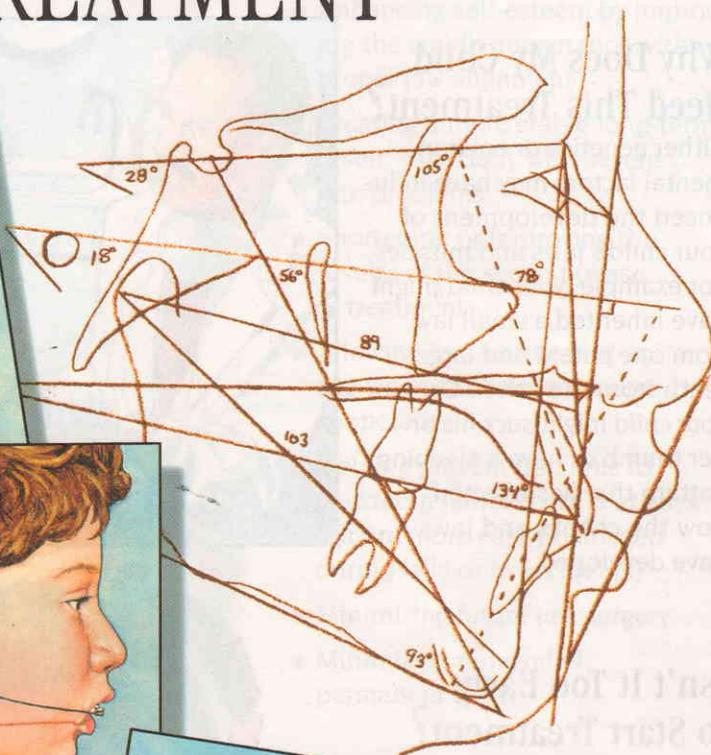
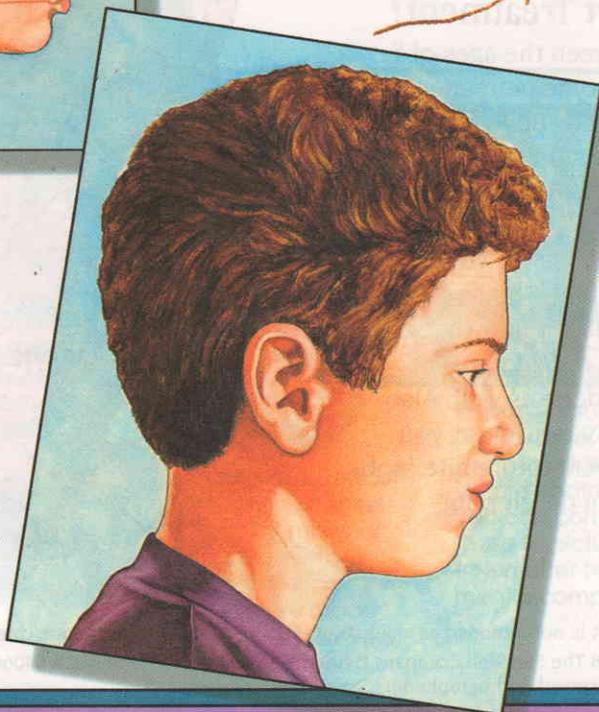
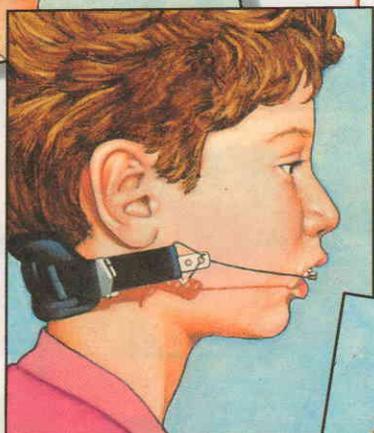
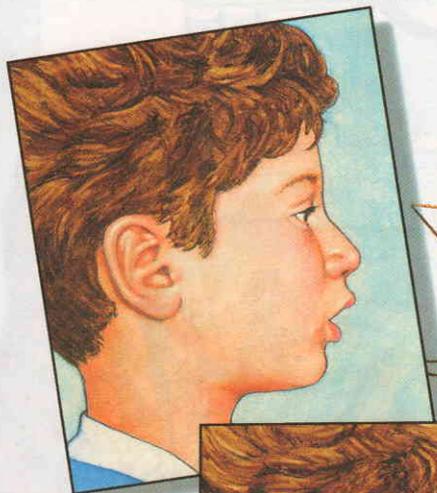


