

Moderate Sedation

Revised May 09

Moderate Sedation Forms

Goal: To orient providers on moderate sedation forms utilized by providers at Shands Jacksonville.



Scheduled Procedure: _____
 Scheduled Physician: _____
 Date of Procedure: _____

**To be Completed by the Performing Physician
 Credentialed for Moderate Sedation:**

- UPDATED HISTORY AND PHYSICAL PRESENT ON CHART
- NO PREVIOUS COMPLICATION WITH SEDATION
- LOSS OF CONSCIOUSNESS NOT REQUIRED
(OTHERWISE: REQUEST ASSISTANCE BY ANESTHESIA)
- BOTH PHYSICIAN AND RN/ASSISTING PROVIDER
CREDENTIALIALED FOR MODERATE SEDATION

- GI Lab
- Pain Clinic
- ED
- Radiology
- Cath Lab
- Cardiology
- ICU
- Bronchoscopy
- OR
- PACU
- Oral Surgery
- Other

Allergies: _____

ASA CLASSIFICATION _____

- I Healthy, no medical problem
- II Mild systemic disease
- III Severe systemic disease but not incapacitating
- IV Severe systemic disease that is a constant threat to life *
- V Patient moribund, not expected to survive *
- E Emergency Procedure

PERTINENT MEDICAL HISTORY

Patient considered suitable for Moderate Sedation (No pertinent medical problem outside of the Practitioner's area of expertise; checked circles pose increased risk - consider anesthesia consult)

CV	Respiratory	Endocrine/GI	Neuro/Renal/Hepatic
unstable CAD <input type="checkbox"/>	active asthma <input type="checkbox"/>	fasting glucose greater than 250 <input type="checkbox"/>	seizures last six months <input type="checkbox"/>
active CHF <input type="checkbox"/>	severe COPD <input type="checkbox"/>	pregnant <input type="checkbox"/>	intracranial mass <input type="checkbox"/>
diastolic blood pressure greater than 110 <input type="checkbox"/>	obstruct, sleep apnea (CPAP) <input type="checkbox"/>	morbid obesity <input type="checkbox"/>	renal insufficiency <input type="checkbox"/>
MI in last 6 months <input type="checkbox"/>	acute URI <input type="checkbox"/>	GERD <input type="checkbox"/>	hepatic failure <input type="checkbox"/>

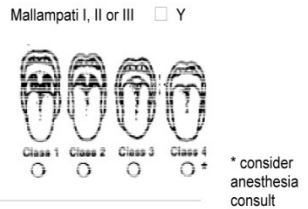
PERTINENT PHYSICAL EXAM Weight _____ lbs/kg

BP Sys/Dias _____ / _____ HR _____ RR _____ SAT _____ %

PAIN SCALE (0-10) _____ SEDATION SCALE _____

- CARDIAC: No active disease or change
 - RESPIRATORY: No active disease or change
 - NEUROLOGIC: No active disease or change
 - AIRWAY: Assessed as adequate (listed parameters are for adult patients only - perform pediatric airway assessment in children)
- Mouth Opening greater than 4 cm Y
 Thyromental Distance greater than 6 cm Y
 Adequate Neck Extension/Flexion Y

Sedation Scale
1 Alert
2 Responds to verbal commands or light tactile stimulation
3 Responds to repeated or painful stimulation
4 Unconscious



Arrival Date _____ Arrival Time _____

Sedation Risks Discussed

Patient Accepts Plan for Sedation

Informed Consent Obtained

To Be Discharged to the Care of _____

Indication for Sedation _____ ALL BOXES MUST BE CHECKED TO PROCEED, OTHERWISE PATIENT NEEDS TO BE SENT TO PAT CLINIC FOR EVALUATION BY ANESTHESIA

NPO _____ Hrs (per Policy)

Practitioner Signature _____ Provider # _____ Date and Time _____

Moderate Sedation Record

IV Site Obtained and Confirmed Running _____

Monitoring Equipment Ready (ECC, BP, SpO2, Capnograph*) _____

*indicated if patient cannot be directly observed

Oxygen, Suction, Ambu-Bag, Crash Cart Available and Ready _____

To be Completed by RN/Provider Credentialed to Administer Moderate Sedation:

Sedation Scale
1 Alert
2 Responds to verbal commands or light tactile stimulation
3 Responds to repeated or painful stimulation
4 Unconscious

PROCEDURE DOCUMENTATION (Vitals Strip may be attached)

Time Out Completed Procedure Start / Incision Time _____

To be completed every 5 minutes

Time	
HR	
BP Syst	
BP diast	
SpO2	
RR	
EtCO2	
Sedation Scale	
IV Fluids	
O2 L/min	
Medications	
Pre-sedation Assessment	
Procedure completed	

RN/Provider Signature _____ Date and Time _____

Practitioner Signature _____ Provider # _____ Date and Time _____

POST PROCEDURE ASSESSMENT Time: _____

ALDRETE SCORE:	ALDRETE SCORE
ACTIVITY <input type="checkbox"/>	2 / moves 4 extremities voluntarily or on command
RESPIRATION <input type="checkbox"/>	2 / able to deep breathe or cough freely
CIRCULATION <input type="checkbox"/>	2 / 20% of preanesthetic level
CONSCIOUSNESS <input type="checkbox"/>	2 / 20-50% preanesthetic level
COLOR <input type="checkbox"/>	2 / 50% of preanesthetic level

Sedation Scale
1 Alert
2 Responds to verbal commands or light tactile stimulation
3 Responds to repeated or painful stimulation
4 Unconscious

Sedation Scale

Pain Scale (0-10)

POST PROCEDURE MONITORING
 To be completed every 15 minutes until ready for discharge (minimum 30 min.)

