Stephanie Culver, MD Dale Amanda Tylor, MD, MPH 1819 State Street, Suite A Santa Barbara, CA 93101 P: (805) 327-6673 F: (805) 679-5183



This information handout is provided for general medical knowledge only. It may or may not relate to your specific medical condition and it does not constitute individualized medical advice.

Nosebleeds

Nosebleeds (called epistaxis) are caused when tiny blood vessels in the nose break. Nosebleeds are very common and affect many people at some point in their lives. In the United States, about 60 percent of people will experience a nosebleed in their lifetime. They can happen at any age, but are most common in children around the ages of two to 10, and adults around the ages of 50 to 80.

What Are the Symptoms of a Nosebleed?

There are two categories of nosebleeds. Anterior nosebleeds occur when the bleeding is coming from the front of the nose and posterior nosebleeds occur when the bleeding originates from further back in the nose, often where the source of bleeding cannot be seen without examination.

Nosebleeds are typically categorized by the location of the source of the bleeding:

 Anterior nosebleeds – the overwhelming majority fall into this category and begin from the lower part of the septum, which is the rigid wall that separates the two nostrils or nasal cavities. The septum contains a complex network of blood vessels on either side that provide blood supply to the firm flexible cartilage that gives the nose its support. These blood vessels can easily be broken by a strong blow to the nose of the edge of a sharp fingernail, or simply from excessive nasal dryness.

Stephanie Culver, MD Dale Amanda Tylor, MD, MPH 1819 State Street, Suite A Santa Barbara, CA 93101 P: (805) 327-6673 F: (805) 679-5183

Posterior nosebleeds – more rarely, a nosebleed can begin high and deep within the nasal cavity
from a larger blood vessel and flow rapidly down the back of the mouth and throat. These are
more likely to occur in older people, persons with high blood pressure, and in cases of traumatic
injury to the nose or face.

What Causes a Nosebleed?

Most nosebleeds are in the front part of the nose and start on the nasal septum, the wall that separates the two sides of the nose. The septum contains blood vessels that can be easily damaged. Irritation from blowing the nose or scraping with the edge of a sharp fingernail is enough to tear the vessels and cause a nose bleed. Anterior nosebleeds are also common in dry climates, or during winter months when dry, heated indoor air dehydrates the nasal membranes and makes the blood vessels more likely to rupture.

Causes of recurring or frequent nosebleeds may include:

- Allergies, infections, or dryness that cause itching and lead to picking the nose
- Vigorous nose blowing that ruptures superficial blood vessels
- Problems with bleeding caused by genetic or inherited clotting disorders (e.g., hemophilia or vonWillebrand's disease)
- Medications that prevent blood clotting (e.g., anticoagulants like coumadin/warfarin, XARELTO[®], or anti-inflammatory drugs like ibuprofen or aspirin)
- Fractures of the nose or the base of the skull (a nosebleed occurring after a head injury should raise suspicion of serious concern)
- Hereditary hemorrhagic telangiectasia, a disorder involving birthmark-like blood vessel growths inside the nose
- Tumors, both malignant (cancerous) and nonmalignant (benign), must be considered, particularly in older patients or smokers

What Are the Treatment Options?

It is important to try to determine if the nosebleed is anterior or posterior. Posterior nosebleeds are often more severe and almost always require a physician's care.

Anterior Nosebleeds—When dry air is believed to be the cause of the nosebleed, it may result in crusting, cracking, and bleeding. This can be prevented by placing a light coating of saline gel, petroleum jelly, or an antibiotic ointment on the end of a Q-tip and gently applying it inside the nose, especially on the middle portion of the nose (the septum).

Follow these steps to stop an anterior nosebleed:

- 1. Stay calm, or help a young child stay calm. A person who is agitated may bleed more profusely than someone who feels reassured and supported.
- 2. Sit up and keep the head higher than the level of the heart.
- 3. Lean forward slightly so the blood doesn't drain into the back of the throat.
- 4. *Gently* blow any clotted blood out of the nose. Spray the nose with a nasal decongestant; oxymetazoline is the active ingredient in most over-the-counter sprays.
- 5. Using the thumb and index finger, pinch all the soft parts of the nose.
- 6. Hold the position <u>for ten to fifteen</u> minutes. No peeking, as this allows time for a clot to form. If it's still bleeding, hold it again for an additional 10 minutes.

Should the bleeding continue after this, you should seek medical care. Treatment administered by a medical professional at this point may include cautery (a technique in which the blood vessel is burned with an electric current, silver nitrate, or a laser to stop the blood flow) or nasal packing.

Posterior Nosebleeds—More rarely, a nosebleed can begin high and deep within the nose and flow down the back of the mouth and throat, whether the patient is sitting or standing. Posterior nose bleeds differ from anterior nose bleeds because direct pressure on the outside of the nose will not stop the bleeding, and spraying the nose with a decongestant is less likely to work. It is important to seek prompt medical care if the bleeding does not stop to prevent heavy blood loss.

Posterior nosebleeds are more likely to occur in older people and people with previous nasal or sinus surgery or injury to the nose or face. Generally, treatment includes cautery and/or packing the nose. The nose may be packed with a special gauze, sponge, or an inflatable balloon to put pressure on the blood vessel; most of these need to be removed in two to three days. Sometimes the packing is an absorbable material and does not need to be removed. You should ask your provider what type of packing they used and if it will need to be removed by a professional.

Frequent Nosebleeds—If frequent nosebleeds are a problem, it is important to consult an ENT (ear, nose, and throat) specialist, or otolaryngologist, who will carefully examine the nose using an endoscope (a pencil-sized scope) to see inside the nose before making a treatment recommendation.

What Are Some Tips for Preventing a Nosebleed?

Some tips you can follow to help prevent future nosebleeds include:

• Keep the lining of your nose moist by gently applying a light coating of saline gel, petroleum jelly, or an antibiotic ointment with a cotton swab three times daily, including at bedtime.

Common products include Ayr[®] Saline Nasal Gel, Bacitracin, A and D Ointment, Eucerin[®], Polysporin[®], and Vaseline[®].

- Keep children's fingernails short to discourage nose picking.
- Counteract the effects of dry air by using a humidifier.
- Use a saline nasal spray to moisten dry nasal membranes.
- Quit smoking. Smoking dries out the nose and irritates it.
- Do not pick or blow your nose after the initial bleeding has stopped.
- Do not strain or bend down to lift anything heavy after initial bleeding has stopped.
- Keep your head higher than your heart after initial bleeding has stopped.
- Call your doctor if bleeding persists after 30 minutes, or if a nosebleed occurs after an injury to your head.