

ADULT ORTHODONTICS

Helping You Look and Feel Your Best



BRACES BRING LIFELONG BENEFITS

Have you always wanted straight, even teeth? With **orthodontics**, the dental speciality of **aligning** (straightening) teeth, you can have your teeth "remodeled" to produce the smile you've always wanted. Why not choose braces to improve your appearance and overall dental health?

When Braces Are the Right Choice

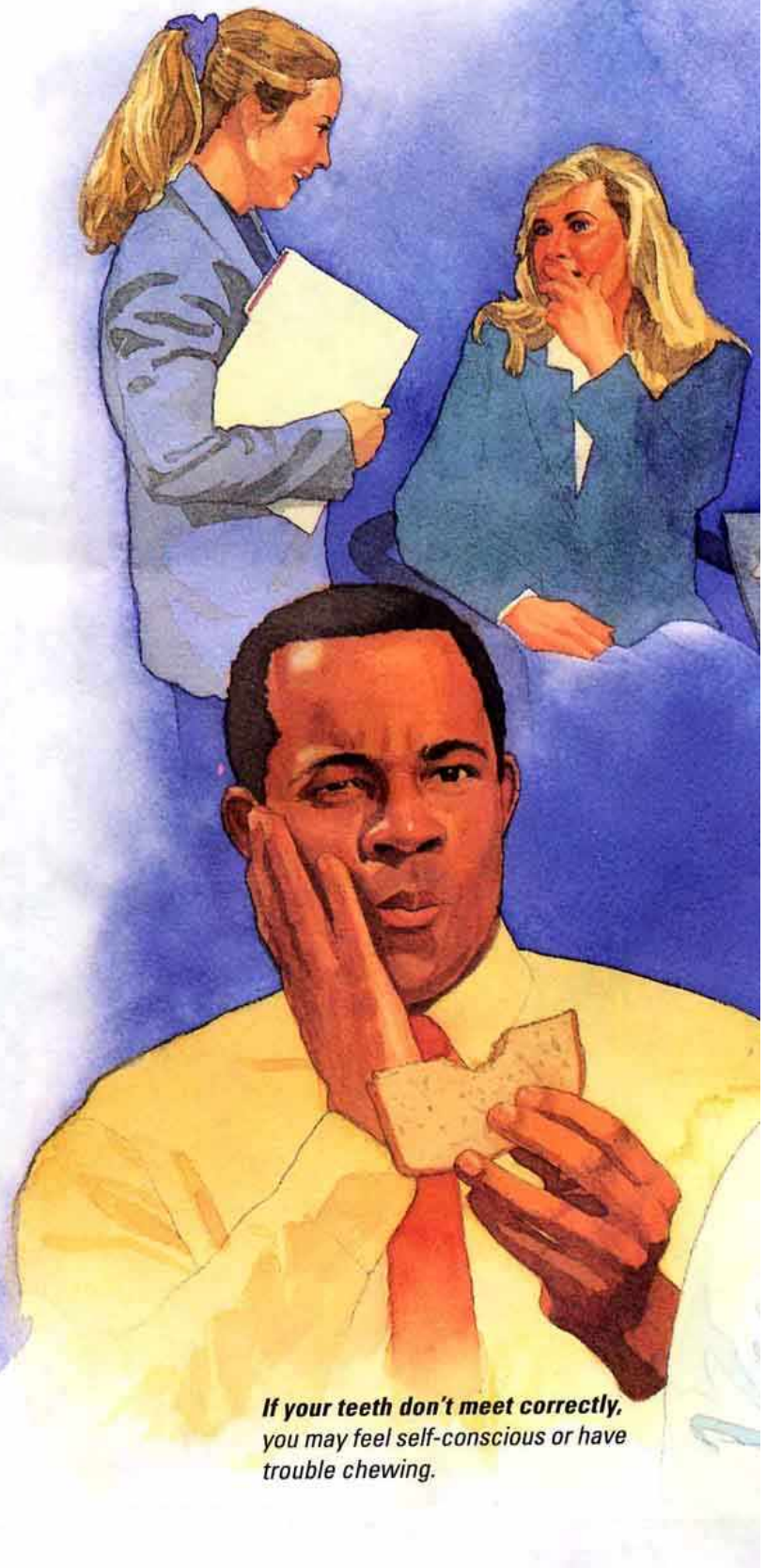
Have you spent your life guarding your smile or hiding your teeth behind your hands? If so, braces (**appliances**) may change your life. By improving the way your teeth fit in your mouth, braces can help you feel less self-conscious about laughing and talking around other people. Braces may also improve your dental health by making it easier to keep your teeth and gums clean. Braces may even help make your bite more comfortable. Orthodontic treatment takes only slightly longer for adults than for children, and the results can be just as satisfying.

Your Orthodontist Can Help


Your **orthodontist** is a dental specialist who is trained to correct the position of teeth. He or she can improve both the way your teeth look and the way your jaws work together. Talk honestly with your orthodontist, so he or she can tailor a treatment plan best suited to your goals.

This booklet is not intended as a substitute for professional orthodontic care.

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*If your teeth don't meet correctly,
you may feel self-conscious or have
trouble chewing.*



Your general dentist may clean your teeth and fill any cavities before you get braces.

