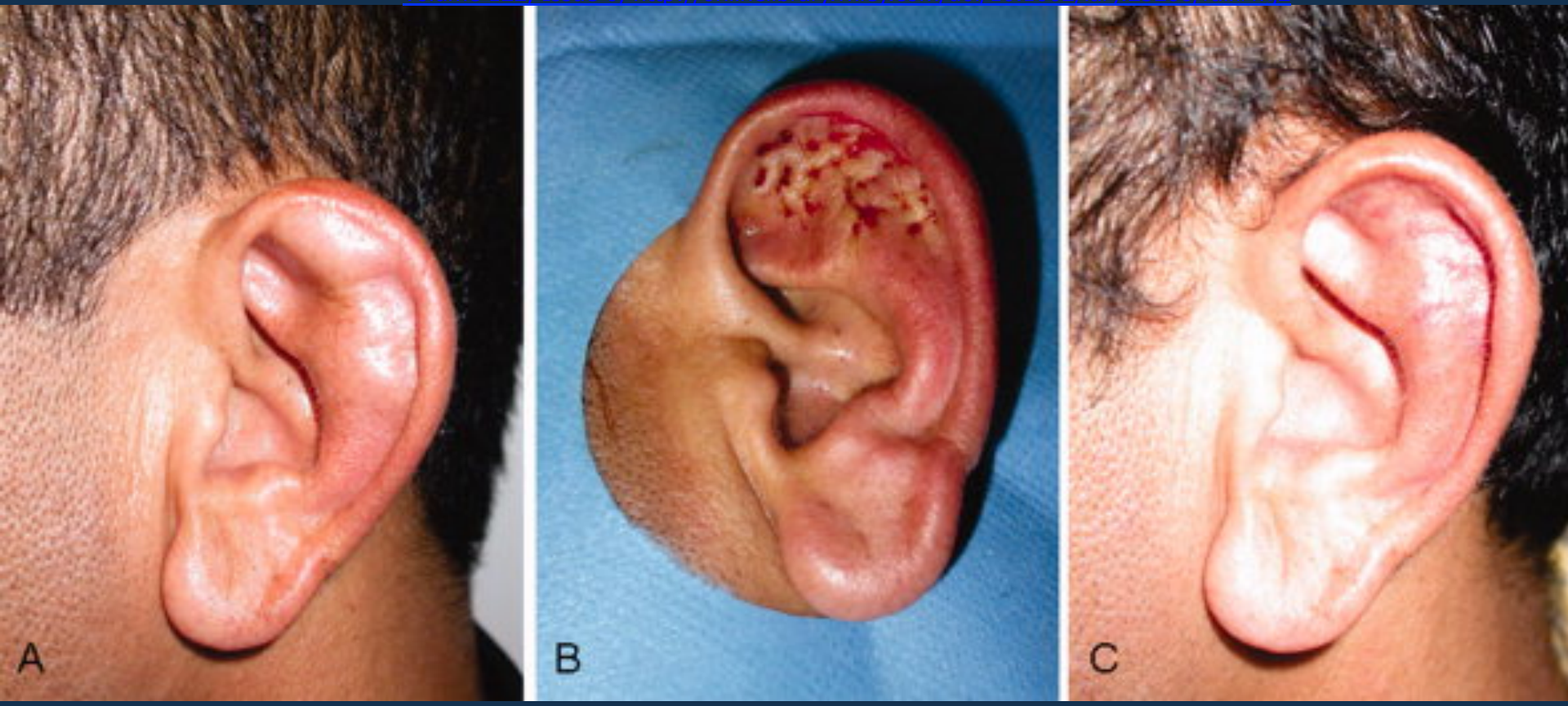
- Allows sooner return to sports
- Easier care in children (no bulky dressing)
- Can shower in 48hrs

