**The Benefits of Nose Breathing**

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**Why is it important that the air be humidified?**

You know, the nose is not just a decoration, although western medicine consistently treats it as an optional accessory.  It is, in fact, a complex organ with a very important function.  Even respiratory specialists don't seem to understand this.  I saw a little boy sitting on the floor in a room at a pediatric asthma clinic in Davos, up in the Swiss mountains. He was surrounded by puffers, spacers and all the other paraphernalia that
asthmatics need.  He had his mouth wide open.  When I told his specialist that the boy should keep his mouth closed, he told me that he needed all the air he could get and that he would suffocate with his mouth closed.

Firstly, let’s start at the beginning with the hairs in the nose, which not only filter, but because of the very sensitive nerve endings at their roots, can also warn about particles in the air.  Just try touching one and you'll feel it instantly takes your breath away!

Next, the turbinates (concha nasalis) cause the air going through the nasal passage to centrifuge any particulate matter that is in the inspired air. This debris then sticks to the sticky lining on the walls of the nasal passages, preventing it from being sucked into the lungs.

The paranasal sinuses produce nitric oxide, which is a very powerful sterilizing agent, killing bacteria  (I'm not sure about viruses) that could infect your airways causing bronchitis.

The air is also warmed by the nose. Cold air can cause bronchospasm in people predisposed to asthma.

The air is humidified by the nose, so that by the time it gets to the bronchial bifurcation it is already 90% humid.  Why is this important? Well, the surface of the airways is lined with cells that contain tiny little hair-like projections.  They beat in unison to produce an escalator effect of moving sticky mucus to move any debris in the lungs back out of
the lungs.  However, they need to be in total humidity, otherwise they don't work.  If the

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airways dry out, the cilia as they are called, cannot operate, and the debris remains rapped in the lungs.  This means you have to cough it up, which causes further damage to the lungs.

The extra resistance and dead-space that the nose provides is important in the regulation of breathing, as are the air flow sensors in the nose. Therefore, bypassing the nose promotes hyperventilation.

Finally, nose breathing is extremely important for oral health.  Mouth breathing causes a drying out of the gums, increases the acidity in the mouth promoting both caries and gum disease.  Additionally, the unnatural open-mouth posture prevents the tongue and lips from forming the natural arch around the mouth, and as a result tooth malformation occurs.  This can affect the aesthetics of the entire face and could contribute to other
health problems.

Now just think about the poor little asthmatic child, full of inflammation of the airways, and the respiratory specialist tells him to bypass all the protective mechanisms that keep his airways clean, sterile and functioning properly!

My small additions: The collected moistened contaminants collected in the nasal passages end up being swallowed for the most part if not extruded through the castings in the nose. These enter the stomach and are completely digested and rendered harmless by the high concentration of hydrochloric acid there. Thus the air breathed through the nose is nearly completely purified before entering the lungs. In mouth breathing, all the particulates, and possible troublesome entities go straight to the lungs and from there directly into the blood stream.

In addition to the nitric oxide sterilizing effect that Peter spoke of, you also have a good supply of Lysozyme's in the nasal mucus membrane, and present in tears also which attacks bacteria entering the body via the nose. [http://en.wikipedia.org/wiki/Lysozyme](http://en.wikipedia.org/wiki/Lysozyme%22%20%5Ct%20%22_blank)

Finally, mouth breathing increases greatly dehydration as can be seen by breathing on a mirror seeing the mist there which of course is water vapor. Breathing out through the nose conserves that water vapor. Otherwise with mouth breathing, we lose a tremendous amount of water through water vapor breathed out over the course of the day let alone the amount breathed out when we exercise with the mouth open. Dehydration is largely responsible for so many of the injuries we see in elite athletes let alone our own injuries in the various sports. Many are drinking Gator Aid which actually dehydrates them even though there are electrolytes in the mix,

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the amount of sugar in it can only be adequately metabolized using a great deal of water and so there is no net gain in the hydration with an accompanying rise in sugar metabolism and insulin production leading to a subsequent drop in energy after the initial boost.

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