# EARLY ORTHODONTIC TREATMENT



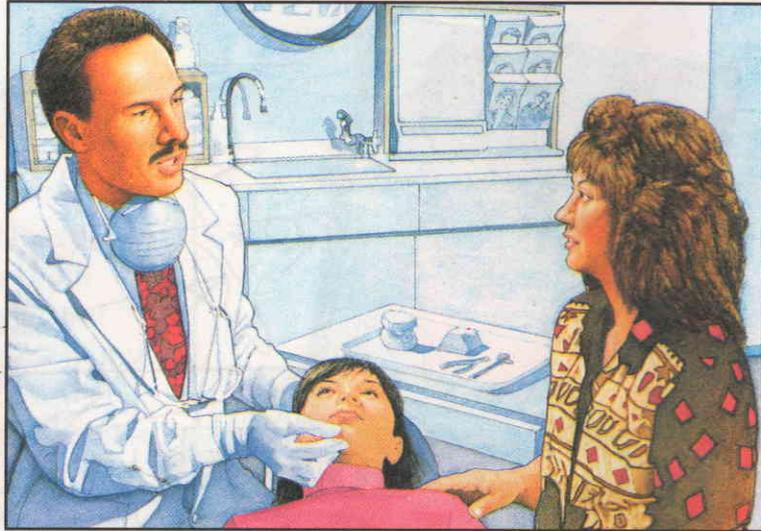
Dentofacial  
Orthopedics for  
Your Child's  
Phase 1 Treatment

# Early Treatment for the Best Results

Of course you want your child's teeth to work right and look their best. Early orthodontics can help achieve these goals. During this first phase of treatment, a dental specialist, or doctor, will work with your child's jaws and muscles (also known as **dentofacial orthopedics**). This treatment will help permanent teeth grow into the right place and the jaws to fit together well. By starting early, you've given your child the best chance for the best results.

## Why Does My Child Need This Treatment?

Either genetics or environmental factors may have influenced the development of your child's jaws and muscles. For example, your child might have inherited a small jaw from one parent and large teeth from the other. Or, your child might suck his or her thumb or have a sleeping pattern that has affected how the cheeks and jaws have developed.



## Isn't It Too Early to Start Treatment?

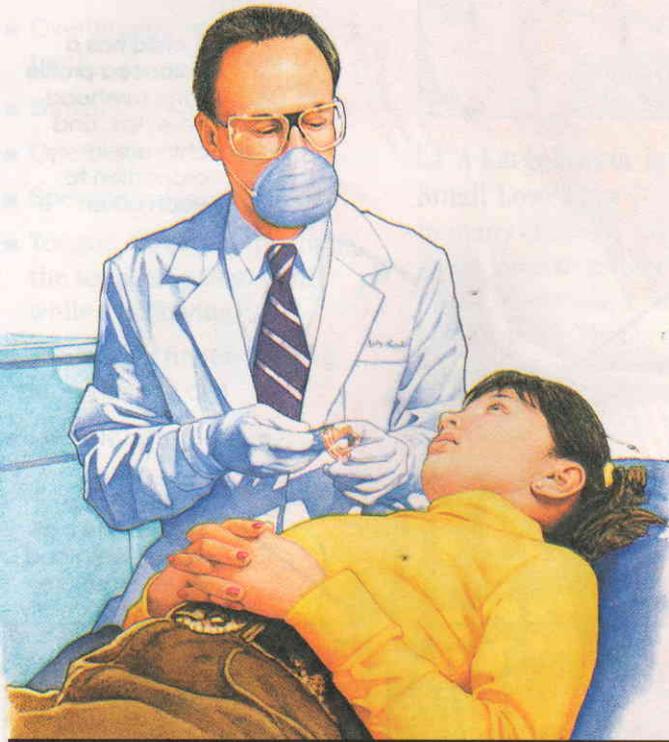
No. Between the ages of 5 and 10, some permanent teeth have already appeared. And during this time, the bones and muscles are growing rapidly. This is when the doctor can influence their growth to create the best bite. Things can be accomplished now that can't easily be done later—or can't be done as well. Also, with early treatment you may prevent future bite problems from developing.



