



Seeking a Dental Home

Why Oral Health is a Critical Part of Medical Care



Recently, a child with velo-cardio-facial syndrome came into the Children’s Healthcare of Atlanta Emergency department with a slightly swollen cheek. Children with this syndrome have a cluster of heart, developmental, palate and speech problems and may have an impaired immune system. This child had undergone a multiple heart-valve replacement.

In the Children’s Emergency department, the facial swelling progressed, and the child needed an immediate intubation to open his airway. He spent 10 days in the Children’s Pediatric Intensive Care Unit and underwent two procedures in the operating room to extract infected or decayed teeth. Ultimately, he recovered and has had a good outcome.

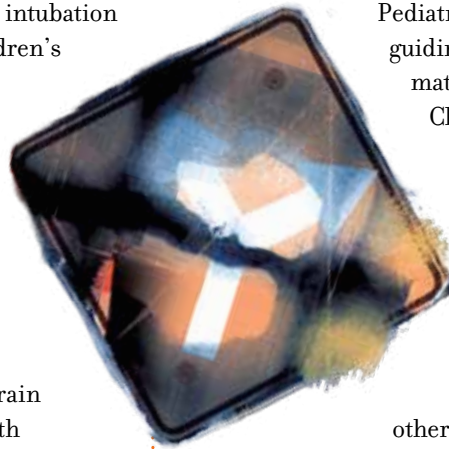
For medically vulnerable children, oral health can be a matter of life or death. If a cavity progresses to a tooth abscess, the infection can spread in the mouth or jaw, causing swelling around the airway or even a brain abscess. Poor oral health also may interfere with the successful medical treatment of children with significant medical issues.

Conversely, good oral health prevention and early diagnosis of dental issues will improve most medical treatment outcomes for chronically ill children. Unfortunately, finding comprehensive dental care for children with serious medical conditions can be difficult. Rarely is there such thing as a “simple” dental procedure for children with cancer, heart disease or clefts of the lip or palate. If local anesthesia is not enough to manage the pain and anxiety, additional sedation or general anesthesia may be necessary. The anesthesia and sedation can quickly get complicated.

Pediatric dentists may lack the facilities to offer sedation or general anesthesia to high-risk patients safely. And, they often do not treat these challenging cases because it is difficult for pediatric dentists to obtain the resources and training they need to care for these children. One of the challenges of being able to spend enough time with the patient is that payors typically reimburse dental care for medically vulnerable children at the same rate as healthy children, although a single tooth extraction in an ill child

can take as long as three hours.

Pediatricians play a critical role in guiding parents to dental care that will match the needs of the patient. The Children’s Healthcare of Atlanta Center for Craniofacial Disorders is one of the few such centers in the country where children with medical issues can have a complete “dental home.” Pediatricians team with dentists, orthodontists, surgeons, speech pathologists and others to address the needs of these children. Children’s also has well-qualified pediatric anesthesia teams to aid in the medical management of these high-risk dental patients.



Avoiding Decay

How common are the complications of poor oral health? Some reports indicate that major dental problems in children are five times more common than asthma, which is one of the most common pediatric ailments. About 40 percent of children suffer from tooth decay by the time they are in kindergarten. Cavities develop more rapidly in children than in adults and they progress at a faster rate.

The risks are much greater for medically vulnerable children and for them, early referral is even more critical. Consider the plight of the child with a cleft lip or palate, a common birth defect, affecting one in 700 babies. They do not swallow as efficiently as healthy children, which cause sugar levels to remain higher for longer periods of time in the mouth. They often must breathe through their mouths, which can lead to dry mouth—and higher acid concentrations. Multiple surgeries and scar tissue can also make regular dental hygiene difficult.

The end result: Children with clefts of the lip or palate have tooth decay rates that have been reported to be as much as seven to eight times higher than normal. Recently, the team at the Children’s Center for Craniofacial Disorders extracted 12 teeth and placed crowns on the eight remaining teeth of a child with a cleft palate. Prevention is much less painful—and less expensive. The cost of a complete dental rehabilitation under general anesthesia exceeds what it would cost for us to clean the same child’s teeth in the office every day for a year.

Medical advances have brought life-saving treatments to children with cancer, heart defects and organ failure. While the oncologists, cardiologists and surgeons receive much-deserved acclaim, pediatric dentists are rarely acknowledged as critical to the survival of these children. Yet behind the scenes, they oversee the oral health that protects these children who are at high risk for developing tooth infections that can spread rapidly.

done for one year after their transplants because of their impaired immune system. Post-operative dental infections would be life-threatening, so blood and marrow transplant patients receive time-sensitive, aggressive dental treatment prior to transplant.

Cardiac patients with poor oral health are at risk for infective endocarditis—an infection that spreads to their fragile hearts. In addition, all local anesthetics have cardiac effects that must be considered. Stress and pain management are also very important when cardiac function is not optimal.

By providing a dental home for medically vulnerable children, teams can respond to these life-threatening events and promote good oral health to prevent infection. In turn, families can count on pediatricians to follow up with them and make sure they are maintaining their commitment to ongoing dental care because it is a critical part of good medical care. ©

Defining a “Dental Home”

All children need a dental home to provide continuous, accessible care. Medically compromised children need a dental home with the additional ability to provide team care and anesthesia services.

The American Academy of Pediatric Dentistry (AAPD) defines a dental home as a place where children can receive:

- Comprehensive oral healthcare, including acute and preventive care, according to the AAPD recommended schedule
- Comprehensive assessment for oral diseases and conditions
- An individualized dental health program
- Guidance about oral health as it relates to future growth and development
- Education about proper dental care
- Dietary counseling
- Referral to dental specialists when necessary

The American Academy of Pediatrics and the American Academy of Pediatric Dentistry recommend that children have an oral health risk assessment by the age of 6 months and that parents establish a dental home for their children by the age of 1.

For example, chemotherapy agents impair the immune system and cause dehydration or dry mouth, allowing rampant growth of bacteria and dental caries in the mouth. Sometimes children being treated for cancer will develop a fever “of unknown origin” that ends up being related to a tooth infection. Unchecked, those infections can spread and colonize a central line or shunt. No one wants to save a child from cancer only to lose them to a secondary infection of tooth decay.

Other children also are at risk. The dental team at the Children’s Center for Craniofacial Disorders sees all pediatric blood and marrow transplant patients before they undergo their procedures. These children cannot have dental work

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For more information:

- Children’s Center for Craniofacial Disorders
www.choa.org/craniofacial
- American Academy of Pediatric Dentistry
www.aapd.org
- Cleft Palate Foundation
www.cleftline.org



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