Time	
HR	
BP Syst	
BP diast	
SpO2	
RR	

DISCHARGE SUMMARY
Walks without assistance <input type="checkbox"/>
Tolerates fluids <input type="checkbox"/>
Able to void <input type="checkbox"/>
Reliable caretaker <input type="checkbox"/>
Discharge Instructions <input type="checkbox"/>
including abstinence from driving or operating heavy machinery for the next 24 hours;
Pediatric Discharge Instructions (if applicable) <input type="checkbox"/>
Post Sedation Orders <input type="checkbox"/> Yes <input type="checkbox"/> No
Discharge Prescriptions <input type="checkbox"/> Yes <input type="checkbox"/> No

OUTCOME
No complications <input type="checkbox"/>
Deep sedation <input type="checkbox"/>
Airway obstruction <input type="checkbox"/>
Respiratory arrest <input type="checkbox"/>
Cardiovascular collapse <input type="checkbox"/>
Use of reversal agent <input type="checkbox"/>
Death <input type="checkbox"/>
Incomplete procedure <input type="checkbox"/>
Other <input type="checkbox"/>
Describe: _____

RN/Provider Signature _____ Date and Time _____

Moderate Sedation Record

Proper Documentation for Moderate Sedation/Analgesia (MSA)

A health care provider other than the person performing the procedure should monitor the patient at all times. This is non-negotiable. That person should record in the medical record at minimum every five (5) minutes:

- Level of consciousness (0 = unconscious, 1 = sedate but responsive, 2 = alert)
- Peripheral oxygenation via pulse oximeter and respiratory rate
- Heart rate, Heart rhythm, Blood Pressure
- Pain score (0= none, 1= tolerable, 2= not tolerated)
- This level of monitoring meets Joint Commission guidelines.

Pre-sedation Requirements

- A pre-sedation assessment must be completed for any patient for whom moderate sedation is contemplated. Components of this assessment may be completed up to 24 hours in advance of the procedure and should, at a minimum, include:
 - Patient interview verifying:
 - past and present medical history
 - current medications and allergies, including previous adverse reactions to medications
 - previous sedation/anesthesia experience
 - most recent food intake
 - Physical examination, to include the patient's airway, cardiovascular and respiratory systems
 - Physical status evaluation (consider ASA)
 - Results of relevant diagnostic studies
 - Plan for choice of sedation

Indications and Contraindications to MSA

INDICATIONS

- Procedures appropriate for procedural sedation include ANYTHING requiring the sedation and/or analgesia to perform/facilitate the procedure: debridement of wounds, placement of central lines, chest tube placement, abscess drainage, reduction of fractures and dislocations and prolonged imaging such as angiography and pediatric diagnostic imaging .

Contraindications

- Food/liquid intake outside ASA preoperative fasting parameters:
 - 2 hours for clear fluids, 6 hours for light solids.
 - Exception to this guideline is emergent procedures
- Physical class IV or greater
- Lack of support staff or monitoring equipment
- Lack of experience/credentialing on part of clinician



Pertinent Patient History Pre-Sedation

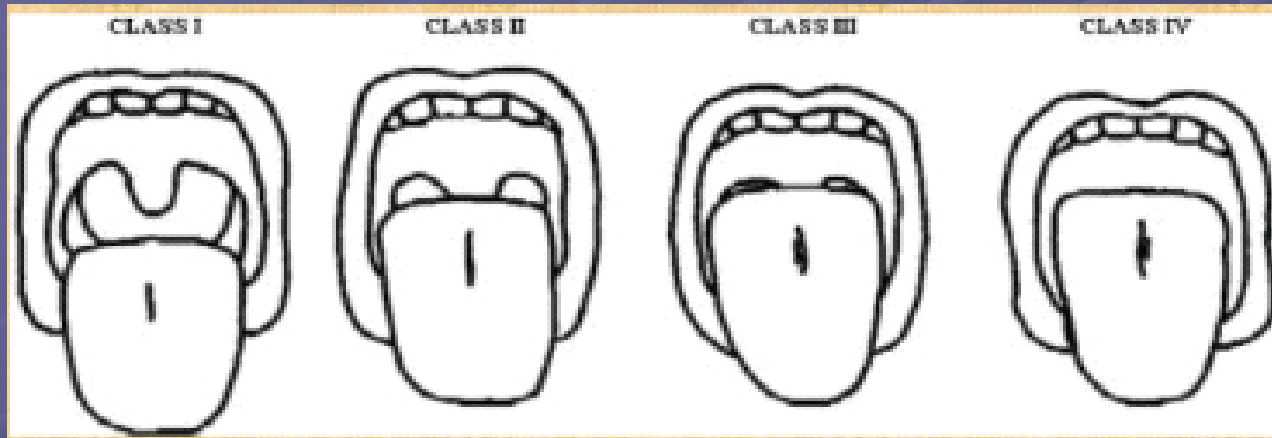
- Patient interview verifying:
 - past and present medical history
 - current medications and allergies, including previous adverse reactions to medications
 - previous sedation/anesthesia experience
 - most recent food intake
- Physical examination, to include the patient's airway, cardiovascular and respiratory systems
- Physical status evaluation (consider ASA)
- Results of relevant diagnostic studies
- Plan for choice of sedation

ASA Classification

- Patients should be triaged to the appropriate Physical Status Classification before conscious sedation is performed:
 - Class I: Normally healthy
 - Class II: Patient with mild systemic disease (e.g. hypertension)
 - Class III: Patient with severe systemic disease (e.g. CHF), non-decompensated
 - Class IV: Patient with severe systemic disease, decompensated
 - Class V: Moribund patient, survival unlikely
- Procedural sedation is appropriate for patients in Classes I, II and III. Patients in classes IV and higher are better suited for the OR.

Airway Evaluation

Modified Mallampati Classification System



I – Uvula, soft palate, tonsillar pillars

II – Soft palate, uvula

III – Base of uvula

IV – Hard palate only

- Mouth Opening
- Thyromental Distance
- Neck Extension
- Dentition

Carefully Evaluate Facial Features



Beard and problematic anatomy



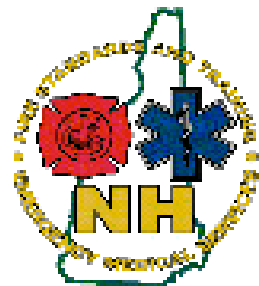
Edentulous



A mask won't fit over that!