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## What's Involved in Treatment?

Early treatment may last a year or longer. Your child may wear some braces during this time, but they will be used mainly as an anchor for other appliances that will influence the growth of bone or muscle. In most cases, a second phase of orthodontic treatment (full braces) is also necessary. This phase is usually started after all the permanent teeth have appeared. It helps move the teeth into their final positions.



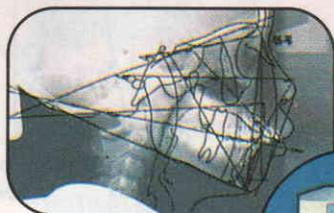
## What Are the Benefits of Early Orthodontics?

Early treatment offers many benefits, often achieving one or more of the following goals:

- Enhancing self-esteem by improving the child's appearance with proper jaw alignment
- Creating a more stable long-term result, especially with severe bite problems
- Shortening or improving the results of the second phase of treatment
- Allowing for treatment at an age when children are more cooperative
- Helping prevent fractures to buckteeth (since teeth that stick out are more easily damaged during falls or in accidents)
- Minimizing future jaw surgery
- Minimizing removal of permanent teeth

## The Orthodontic Evaluation

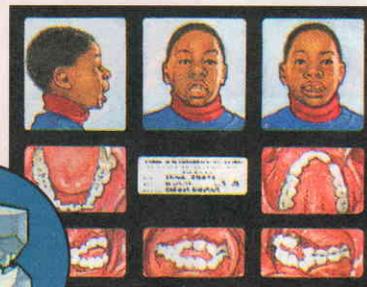
An orthodontic evaluation is necessary to assess your child's profile, jaws, muscles, and teeth. Your doctor may ask questions about your child's teeth and bite. X-rays, impressions, and photos are also likely to be taken. These provide the basis for your child's treatment plan. Your doctor may also discuss a payment plan with you.



**X-rays** show your child's head, face, jawbones, and teeth. X-rays are used to measure the teeth and jaws and to plan your child's treatment.



**Impressions** (molds) are taken by pressing a soft material over the teeth. From these molds, **models** are made that show how your child's teeth and jaws fit together.



**Photos** of your child's profile, face, and teeth are taken before treatment. You can compare these to pictures taken after treatment is completed.

# A Child's Developing Bite

Bones and muscles form the framework of the face. In a young child, they grow quickly—and can develop problems quickly, too. When the bones, muscles, and teeth work well together, they create a stable, comfortable bite and pleasing appearance. When the bones and muscles grow improperly, the teeth don't fit together well, which can cause an unbalanced profile and other problems.

**The upper jaw-bone** holds the upper teeth and supports the upper lip and base of the nose.

**Muscles** surrounding the jaw, including the tongue, provide power for chewing, talking, and smiling.

**The lower jaw-bone** holds the lower teeth and forms the chin. It's the only moving bone in the face.

**A child has a balanced profile** if the forehead, nose, lips, and chin are in proportion to each other.

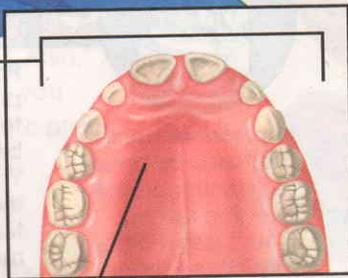
**A child has a normal bite** if all upper teeth and lower teeth are aligned correctly and bite together evenly.