Teamwork Builds a Better Smile

What do you hope to gain by wearing braces? Depending on your goals and the condition of your mouth, your dental needs may include more than wearing braces. Your orthodontist may recommend working with other dentists and specialists to improve the condition of your teeth, gums, or jaws. Once your braces are on, your role will be to care for your teeth and braces as your new smile takes shape.

Your orthodontist will work with you to determine realistic goals for your treatment.

UNDERSTANDING HOW YOUR TEETH MEET

In a normal mouth, the upper and lower teeth fit together when you bite down. The teeth move easily against each other during chewing and the mouth feels relaxed, producing a pleasing appearance. But if your teeth don't meet, or if they meet unevenly, you have a bite problem. Chewing ability and your facial appearance may both be affected by one or more common bite problems, such as a crossbite or crowded teeth.

A Normal Adult Mouth

By the late teens or early twenties, the jaw has finished growing, and the size and shape of the mouth is complete. Orthodontists consider an adult mouth "normal" if the teeth fit comfortably into the available space—even if the mouth contains fillings, crowns, or other dental corrections. A comfortable fit allows the jawbones and joints to work together without pain.

The temporomandibular joint (TMJ) is the connection between the upper and lower jaws.

The jawbones are the supporting structures that hold the teeth in place and give shape to the mouth and face.

The teeth are firmly positioned in the jawbone to provide stable biting and chewing surfaces.

The crown is the part of the tooth that can be seen above the gum.

The root is the part of the tooth that's anchored in the jawbone.

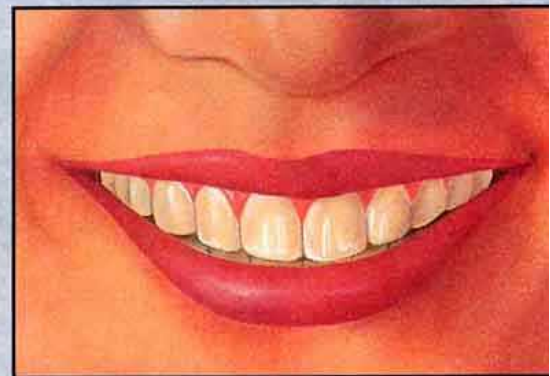
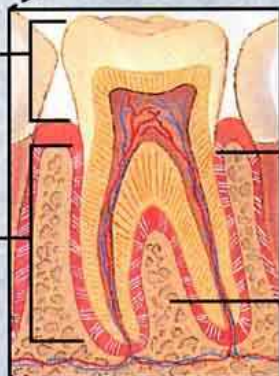
The ligaments are strong fibers that secure the root in the jawbone.

Jawbone

In a normal adult mouth, the shape of the jaw and position of the teeth create a balanced, attractive face.

From the side, a normal bite allows the upper and lower teeth to meet together evenly, distributing pressure correctly among all the muscles and joints.

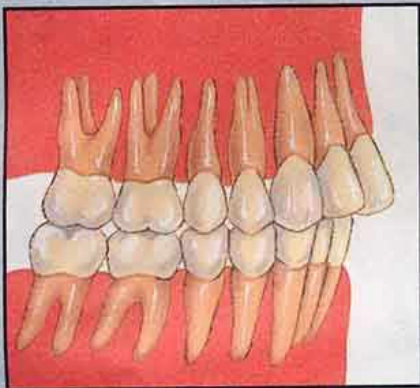
From the front, a normal bite allows the upper teeth to overlap the lower ones slightly.



Common Bite Problems

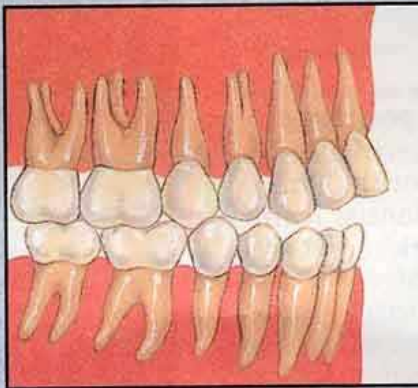
If your teeth protrude or don't meet when you bite down, your problem may be caused by the way your teeth fit into the jawbone. Your bad bite (**malocclusion**) may even be caused by a combination of problems, such as protruding and twisted teeth. If it's only the position of your teeth that is causing your bite problem, braces will improve your condition.

Overbite



The upper teeth protrude excessively and may make it difficult to bite into solid food, such as an apple or an ear of corn. In some cases, an overbite may make your lips thrust forward.

Open Bite



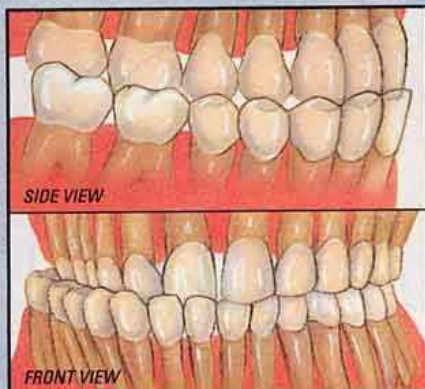
The front teeth don't close when the back teeth meet, so biting into food may be a problem. An open bite sometimes makes it difficult for lips to close. This can strain face muscles.