Some Predictors of a Difficult Airway

- C-spine immobilized trauma patient
- Protruding tongue
- Short, thick neck
- Prominent upper incisors ("buckteeth")
- Receding mandible
- High, arched palate
- Beard or facial hair
- Dentures
- Limited jaw opening
- Limited cervical mobility
- Upper airway conditions
- Face, neck, or oral trauma
- Laryngeal trauma
- Airway edema or obstruction
- Morbidly obese



Useful Pneumonic to Predict a Difficult Airway

● LEMON

LOOK externally

EVALUATE for 3-3-2 rule

MALLAMPATI

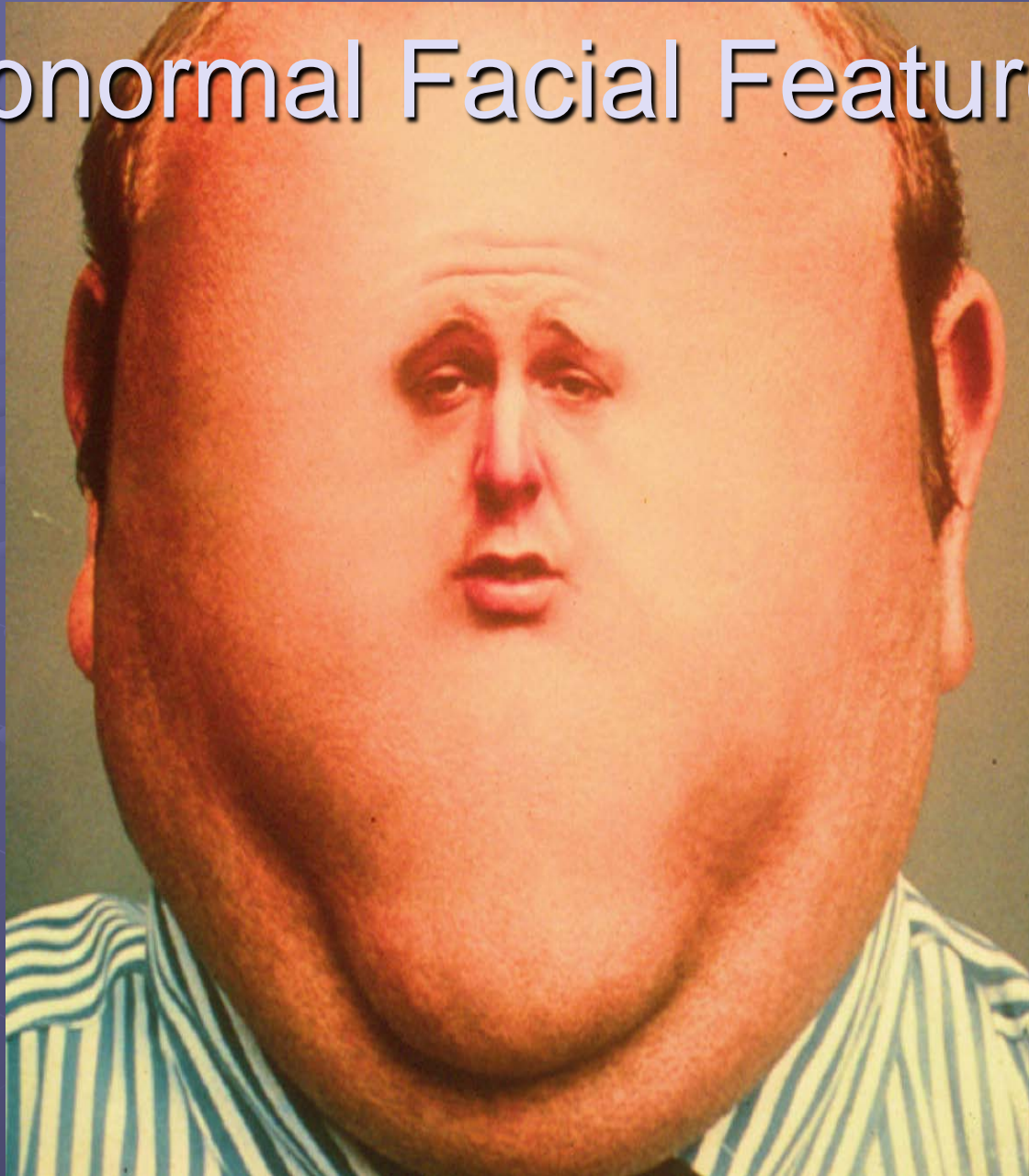
OBSTRUCTION

NECK Mobility

DIFFICULT AIRWAY IDENTIFICATION : Look Externally



Abnormal Facial Features



IDENTIFICATION OF THE DIFFICULT AIRWAY:

Evaluate 3-3-2

Jaw Opening Should Equal 3 Finger Breaths



Thyromental Distance Should
Equal 3 Finger Breaths or 5-6 cms



Distance From Hyoid to Top of
Thyroid Cartilage Should be 2
Finger Breadths

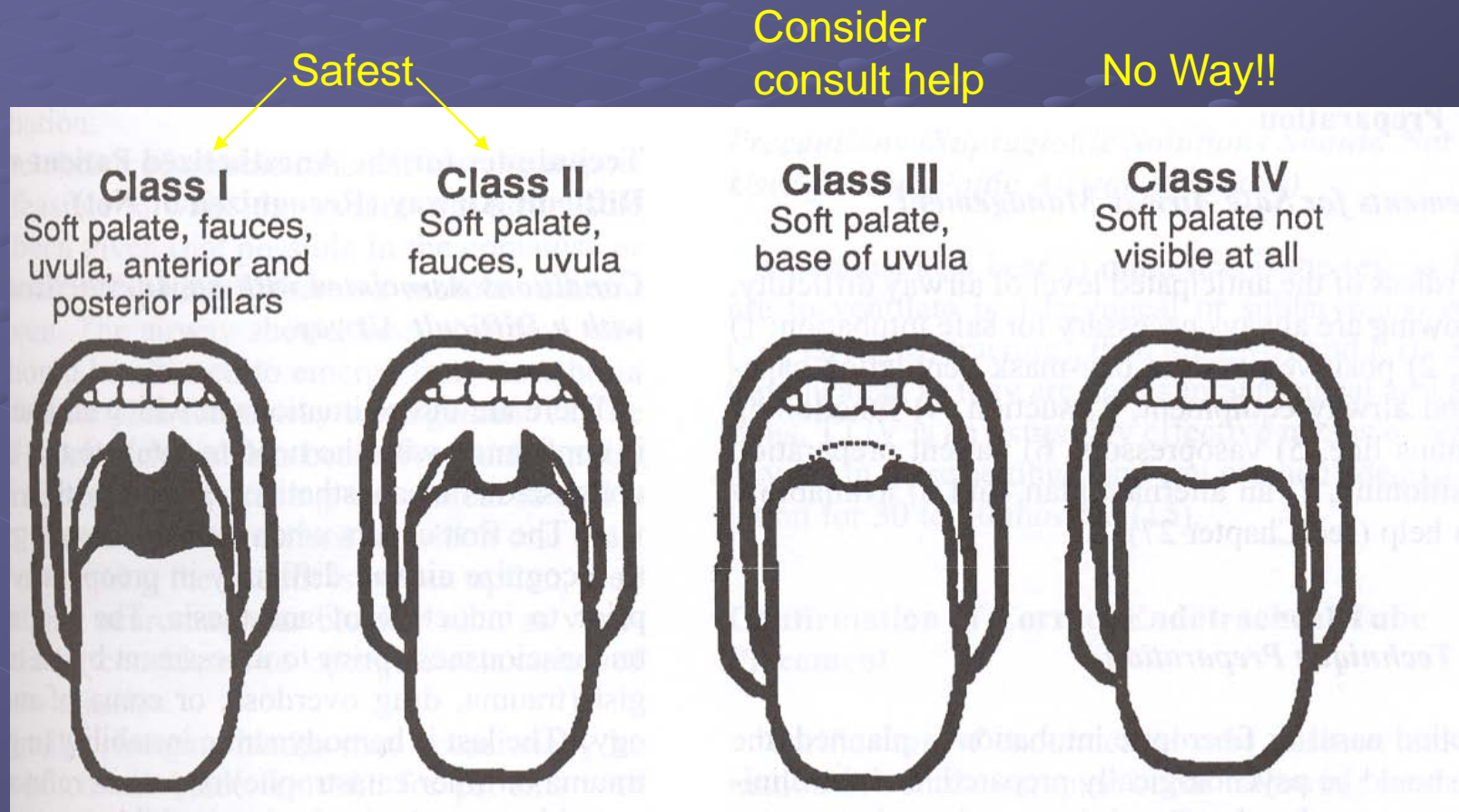






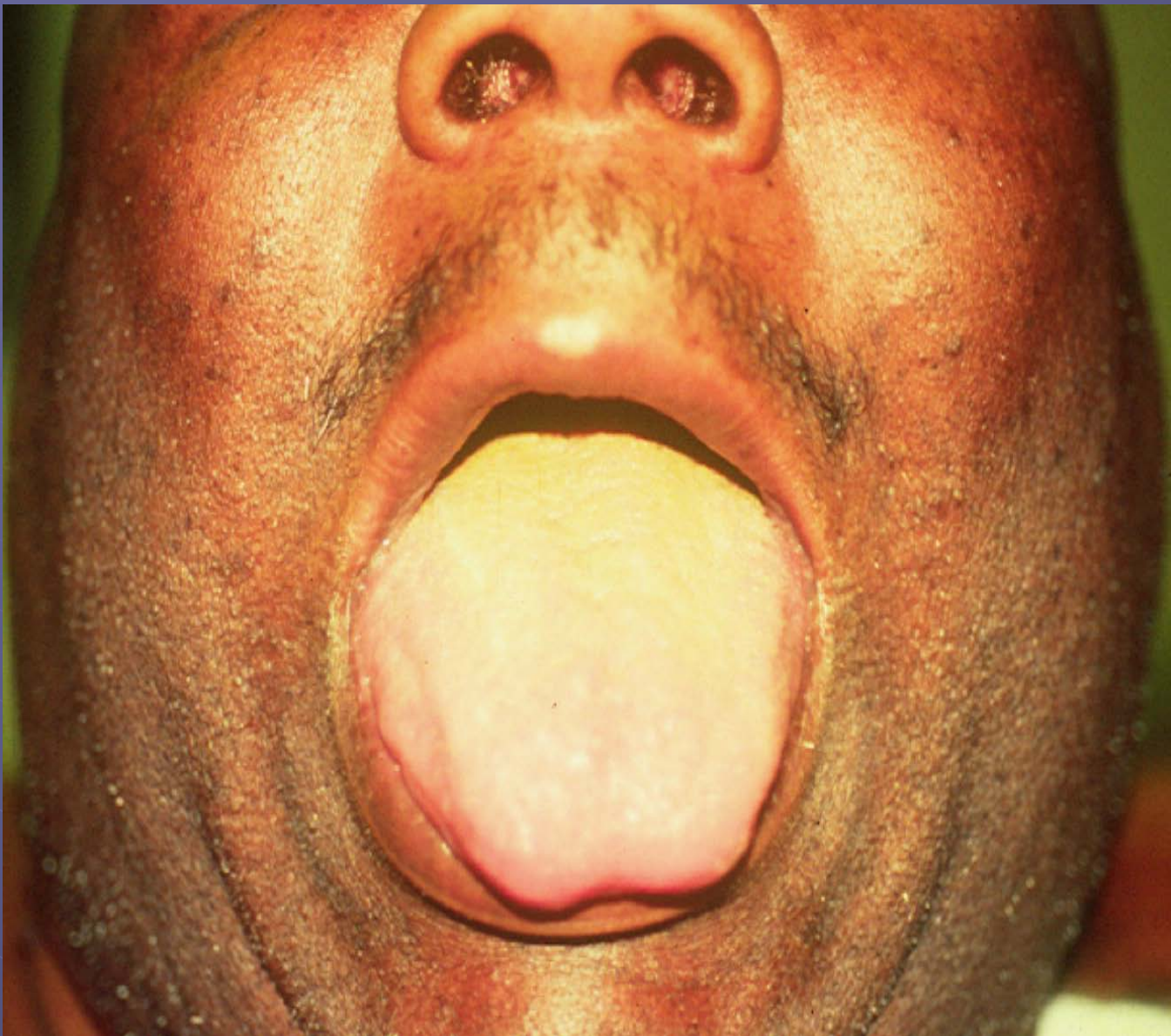
Beware of hidden restricted jaw opening that could restrict rescue bagging!

Evaluation of the Difficult Airway: Mallampati Classification



Patients with Mallampati Classification of 3 or greater are at a higher risk for difficulty during a moderate sedation





Mallampati of 4... Do not perform moderate sedation without the aid of a service skilled in sedating higher risk patients such as anesthesia

Evaluation of the Difficult Airway:

