

Marina Times Column (DRAFT)

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March 2014

Just Breathe

Before you read any further, stop for a second. Close your eyes, take a deep breath. How did that feel? Was your mouth open or did you just breathe through your nose? In your nose, was there any resistance, on one side or both? Now what if you were jogging? Or sleeping? I'm sure that this isn't something you think about all the time, but it's hard to say that breathing is overrated. In fact, there is a type of mindfulness meditation based in part on what you just did – *pranayama*. In this practice attention is focused on the simple act of breathing as a way of calming the spirit, and medical studies have shown positive effects on stress-related diseases.

Nasal obstruction has many causes, some of them physiologic (related to temporary conditions) and some anatomic (related to the position and arrangement of specific structures). Regardless of etiology, the manifestation is similar: snoring, dry mouth, poor sleep quality, even reduced exercise tolerance. About 30% of people over 30 snore, and at least 40% of people over 40. Men snore a bit more than women. This can be disruptive to your daily routine (and your bed partner's!), and is an overlooked cause of fatigue. An important distinction that should be made is between snoring and obstructive sleep apnea (OSA). While the two can happen together, OSA is a more serious problem in which the airflow is blocked entirely during sleep. Over time, this can cause or exacerbate heart and lung problems and lead to weight gain. In severe cases, chronic tiredness increases the likelihood of workplace injuries and car accidents.

Causes of nasal breathing problems are wide-ranging. The most common cause, across gender and age groups, is allergy. Seasonal and environmental allergies are reported by more than 40 million people in the United States! Common treatments include saltwater irrigation (e.g., sinus rinse kit or Neti pot), antihistamines, and nasal steroid sprays. Some patients with specific allergies benefit from immunotherapy (also known as "allergy shots"). These medical treatments are effective in most mild cases, and are still beneficial in more severe cases. Other causes may be related to hormonal shifts (as in pregnancy or menopause), medication side effects, and age-related changes.

For some people, allergies are not the whole story. In these patients, there is an anatomic problem with the nose: something is blocking the passage of air. This can be a fixed obstruction (like a deviated septum or a broken nose) or a dynamic obstruction. The latter problem is common yet often overlooked. As we breathe through the nose, the air must pass through two

key areas, referred to as the *internal* and *external nasal valves*. These are not true valves, such as the kind you find in the heart; rather, they are areas of narrowing and potential airway collapse. The external valve is basically the nostril rim and the entrance to the nose. In some people, the nostril opening is very narrow; while others have very weak support and experience collapse when breathing in. The internal nasal valve is inside the nose, underneath the soft cartilages that connect the nasal bones to the nasal tip. This is the narrowest part of the nose and creates the highest resistance in the entire airway – from the tip of the nose to the bottom of the lungs.

When I see patients for nasal obstruction, we always start with nonsurgical options. In most cases, this begins with nasal rinses, nasal sprays, even Breathe Right Strips® for exercise or sleeping. If there is a history indicative of sleep apnea, further diagnostic testing is needed. For patients with anatomic obstruction, surgery may be indicated. In straightforward cases, this can be just a septoplasty, a simple operation for straightening the cartilage and bone in between the two sides of the nose. In many instances, however, a more complex functional rhinoplasty is needed. In this surgery, the internal and external nasal valves are repaired with cartilage shaping techniques, placement of key sutures, and addition of structural grafts.

For most people breathing is automatic. But for people who have chronic nasal obstruction, there are treatments available. As a dedicated rhinoplasty surgeon, improving breathing is always on my mind – in functional nasal surgery and even in purely cosmetic cases. If breathing issues are negatively impacting your daily life, exploring your options is well worth your time. Here's to a better run, a clearer head, and a full, restful, and *quiet* sleep!

Evan R. Ransom, MD is a facial plastic surgeon practicing in San Francisco and Marin County. He specializes in rhinoplasty (both functional and cosmetic), as well as aesthetic and reconstructive surgery of the face, neck, and eyelids. Dr. Ransom regularly performs nasal surgery to improve patients' breathing. For more information, visit him on the web at www.SanFranciscoFacialPlasticSurgery.com.