Bolsterless Technique

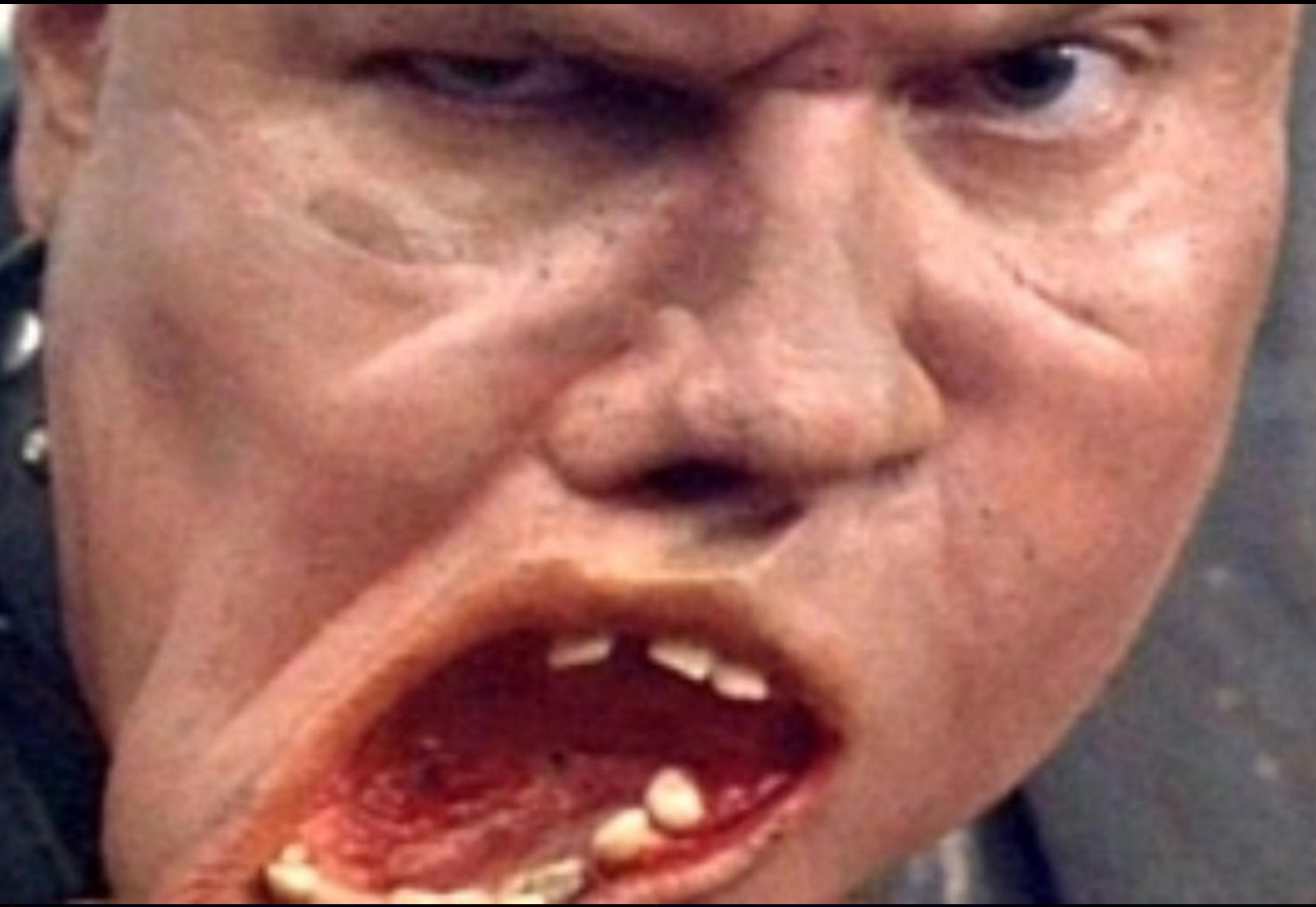
- 5-o plain/fast gut
- Stabilize the auricular skin overlying the hematoma with <u>through and through **horizontal mattress**</u> <u>sutures</u>
- Aim for complete apposition of perichondrium to cartilage to close dead space



The Laryngoscope
Volume 122, Issue 6, http://onlinelibrary.wiley.com/doi/10.1002/lary.23288/full#fig2

