

Important Things to Know About Your Nose

The Swallowing Series for Therapists, Parents and Clients
Char Boshart, M.A., CCC-SLP

When switching from mouth breathing to nose breathing, one may ask, “What difference does it make? They both work, and besides, I can get more air through my mouth.”

Good points, but there are several important reasons that everyone needs to breathe through their nose—reasons that can affect your health. When you chronically breathe through your mouth, you miss out on the following important bodily functions and benefits.

The Nose Filters the Air

Inside the nose on each side, are three folds of cartilage and bone that adhere to the inside walls of the nose. They are called “turbinates” and are super important. As we inhale air through the nose, bacteria and dust particles are caught by the turbinate’s cilia (little, microscopic brooms on the surface of the turbinates). The unwanted particles are propelled toward the throat area at the rate of 10 sweeping strokes per second. We then swallow and rid the unwanted bacteria and particles.

If a person does not breathe through their nose, for whatever reason, the only alternative is for the air to move through the mouth and throat area, down the trachea, and into the lungs. Unfortunately, the person misses out on this important filtering process and its benefits.

It’s common for people with asthma to breathe through their mouth. The jury is out whether mouth breathing causes asthma, but it can definitely be a contributor and an influential factor.

The Nose Regulates Air Temperature

When we inhale, the air is either warmed or cooled within 250 msec. Extremely cold air can partially paralyze the nasal cilia (the tiny hairs within the nose) and cause an overproduction of mucus. This causes a runny nose. It’s the job of the nose to heat the inhaled air almost to body temperature. Also, in very hot weather, the nose cools the air. This makes it easier and healthier for the lungs to function. In addition, the sinuses help to regulate the air temperature as well.

The Nose Regulates Humidity

When the inhaled air passes through the nasal cavities, it receives moisture from the nasal mucous membrane. Air reaching the back of the nose (the nasopharynx) has a nearly constant relative humidity level of 75 to 80 percent. Humid air protects the delicate smell-receptors in the nasal cavity. The sinuses also help to regulate the humidity level.