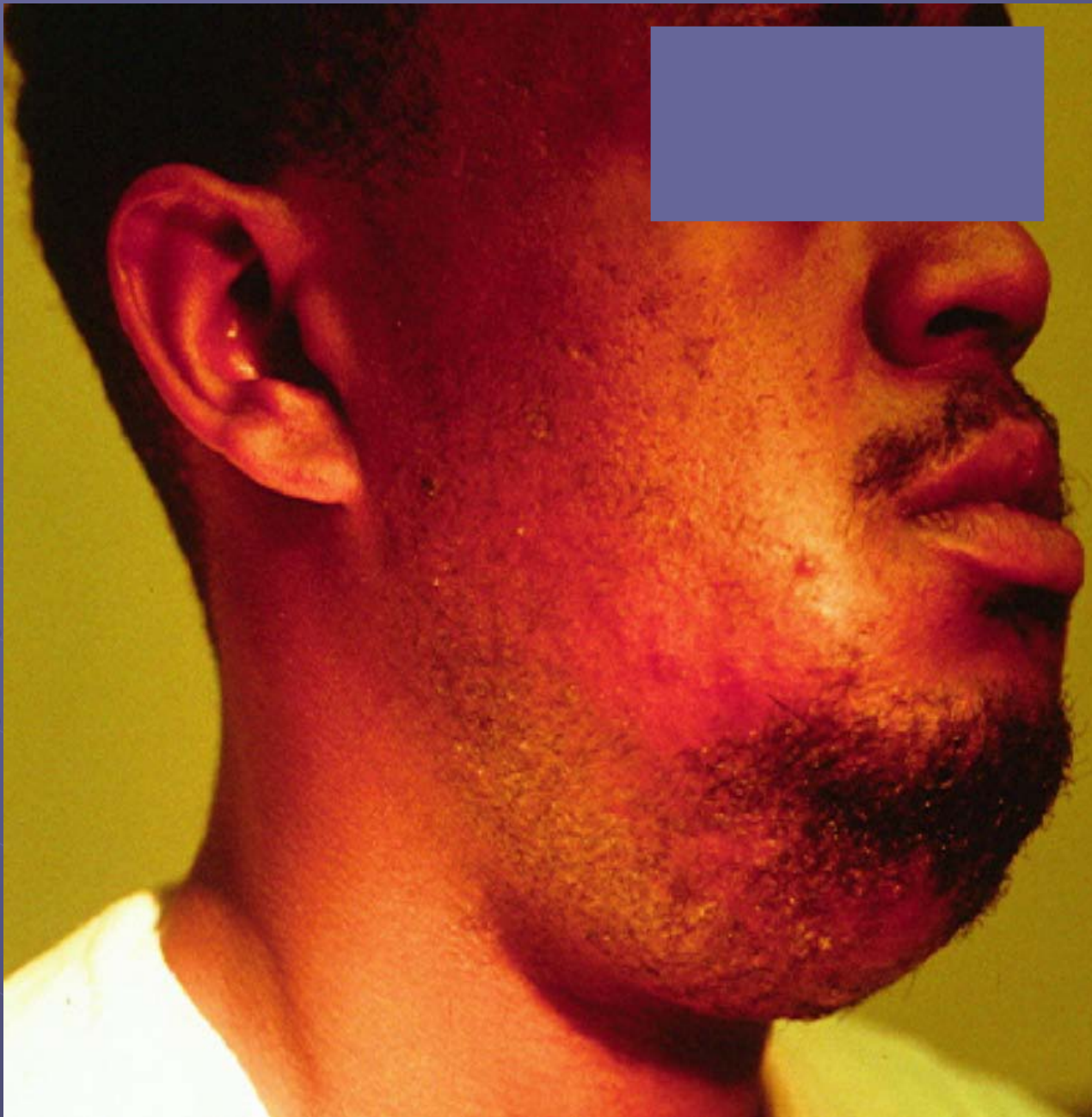
UPPER AIRWAY OBSTRUCTION

● **OPTIONS:**

- COMPRESSABLE OR FIXED Lesion
- LOCATION (at or below larynx vs above larynx)

● **TIMING of OBSTRUCTION:**

- MINUTES TO HOURS OR DAYS TO WEEKS



Ludwig's Angina

Evaluation of the Difficult Airway:

Neck Mobility



Predictors of Difficult Mask Ventilation

● MOANS

Mask seal

Obese

Aged – > 55 yo

Stiff – increased ventilatory pressures

Pre-MAS 'Timeout'

■ Time Out (final verification). The Time Out is a deliberate pause in activity involving clear communication (that includes active listening and verbal confirmation of the patient, procedure, site and side) among all members of the surgical/procedural team. The procedure is not started until any questions or concerns are resolved. The Time Out includes verifying:

- Correct patient identity
- Correct procedure verified with consent
- Correct site and side (verified with site marking as per policy)
- Correct patient position
- Availability of correct implants and any special equipment or requirements

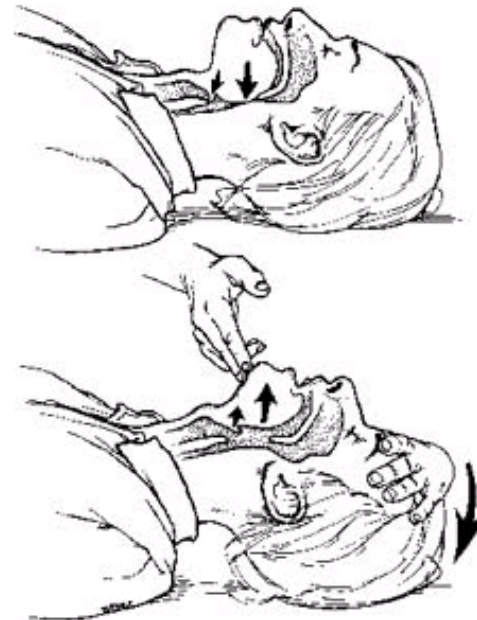
Rescue Airway Maneuvers

- Partial or complete airway obstruction has many causes:
 - Tongue
 - Upper airway hemorrhage
 - Dental fractures
 - Secretions
 - Vomitus
 - Foreign bodies
 - Airway swelling due to burns allergic reactions, etc.

