



**The  
American Academy of  
Periodontology**

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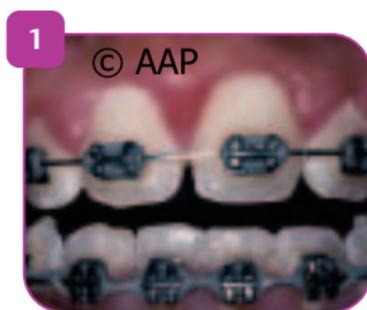
Periodontal Diseases  
in Children and  
Adolescents:

creating a future  
filled with happy,  
healthy smiles



Germ (bacteria) begin to grow in the mouths of infants from the minute they are born. Many factors, including the eruption of teeth, diet, genetics, exposure to bacteria from other family members, hormonal fluctuations, and poor oral hygiene may help these normally harmless bacteria become harmful; or affect the body's natural defense against them. These bacteria cause periodontal diseases by infecting the gums and other supporting tooth structures. Left untreated, periodontal diseases (periodontitis) can cause damage and lead to tooth loss, and may be associated with other general health conditions, such as diabetes.

Periodontitis is often thought of as a consequence of aging – an adult problem. But, did you know that gingivitis, the first stage of periodontitis, is nearly a universal finding in children and adolescents? And, research shows that more advanced, harmful stages of the disease can occur in these young age groups. The good news is that a little education and a few easy steps go a long way toward preventing periodontal diseases; and in helping you create healthy, happy smiles for generations to come.



13-year-old male with gingivitis

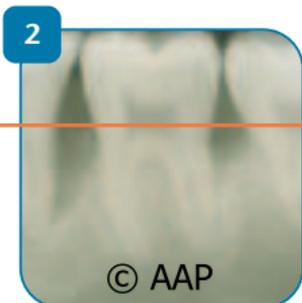
*photo by Joan Otomo-Corgel, DDS*

## types of periodontal diseases in children and adolescents

**Chronic gingivitis** usually causes gum tissue to swell, turn red and bleed easily (*See figure 1*). It can be prevented and treated with a regular routine of brushing, flossing and professional dental care. This oral care is especially important in children and adolescents undergoing orthodontia. Left untreated, chronic gingivitis can eventually advance to more serious forms of periodontal disease.

**Chronic and aggressive periodontitis** can affect young people who are otherwise healthy. These forms of periodontitis are found in children and adolescents and mainly affect the first molars and incisors. They are characterized by bone loss and, ironically, patients generally form very little dental plaque or calculus. Chronic periodontitis is less damaging than aggressive periodontitis, as marked by the degree of bone loss (*See figures 2 & 3*).

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X-ray showing severe bone loss



X-ray showing healthy bone level restored after periodontal treatment

**Generalized chronic or aggressive periodontitis** are similar to chronic or aggressive periodontitis, except they involve the entire mouth. And, rather than little plaque or calculus, patients with the generalized forms have heavy accumulations of plaque and calculus and inflammation of the gums. Eventually these forms of periodontitis can cause the teeth to become loose.

As with adults, periodontitis associated with systemic diseases occurs in children and adolescents. Conditions that make these youngsters more susceptible to periodontal disease include:

- ❑ Type 1 Diabetes
- ❑ Down's syndrome
- ❑ Papillon-Lefevre syndrome





## periodontal diseases prevention

Children and adolescents are subject to a wide variety of periodontal infections, and can develop severe forms of periodontal diseases. Since early diagnosis ensures the greatest chance for successful treatment, it is important that children receive a periodontal examination as part of their routine dental visits. An advanced form of periodontitis in children may be an early sign of another general health condition.

### tips to ensure your child will benefit from a lifetime of healthy smiles

**Establish** a home and professional care routine. If your child currently has poor oral health habits, work to change them now. Reward your child with visits from the tooth fairy not just when a tooth is lost, but also when a child receives a clean bill of health from the dentist.

**Check** your child's mouth for any signs of periodontitis. Although periodontal diseases can be "silent" infections, sneaking up with no warning, four basic signs may alert you to periodontal diseases in your child:

- ❑ Bleeding – When your children brush their teeth, there is blood on the toothbrush or in the sink.
- ❑ Puffiness – Your child's gums are swollen and bright red.

- ❑ **Recession** – You notice that your child’s gums are receding away from the teeth, sometimes exposing roots.
- ❑ **Bad Breath** – Your child has bad breath all the time, and brushing and flossing don’t clear up the problem.

Your periodontist, general dentist or pediatric dentist should be notified immediately if your child exhibits any of these symptoms. If your child is not currently under the care of a periodontist, s/he may be referred to one for further evaluation or treatment. A periodontist is a dental professional who specializes in gum tissues and the supporting structures of the teeth.