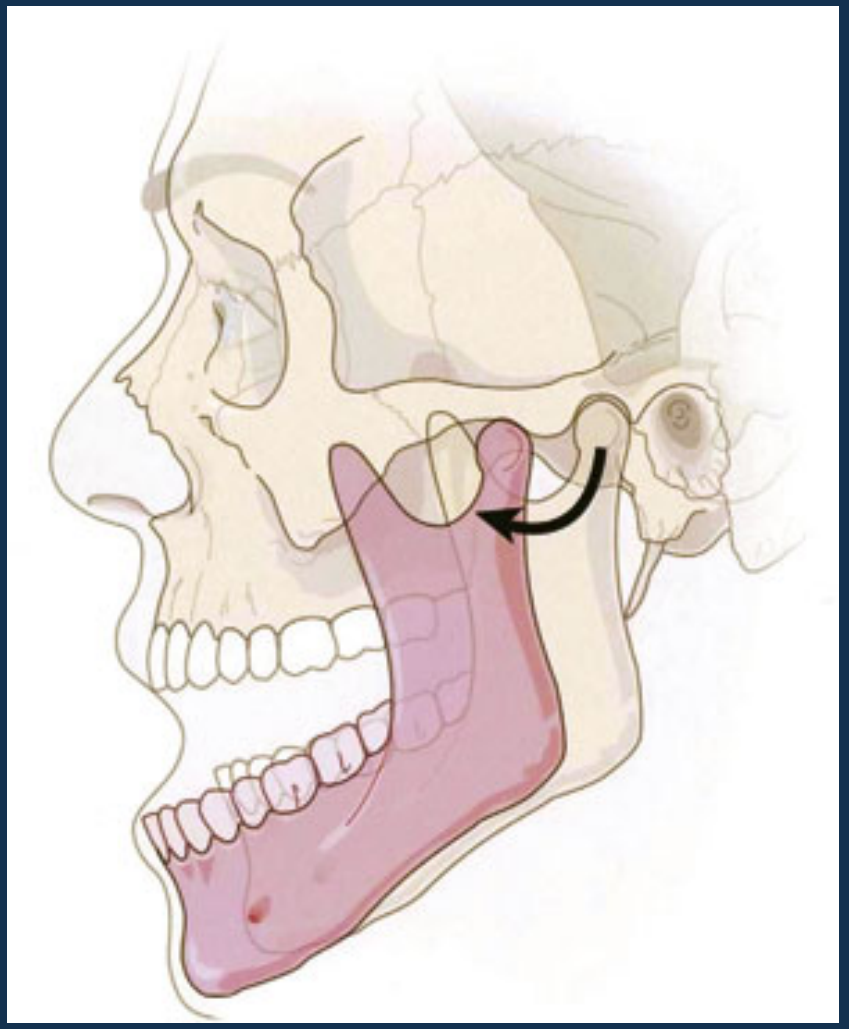


Pearl: *Make sutures a little loose so they don't tear through swollen tissue*



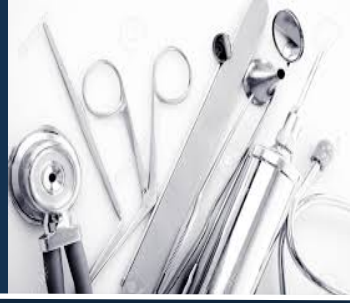
TMJ Dislocation

- Anterior dislocation most common
- Yawning, laughing, dental work

