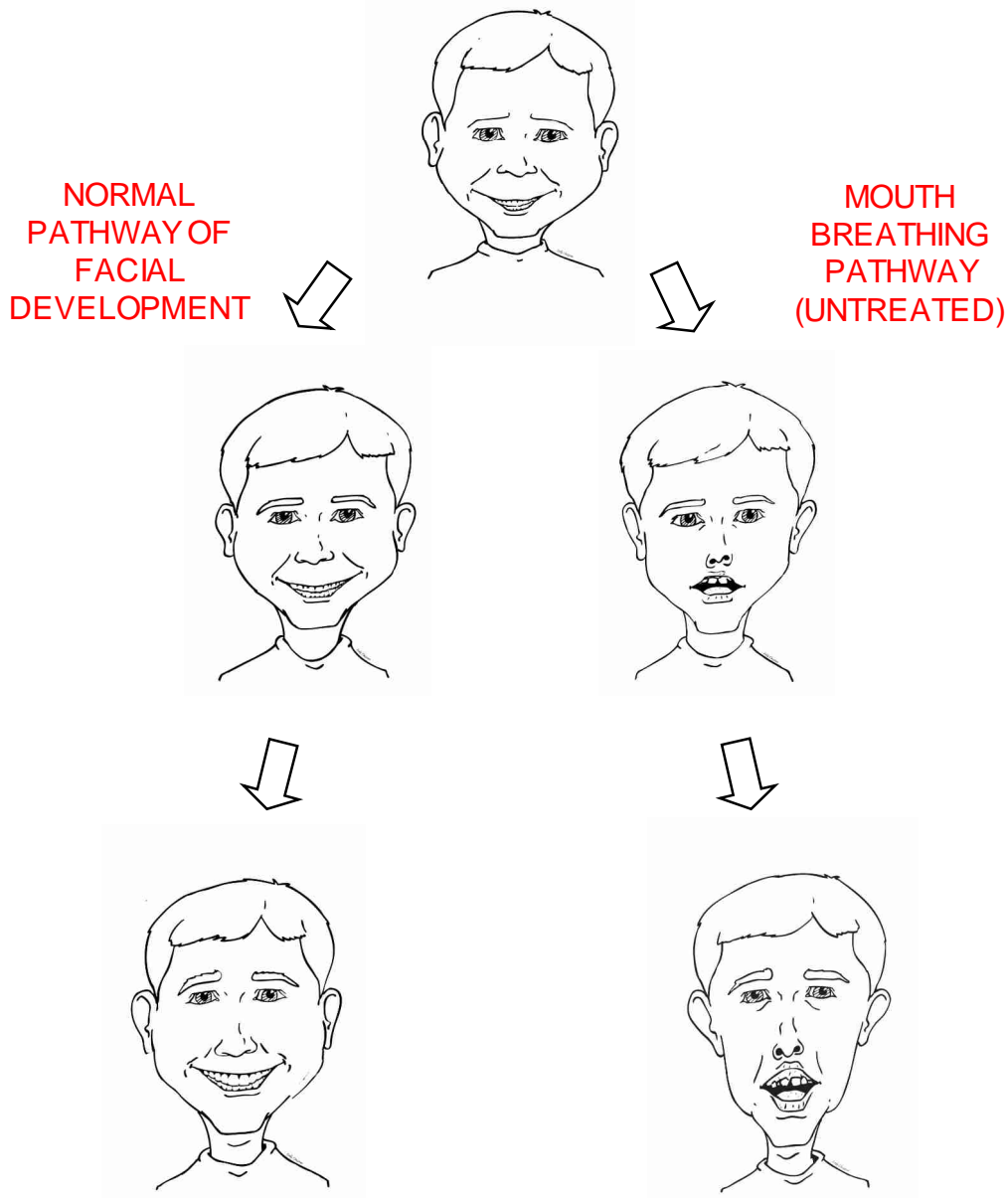


Is my Child a Mouth Breather?

Although mouth breathing is common and sometimes overlooked, it is a primary cause of facial and dental deformities and irregularities. Mouth breathing is caused by chronic nasal obstruction (CNO). No one breathes through their mouth as a habit! Children rarely complain of mouth breathing as it has become their “normal”. Dental and facial deformities / irregularities can be prevented or minimized by timely and appropriate treatment.