Rescue Airway Maneuvers

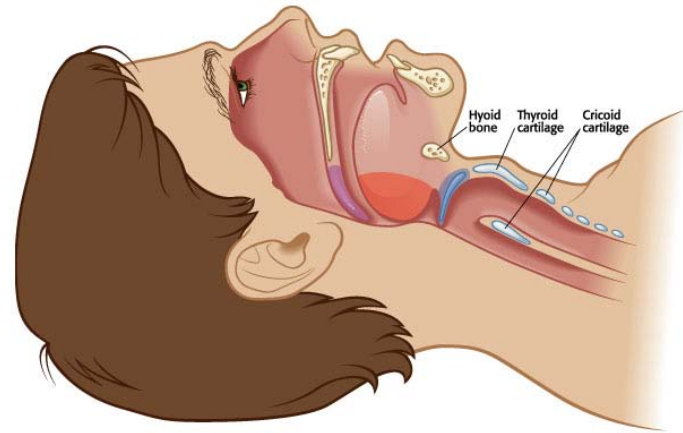
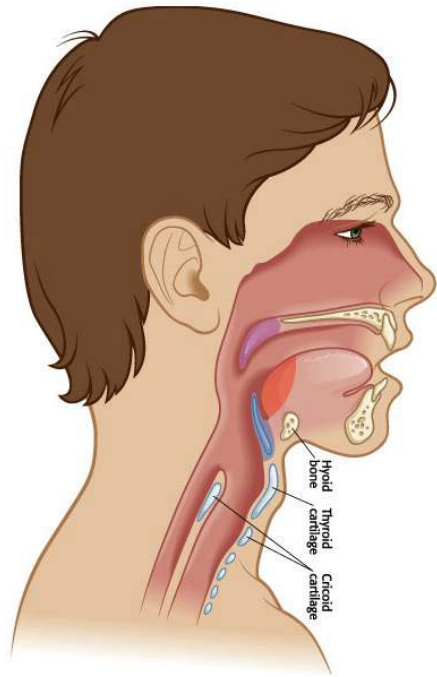
- The head-tilt, chin-lift maneuver is recommended for opening the airway if there is no chance of traumatic neck injury.

Tilt Head, Lift Chin, Check Breathing.



Opening the airway.

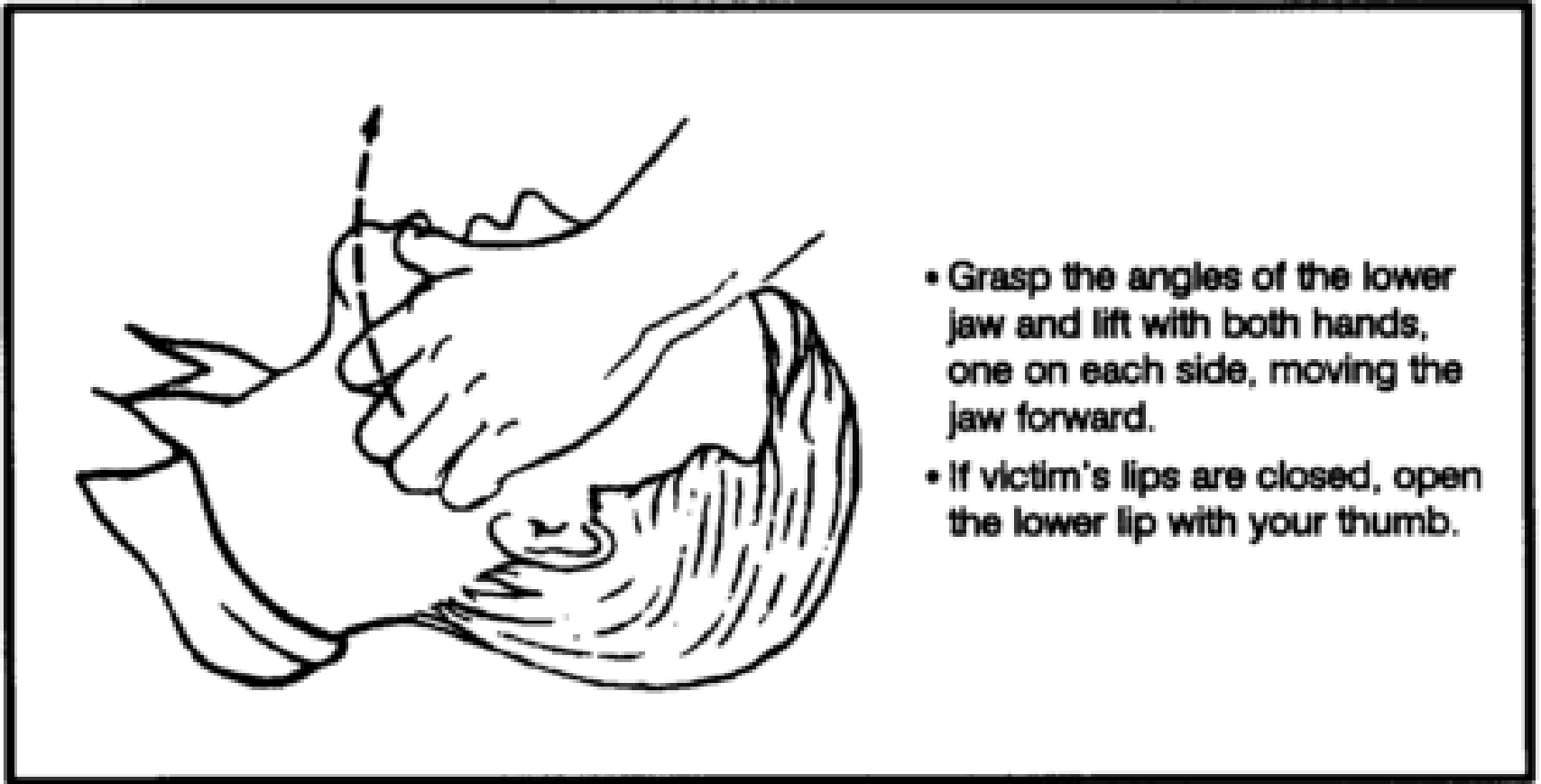
Top: Airway obstruction produced by the tongue and the epiglottis.



Rescue Airway Maneuvers

- The modified jaw thrust is performed by grasping the mandibular rami at each angle and pulling forward while simultaneously pushing down on both sides of the chin with the thumbs.
- Since the tongue is attached to the mandible, it is pulled anteriorly and inferiorly away from the glottis.

Rescue Airway Maneuvers



- Grasp the angles of the lower jaw and lift with both hands, one on each side, moving the jaw forward.
- If victim's lips are closed, open the lower lip with your thumb.

Figure 4-1. Jaw thrust method.

Rescue Airway Adjuncts

● Oral Airway

- Stimulates gag reflex/laryngospasm
- Bleeding and dental trauma possible

● Nasal Airway

- not in basilar skull fx, nasal deformities

Rescue Airway Maneuvers

Patient Positioning

- The patient who requires basic airway maneuvers to be performed should be placed supine on the flattest surface available at the beginning of resuscitation.
- Patients who require cervical spine immobilization and are placed on a backboard should be secured to this board tightly enough so they will not slide or fall if the board is turned on its side to allow gravity to affect the drainage of vomitus or secretions.