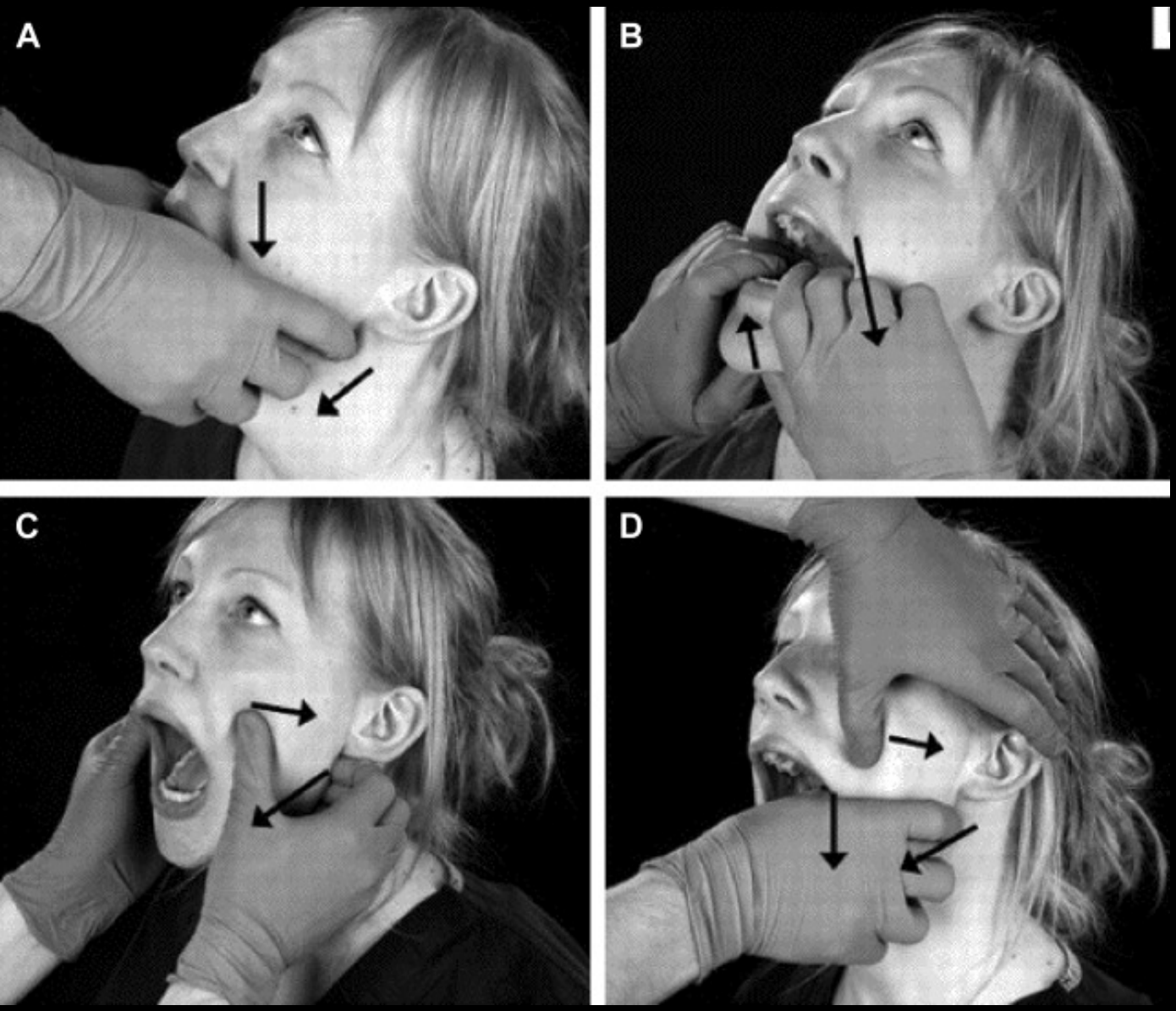


Adapted from Lowery et al

TMJ Dislocation



- Traditional Method
- New External Method
- Hands Free Method



A. Downward and anterior traction followed by

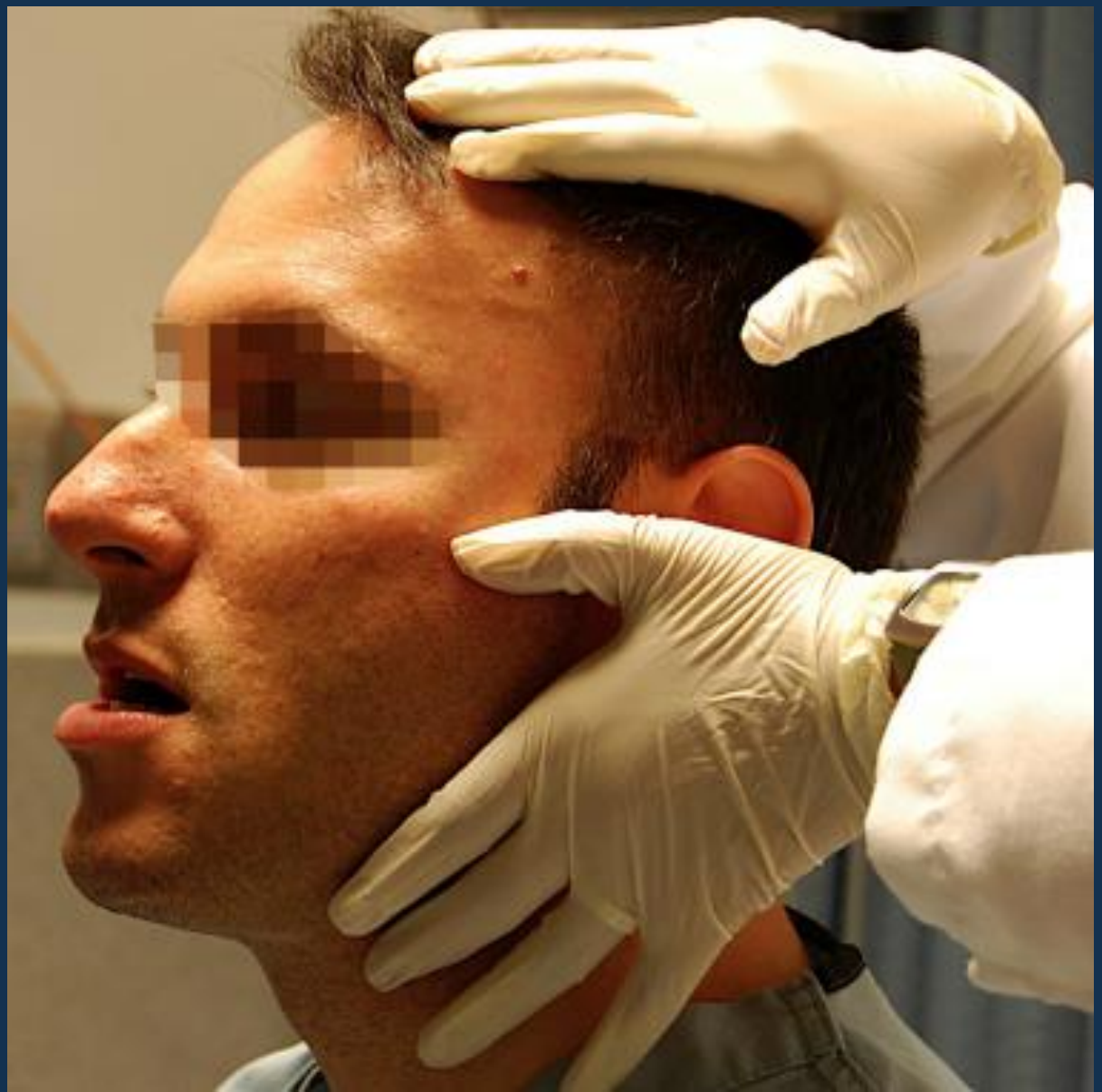
B. Superior repositioning

C. Pulling anteriorly while asking the patient to open

D. Unilateral Maneuver

Oral and Maxillofacial Surgery Clinics of North America, Volume 27, Issue 1, 2015, 125–136

Extraoral Approach



http://emedicine.medscape.com/article/823775-treatment#d10

"New External Method"

