

# Dental Health and Orthodontic Problems

#### Dental Health

Twin studies conducted by the Centers for Disease Control and Prevention show that the average U.S. adolescent of the 1970s had six or seven cavities; his 1990s counterpart, just three. Today's teenagers are twice as likely to return from the dentist and report, "Look, Ma, no cavities!"—to quote a famous toothpaste commercial of yesteryear.

Dr. Jim Steiner, director of pediatric dentistry at Children's Hospital in Cincinnati, Ohio, attributes the improvement in young people's dental health primarily to increased access to fluoridation. "Fluoride reduces tooth decay as well as slows down the decaying process," he explains. "More than 95 percent of all toothpastes now have fluoride in them, and about 65 percent of our population drinks fluoridated water."

A related advance is the use of *dental sealants*, clear or white thin plastic coatings that can be painted onto permanent teeth. As Dr. Steiner explains, "Fluoride protects the areas between the teeth. But it can't always reach the chewing surfaces of the back molars." Sealants fill the tiny pits and grooves of those teeth, the site of most cavities. *Second molars* typically arrive around age twelve. One sealant application costs roughly half the price of a filling.

Teens who do develop cavities have less reason to dread the dentist's chair than you might have when you were their age. New dental instruments such as the *laser* and the *air abrasion unit* make getting fillings virtually painless. Laser therapy doesn't require anesthesia. Nor do many treatments with the air abrasion handpiece, which resembles a tiny sandblaster. However, the devices can't be used in all situations, so don't expect to see the high-speed drill become obsolete anytime soon.

Another advance of interest to young patients is cosmetic. Beside the traditional silver-colored metal alloy used to fill cavities, a composite material can be used so that the color can be tinted to match the teeth.

## Orthodontic Problems

Crooked teeth, overbites and underbites are best corrected with braces during puberty, while the facial bones are still growing. These are usually inherited traits, although some orthodontic problems stem from injuries, years of thumbsucking or losing one's baby teeth earlier or later than normal.

## How Orthodontic Problems Are Diagnosed

- · Oral examination and thorough medical/dental history
- X rays of mouth and head
- · Photos of face and teeth
- Plaster models of the teeth are made

#### How Orthodontic Problems are Treated

If you were a "metal mouth" as a teenager, you'll immediately notice that modern dental appliances are less conspicuous than the braces you wore. "Years ago," says Dr. Jim Steiner, director of pediatric dentistry at Children's Hospital in cincinnati, Ohio, "the silver bands that hold the wires had to be placed around all the teeth. That's no longer done. Nowadays we might band only the first and second molars, and bond brackets directly to the rest of the teeth." The brackets can be colored to match the teeth. They also come in a clear material, as well as metal. Some patients may be candidates for "invisible braces," which are worn on the inside of the teeth.

On average, youngsters can expect to wear the appliances for about two years. During that time, they return to the orthodontist on a monthly basis. The doctor will usually tighten the wires at these appointments, in order to increase 's' nsion on the teeth. Any discomfort or soreness afterward can usually be alleviated with an over-the-counter liever.

When braces alone aren't sufficient to straighten the teeth, a child may have to wear a *night brace* to bed, to apply pressure externally. Two prongs on the headgear are inserted into a pair of cylinder-shaped metal receptables constructed on the outer surface of the back molars. Then an elastic band wraps around the back of the head to keep the apparatus in place. Understandably, teens usually aren't too happy about having to put on the night brace, but parents can reassure them that this is a temporary measure.

After the orthodontist removes the braces, the young person is given a removable *retainer* to wear for the next six to twelve months in order to maintain the alignment of the teeth. The simple device consists of a metal wire attached to a plastic plate that has been conformed to fit against the roof of the mouth.

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