

# Pediatric Dentistry Faq

## FAQs

1. Why is decay on the rise with children on good, nutritious, and low or no sugar diets? Decay was once thought to be related primarily to a high sugar diet. However children with low or no exposure to sugar are presenting with decayed teeth and some with aggressive decay.

Research has demonstrated a systemic (whole body) cause for decay. It is evident that there may be deeper causes such as radiation exposure, reaction to foreign proteins found in foods, hormonal abnormalities from endocrine glands (possibly from toxins) and improper mineralization.

In fact, improper mineralization is one of the major underlying problems. It is caused primarily by an insufficient amount of minerals in the diet. Even organic produce may have insufficient mineral content. Whether or not adequate minerals are consumed, other problems can exist, such as poor digestion, malabsorption and inadequate distribution to the teeth and bones. Mineral supplements may even worsen the problem.

Hypomineralization (insufficient mineralization) makes a tooth susceptible to decay. In fact, according to the systemic theory of decay, it is only after hypomineralization occurs that nutritional and hygiene factors come in to play. It cannot be stated too often that underlying hypomineralization can still result in decay, even with a perfect diet and perfect oral hygiene. Proper mineralization, on the other hand, can still provide decay resistance, even with poor diet and poor oral hygiene.

Dentists in the past would refer to teeth affected by hypomineralization as "soft" teeth. Here are some questions

that parents may ask when concerned about childhood decay:

- Is it important to treat baby teeth? After all, they are going to fall out.
- Is there any long-term harm to using fluoride to suppress decay in baby teeth? After all, it is less expensive, time consuming and may get immediate results.
- What about the systemic origin of decay? If I ignore or suppress the decay in my child's mouth, am I possibly exposing them to a deeper problem which may emerge later in life in the form of a systemic or chronic degenerative disease?

2. I have been taking my child to a dentist for several years. Why does he/she suddenly have multiple cavities? The presence of decay, whether on one tooth or many, is not an instantaneous event. Decay is caused by one or a combination of local and systemic factors which may accumulate over a number of years. The process takes time and passes through several stages before it manifests as decay in the mouth. Oral hygiene, such as brushing and flossing, will influence how soon and how much decay will occur.

Hypomineralization, whether intrinsic or extrinsic, may leave your child open to decay. Intrinsic factors include an inability to digest, absorb, metabolize or transport nutrients to where they are needed. Extrinsic factors include a mineral deficiency in the mother during pregnancy (which can result in fetal hypomineralization) and consumption of foods that are deficient in minerals. Another extrinsic factor is the consumption of mineral-depleting processed foods and beverages.

3. Can decay appear in specific patterns and does this provide us with diagnostic information? Decay may appear in one or multiple patterns in the oral cavity. They may be evident in such patterns as adult vs. baby teeth, anterior (front) vs. posterior (back) teeth, contra-lateral (opposite) teeth, or a

clustering tooth pattern.

Regarding the adult vs. baby tooth pattern of decay, baby teeth are generally formed in utero and are subject to maternal nutrition. Adult teeth, on the other hand, form after birth and their development is determined by the child's own nutrition and metabolism.

The anterior vs. posterior tooth pattern provides information about when the process of susceptibility to decay began and if it is still continuing. In general, the front teeth develop before the back teeth. Front teeth problems may indicate a process which started around the first three years of life. If decay is in the back teeth only, it may indicate a problem acquired after the age of three. The involvement of both front and back teeth suggests a long-term involvement.

Contra-lateral tooth patterns involve the same tooth on opposite sides of the mouth. It may indicate a long-standing problem with deeper systemic involvement. Certain teeth have links with the acupuncture meridian system of Traditional Chinese Medicine (TCM) and Electro-acupuncture according to Dr. Voll (EAV). The canines in particular are important diagnostic teeth. They relate to the liver meridian which can be termed the "master" organ because of its ability to heal itself and other organs. Decay on the canine teeth may indicate stress on the liver, which also suggests a system unable to compensate for the pressures placed on it.

Decay clustering is a pattern in which several teeth on related acupuncture meridians are affected. In general, all meridians are paired with their functional counterparts: heart with small intestine, lung with large intestine, liver with gall bladder, etc. Decay that clusters on these correlating meridians strongly indicates a problem within that system.

General tooth susceptibility occurs for all teeth (both baby and adult) during the first two years after teeth erupt into

the mouth. Once teeth erupt, they undergo another mineralization phase, during which time they are susceptible.

4. Does breastfeeding improve my child's rate of decay and proper jaw development? Breast-feeding is one of the best gifts a mother can impart to her child in terms of mental, emotional and physical health. In fact, breast-feeding may be one of the most significant ways to decrease decay and improve jaw growth development.

Certain factors, however, may undermine the benefits of breast-feeding. They include the nutritional status of the mother's milk (fat-soluble vitamins, calcium and phosphate contents, other essential minerals) and the baby's ability to digest, absorb and metabolize the milk. Toxins in the mother's milk have become a recent concern. We now know that chemicals which resist detoxification and excretion may be diverted to the mother's milk as a means of eliminating it, thereby placing her child at risk.

The rank of a child's birth in the family may also play a significant role in his/her nutritional status. A mother will lose up to 300 milligrams of calcium per day by breast-feeding. If she does not replenish that calcium, she and any additional children may be at a nutritional disadvantage.

