Nose Bleeds

Epistaxis

The nose is a part of the body rich in blood vessels (vascular) and is situated in a vulnerable position as it protrudes on the face. As a result, trauma to the face can cause nasal injury and bleeding. The bleeding may be profuse, or simply a minor complication.

Nosebleeds can occur spontaneously when the nasal membranes dry out and crack. This is common in dry climates, or during the winter months when the air is dry. The incidence of nosebleeds is higher during the colder winter months when upper respiratory infections are more frequent, and the temperature and humidity fluctuate more dramatically. In addition, changes from a bitter cold outside environment to a warm, dry, heated home results in drying and changes in the nose which will make it more susceptible to bleeding. Nosebleeds also occur in hot dry climates with low humidity, or when there is a change in the seasons.

People are more susceptible to bleeding if they are taking medications which prevent normal blood clotting [warfarin (Coumadin), aspirin, or any anti-inflammatory medication]. In this situation, even a minor trauma could result in significant bleeding.

The following factors predispose people to nosebleeds:

- Infection
- Trauma, including self-induced by nose picking
- Allergic and non-allergic rhinitis
- Hypertension (high blood pressure)
- Use of blood thinning medications
- Alcohol abuse
- Less common causes include tumors and inherited bleeding problems

How to stop the common nosebleed

Most people who develop nose bleeding can handle the problem without the need of a physician if they follow the recommendations below:

1. Pinch all the soft parts of the nose together between your thumb and index finger.
2. Press firmly toward the face - compressing the pinched parts of the nose against the bones of the face.
3. Lean forward slightly with the head tilted forward. Leaning back or tilting the head back allows the blood to run back into your sinuses and throat and can cause gagging or inhaling the blood.
4. Hold the nose for at least five minutes. Repeat as necessary until the nose has stopped bleeding.
5. Sit quietly, keeping the head higher than the level of the heart. Do not lay flat or put your head between your legs.
6. Apply ice (wrapped in a towel) to nose and cheeks.

How to prevent the nose from bleeding again

1. Go home and rest with head elevated at 30 to 45 degrees.
2. Do not blow your nose or put anything into it. If you have to sneeze, open your mouth so that the air will escape out the mouth and not through the nose.
3. Do not strain during bowel movements. Use a stool softener (for example, Gramafin).
4. Do not strain or bend down to lift anything heavy.
5. Try to keep your head higher than the level of your heart.
6. Do not smoke.
7. Stay on a soft, cool diet. No hot liquids for at least 24 hours.
8. Do not take any medications that will thin the blood [aspirin, ibuprofen, or warfarin (Coumadin)]. If these have been

prescribed by your physician, you need to contact them regarding stopping these medications.

9. Your doctor may recommend some form of lubricating ointment for the inside of the nose.
10. If re-bleeding occurs, try to clear the nose of clots by sniffing in forcefully. You can temporarily use a nasal decongestant spray. These types of sprays constrict blood vessels.

(NOTE: If used for many days at a time, these can cause addiction. DO NOT USE if you have high blood pressure.)

11. Repeat the steps above on how to stop the common nose bleed. If bleeding persists, call the doctor and/or visit to the emergency room.

What precautions can be taken to prevent nose bleeding

The most common cause of a nose bleeds is drying of the nasal membranes. If you are prone to recurrent nosebleeds, it is often helpful to try lubricating the nose with an ointment of some type. This can be applied gently with a cotton bud or your fingertip up inside the nose, especially on the middle portion (the septum).

When should you go to your doctor?

- If bleeding cannot be stopped or keeps occurring.
- If bleeding is rapid, or if blood loss is large.
- If you feel weak or faint, presumably from blood loss.

If the nosebleed persists or is recurrent, see your doctor, who may then recommend stopping the bleeding with a heating instrument or chemical swab (cautery of the blood vessel that is causing the trouble) or application of a topical medicine called thrombin that promotes local clotting of blood.

Blood tests may be ordered to check for bleeding disorders. If bleeding is still persistent, the doctor may place nasal packs, which compress the vessels and stop the bleeding. In rare situations, you may be admitted to the hospital or require surgical treatment or a procedure where material is used to plug up the bleeding vessels in the nose (angiographic embolization).

Nasal packs are used when less conservative measures fail (see above). These packs are frequently placed in both sides of the nose. The packs are usually made of a material called 'Merocel' which is a compressed sponge like material used to help compress the area of the nose that is bleeding. The doctor usually does not remove them for several days (two to three days). This requires a follow-up appointment.

During this time, you may be prescribed antibiotics and pain medications as needed.