Deep Bite



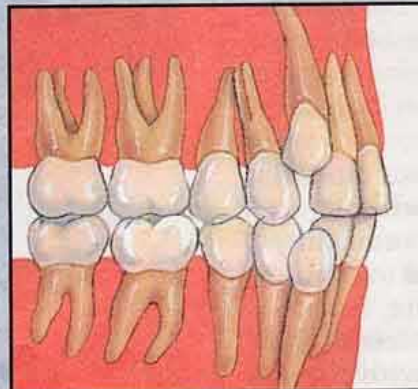
The upper front teeth drop too far over the lower ones when the jaws meet. This can cause the lower front teeth to strike gum tissue behind the upper teeth.

Crossbite



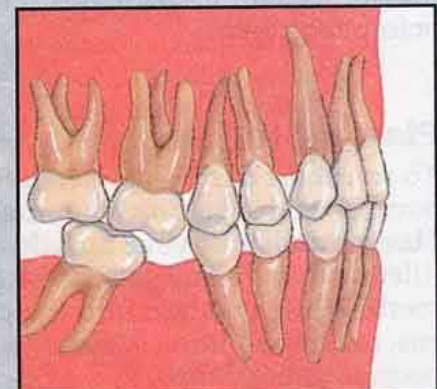
Lower teeth cover upper ones when the jaws meet, causing uneven chewing pressure. This can strain the jaw joint or muscles and cause some teeth to wear down excessively.

Twisted or Crowded Teeth



Twisted or tipped teeth may stick out of line or take up extra space, causing some teeth to be crowded in the jawbone. This can make brushing difficult and gum trouble more likely.

Missing Teeth



Missing teeth—whether they were pulled or failed to come in—may cause surrounding teeth to shift position to fill in the gap. This can place uneven pressure on the jaw joint and muscles.

EVALUATING YOUR TEETH AND PLANNING TREATMENT

Taking a dental and medical history is your orthodontist's first step in planning your treatment. An exam of your mouth helps to identify why your teeth are not aligned. It may also pinpoint the cause of any pain or stiffness in your jaw. Your orthodontist may also use images and models of your mouth to record the exact position of your teeth and prepare a "blueprint" for treatment.

Your Dental and Medical History

Your answers to questions about previous dental work or pain or other symptoms help the orthodontist assess the condition of your mouth. You may also be asked about medications or illnesses that may affect your orthodontist's ability to align your teeth.

Your Orthodontic Exam

During an orthodontic exam, the position of your teeth will be examined. You will also be asked to open and close your mouth. This simple exercise helps your orthodontist learn how well your teeth and jaws work together.

X-rays and Photos

Your entire mouth will be x-rayed to provide images of both the visible and hidden parts of your teeth and jaws. Many individual shots or one continuous (**panoramic**) x-ray may be taken. An x-ray of your entire head (**cephalometric x-ray**) will also be needed. This image shows the shape of your jaws and their relation to each other. In addition, a series of photographs may be taken to record how your teeth look before treatment.

Plaster Models

To reveal the exact alignment of your top and bottom teeth, your orthodontist will prepare plaster models of your mouth. A small tray filled with a creamy paste is placed over your teeth. While you bite into the paste, it stiffens, making an impression of your teeth. This becomes a mold that is later filled with plaster to form a model.

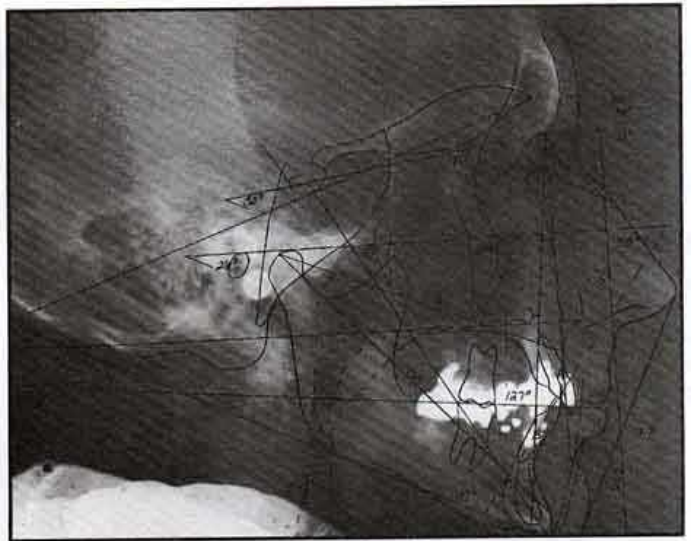
A head x-ray shows your upper and lower jaws in relation to each other and to the rest of your face.



Plaster models allow your orthodontist to study the position of your teeth and jaws.



Your Treatment Plan



Using an x-ray of your entire head, your orthodontist notes where pressure should be applied to your teeth to move them into the ideal position.

Tailoring Treatment for You

After the evaluation, your orthodontist will discuss a treatment plan with you. Braces provide the correction needed in most cases. But, for problems with the structure or function of the jaw, braces may be only part of the solution. If your recommended treatment includes **orthognathic** (jaw) surgery, your orthodontist will explain how braces fit into the overall plan. Together, you'll work to develop goals that are both physically and financially realistic.