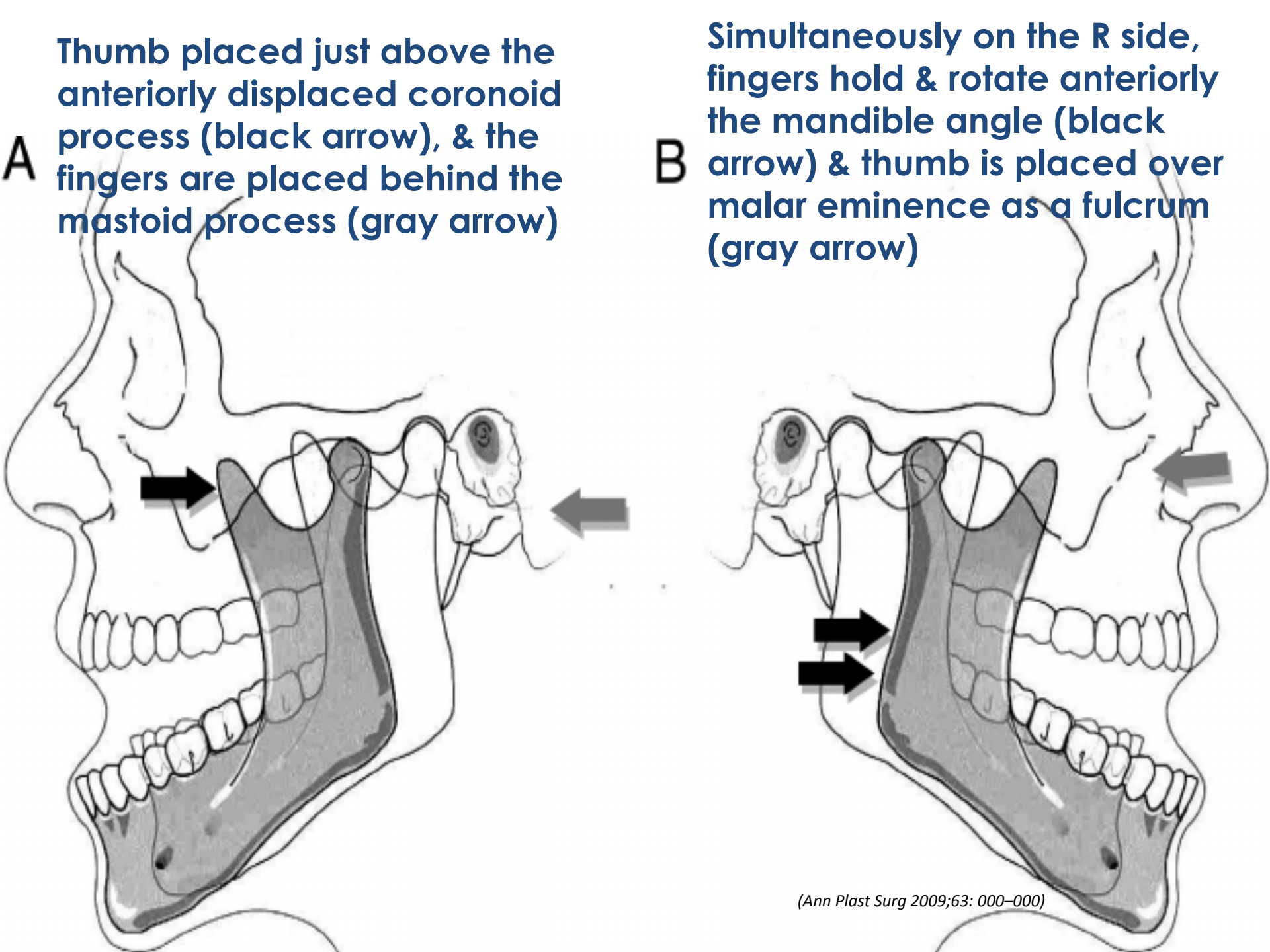
- Annals of Plastic Sugery Aug 2009
- Disadvantages of Traditional Method
  - Risk of being bitten
  - Patient discomfort
  - Frequent need for sedation/analgesia

A

Thumb placed just above the anteriorly displaced coronoid process (black arrow), & the fingers are placed behind the mastoid process (gray arrow)

B

Simultaneously on the R side, fingers hold & rotate anteriorly the mandible angle (black arrow) & thumb is placed over malar eminence as a fulcrum (gray arrow)

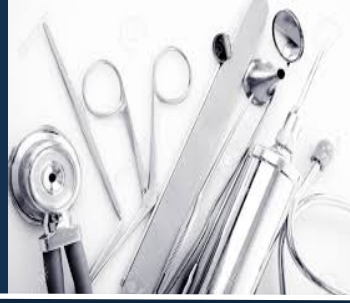


(Ann Plast Surg 2009;63: 000–000)

External Technique

1. Pull angle of mandible anteriorly with your fingers while your thumb acts as a fulcrum
2. Apply steady pressure on the coronoid process of the other side, with the fingers behind the mastoid process providing counteracting force
3. As you rotate the dislocated TMJ is usually reduced on the one side
4. The other side will usually go back spontaneously

Results



- 29 people in each group
- Conventional Method 25/29
  - 1/4 New Method; 3/4 Muscle Relaxants
- New Method 16/29
  - 10/13 Conventional Method; 3/13 Muscle Relaxants

Why try?

Keeps your hands out of the patients mouth

Hands Free Approach

THE "SYRINGE" TECHNIQUE: A HANDS-FREE APPROACH FOR THE REDUCTION OF ACUTE NONTRAUMATIC TEMPOROMANDIBULAR DISLOCATIONS IN THE EMERGENCY DEPARTMENT

