
Sinusitis Protocol Evaluation & Management

Sinusitis is a condition in which the air-filled spaces in the skull (sinuses) become inflamed. There are many possible causes of inflammation: viral infection with or without secondary bacterial or fungal infection, allergy inhalant irritation exposure, and medication. When the sinuses are unable to drain because of swelling due to inflammation, the normal secretions of the sinuses become stagnant and secondary bacterial infection results. Once the nasal lining and sinuses are inflamed, systems of nasal and sinus congestion may increase significantly when there is exposure to nonspecific factor such as a barometric pressure change (especially air travel), temperature change, odor exposure, hormonal change, and emotional stress.

The most common cause of sinusitis is a viral upper respiratory tract infection (URI). Symptoms of viral URI usually last 5-10 days and symptoms typically are those of nasal congestion, runny nose, postnasal drip, sore throat, sinus congestion, and intermittent sinus congestion pain. Three to four days of a yellow/green discharge is not uncommon and, if sinus drainage can be maintained and secretions remain thin, there is usually no need for antibiotic therapy. Studies have shown that 50% of x-rays proven sinus infections will clear without antibiotics as long as there is adequate sinus drainage. **WITHOUT PROVIDING ADEQUATE SINUS DRAINAGE SINUSITIS WILL FAIL TO CLEAR EVEN WITH ANTIBIOTICS.**

Patients with recurrent and chronic sinusitis should be evaluated for conditions that may predispose them to episodes of rhinitis and/or the poor sinus drainage. These may include an evaluation for allergies, work-related exposure to inhalant irritants, infection exposure, defects in immunity, and abnormal sinus anatomy. Finding the cause of sinusitis is essential and may possibly prevent future episodes of sinus infections.

Treatment Recommendations

1. Drink 6-9 glasses of fluid per day (enough fluid to make your urine clear and white).
2. Avoid use of antihistamines since these drugs will dry and thicken secretions inhibiting drainage. Some examples of antihistamines include: Actifed, Dimetapp, Drixoral, Tavist, Claritin, Allegra, Zyrtec, Xyzal.
3. Perform nasal saline (salt water) irrigation 2-4 times a day.
 - A. Nasal saline may be purchased over-the-counter (Ayr, Ocean Spray) or prepared as follows: ½ tsp. of table salt dissolved in 1 cup of warm tap water with a pinch of baking soda. A more concentrated saline solution may be more effective: 1 ½ tsp. in a cup of water with baking soda.
 - B. Wash each side of the nose with a metered dose pump like the ones used with cortisone nasal sprays or use a squeeze bottle or ear bulb syringe. Irrigate the nose with enough saline until all secretions are washed out.
 - C. Nasal irrigation also can be accomplished by using a cold steam vaporizer or hot shower but these techniques may not be as effective.
 - D. Use of Water Pik with nasal adapter can also be very effective.
4. To reduce inflammation and promote good drainage topical nasal decongestant such as Neo-Syneprine or Afrin for 2-4 days on a twice a day basis can be helpful to allow saline and/or nasal steroids to enter the nasal cavity. Excessive use can result in rebound nasal congestion.
5. Decongestant medication such as Sudafed with or without a mucus-thinning medicine such as guaifenesin (Robitussin) can improve sinus drainage. Guaifenesin can be used alone twice a day.
6. Decongestants medications (**WITHOUT ANTIHISTAMINE**) often can be used in patients with **CONTROLLED** hypertension for 3-5 days. The blood pressure **should** be monitored to document continued adequate control.
7. Nasal cortisone sprays and short treatment course of oral cortisone (Prednisone, Medrol) can be used to reduce inflammation.
NASAL SPRAY TECHNIQUE: Spray with head bent forward. **OR** Tilt head backwards while lying on
Aim spray towards the eye. Back and aim towards the eye.

Antibiotics are best prescribed after the sinus infection has been given a chance to clear with the above measures. I prefer to wait at least seven days after onset or until the sinus infection has begun to trigger a significant asthma episode.

Once antibiotics are prescribed it is not usually require a 2-4 week course of treatment. Chronic sinusitis may require six weeks of therapy or longer. **CONTINUE TO USE THESE TECHNIQUES TO ENCOURAGE SINUS DRAINAGE.**