Medical Treatment for Sinusitis

What medical treatments are available for sinusitis?
Supportive care is usually all that is needed for acute infections. This consists of drinking plenty of fluids, resting your body, and using Tylenol or Ibuprofen for discomfort. Some doctors recommend the use of decongestants, like Sudafed, or mucolytics to loose mucous. These remedies may work for certain patients but not others. For infections that linger more then 7–10 days, it is likely that bacteria may be the cause. For these cases, antibiotics may be helpful. When infections last longer then 3 months, they are considered a chronic infection. Patients may not feel miserable all the time, but often feel facial pressure, postnasal drip, and fatigue. A nasal steroid is often helpful to decrease inflammation. Allergy medications such as antihistamines can be given to help prevent further inflammation. These can be given as pills or in the form of a nasal spray. Other allergy medications such as Singulair can be helpful as well. For patients who suffer from severe allergies, immunotherapy or “allergy shots” can be a useful adjunct.

When are antibiotics necessary?
Antibiotics are necessary if there are any complications from sinusitis (such as bronchitis that has spread beyond the sinuses or if the patient has a weakened immune system). Antibiotics are also recommended if cultures grow bacteria or if the infection has persisted for 10 days or more. Antibiotics come in many different forms, but for most patients, first line treatment involves amoxicillin or another broad spectrum antibiotic that covers the most common causes of bacterial sinusitis (flu, strep, pneumonia, Moraxella catarrhalis). For patients who have had sinus surgery, usually coverage of Staphylococcus aureus is important and patients are often put on antibiotics such as amoxicillin clavulanate. Studies have shown that more time tested generic antibiotics are as good for treatment of sinusitis than the newer, more expensive antibiotics. Studies have also postulated that 1 out of 7 patients that go on antibiotics actually need the antibiotics to get better.

What are the risks of antibiotics?
The main risks of antibiotics are building up resistance (changing the bacteria into more virulent forms) and reactions to antibiotics. This includes allergic reactions and gastrointestinal problems such as diarrhea. In rare cases, patients can get a bacterial form of diarrhea called Clostridium difficile. This can be life-threatening.

Why are steroids used?
Steroids are often used because sinusitis causes significant inflammation in the nose. Steroids (such as prednisone) work by decreasing inflammation by blocking the immune response. There is concern that this might weaken the natural immune response, however, for sinusitis, inflammation often plays a major role. This is particularly true in
patients with polyps. Steroids might work in a patient that has not gotten better despite antibiotics by reducing inflammation and letting the sinuses drain properly. Steroids come in both oral and topical forms. Topical steroids are sprays that are given as a prescription by your physician. These carry far less risk than oral steroids.

**What are the risks of steroids?**
The main risks of oral steroids (pills) are in long-term use. This includes cataract formation, decreasing bone density, decreasing patients’ natural steroid production, effects on development in children, and weight gain. Because of the absorption in the blood stream, steroids, when used for more than a week, are generally weaned by slowly decreasing the amount given. In short-term use common side effects include: emotional changes (the so-called “steroid psychosis”), weight gain, and a rare, but serious complication called aseptic necrosis of the hip. This rare complication can cause a problem with the hip that could require a hip replacement. For topical steroids, the risk is generally minimal. Studies have shown that these do not suppress patients’ natural steroid production and thus minimal amounts get into the blood stream. They should be used cautiously in patients with glaucoma as they may increase the intraocular pressure in the eye. Furthermore, they may cause nose bleeds or other forms of nasal irritation.

**What is a Neti Pot or a sinus rinse and is it useful?**
A Neti Pot is perhaps the first known treatment of sinusitis. It is essentially a device shaped like a teapot that is filled with salt water and used to flush out the nose. Its origin is thought to be from ancient India. Using a Neti Pot, patients get in certain positions to get the water to flow from one side of the nose and out the other. More recently, other devices have become available. A sinus rinse (which is basically a bulb syringe) allows a patient an easier method by using a squeeze bottle to cleanse the nose. Fancier devices include a Grossan irrigator (powered cleaner) and personal humidifiers. It is important that all these devices be cleaned in between use to prevent them from building up bacteria and fungus. Irrigations can be mixed with various amounts of salt and therefore are named based on the concentration (hypertonic, isotonic, and hypotonic). The majority of those on the market are isotonic (same salt concentration as the body). Most pharmacies sell pre-mixed packets or they can be mixed at home using about a teaspoon of Kosher salt (non-iodinized) with some buffer such as baking soda to a liter of sterile or distilled water.

**What new treatments are available?**
Unfortunately, there are no drugs approved by the federal drug administration for the treatment for chronic sinusitis. As a result, all treatment of chronic sinusitis is what we call “off-label.” In addition to antibiotics, steroids, and sprays, sinus doctors have been experimenting with increasing the topical steroid component used in the nose. Recently,
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doctors have been using an asthma drug called budesonide in the nose to decrease swelling. Other experimental treatments include the use of topical antifungal medications such as amphotericin, using intravenous antibiotics and even using baby shampoo in the nose.

**Are there any alternative or homeopathic remedies that can be used for treatment?**
There are several herbs that have been used abroad that may be helpful. Sinupret and bromelain have been shown some promising results in recent studies. Sinupret was developed in Germany and consists of five herbal extracts. Bromelain comes from the stem and fruit of the pineapple and contains a concentration of closely related proteinases. There is no evidence to support the use of vitamin C for colds or sinusitis, though many people use it religiously. Acupuncture has also failed in well-controlled studies in treating sinusitis. Despite this, it is fair to say that a treatment may work on one person and not another. It is best to discuss all forms of treatment with your physician or practitioner prior to beginning any treatment whether prescription, over-the-counter, or herbal.

**When is a referral to an ear, nose, and throat or sinus specialist necessary?**
Upper respiratory and sinus infections are some of the most common things that all physicians treat. All primary care doctors are well trained to deal with routine infections. In many cases a specialist will prescribe the exact same treatment that your regular doctor would. It is for those patients that continue to have infections despite regular treatment, or those patients who cannot get rid of an infection despite antibiotics, that ear, nose, and throat specialists are needed. An ear, nose, and throat physician can look in the nose with a camera to evaluate for anatomic obstruction and can also take a culture if necessary to evaluate for resistant bacteria. A sinus specialist, of which there are three fellowship-trained in the State of Connecticut, is an individual that after training in ear, nose, and throat, completed additional training specifically in sinus diseases. They are needed when patients have failed to respond to surgical or aggressive medical therapy.