

DENTAL CARE FOR A CHILD BORN WITH CLEFT LIP AND/OR PALATE

How does cleft lip and palate affect a child's teeth?

Children born with cleft lip and/or palate usually need several types of dental treatment over time. It is common to have problems with the number, size, shape, and position of the teeth. These issues may first occur with baby teeth, called *primary* teeth. Different challenges may occur later with adult teeth, called *permanent* teeth. With proper dental care, children born with a cleft lip and/or palate can have healthy teeth.

Which teeth are affected by clefts?

A child may have problems with the tooth or teeth located nearest to the cleft. The *lateral incisors* are most commonly affected. The lateral incisors are located between the front teeth (called *central incisors*) and the canines (called *cuspid*s). If a person is born with a unilateral cleft, the lateral incisor on the cleft side may be missing or an extra one may be present. With bilateral clefts, both lateral incisors may be affected. In both cases, the affected tooth and its root may be abnormally shaped. The affected tooth (or teeth) may also be located in an unusual position in the mouth. Occasionally, nearby teeth are also affected by the cleft(s) as well. See the diagrams for examples.

How can I get the best dental care for my child?

For a person born with cleft lip and/or palate, dental care must be coordinated with other types of cleft care such as surgery or speech therapy. A *cleft palate* or *craniofacial team* is a group of health care experts who work together to care for a child's cleft lip and/or palate and associated cleft care needs. Dental care is a very important part of any cleft treatment plan. The treatment is typically individualized to meet each child's needs.

What types of dental care may be involved?

A child born with cleft lip and palate may need several types of dental treatment (each discussed in detail, below). *Preventative dental care* includes teeth cleanings and routine visits. This type of care resembles the same dental care as children born without clefts. *Orthodontic dental care* deals with the look of the teeth of the upper and lower jaw and with the movement and strength of a child's *bite* (how the upper and lower teeth come together). *Prosthodontic dental care* involves using man-made devices to stand in for missing facial structures. All children born with clefts need preventative care. Some may need orthodontic and/or prosthodontic treatment as they grow older.

Figure 1. Upper primary teeth without cleft



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Figure 2. Upper primary teeth with cleft and missing lateral incisor



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Figure 3. Upper primary teeth with cleft and extra lateral incisor



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What is involved in preventative dental care?

As soon as a child's first tooth appears, caregivers should clean the teeth twice per day at home with a small, soft toothbrush. About six months later, a child should see a dentist for the first time. It is important to select a dentist who is familiar with the needs of children born with clefts. Ask your child's cleft team for help choosing a dentist.

At a routine check-up (also called an *examination*) the dentist cleans the teeth, gives advice on nutrition and daily dental care, and may recommend a mineral-based toothpaste or mouth rinse called *fluoride treatment*. Fluoride treatment helps prevent tooth decay and can help repair teeth during the very early stages of decay. There are different types of fluoride treatment available. Talk with your child's dentist for more information about options.

Preventative dental care is critical for healthy teeth. It also helps ensure the best possible results from orthodontic and prosthodontic care.

What is involved in orthodontic dental care?

Orthodontic care is treatment for the look, function, and strength of a child's bite. As a child grows and new teeth appear, orthodontic issues may emerge that are related to the clefts. There may be problems with the position of the jaws, for example, or with rotation of the teeth.

Many children born with cleft lip and palate need two or more stages (called *phases*) of orthodontic treatment. Each has specific goals. The first phase of orthodontic treatment usually begins at around age 6, when the molars come in. If the upper jaw has collapsed from the clefts, the orthodontist may expand it. If the teeth are crooked, he or she may use braces to straighten them. The duration of this phase varies from one person to the next, based on how long it takes to achieve these goals.

The second phase of treatment begins near the time when all the adult teeth have appeared. This phase also varies for different children depending on the goals that need to be accomplished for the teeth and the jaw. For both of these phases, treatment usually involves wearing equipment such as braces or retainers. All orthodontic care must be coordinated with other cleft care treatment to achieve the best results.

What is involved in prosthodontic dental care?

Prosthodontic care involves using man-made (*prosthetic*) substitutes to stand in for missing parts of the mouth or jaw. Some prosthetics are permanent. Crowns and *bridges*, for example, are permanent prosthetics that restore or replace missing teeth. These types of prosthetics may be needed at any time in childhood or adulthood depending on the individual's need.

Other types of prosthetics are removable. *Speech bulbs* and *palatal lifts*, for example, are prosthetics that are placed in the mouth daily to close a cleft opening and/or help with speech. A speech bulb is a plastic ball that fits into the area at the back of the palate called the *velopharyngeal space*. The ball of a speech bulb is attached to a plastic plate that fits into the roof of the mouth and is held in place by the teeth. A palatal lift is similar to a speech bulb but has a paddle-like extension that seals off the velopharyngeal space.

Not all children born with cleft lip and palate require prosthodontic care. If needed, this type of care may be useful at any age. Some people wear a prosthetic for months or years; some choose to wear one for life. A maxillofacial prosthodontist is a doctor who makes these customized structures.

Why is it important to coordinate dental care with other medical care?

All types of dental care need to be coordinated with other cleft treatment in order to achieve the best possible results. A speech therapist on the cleft team, for example, needs to be aware of how current dental treatment affects speech. Dentists, orthodontists, and doctors on the team need to communicate as well. In some cases, a dentist can remove a tooth at the same time as a surgeon performs another type of procedure. Intra-team communication is also important for emotional well-being. For instance, if a child is being teased about dental care or equipment, a counselor or clinical psychologist on the team may be able to help. These coordinated efforts among the team specialists help to shorten a patient's recovery time, lower cost, and raise comfort.

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