Signs and symptoms of mouth breathing *may* include:

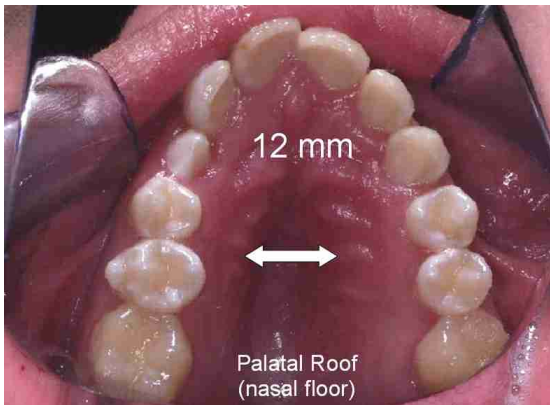
- Open mouth posture, especially while sleeping
- Dry lips
- Narrow palate, crowded teeth
- Increasingly long and narrow face (Long face syndrome)
- Thick fibrotic gum tissue
- Gum tissue shows when smiling
- Bad breath (halitosis)
- Dark circles under the eyes “allergic shiners”
- Snoring
- Sleep apnea (OSA)
- Requires much sleep / poorly rested
- High incidence of airway infections (sinus, ear, colds, etc.)

Why is it important for mouth breathers to see an orthodontist by age seven? Because as an orthodontist can help direct growth... but only in a GROWING patient! By the teen years, bone is mature enough that orthodontics (specifically dentofacial orthopedics to direct skeletal growth) becomes much less effective. A simple analogy is a gardener using a stake to straighten a sapling versus trying to straighten a mature tree.

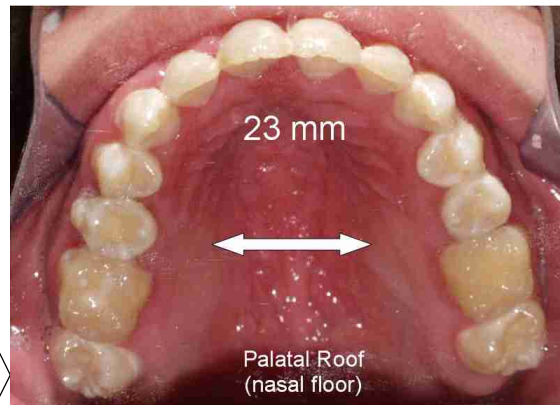
For teens and adults it is too late for simple orthodontic treatment. A combination of surgery and orthodontics may be required to shorten the length of the face. Esthetic improvements after surgery are usually dramatic.

Below is an example of palate expansion in a CNO patient. The roof of the mouth is the floor of the nasal cavity. From this you may infer similar improvements in nasal volume. This much researched subject confirms measured increases in nasal volume for 100% of patients. 60% of patients report noticeable improvements in breathing. The other 40% may be further restricted by adenoids or other anatomy. Palate expansion is performed to correct jaw deformities which are common with CNO. Airway improvement *may be* a tremendous side benefit.

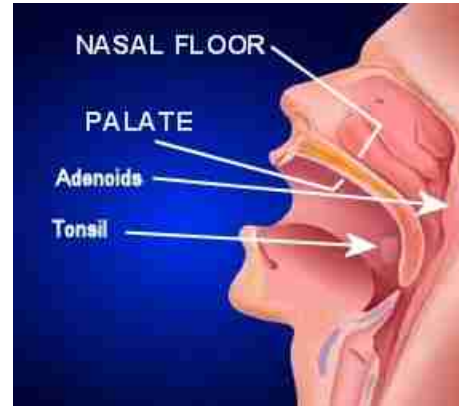
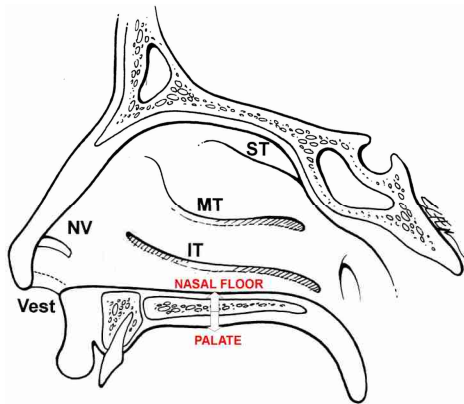
**PALATE DEFORMITY
BEFORE EXPANSION**



**SAME PALATE
AFTER EXPANSION**



Note that the roof of the mouth is the nasal floor. Palate expansion means nasal floor expansion.



It is important for a patient to be evaluated for CNO before the facial and dental effects become more severe. Facial deformities generally increase with growth. Mouth breathers present with different problems in different forms so you may need to see more than one doctor. Some CNO patients need to have their allergies treated, some may need adenoids removed and some may need palate expansion. **ENT's, orthodontists** and **allergists** can work together to diagnose and correct these problems.

FAQ's:

Wouldn't my child complain if there is a problem with their breathing?

No! Having never experienced "normal breathing" children do not recognize their own problem. Usually the parent or doctor must recognize the problem first.

What health improvements might I expect from "normal breathing"?

Improvement/prevention of most/all the symptoms listed on page 1. It is hard to overstate the potential improvement in overall health. Health improvements should be life long.