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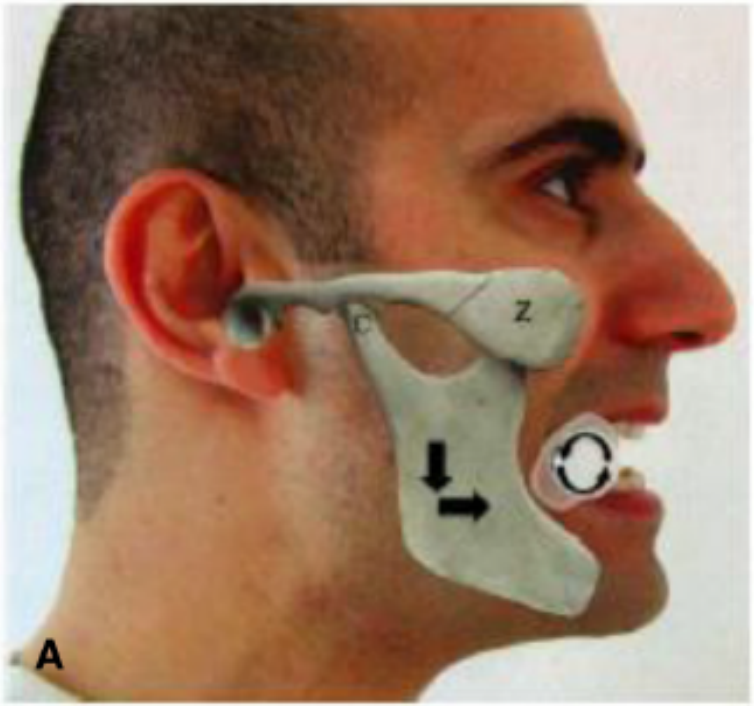
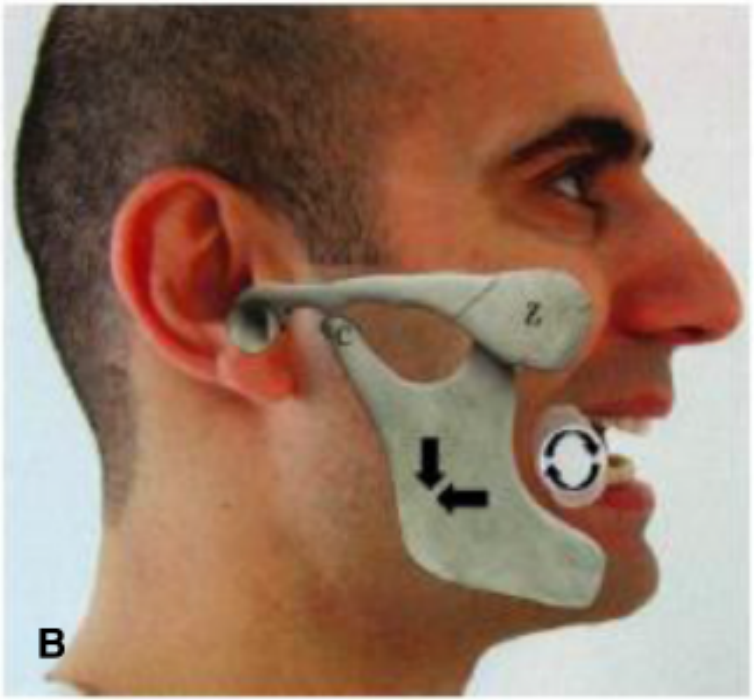
The Journal of Emergency Medicine, Vol. 47, No. 6, pp. 676–681, 2014

Safe, Rapid and Effective

No need for sedation or analgesia





5-10cc syringe is placed btw posterior upper & lower molars on one side

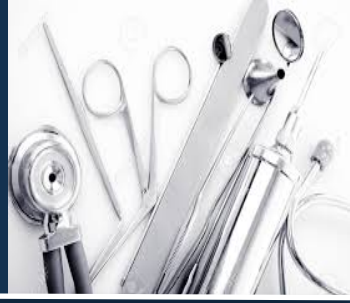
Instruct patient to gently bite down on syringe while rolling it back/forth btw teeth

<1min in 77% of patients

Hands Free Approach

- 31 Dislocations
- 30/31 Success Rate
- 77% reduced in < 1min
- 16% reduced in 1-2min
- 1/31 needed analgesia & external manipulation

Aftercare



- Limit opening of mouth to one fingerbreadth for 1-2 months
- Support chin with hand when yawning

Pearl: *Sometimes it's just better to keep your mouth closed*


BRING HER IN, BUT
I WANT HER ALIVE
SHE HAS
MY NOSE


hands
on