Dental Care Before Braces

Your orthodontist wants to build your new smile on a solid foundation. So, he or she may recommend that you have other dental work before starting orthodontic treatment. Dental treatment before braces may include filling decayed teeth, removing some teeth to make room for others, reshaping unusually large or small teeth, or treating gum problems.

Risks and Complications

Wearing braces carries little risk of physical complications. Those that can occur, such as significant shortening (**resorption**) of the roots of the teeth, happen very rarely. Your orthodontist will talk with you about any risks that may affect your individual treatment.

ENGINEERING YOUR NEW SMILE

Pressure applied over a long period of time will move teeth. Braces (appliances) are mechanical devices designed to apply pressure strategically to your teeth. Like other mechanical devices, braces can do a small or large amount of work. Their effect depends on the way pressure is applied and the length of time they're worn.

Braces: A Parts List

Because your braces are built especially for your mouth, they can shift your teeth with great accuracy. Each part of your braces plays a role in guiding this precise movement.

Archwires are thin wire strips that connect your teeth and guide their movement.

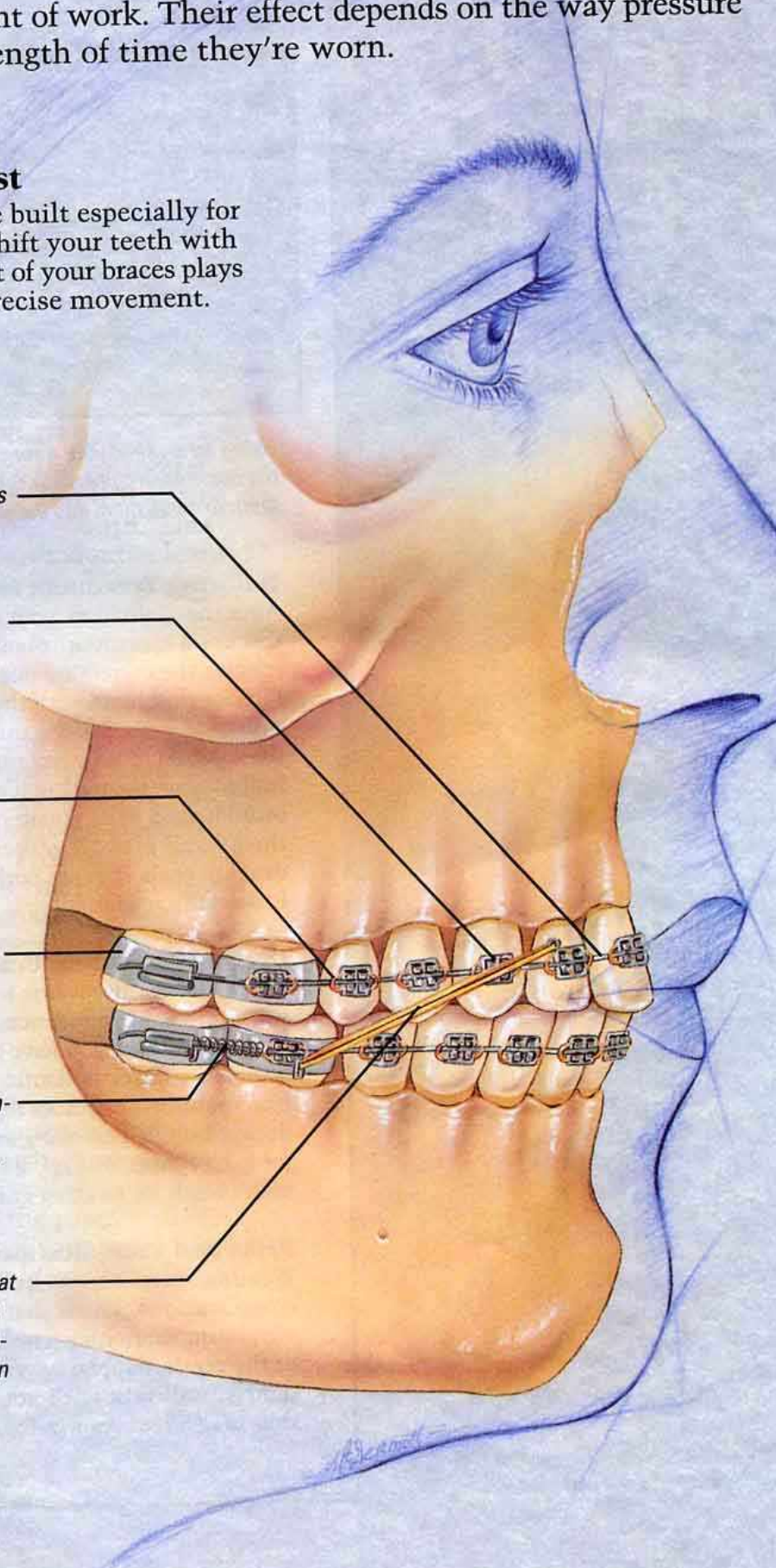
Brackets are small squares attached to each tooth. They act like handles to hold the archwires in place.

Ligatures are small rubber rings or fine wires that fasten the archwires to the brackets.

Bands are metal rings that encircle your teeth, anchoring the brackets and archwires in place.