5. Why are the majority of children experiencing poor jaw development resulting in the need for orthodontic therapy? Dr. Weston Price, a dental researcher who travelled the world to compare the health of civilized vs. indigenous people, found decay resistant teeth were always associated with properly formed dental jaw growth. Systemic mineral imbalances, such as general hypomineralization, acid/alkaline imbalances, and altered calcium-phosphorus ratios, may contribute to improper jaw development. Since teeth and bone require adequate minerals for proper development, these tissues will be the first to exhibit signs of mineral deficiency.

Inadequate jaw growth, like dental decay, is rarely caused by genetic defects. And it's not only a product of poor diet, which results in mineral imbalances. Another contributing factor is interrupted jaw growth regulation. During jaw growth regulation, cellular growth signals activate each stage of development. Problems arise when these signals are blocked by specific toxins which enter the body from our air, food or environment.

Inadequate jaw growth is also caused by myofunctional problems. The process of myofunctional regulation involves the muscles in the mouth, particularly the tongue, assisting in jaw expansion. When your child swallows, his/her tongue should press up into the palate just behind the front teeth. This pressure pushes the palatal bones to expand, allowing the larger adult teeth to come in straight when they erupt into the oral cavity. If your child has a tongue thrust, pushing his tongue forward instead of upwards into the palate, palatal expansion may not occur. This can result in teeth misalignment. Improper skeletal development may also occur, since the upper jaw may protrude too far forward or the lower jaw may retrude back, resulting in improper facial development.

6. How can I recognize the early signs of poor jaw development in my child? Normal jaw development requires proper diet, proper jaw regulation and normal myofunctional (tongue posture) regulation. Proper diet and jaw regulation should be assessed by a holistic nutritional dentist who understands development. Myofunctional and jaw development progress, however, can be assessed by looking inside your child's mouth.

You can evaluate myofunctional balance by having your child swallow while holding his/her lips open. If the tongue touches the palate, palatal expansion will result. If the tongue pushes forward, the palate will not grow, resulting in teeth misalignments and possible skeletal problems which can affect facial and cranial development.

The status of growth development can also be assessed by looking at your child's teeth. If your child is in the primary (baby) teeth phase, there should be spaces between all of the front teeth. Since the adult teeth are roughly double the size of the baby teeth, these spaces need to be large enough to accommodate them. An inadequate space can usually be compensated by proper tongue posture.

The secondary, or adult, teeth should erupt on time and in a straight alignment. Eruption of the adult teeth, which usually begins in the front lower teeth, will give a clear indication as to how jaw development is progressing.

### **CLASSIFICATION OF JAW DEVELOPMENT**

**CLASS I: OCCLUSION (Bite)** Normal teeth alignment Normal jaw alignment

**CLASS I: MAL-OCCLUSION ("Bad" bite)** Improper teeth alignment (crowded teeth, deep bite, open bite, etc) Normal jaw development

**CLASS II: MAL-OCCLUSION** Improper jaw development (upper jaw protrusion or lower jaw retrusion)

**CLASS III: MAL-OCCLUSION** Improper jaw development (lower jaw protrusion)

7. Why are teens now being diagnosed with gingivitis and bone loss when previously these were not seen until one's 30's? We believe that dental disease is a systemic disease stemming from poor nutrition, mineral imbalance, hormone imbalance and other factors. As your child ages and his/her tooth and jaw development become complete, soft tissue infection in the gums may emerge.

During the teen years, hormones are flooding the body, causing the gums to become more sensitive to infection and inflammation. The gums are a breeding ground for micro-

organisms of which over 99% are beneficial. These micro-organisms are referred to as “flora” or biofilm and are highly influenced by diet. Eating lots of healthy, raw and nutrient-dense food results in a beneficial flora. Unfortunately, today’s teens tend to indulge instead in a diet high in sugar and pasteurized and processed foods. These poor diet habits may result in a pathogenic flora, that is, one which can initiate dental disease.

Good oral hygiene, such as daily brushing and flossing, may keep bad flora under control but it will not eliminate them. Also, any chemotherapeutic or antibiotic therapy is now known to have little or no effect on micro-organisms protected inside their biofilm environment. Root planning, a conservative periodontal therapy, can reduce their numbers up to 80%, but it can’t eliminate pathogenic flora. To prevent gingivitis (infection or inflammation of the gums or gingival) or periodontitis (bone loss under the gums around the teeth), a practical plan of prevention is advisable. See the Periodontal Section for more information.

8. Why enroll my child in your pediatric wellness program rather than a traditional pediatric office? There are several benefits to a wellness program (that is, a true practice of preventive rather than suppressive therapy):

- They will get a lifetime lesson about taking responsibility for their own health. In a world where common sense and responsibility are often lacking, we will teach your children that they can be masters of their own destiny.
- They will learn good nutritional habits. Since some kids don’t like to listen to their parents, we are willing to be the “bad” guys by demonstrating the link between good diet and health (and poor diet and disease). We explain how alkaline beverages like water and mineral water are healthy and how soft and sports drinks, which are usually acidic, can cause nutrient and mineral

depletion. We cover topics like “Are there consequences besides dental health for high sugar consumption?” and “How does my body tell me I am not eating the proper foods?”

- We can help your children prevent dental disease, saving them from the mental, emotional and physical stress of dental therapy.
- We help to correct any underlying systemic nutritional imbalances, which may resurface later in life as a more severe form, especially if left undetected because of the success of suppressive therapies.

9. When should I bring my child in for their first appointment?

A child's first appointment can occur after all his/her baby teeth are in (at 3 years old) or before 5 years old when jaw growth should be starting. If you notice any problems, of course, you can make an appointment sooner. It's a good idea to have children see their parents getting their own teeth cleaned first, so they can see it's a normal procedure.