**Both baby and permanent teeth** are present in young children. This is called **mixed dentition**.

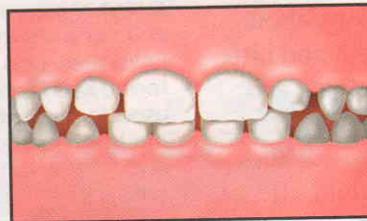
Baby teeth

Permanent teeth

**The arch** is the curved edge of the jaw to which teeth are attached.



**The palate** is the roof of the mouth.

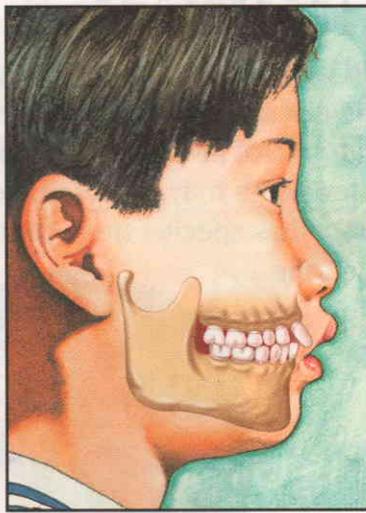


The normal bite of a young child

## When Early Treatment Is Needed

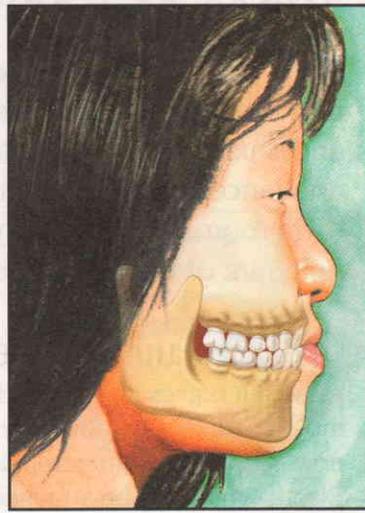
These are some of the signs that early treatment may be necessary due to jaw or muscle problems:

- An unbalanced profile
- An overbite, underbite, crossbite, gummy smile, deep bite, or open bite
- Overlapping or crowded teeth
- Difficulty chewing
- Open-mouth breathing
- Speech problems
- Tongue-thrusting (pushing the tongue against teeth while swallowing)
- Thumb- or finger-sucking after the age of 4
- Jaw joint problems



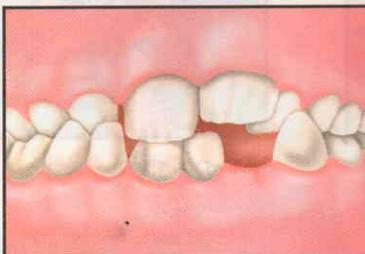
### A Large Upper Jaw or a Small Lower Jaw

In many children, the upper jaw is large or too far forward, or the lower jaw is small or too far back. This is called an **overbite** (upper protrusion or lower retrusion).



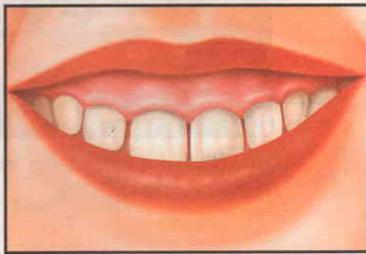
### A Small Upper Jaw or a Large Lower Jaw

An upper jaw that's too small is too far back or a lower jaw that's too large is too far forward. This creates an **underbite** (upper retrusion or lower protrusion).



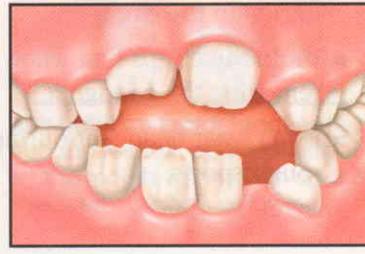
### Short Arch or Narrow Palate

If the arch is not long enough, **crowding of teeth** may result. Or, if the palate isn't wide enough, the upper teeth may fit inside the lower teeth (a **crossbite**).



### Long Upper Jaw

An upper jaw that has excess vertical height may create a **gummy smile**. The opposite problem may also occur: If the upper jaw is too short vertically, teeth overlap, creating a **deep bite**.