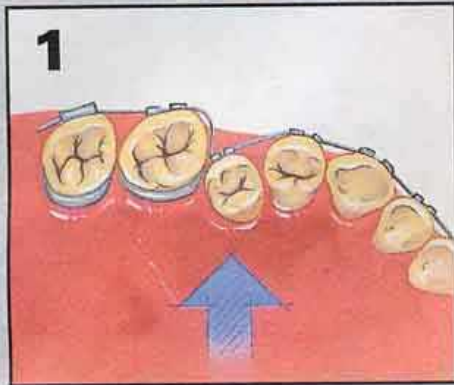
Springs may be used to connect archwires to brackets, applying pressure and helping archwires keep their original shape.

Elastics are rubber bands that may be used to connect the upper and lower braces, applying pressure to reposition specific teeth.

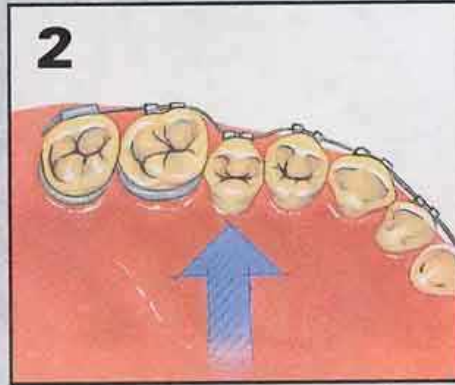


Braces Move Your Teeth

Your teeth can be moved in many directions, depending on how pressure is applied by the archwires, springs, and elastics. As your teeth begin shifting position, your orthodontist may exchange flexible archwires for stiffer ones. Your teeth may feel sore or a little loose as they move through the bone, but this will go away as your jawbone adapts to the change.



1
A flexible archwire applies pressure, acting like a train track to guide the movement of your teeth.



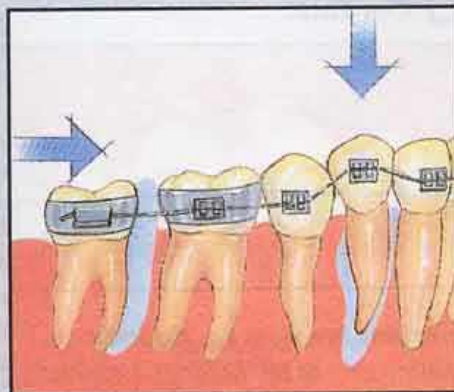
2
Stiffer archwires replace flexible ones and apply greater pressure as your teeth begin to align.



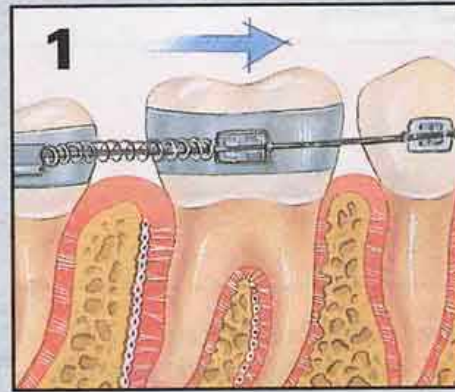
3
Firm archwires hold the teeth in proper alignment while the jawbone adjusts. This may take several months.

Your Jawbone Adjusts

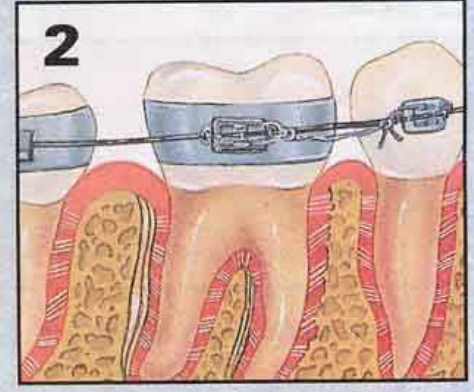
Although it is a solid structure, the jawbone surrounding your teeth can change shape in response to prolonged pressure. Because adult bones are denser, it takes longer to move adult teeth than to move children's. Once underway, however, the process of change is steady. Old bone dissolves and new bone grows to support the teeth in their new position.



Your jawbone adapts, allowing teeth to be moved forward or backward, in or out, up or down. The direction of movement is determined by the direction of pressure.



1
Prolonged pressure causes bone to dissolve in the area into which the tooth is moving. As the tooth shifts, the surrounding ligaments begin to stretch.



2
Stretched ligaments signal the body to fill the gap behind the shifting tooth. Over time, the body deposits new bone to support the tooth in its new position.