Rescue Airway Maneuvers

Suctioning

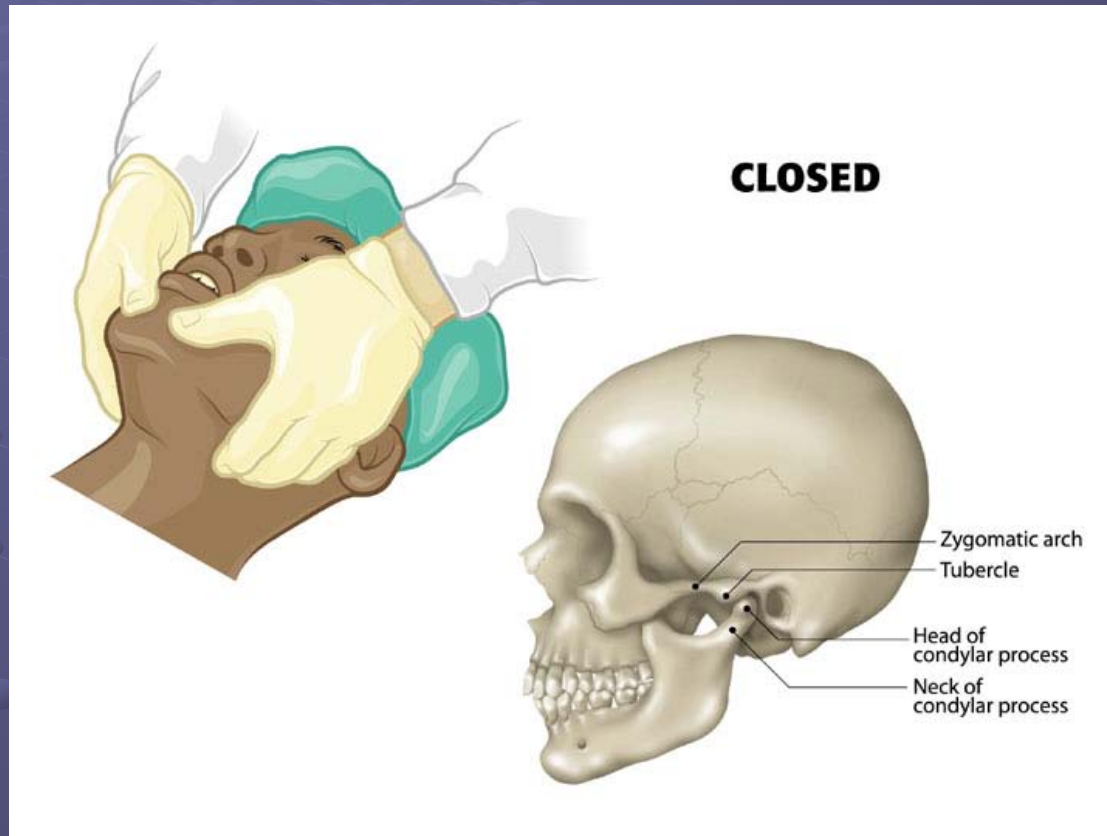
- Any patient in whom blood, secretions, vomitus or foreign body are present in the upper airway requires suction.
- Suctioning should not exceed 15-second intervals before supplemental oxygen is reapplied in order to limit hypoxia, although it is also not desirable to push large amounts of unrecovered debris down the trachea and into the lower airways.
- Suctioning should be performed under direct visualization of the posterior pharynx.

Bag Mask Ventilation

- If the patient fails to respond to initial airway maneuvers with positioning, jaw thrust, nasal adjuncts and supplemental oxygenation with O₂ sats decreasing below 90%...
- Bag mask ventilation will be necessary

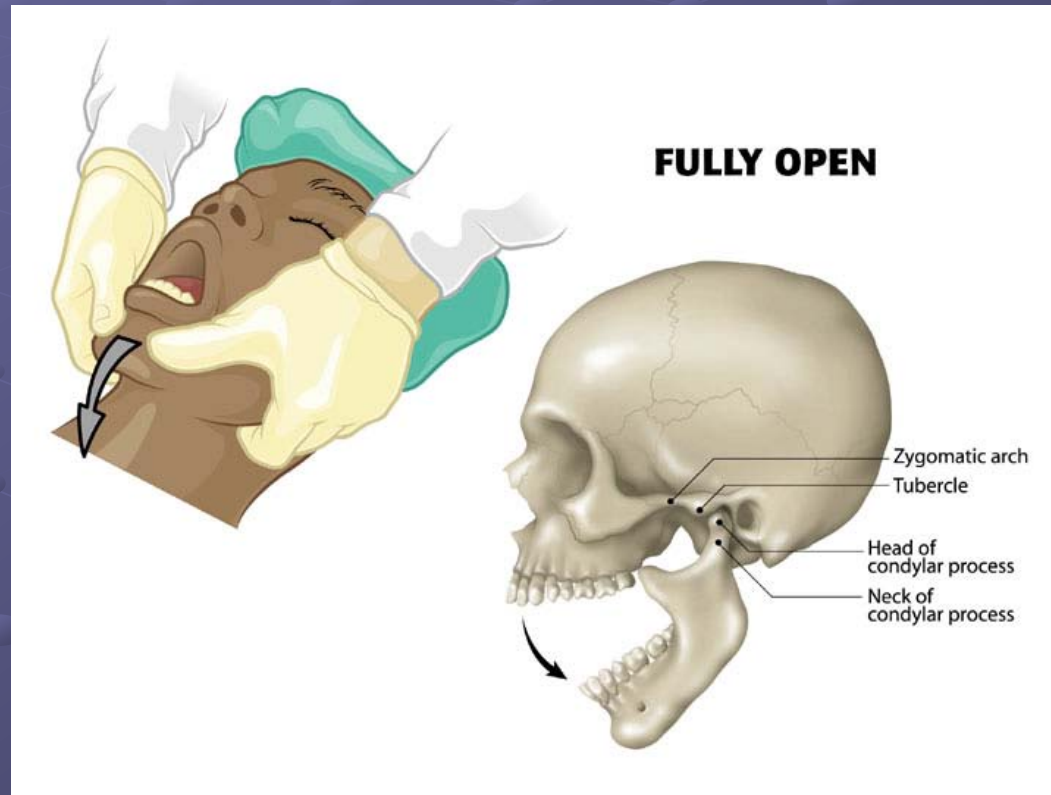
BMV STEPS

1.



