

## 20 Questions – Ear, Nose, and Throat Emergencies

1. You are called for a 37yo male with a severe nosebleed. He recalls no trauma to the nose. What is the most common cause of nosebleeds?
2. What is the most effective way to stop a nosebleed?
3. What medicated spray can be used to help stop a bleed (NOT in our current SOPs)?
4. The patient's blood pressure is 180/105. Is hypertension a cause of nosebleeds?
5. What is the difference between a posterior and an anterior nosebleed, and why is this important?
6. A 3 year old has a bug lodged in his ear. He is screaming and combative. What can you do to help?
7. Following a fight, a 25yo male declines transport. He has a large swelling of the outer ear from a direct blow. What can you advise him about the need for treatment, and why?
8. His other ear has a 2cm laceration that communicates with the other side. Why is this more dangerous than on other parts of the body?
9. The other contestant in this fight has a very swollen nose. It was bleeding, but this has stopped now. He also declines medical treatment. Why should he have his nose looked at?
10. A 2 year old has stuffed a bead into her nose. Does this present any danger to her? What will happen if this was unwitnessed or unrecognized?
11. Called to an assault, you find a moderately intoxicated patient complaining of jaw pain. He is holding two of his teeth in his hand. What should you do with the teeth?
12. How can you assess for jaw fractures?
13. The patient states that he was choked during the fight. What is one of the best signs of laryngeal edema in these patients?
14. During your exam you find that the patient has a 2cm lac to the margin of his tongue. How should this be managed?
15. A 9 year old has impaled his cheek with a pencil. The pencil is still sticking through his cheek on your arrival. What should you do?
16. On further exam, the patient has a puncture wound above and behind the tonsil. What is the danger of wounds to this area, most commonly from a fall while carrying a pencil or similar object in one's mouth?
17. A patient with a toothache for several days now is having difficulty swallowing. His right face is swollen and tender. What do you need to worry about?
18. Another patient is 24, has had a sore throat and fever for several days with fevers. She now also complains of difficulty swallowing. She looks distressed, and is spitting her secretions. What may be happening?
19. A four year old is having difficulty swallowing and perhaps breathing. The auntie states that the child has had a sore throat and fever for a few days. What is this child at risk for given his age and the history?
20. Called on an overdose, you attend a 54 yo man who drank lye in a suicide attempt. You examine his oropharynx and see no burns. How well does this rule out esophageal burns? Should you take any action at the scene if the ingestion was just a few minutes ago?

## 20 Answers – Ear, Nose, and Throat Emergencies

1. Nose-picking. – especially in kids but also adults. Dry air, nasal sprays, cocaine, nose blowing, altitude changes, and other traumas and irritants can cause nosebleeds as well, and anticoagulation and hypertension can cause them to recur or persist. Spontaneous nose bleeds (often associated with spontaneous bruises, gum bleeding, etc.) may be a sign of a new malignancy or a problem with platelet function (as seen in renal patients and alcoholics).
2. Direct pinching pressure just below the nasal bone either manually or with clips is effective at stopping virtually all anterior nosebleeds. Pressure should be held at least five minutes. The patient should be kept leaning forward to avoid swallowing blood (often causes vomiting, which will usually restart the bleed).