It is not uncommon for the nose to drain a blood-tinged material. Folded gauze taped under the nose (a mustache dressing) is often useful. Your doctor may permit you to clean your nostrils with hydrogen peroxide soaked cotton buds. Finally, you should consider the prevention methods described above to help to avoid bleeding again.

Remember, patients with nosebleeds should not to take aspirin or any other blood thinning products. If patients are already taking these medications when the nosebleed is noticed, they should consult their healthcare practitioner.

First Aid for Nosebleeds

While nosebleeds often look frightening, most of them are not serious and can be easily treated, for example, at home. The inside of the nose is especially prone to bleeding because of the abundance of

blood vessels inside the nose that help warm and humidify the air we breathe. The blood vessels in the nasal passages are also very close to the surface and are therefore quite vulnerable to injury.

The majority of nosebleeds arise from small blood vessels located in the front of the nasal passages. Rarely, nosebleeds come from larger blood vessels in the back of the nose. Nosebleeds from larger vessels are more serious and may be due to high blood pressure, atherosclerosis, or significant injury to the nose.

Most nosebleeds are caused by dryness or minor mechanical damage from picking the nose. In children, nosebleeds can occur if they insert objects into the nose. Other factors that predispose to nosebleeds include allergies, upper respiratory infections, blood clotting disorders, cocaine use, alcohol abuse and cigarette smoking .

Taking medications such as warfarin (Coumadin), or aspirin that interfere with the normal clotting of blood can also increase the risk of nosebleeds.

If you get a nosebleed, sit down and bend forward. Sitting is preferable to lying down, since keeping the head above the level of the heart will help reduce the bleeding. Bending forward is also important. It lets the blood drain out through the nose rather than down the throat.

Hold the soft portion of your nose pinched together with your fingers until the bleeding stops. This might take five to ten minutes. Placing an ice pack across the bridge of your nose can also be helpful.

If a nosebleed goes on for more than 15 minutes, occurs following a serious injury, or is accompanied by severe blood loss, you should call your doctor or visit the emergency room. You should also visit your doctor for an examination if you get nosebleeds frequently, as they can in rare instances be early warning signs of serious conditions. Nosebleeds in the elderly are also more likely to be related to serious conditions than in younger persons.

You can help prevent nosebleeds by using humidifiers in winter and keeping the lining of the nasal passages moistened with a very thin layer of an ointment such as petroleum jelly in winter or in dry climates. A saline nasal spray can also help keep the nasal cavities moist. Frequent trimming of fingernails, especially children's, can also help reduce nosebleeds from picking the nose.

When Your Child Gets a Nosebleed

Nosebleeds are common in young children, and are usually not a cause for concern.

Here are suggestions on what to do if your child has a nosebleed:

- Keep yourself and your child calm, and mention that it is no cause to worry.
- Have your child sit in an upright position with the head tilted slightly forward. Do not let the child lean back, which could lead to swallowing some blood.
- With a clean tissue or cloth, gently pinch the nose at the bottom of the bony area.
- Continue pinching the nose for about 10 minutes. Then you may want to hold an ice pack to the nose to be sure the bleeding has stopped.
- Have your child rest once the bleeding has stopped. Do not let the child blow, pick or rub the nose.

Nosebleed At A Glance

- Nosebleeds are common due to the location of the nose on the face, and the large amount of blood vessels in the nose.

- The most common cause of nosebleeds is drying of the nasal membranes and this can be prevented with proper lubrication of the nasal passages and not picking nose.

- Most nosebleeds can be stopped at home.
- Consult a doctor for a nosebleed if bleeding cannot be stopped, there is a large amount of blood lost, or you feel weak or faint.
- A doctor may use nasal packs to stop nosebleeds when conservative measures fail.

Do not take aspirin or other blood thinning products when you get a nosebleed (if they are doctor-prescribed, consult your doctor before stopping any medication).

Often Overlooked Dietary, Drug and Genetic Causes of Epistaxis

The causes

1) Inherited *genetic disorder* where easy bleeding is one of the traits. It is estimated that inherited bleeding disorders affect a significant portion of the population, though many doctors seldom are aware that nose bleeds and other bleeding problems may be symptoms of an inherited disorder.

2) *Vitamin K* is needed to clot the blood, so without enough vitamin K people tend to have nose bleeds and all sorts of other bleeding problems - heavy menstrual bleeding (menorrhagia) in women, easy bruising, bleeding gums, hematuria, etc.