TYPES OF BRACES

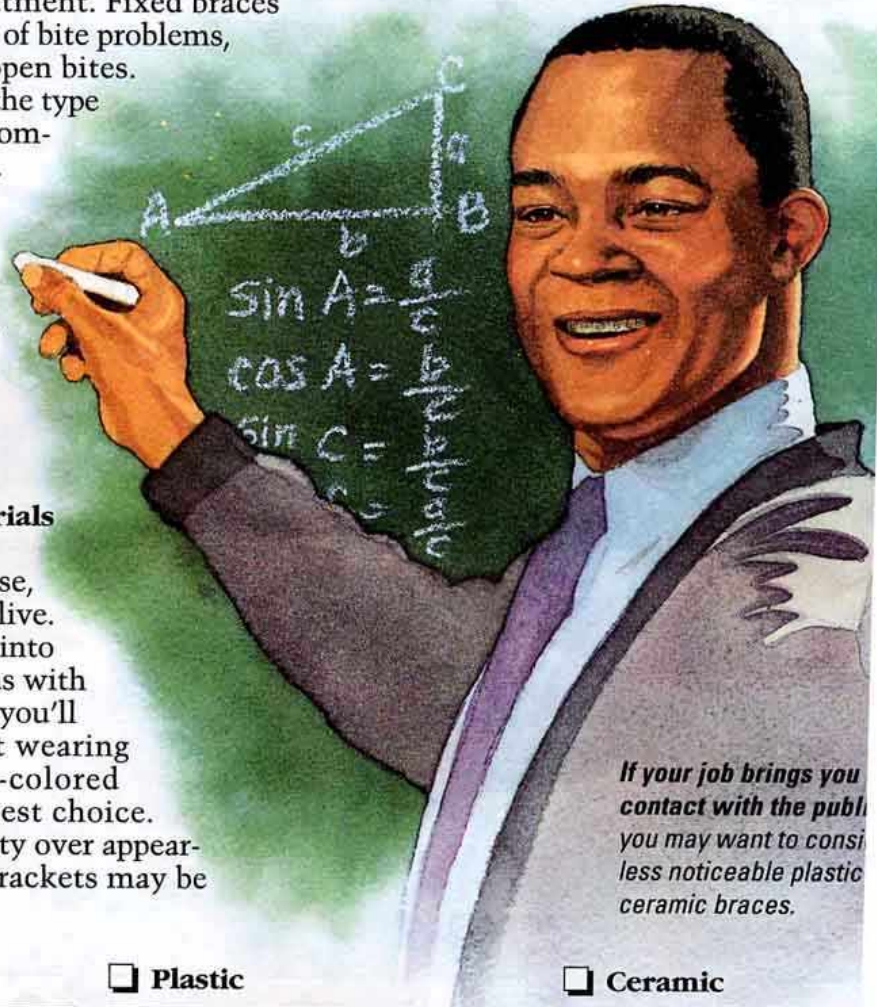
Depending on the extent of correction your teeth need, your orthodontist may recommend fixed or removable braces. Although fixed braces provide the most precise correction, removable braces may be a good choice for teeth that need only slight repositioning. If your treatment requires fixed braces, ask your orthodontist about the various materials that they can be made from.

Fixed Braces

Fixed braces are bonded onto your teeth and remain in place throughout treatment. Fixed braces can correct a wide range of bite problems, including overbites and open bites. Because of this, they are the type of braces most often recommended by orthodontists. The brackets used with fixed braces can be constructed from several different types of materials. Talk with your orthodontist about which material is best for you.

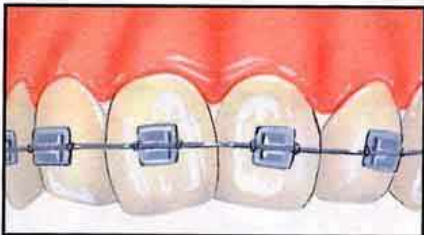
Choosing the Best Materials

As you consider which bracket material to choose, think about the way you live. Does your job bring you into contact with the public, as with teaching, sales, or law? If you'll feel self-conscious about wearing braces, a clear or tooth-colored material may be your best choice. But, if you prefer durability over appearance, traditional metal brackets may be better for you.



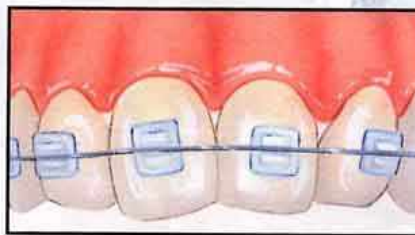
If your job brings you contact with the public, you may want to consider less noticeable plastic or ceramic braces.

Metal



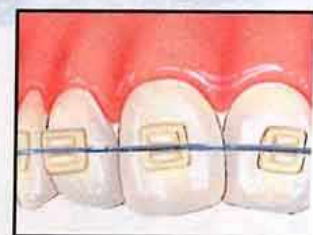
Metal brackets are long-lasting and provide a secure fit, despite months of wear and tear. Due to their durability, treatment time can be shorter with metal brackets. However, they are also the most noticeable type.

Plastic



Clear plastic brackets are less noticeable than the metal type. But, the plastic can yellow or lose its shape over time. This may be less of a problem as more durable plastics become available.

