



Doctor, what is Post-Nasal Drip?

About PND

The glands in your nose and throat continually produce mucus (1 to 2 quarts a day). It moistens and cleans the nasal membranes, humidifies air, traps and clears inhaled foreign matter, and fights infection. Although mucus normally is swallowed unconsciously, the feeling that it is accumulating in the throat or dripping from the back of your nose is called post-nasal drip.

This feeling can be caused by excessive or thick secretions or by throat muscle and swallowing disorders.

What causes Abnormal Secretions?

Thin and Thick—Secretions Increased thin clear secretions can be due to colds and flu, allergies, cold temperatures, bright lights, certain foods/spices, pregnancy, and other hormonal changes. Various drugs (including birth control pills and high blood pressure medications), and structural abnormalities can also produce increased secretions. These abnormalities might include a deviated or irregular nasal septum (the cartilage and bony dividing wall that separates the two nostrils).

Increased thick secretions in the winter often result from too little moisture in our heated buildings and homes. They can also result from sinus or nose infections and some allergies, especially to certain foods such as dairy products. If thin secretions become thick and green or yellow, it is likely that a bacterial sinus infection is developing. In children, thick secretions from one side of the nose can mean that something is stuck in the nose (such as a bean, wadded paper, or piece of toy, etc.).

Sinuses are air filled cavities in the skull. They drain into the nose through small openings. Blockages in the openings from swelling due to colds, flu, or allergies may lead to acute sinus infection. A viral "cold" that persists for ten days or more may have become a bacterial sinus infection. With this infection you may notice increased post-nasal drip. If you suspect that you have a sinus infection, you should see your physician for antibiotic treatment.

Chronic sinusitis occurs when sinus blockages persist and the lining of the sinuses swell further. Polyps (growths in the nose) may develop with chronic sinusitis. Patients with polyps tend to have irritating, persistent post-nasal drip. Evaluation by an otolaryngologist may include an exam of the interior of the nose with a fiberoptic scope and CAT scan x-rays. If medication does not relieve the problem, surgery may be necessary.

Vasomotor rhinitis describes a nonallergic "hyperirritable nose" that feels congested, blocked, or wet.

Swallowing Problems

Swallowing problems may result in accumulation of solids or liquids in the throat that may complicate or feel like post nasal drip. When the nerve and muscle interaction in the mouth, throat, and food passage (esophagus) aren't working properly, overflow secretions can spill into the voice box (larynx) and breathing passages (trachea and bronchi) causing hoarseness, throat clearing, or cough.



Several factors contribute to swallowing problems: With age, swallowing muscles often lose strength and coordination. Thus, even normal secretions may not pass smoothly into the stomach. During sleep, swallowing occurs much less frequently, and secretions may gather. Coughing and vigorous throat clearing are often needed when awakening. When nervous or under stress, throat muscles can trigger spasms that feel like a lump in the throat. Frequent throat clearing, which usually produces little or no mucus, can make the problem worse by increasing irritation. Growths or swelling in the food passage can slow or prevent the movement of liquids and/or solids.

Swallowing problems may be caused also by gastroesophageal reflux disease (GERD). This is a return of stomach contents and acid into the esophagus or throat. Heartburn, indigestion, and sore throat are common symptoms. GERD may be aggravated by lying down especially following eating. Hiatal hernia, a pouch-like tissue mass where the esophagus meets the stomach, often contributes to the reflux.

Chronic Sore Throat Post-nasal drip often leads to a sore, irritated throat. Although there is usually no infection, the tonsils and other tissues in the throat may swell. This can cause discomfort or a feeling of a lump in the throat. Successful treatment of the post-nasal drip will usually clear up these throat symptoms.

Treatment

A correct diagnosis requires a detailed ear, nose, and throat exam and possible laboratory, endoscopic, and X-ray studies. Each treatment is different:

Bacterial infection, when present, is treated with antibiotics. These drugs may provide only temporary relief. In cases of chronic sinusitis, surgery to open the blocked sinuses may be required.

Allergy is managed by avoiding the cause if possible. Antihistamines and decongestants, cromolyn and steroid (cortisone type) nasal sprays, and other forms of steroids may offer relief. Immunotherapy (allergy shots) also may be helpful. However, some older, sedating antihistamines may dry and thicken post-nasal secretions even more; newer non-sedating antihistamines, available by prescription only, do not have this effect. Decongestants can aggravate high blood pressure, heart, and thyroid disease. Steroid sprays generally may be used safely under medical supervision. Oral and injectable steroids rarely produce serious complications in short term use. Because significant side effects can occur, steroids must be monitored carefully when used for more than one week.

Gastroesophageal reflux is treated by elevating the head of the bed six to eight inches, avoiding late evening foods and beverages, and cutting alcohol and caffeine from the daily diet. Antacids (e.g., Maalox®, Mylanta®, Gaviscon®) and drugs that block stomach acid production (e.g., Zantac®, Tagamet®, Pepcid®) or more powerful medications may be prescribed. A trial treatment may be suggested before x-rays and other diagnostic studies are performed.

General measures for thinning secretions so they can pass more easily may be recommended when it is not possible to determine whether an existing structural abnormality is causing the post-nasal drip or if some other condition is to blame.

Many people, especially older persons, need more fluids to thin secretions. Drinking more water; eliminating caffeine; and avoiding diuretics (fluid pills) will help. Mucus thinning agents such as guaifenesin (Humibid®, Robitussin®) may also thin secretions.



**American Academy of Otolaryngology—
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Nasal irrigations may alleviate thickened secretions. These can be performed two to four times a day either with a nasal douche device or a Water Pik® with a nasal irrigation nozzle. Warm water with baking soda or salt (½ to 1 tsp. to the pint) or Alkalol,® a nonprescription irrigating solution (full strength or diluted by half warm water), may be helpful. Finally, use of simple saline (salt) nonprescription nasal sprays (e.g., Ocean®, Ayr®, or Nasal®) to moisten the nose is often very beneficial.