

Handling Throat Trauma

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It is becoming more common for chiropractors to be primary health care providers. As chiropractic providers become more visible on the sidelines, our education must be enhanced to allow for quick and accurate decision-making in the face of a possible serious injury. It is very likely that over time, whether you are a team physician, standby spectator or parent, you will observe some type of throat trauma and likely be called upon as the nearest health professional.

Blunt throat trauma to the neck is sometimes difficult to assess, and often overlooked - with disastrous results. The literature backs up to the 1960s, including discussion of procedures, and most of that protocol is still followed today. It is a typical in sports for athletes (children and adults) to suffer some type of blunt throat trauma by any of the several mechanisms listed:

- contact to the throat by a ball;
- contact to the throat by another athlete's head or other body part;
- contact to the throat by a stick or other athletic equipment;
- throat compression, such as in fighting or wrestling. (Although illegal, it can occur. It is also a standard hazard in "grappling.")
- contact with the ground or anything else during a fall (How many kids fall on a soccer ball?);
- whiplash-type injuries; or
- a rear passenger striking a front seat or a driver striking the steering wheel.

In boxing and the martial arts, throat trauma is a fairly common sight, occurring in one out of 200 fights. Most of the time, throat trauma is self-evident. The red flags for an emergency situation are:

- hoarseness;
- difficulty swallowing;
- stridor (a sound made by breathing through a closing airway, which sounds like a tube instrument) - ominous;
- a feeling of fullness in the throat;
- visible swelling in the anterior neck (Do not palpate, as this may cause the superior fractured section to "fall off" the inferior anchored section, which will result in a loss of airway);
- subcutaneous air - that crinkly feeling under your fingertips. (also present in tension pneumothorax);
- spitting up blood;
- bleeding, noted externally or in the mouth - with no intraoral source;
- loss of landmarks due to swelling;
- loss of breath or labored breathing.

What to Do (and What Not to Do)

- Remain calm and speak with authority in your voice.
- Dial 911.
- Maintain eye contact with anyone assisting you, and have him or her repeat your commands back to you, especially if the person is emotionally attached to the patient.
- Do not excite the patient; have him or her sit down, and apply any available ice to the sides

of the neck. The ice will help reduce swelling to the area.

- Do not lay the patient down! Elevating the head reduces hydrostatic pressure, reducing airway swelling, and it helps preserve the airway.
- Maintain neutral head position, as any movement may complete the fracture. Do not use a large pillow or device behind the neck, which might result in additional pressure on the area.
- Do not give the patient anything to drink! The act of swallowing will aggravate the condition, and it is likely that you will obstruct the airway.

No matter how you deal with this type of injury, always assume that the worst is coming. It is better to be overreactive than be postreactive and sued. Remain calm and insist on emergency medical services (EMS) transport. Make sure you inform the 911 operator that throat trauma has occurred and that breathing is becoming impaired. Note swelling and hoarseness, and monitor the pulse and breath rates per minute.

Beginning CPR on an unconscious patient is noble, but seems almost useless, since none of your breaths will be able to enter the patient's lungs until a tracheal tube is cut and inserted by EMS or the emergency department staff. However, you must attempt CPR!

I have seen many different symptoms of throat trauma: someone running around after a throat shot displaying a pseudo Rust sign (when the neck appears to not be able to support the head, and must be held up with the hands); some not holding their throats at all; and one girl even gripping her arm. But within minutes, they all pass out (usually while I am on the phone to 911).

Once the patient is down, you should attempt CPR until EMS arrives; keep an eye on the patient's chest to see if it rises as you attempt to blow into his or her mouth. Report any lack of movement to the EMS staff.

Handling this situation in a calm, informed manner will gain the respect of EMS and your community very quickly. I would rather send 10 people to the ED than one person to the morgue! You do have the right, as a physician, to advise or "strongly advise" transport to an emergency department. You do not have the right to tell the EMS personnel what to do or what ED to go to. You also do not have any input on the EMS activity once it arrives, although in the instance of laryngeal trauma, you certainly would want them to know before they did anything to the airway. Some are trained in intubations.

Posttraumatic follow-up instructions:

- restricted use of voice;
- a fluid diet, in some cases;
- adherence to use of oxygen and/or antibiotics;
- steroid usage, in some extreme cases; and careful, daily follow-up examinations of the external and internal larynx, for increased swelling or signs of infection.

Suggested Reading

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5. Hagr A, Kamal D, Tabah R. Pharyngeal perforation caused by blunt trauma to the neck. *Can J Surg* February 2003;46(1):57-8.

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