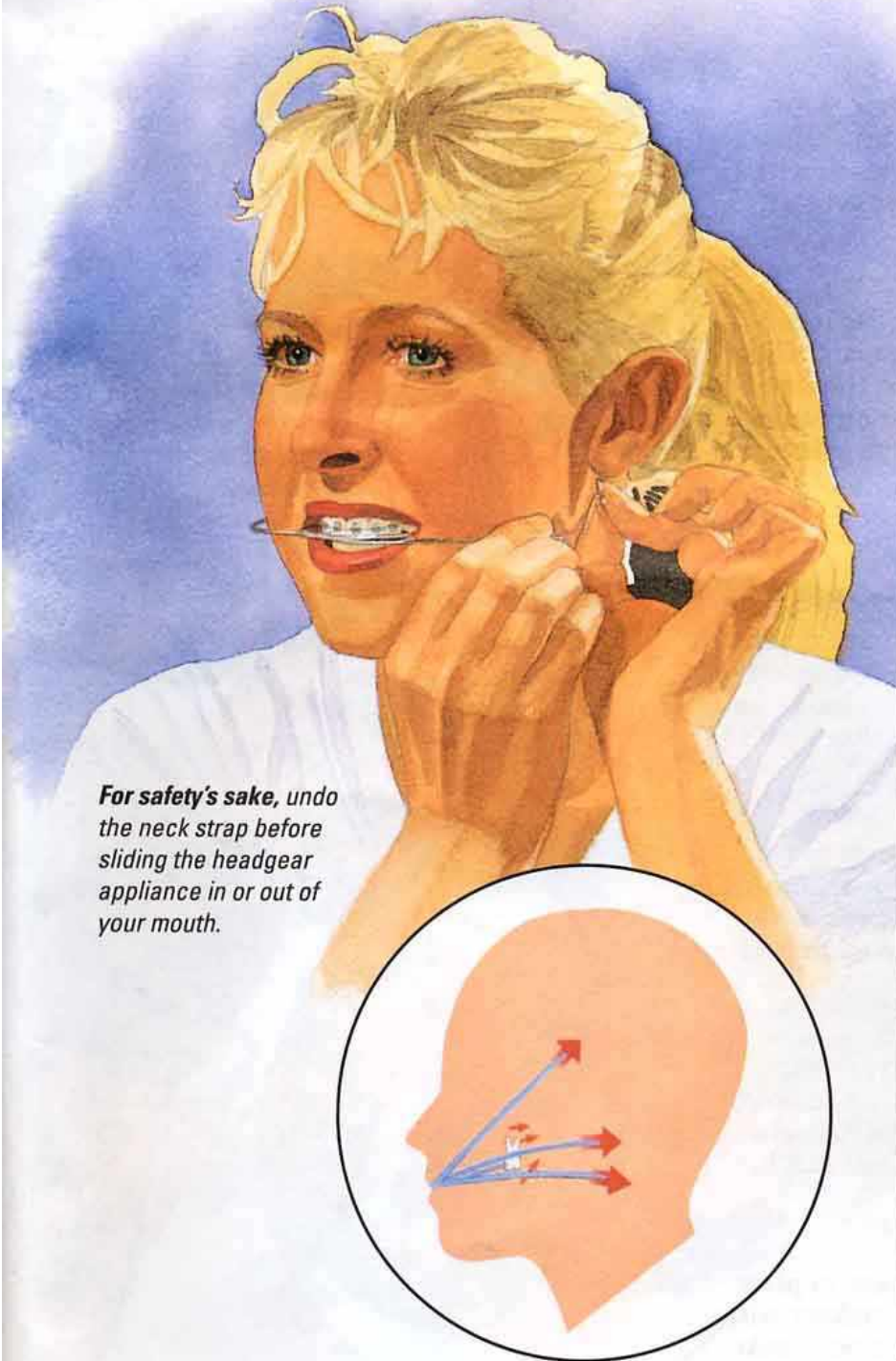
Ceramic



Ceramic brackets are the least noticeable of all. Made to the color of your teeth, they are stronger than the plastic. However, ceramic brackets are also more likely to break.

Headgear May Help

A special appliance called **headgear** may be needed along with fixed braces to make treatment more effective. When fastened into special tubes on your molar brackets, headgear applies pressure on protruding front teeth. Headgear is often prescribed for only part of the day, so you may need to wear it only at home.

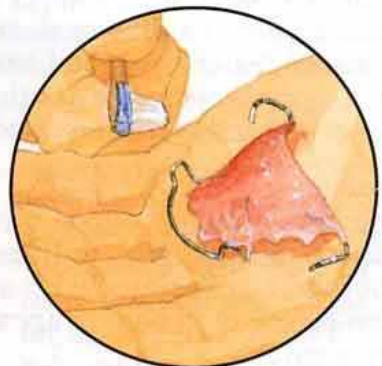
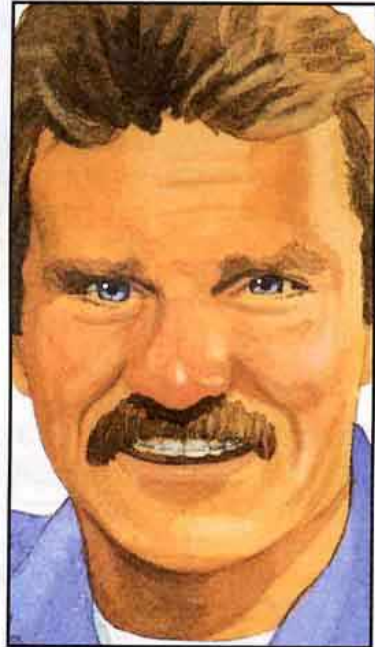


For safety's sake, undo the neck strap before sliding the headgear appliance in or out of your mouth.