3) Uneven shoulder muscles from sideways spinal curvature (scoliosis) and pectus excavatum causing *constricted blood vessels*. The muscles on one side of the shoulder may be overly tight and overdeveloped. As such they were constricting the veins and arteries on that side of the body, causing high blood pressure on just one side of the head. For the same reason the arm would go numb just on one side. It was from tight muscles putting pressure on the nerves.

These are some of unusual causes. There are other causes as well.

Ehlers-Danlos syndrome is being linked to nose bleeds, and a wide variety of bleeding problems. Mitral valve prolapse and hypermobility are conditions research has shown as linked to bleeding problems.

Further

Factor II Deficiency - There are two types of this deficiency, a congenital version called hypoprothrombinemia, and an acquired version called dyspothrombinemia.

Von Willebrand's disease - A hereditary deficiency or abnormality of the von Willebrand factor in the blood, a protein that affects platelet function. It is the most common hereditary disorder of platelet function, affecting both women and men. The disease is estimated to occur in 1% to 2% of the population.

Idiopathic Thrombocytopenic Purpura (ITP) - Most children with ITP have a very low platelet count that causes sudden bleeding. The usual symptoms are bruises and the tiny red dots on the skin. Nosebleeds and bleeding gums are also common.

Indiscriminate use of broad spectrum antibiotics

Nosebleeds and Vitamin K

Bleeding is the major symptom of Vitamin K (The 'K' in vitamin K comes from the Danish word for coagulation.) deficiency, especially in response to minor or trivial trauma. Any site can be involved, including mucosal and subcutaneous bleeding, such as epistaxis, hematoma, gastrointestinal bleeding, and menorrhagia, and hematuria, gum bleeding, and oozing from venopuncture sites. Easy bruisability also is observed.

Vitamin K deficiencies can occur from a variety of causes. At one time it was thought vitamin K deficiencies were rare, but some experts are now questioning this line of thinking. Some experts now

believe vitamin K deficiencies may be more common that previously thought.

Vitamin K in our bodies comes from two main sources.

- The vitamin K contained in the foods we eat. Most leafy green vegetables are high in vitamin K.
- The vitamin K is synthesis by helpful bacteria that reside in our intestines.

Prescription antibiotics destroy these beneficial bacteria, which is why some people develop bleeding problems after taking antibiotics. Children tend to get nose bleeds more often than adults. This may be due to the fact that children also tend to consume a lot of fruit and fruit juices, foods that are high in salicylates (aspirin like substances). Salicylates can block vitamin K. This may be another reason why children get frequent nosebleeds.

People who have an imbalance in their intestinal flora from conditions like systemic candida (yeast) infections may also be low in vitamin K. In these cases the pathogenic organisms tend to crowd out the beneficial bacteria that we need to synthesize nutrients in our digestive system, including vitamin K.

Anticoagulants can also cause nose bleeds because they thin the blood by blocking vitamin K. Long term usage of Warfarin Sodium can cause nose bleeding, gum bleeding, purpura, blood in urine, uterine bleeding, blood in stool, bleeding of ulcers and wounds.

Bleeding and Genetic Disorders

Most people have heard of hemophilia, but there actually are a lot of other more common bleeding disorders that are not as well known. Those diagnosed with an inherited connective tissue disorder called Ehlers-Danlos syndrome where easy bleeding is one of the common problems. Other bleeding disorders besides Ehlers-Danlos syndrome that have nose bleeds as a symptom include:

Low platelet count as a cause of nose bleeds and sudden bleeding.

Hereditary hemorrhagic telangiectasia (HHT) which is not a bleeding disorder but rather a genetic disorder of the blood vessels.

Constricted Blood Vessels

High Blood Pressure

There are some thirty five disorders that can cause bleeding.

Some people, especially children, only get nose bleeds when they are in bed at night. They also get sweaty heads. Ayurvedic (traditional Indian) medicine actually has a logical explanation for why these conditions occur more at night and also why they occur together.

In Ayurvedic medicine, one cause of high blood pressure is an acid stomach. People's stomachs get more acid at night when they have not eaten any food for awhile, and also perhaps also due to normal body rhythms. This increase in stomach acid causes a person's metabolism to rise. The increase in stomach acid also raises blood pressure, which is a known cause of nose bleeds.

When people are sitting up during the day there is less blood flow to their heads because gravity pulls the blood down towards their feet. That is why people often get swollen ankles during the day, but at night, when people lay down, there is less blood in the feet and ankles and more blood flowing to the head. Besides increased stomach acid, this change of position also contributes to higher blood pressure in the head than there usually is during the day when people are sitting or standing upright and blood can flow out of the head region easier.