**Tell** your dental professionals about any medication your child is taking. Many medications can dry out the mouth or pose other threats to oral health. Mouth breathing can also lead to swollen gums, especially the in the front part of the mouth.

**Monitor** your family to see if anyone has the habit of teeth grinding. Grinding can increase the risk of developing periodontal diseases, in addition to causing cracked or chipped teeth. Dentists can make custom-fitted mouth guards to protect the teeth from grinding at night.

**Researchers** suggest periodontal diseases can pass through saliva. This means that the common contact of saliva in families may put children and couples at risk for contracting periodontal diseases of another family member. If one family member has periodontitis, all family members should see a dental professional for a periodontal evaluation.



## professional and at-home oral care

According to the American Academy of Pediatric Dentistry, a child should visit the dentist when the first tooth erupts. These early dental visits are important steps in the prevention of periodontal disease and other oral conditions, and prevention is the key to healthy, happy dental visits and lifelong smiles.

Another key to good oral health is an at-home oral care routine consisting of flossing and brushing. Again, diligent at-home oral care is especially important for children who have braces or other orthodontic appliances.

### flossing

Although it is most important to start flossing your child's teeth when the gaps between them close – because periodontal diseases most often begin between teeth where a toothbrush can't reach – it is a good idea to establish this habit with your child even if there are spaces between the teeth. This way, the child will have more success in following through with daily flossing when it becomes necessary.

There are two ways to hold dental floss:

**The first way** is to begin with a strand of floss approximately 18 inches long. Wrap half of the floss around the middle finger of one hand. Wrap the remaining floss around your other middle finger. Leave about six to eight inches of floss between the two fingers (*See photo 1*).

Hold the floss with both forefingers (*See photo 2*). The fingers controlling the floss should be no more than one inch apart; a larger amount makes flossing difficult. You also can use your thumb and forefinger to hold the floss (*See photo 3*). This position works well for cleaning back teeth.

**With the second technique,** take approximately 13 inches of floss, double it over and make a knot with the two ends. You should now have a six-inch loop of floss. Put all four fingers of each hand inside the loop (*See photo 4*). Using your little fingers to anchor the loop, guide the floss using your forefingers or your thumb and one forefinger. Again, the fingers controlling the floss should be no more than one inch apart. Adjust the size of the loop as needed. It should be tight enough around your hand to create the necessary tension to help guide the floss.

With this technique, you won't need to wrap the floss around your middle fingers. There should be enough tension in the loop that the first finger alone will guide it into place (*See photo 5*).





Once you've figured out the most comfortable method of holding the dental floss, have your child lay down with his or her head face up in a pillow that's resting on your lap. Gently guide floss between the teeth. Do not snap or force it in place, but instead use a gentle back-and-forth motion until the floss passes through the point where the teeth touch each other. Curve the floss into a "C" shape against one tooth and gently guide it along that tooth and just barely under the gumline.

Move the floss up and down on each side of every tooth at least two or three times. As the floss becomes soiled or frayed, a turn from one middle finger to the other will bring up a fresh section.

## brushing

Establish a set sequence for brushing your child's teeth so the process becomes a routine for both of you. Remember to brush the outside, inside and chewing surfaces of teeth. The proper way to brush is to place the toothbrush at the gumline and begin brushing in small, gentle circles. Brush one or two teeth at a time moving in an established sequence. Brush the outside of all teeth, then the inside. Brush the chewing surfaces last in a firm back-and-forth motion to remove the bacteria that collect in the deep grooves of the tooth's surface.

If brushing in a circular motion is too difficult on the inside surfaces, you can hold the toothbrush vertically and brush with an up-and-down motion; just be careful not to gag your child when cleaning the back teeth.

The final step is to brush your child's tongue. You can make this a game if you wish by having your child make a silly face and stick out his or her tongue. You only need to brush the front third or half of the tongue to avoid the risk of gagging.

Begin using toothpaste to brush your child's teeth at one year of age. However, only use a pea-sized portion on the brush and press it into the bristles so your child won't eat it. Use a child-sized soft-bristled toothbrush. Improper use of hard-bristled brushes can contribute to gum recession leading to tooth sensitivity.

Mastering these techniques will help keep your child's smile healthy for years to come. It is important for you to use each dental visit as a way to review your at-home oral care routine and, if necessary, modify it based on your dental professional's advice.

creating a  
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Healthy teeth and gums, happy smiles and fresh breath go a long way toward a young person's sense of personal appearance, confidence and self-esteem. Give your child these precious gifts, which are easily achieved through good, lifelong habits of brushing and flossing and regular professional dental care.