### Muscle Problems

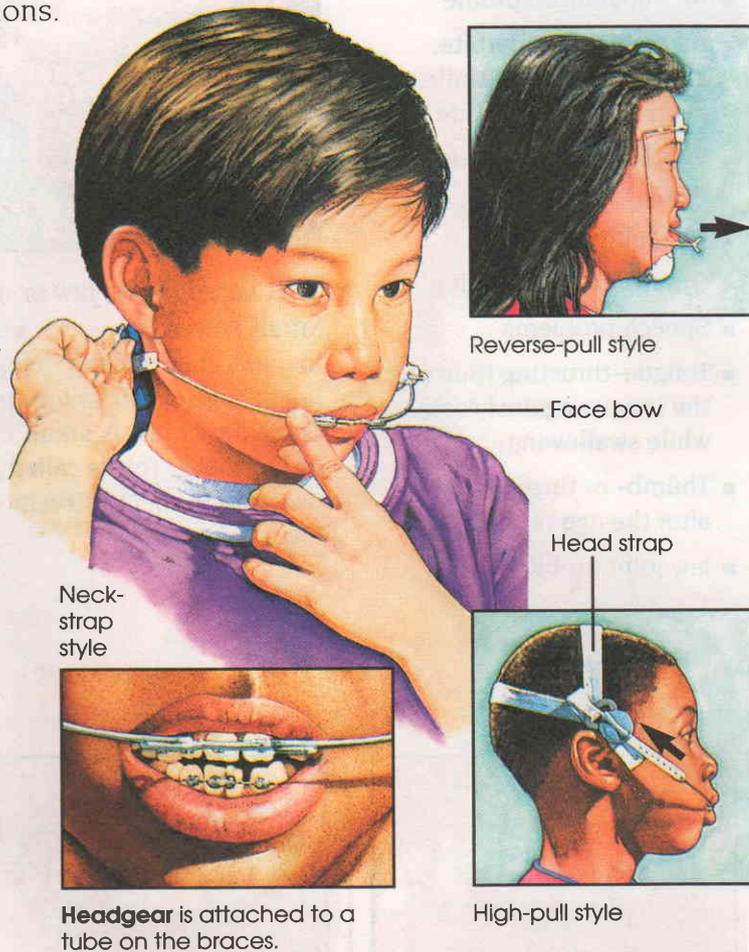
The tongue is a very strong muscle that can move teeth if it pushes against them, especially during swallowing. Thumb- or finger-sucking can have the same effect, creating an **open bite** (the teeth don't meet).

# Types of Early Treatment

The type of treatment needed depends on the type of problem your child has. What is described here is just a sample of the most common appliances used to influence the growth of jaws and muscles. In some cases, appliances aren't enough. A few teeth may need to be extracted to make extra room. Learn about your child's specific treatment plan, so you can help him or her follow instructions.

## □ Braces and Headgear

Although braces may indirectly move teeth, their main purpose now is to anchor other appliances. Elastics may also be attached to braces to help correct the bite. Headgear is attached to braces to pull the jaw back, up, or forward. It consists of a face bow and a head or neck strap. If your child needs headgear, it will probably be worn for 6 months to a year, for about 12 to 16 hours a day. Remember, if it's not worn consistently, headgear will continue to cause discomfort and won't be as effective. Also, remind your child about the following:



- Take the headgear off to eat or ride in the car.
- Undo the straps first when removing the headgear.
- Don't wear headgear during rough sports.

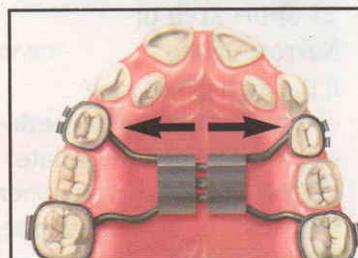
**Headgear** is attached to a tube on the braces.

## Will It Hurt?

It's common to experience some discomfort during the first few days after appliances are fitted. To make your child more comfortable, try these things: Give your child a pain-reliever. Prepare soft foods. Have your child rinse with warm, salted water.

## □ Palatal Expanders

These devices widen the roof of the mouth to make room for teeth to grow. They may be removable by you or fixed (removable by the doctor only), and be adjusted either at home or by the doctor, with or without a key that you can turn. Temporarily, you may see a gap between the front teeth—that means the expander is working.

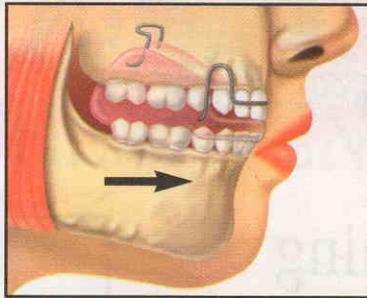


**The rapid palatal expander** widens the palate in just 2–3 weeks.

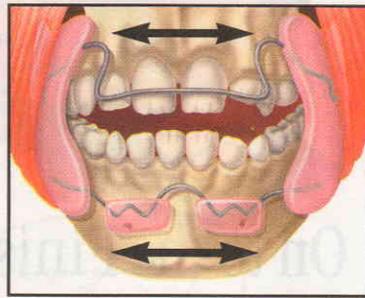
## Removable Functional Appliances

Positioned inside the mouth, these appliances help train the muscles and lower jaw to bite in the right position. Your child can remove these appliances for eating and cleaning. Remind your child of the following:

- Don't boil the appliance or put it where it could melt.
- When it's out of the mouth, put the appliance in its case, never in a paper towel or napkin; it could be thrown away by mistake.
- Rinse the appliance right after taking it out, and brush it with toothpaste whenever you brush your teeth.