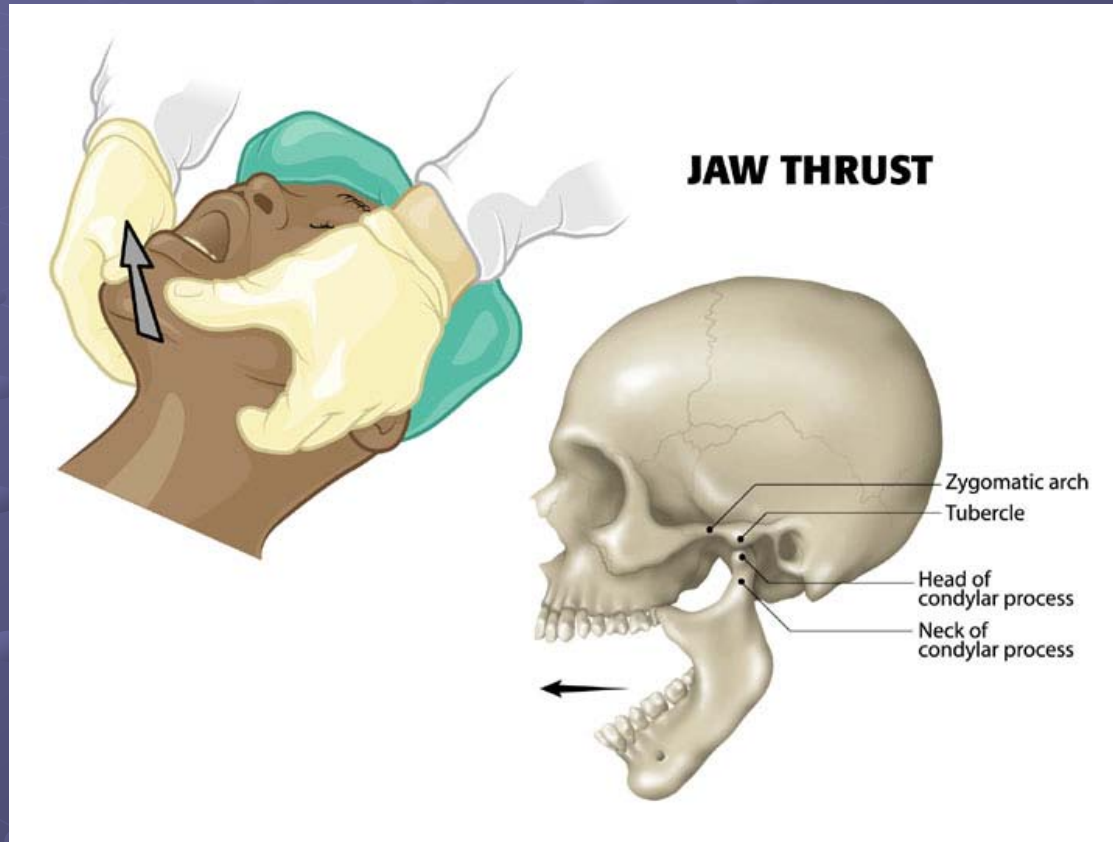
BMV STEPS

2.



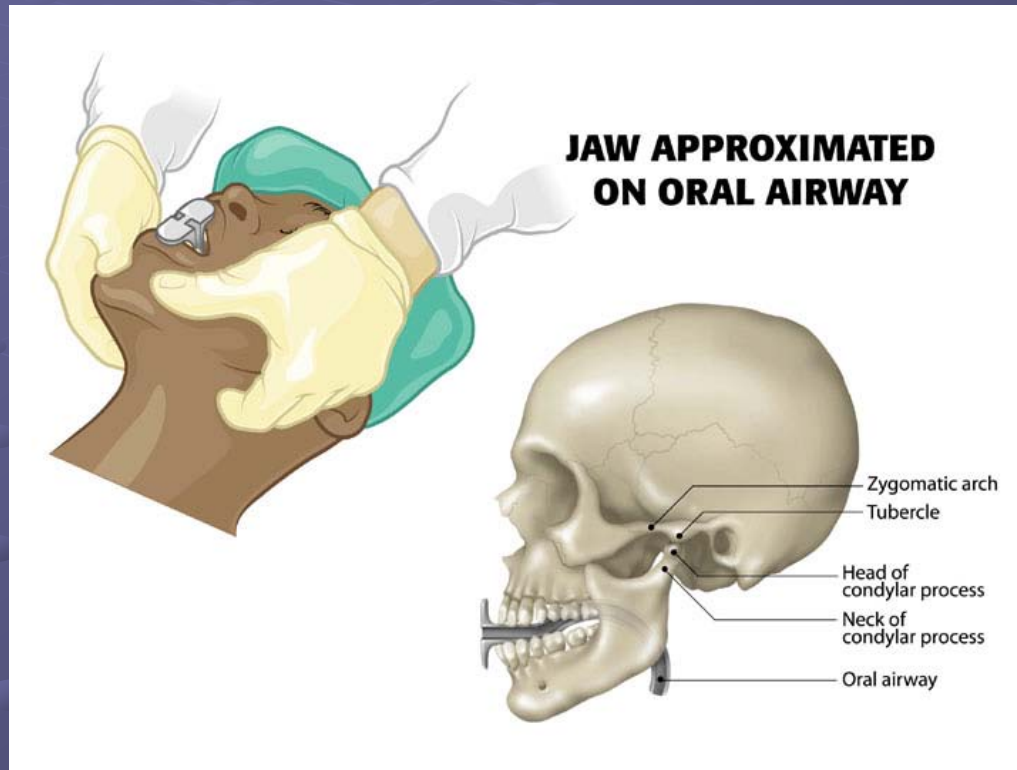
BMV STEPS

3.



BMV STEPS

4.



Utilize nasal airway adjuncts in patients with intact gag reflexes

HAND HOLDS

5.

1-HAND TECHNIQUE



2-HAND TECHNIQUE



Drug Reversal

- When unable to maintain adequate ventilation and O₂ sats above 90% despite rescue maneuvers and intervention with supplemental oxygen
- Use reversal agents
 - Romazicon for benzodiazepines
 - Narcan for opiates

Drug Reversal

- Both naloxone and romazicon have shorter durations of action than most opiates and benzodiazepines, so patients must be monitored for at least 60 minutes following return to baseline mental status to ensure patient does not re-sedate.
- In patients who have received LARGE dosages of benzodiazepines or opiates the observation period may need to be extended to 120 minutes.

Remember always have a low threshold to consult anesthesia or another service skilled in procedural sedation whenever there is concern that the patient may have contraindications to performance of safe moderate sedation!