3. Afrin and other nasal sprays which cause vasoconstriction can be very helpful at stopping bleeding. These sprays are only useful in the acute setting. Chronic use of these nasal sprays actually leads to severe congestion!
4. Hypertension is not generally a cause of nosebleeds, but will help to prolong bleeding or promote re-bleeding from a traumatized or irritated area. Aspirin or coumadin use will have the same effect.
5. Anterior bleeds are most common, and arise from the septum (middle wall) of the nose. This area is called Kiesselbach's (or nosepicker's) plexus. These bleeds are usually responsive to direct pressure or simple packs. Posterior bleeds most commonly involve elderly hypertensive and severe trauma patients. These bleeds occur far back in the nose and drain blood down the oropharynx. They often present with hematemesis. They often require large packs or balloon devices to stop the bleeding and these patients generally require admission to the hospital. Field treatment should concentrate on stopping an anterior bleed and preventing aspiration of blood.
6. The first priority is to kill the insect. This can be accomplished in many ways. Asphyxiation is probably best. The use of lidocaine gel or solution not only will suffocate the bug, but may help to provide some anesthetic to the ear canal, aiding with later removal. Contact medical control to discuss your options...Once the bug has stopped buzzing/moving your patient will be much more cooperative!
7. Hematomas of the outer ear will cause breakdown of the cartilage if they are not treated with an incision and expression of clot, then a pressure dressing. Cartilage breakdown will lead to the 'cauliflower ear' often seen in boxers (and would-be boxers).
8. As before, lacerations to the cartilage of the ear can lead to severe cosmetic defects unless the cartilage laceration is repaired.
9. A septal hematoma can occur with nasal injuries due to contained local bleeding. If present, these need to be incised and drained to prevent cartilage breakdown which may result in a sunken deformity of the nose ('saddle nose') or perforation of the septum, both of which would require surgery.
10. Beads, fortunately, are low risk. Sharp objects and vegetable matter are more risky. The primary risk is local tissue injury and aspiration when the object is dislodged. Try having the patient occlude the other nostril and blow, it may save her a trip to the hospital. Many times these are not detected, and the discharge and odor from the local infection and obstruction is chalked up to a 'cold' until it persists and is noted to come from only one nostril. Removal at this point can be more difficult due to the severe inflammation.
11. If the patient is capable of cooperating, the teeth should be firmly placed back in their sockets, then held there with gauze pads until further stabilization can occur. If this is not possible, saliva is a great preservative. In case of a dry mouth (patient's, not yours!), Hank's balanced saline solution is great if you happen to have it, otherwise milk, and failing all else, saline. Do NOT wrap the teeth in dry gauze or wipe them off as this dramatically decreases the chance that they will remain viable once replaced in their sockets.
12. Normal alignment of the teeth during biting, normal jaw opening, and no pain to palpation (especially of the mentum or point of the chin) are all good signs. Instability of more than one tooth in a row is a sign of a more superficial jaw fracture (alveolar ridge fracture) and requires stabilization of the teeth.
13. Voice changes are one of the best indicators of laryngeal edema, either from trauma or from medical causes.
14. Direct pressure with gauze pads will usually control bleeding from tongue lacs. If oral bleeding cannot be controlled by local measures you will have to place the patient forward to avoid aspiration and have suction available. Transport may need to be expedited depending on the amount of blood. It is not uncommon for patients who have had a recent tonsillectomy to bleed severely during the first few days post-operatively or at about a week after as the scab begins to loosen.
15. Remove the pencil. This is one of a few cases in which a foreign body should be removed in the field. Make sure that it is not lodged into the posterior pharynx tissues before removal if possible! Apply direct pressure by pinching the site between your index finger (inside the mouth) and your thumb (outside on cheek).
16. This area contains the carotid artery. Injuries to 'big red' are often not catastrophic but may result in local vessel damage. Children with lacerations in this area may require at CT angio depending on their mechanism and exam findings.

17. Ludwig's angina isn't angina in the usual sense, but is swelling from a dental abscess that progresses posteriorly to involve the tongue and hypopharynx, sometimes leading to airway occlusion and death. If the area under the patient's tongue feels firm to the touch, this pretty well seals the diagnosis. These patients need surgery to open and drain the affected area.
18. The patient may just have severe pharyngitis or tonsillitis, but may have progressed to a peritonsillar abscess (usually cannot open the mouth well and have an asymmetric swelling above one of the tonsils) OR may have epiglottitis (often have tender larynx, may have voice changes). Thanks to the H.influenza vaccine, we almost never see epiglottitis in kids anymore, the average age is in the early 20s. In adults, epiglottitis usually progresses over several days, unlike kids, in which its onset was very rapid.
19. Because of the longer duration of sore throat epiglottitis is less likely, but possible. Children between 3-5 years are at risk of infections of the lymph tissue in front of the cervical spine. These retropharyngeal abscesses can lead to airway occlusion. Fortunately, these are rare! Field treatment for patients with complaints of difficulty swallowing generally revolves around looking for an allergic cause, appropriate upright positioning, consulting medical control, and expediting transport. Nebulizations are generally of limited benefit in these conditions.
20. Unfortunately, the absence of oral burns fails to detect between 20-40% of cases in which the esophagus is burned. If you encounter the patient early after ingestion of a corrosive, consider a few glasses of water or milk to decrease the concentration of the poison in the esophagus. Of note, household bleach is not concentrated enough to produce burns except in very large quantity.

Stay warm and safe out there and happy holidays from your dedicated docs!