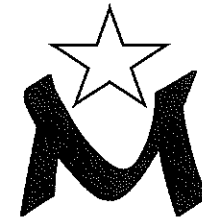


# Dental Problems Associated with Growth Hormone Deficiency



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# M ajor A spects of G rowth I n C hildren

The MAGIC Foundation is a national nonprofit organization created to provide support services for the families of children afflicted with a wide variety of chronic and/or critical disorders, syndromes and diseases that affect a child's growth. Some of the diagnoses are quite common while others are very rare.

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“Children have a short time to grow and a  
lifetime to live with the results” ®

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Dental Problems are not the typical issue parents think about when their child has a growth disorder, particularly growth hormone deficiency. Yet, dental development and dental problems often occur for these children. The following information was prepared by one of the country's only specialist on the topic of Dental Problems Associated with Growth Hormone Deficiency.

### **Dental Aspects of Growth Hormone Deficiency**

Deficiency of growth hormone is a widespread problem, which affects more than just your child's height. Normal levels of growth hormone are necessary for the normal growth and development of your child's teeth and jaws. Routine dental care and timely dental screenings and assessments are important to your child's future dental health.



The lack of growth hormone causes a lag in the growth of bones, which is clearly evident in a child's height. Less evident to most people are the effects of growth hormone deficiency on your child's face and teeth. Growth hormone deficiency commonly causes a lag in the growth of your child's teeth and facial bones. For instance, in the absence of growth hormone, it is common to keep the baby (primary) teeth longer (2-5 years usually) than average, so a child might be 10-12 years old before losing any baby teeth. This can cause problems with the eruption (coming into the mouth) of the adult (permanent) teeth. These children are also more likely to be missing

adult teeth, which may require braces (orthodontics) and/or bridges/implants/crowns (replacement teeth) to correct. If you should suspect these conditions it is best to take your child to your dentist, who may take X-rays (radiographs) of your child's jaws to check on these conditions. A specialist in children's dentistry (pedodontist) is recommended for these children; due to their advanced training.

Growth hormone has a strong effect on bone growth, including the bones of the upper and lower jaws. In growth hormone deficiency it is common to see a growth disorder of the jaws. This growth disorder is commonly seen as a small lower jaw or chin since the lower jaw seems to be more dependent than the upper jaw on normal growth hormone levels. There are treatments that can, in most cases, correct these problems if the jaws are still growing. These treatments may involve plastic retainer-like devices (functional appliances), glued in metal spreaders (expanders) or other devices and/or braces and are usually performed by dentists who specialize in braces (orthodontists) or in children's dentistry (pedodontists). Since the jaws usually begin to grow in response to the growth hormone prescribed by your medical doctor, this can be the best time for this type of treatment. The dental specialist (orthodontist or pedodontist) treating your child may determine that the jaws are in good relationship to each other and only braces are needed. In this case they may wait to begin braces until most or all of your child's adult teeth are present in the mouth and/or the jaws have reached most of their adult size. If the differences in size between the jaws are too large for braces alone then surgery may be

needed later. Because of the effects of the growth hormone administered by your medical doctor on jaw growth, it is important for your doctor (endocrinologist) and your dentist (orthodontist and/or pedodontist) to have good communication with each other. Too much growth hormone, or growth hormone given too long, can cause an overgrowth of the lower jaw, commonly seen in adults with tumors of the gland that makes growth hormone (acromegaly), so your pedodontist/orthodontist and endocrinologist should all be aware of this possibility and monitoring your child's facial growth as they near the end of their childhood growth. Although all the effects of growth hormone on the jaws and teeth are not presently known, research is being directed at this problem.

Because the teeth of children with growth hormone deficiency may be softer than normal or not formed normally, they can be very susceptible to cavities. For this reason it is very important to see your dentist or children's dental specialist (pedodontist) at least every six months for checkups and teeth cleaning. Fluoride (in toothpaste, varnish ["paint" applied by the dentist], mouth rinses and/or tablets) is often very good for these children (beware of too much fluoride being swallowed though – follow your doctor's and dentist's recommendations) and plastic placed on the tops of the teeth (sealants) is frequently indicated. A smile children can be proud of can be a very positive influence in their life as they deal with the other problems of growth hormone deficiency.