**The Bionator appliance** fits between the jaws, helping move the lower jaw forward.

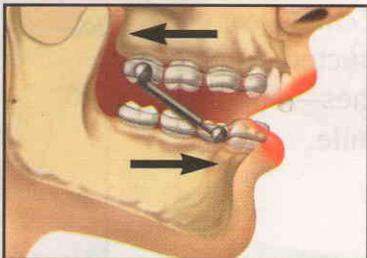


**The Frankel appliance** holds the cheek and lip muscles away so the teeth have room to grow into the right position. It also moves the lower jaw forward.

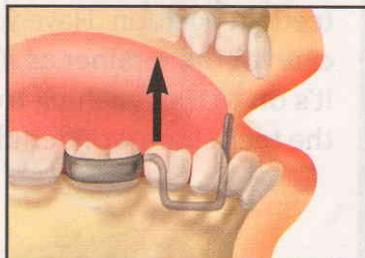
## Fixed Functional Appliances

These appliances can only be removed by the doctor. One type—a habit corrector—may be needed to prevent tongue-thrusting or thumb-sucking. Remind your child of the following:

- Brush the appliance whenever you brush your teeth.
- After brushing, swish your mouth with water to remove food particles.



**The Herbst appliance** holds the lower jaw in a forward position while pushing the upper jaw backward.



**The habit corrector** teaches the tongue to press against the roof of the mouth, rather than against the teeth, during swallowing.

For the  
Best Results

### Foods to Avoid

Have your child avoid sticky or crunchy foods. Cut hard foods, such as apples or carrots, into bite-size pieces. And make sure your child brushes right after eating sweets.

### Treatment Tips

Your child needs to wear the headgear or other appliances as many hours as the doctor recommends. This will help speed treatment and ensure better results. So will regular visits to the doctor. Try to keep all appointments.

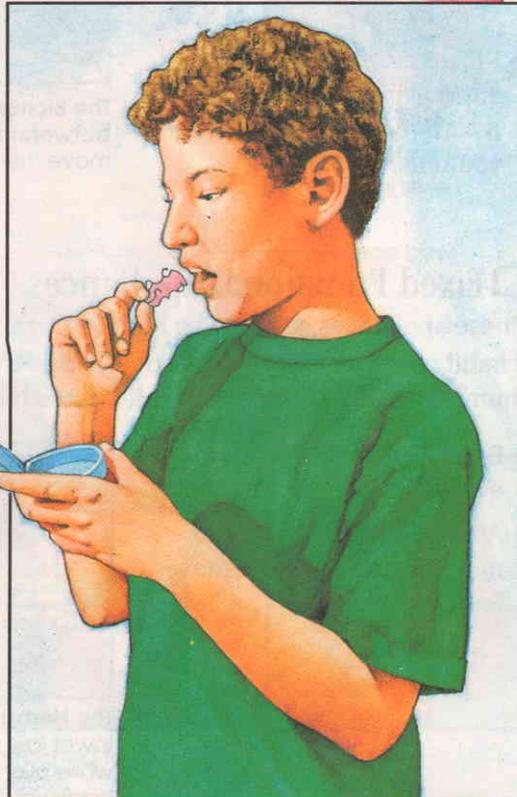
### Proper Cleaning

The best advice for your child: If you eat something, you need to brush your teeth. Flossing once a day is also a must. A fluoride rinse may be prescribed by the doctor. Remember: Proper cleaning can help prevent permanent stains.



# On to the Finishing Touches

Between the first and second phases of orthodontic treatment, the rest of your child's permanent teeth will appear. But they may not be in their final position until the second phase is completed. Between phases, your child may need to wear a fixed or removable plastic retainer to help hold teeth in position. Have your child wear and care for the retainer as instructed. After this, it's on to the finishing touches—aligning the teeth for a wonderful smile.



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