



NASAL TRAUMA

The human nose is composed of bone, soft tissue, and cartilage. It serves as a passageway for air to flow from the outside environment into the lower respiratory tract and lungs while simultaneously warming and humidifying air that enters the body. As the most prominent and anterior feature of the face, the nose is easily exposed to trauma. Nasal trauma is defined as any injury to the nose that results in bleeding, a nasal deformity, a decreased ability to breathe normally because of obstruction, and may even result in an impaired sense of smell.

The nose is composed of cartilage and bone. The cartilaginous skeleton of the nose is supported by the paired nasal bones superiorly, the maxilla, and the vomer, a bone located in the posterior aspect of the nasal septum. Overlying this framework are soft tissues, mucous glands, muscles, and nerves responsible for the sensation and function of the nose. Although most of the nasal structures are cartilaginous, the nasal bones may be fractured in an injury.

The nose is the most common area injured in cases of facial trauma, with nasal fractures accounting for approximately 40 percent of facial bony injuries. Fights and sports injuries account for most cases of nasal trauma in adults, followed by falls and vehicle crashes. Play and sports account for the vast majority of incidents of nasal injuries in children although physical abuse should be suspected in cases of repetitive injuries to the nose and/or frequent bruising to other areas of the body.

Signs of Nasal Trauma

- ▶ Twisting, flattening or other deformation of the shape of the nose
- ▶ Pain, redness or swelling of the nose
- ▶ Bleeding from the nose
- ▶ Crepitus – a crunching sensation or sound which occurs when ends of a fractured bone are rubbed together
- ▶ Airway blockage from bleeding, fluid discharge which may be clear or mucus colored
- ▶ Rhinitis - an inflammation of the mucous membranes lining the nose which may lead to increased tear production in the eyes and a runny nose
- ▶ Septal hematoma – a pocket of blood which forms between the cartilaginous septum and the mucosal lining which overlies the septum. This collection of blood may potentially destroy the septal cartilage and warrant immediate attention by an ENT.
- ▶ Bruising or discoloration (ecchymosis) of the tissues around the nose or eyes

Initial Management

- ▶ If loss of consciousness has occurred, the cervical spine should be stabilized, measures such as ABC's (airway, breathing and circulation) should be instituted and the emergency medical response team should be activated (911 should be called) for an evaluation by an ER physician.
- ▶ If no loss of consciousness has occurred and the patient is bleeding from the nose, pressure should be applied over the soft lower anterior portion of the nose for 3 to 5 minutes.
- ▶ If bleeding persists, a common nasal decongestant spray such as Afrin may be squirted in the nose and with pressure reapplied in the manner described above.
- ▶ Crushed ice in a plastic bag or wrapped in a towel may be gently applied over the nose to decrease pain and swelling.
- ▶ In a case of penetrating trauma to the nose or face, the foreign object should not be removed.

Treatment of nasal trauma is best performed within the first few hours after the injury, but if this is not possible an evaluation by a physician should be done within 24 hours of the time of injury and a referral to ENT should take place no more than 72 hours after the time of injury.

Timing is of utmost importance when treating nasal fractures because delays longer than five to seven days may allow the broken bones to set without proper alignment or lead to complications as such as scar tissue formation and airway obstruction. Poorly set nasal fractures usually require surgical correction.

With Summer camps back in full swing, campers with nosebleeds, ear pain, and food allergies will seek your advice. ENT and Allergy Associates would like to help you care for these campers by providing helpful information about these common disorders in this handout. If you need further assistance, please feel free to contact us. Have a healthy Summer!

Sincerely,
The Physicians of ENT and Allergy Associates

Call us today. See us today! 1-855-ENTA-DOC