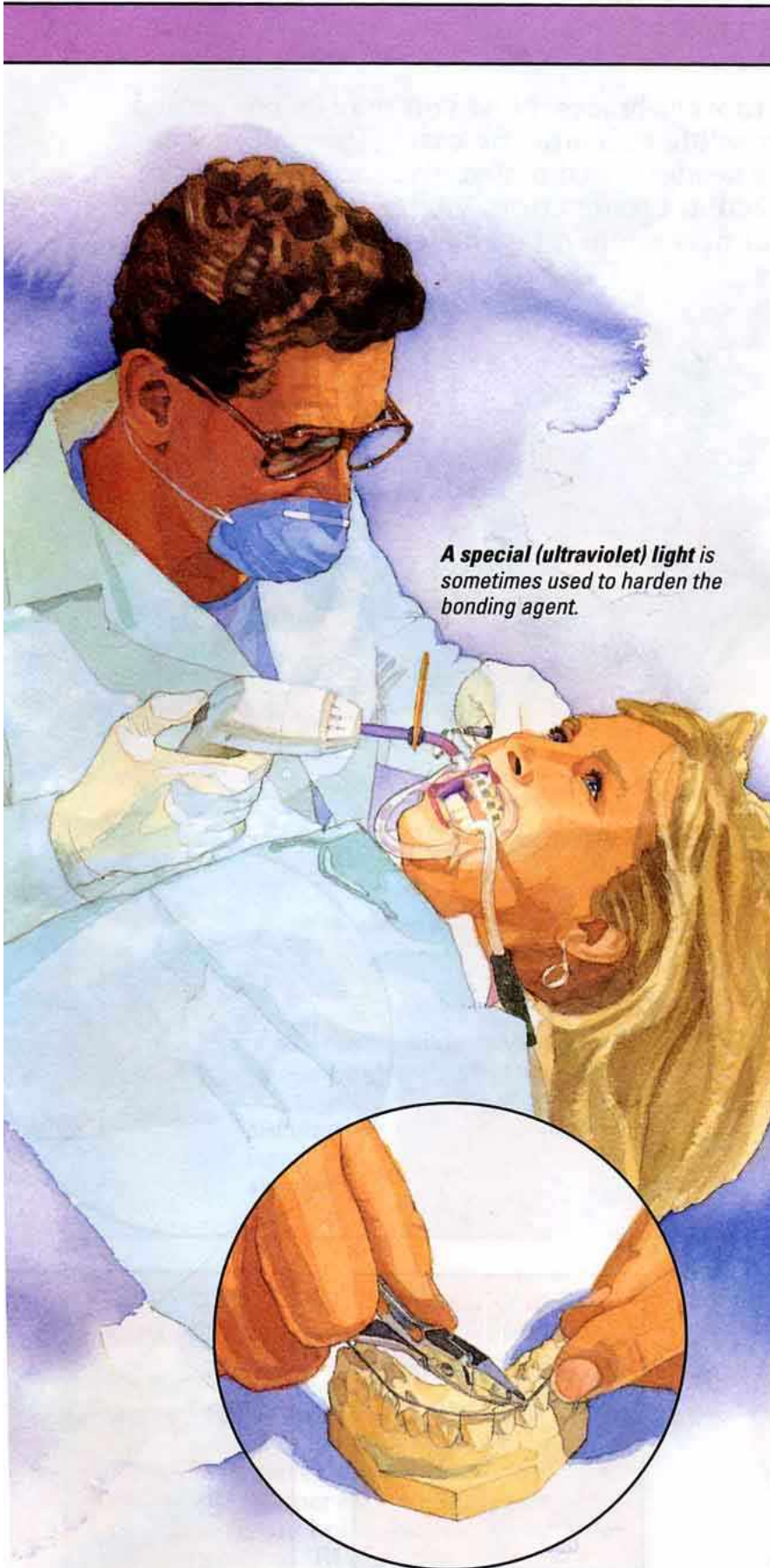
Headgear can apply pressure in several directions, depending on your orthodontic needs.

Removable Braces

Unlike fixed braces, which are bonded onto your teeth, removable braces can be taken out of your mouth. You should remove them before meals or brushing. These braces are most often used to align one or two slightly tipped or crooked teeth.



The wires on removable braces apply pressure to reposition your teeth.



A special (ultraviolet) light is sometimes used to harden the bonding agent.

Archwires are made from metal blends that are both flexible and durable.

After Your Braces Are Built

If you're curious about the placement of orthodontic parts, open your mouth and look in the mirror. Don't poke at the rough surfaces with your tongue. That can hurt! If your braces irritate your mouth, protect it by placing wax over the rough edges of the braces.



Feeling Self-Conscious

Now that your braces are in place, you may feel as though everyone in the world is looking at you. The fact is, many people won't even notice your braces. Those who do will probably understand that you're making an effort to improve your appearance and dental health. When you're feeling self-conscious, remember that you're wearing braces because they'll help you look and feel better in the future.

BUILDING YOUR FIXED BRACES

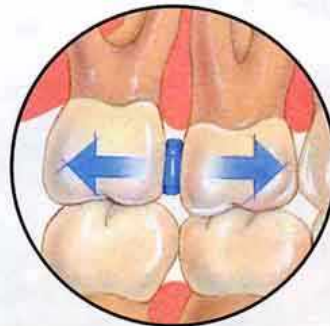
Fixed braces are usually applied to your teeth during a series of office visits, which may be spaced a week or two apart. During your first visit, your orthodontist prepares your teeth to support the structure of your braces. In some cases, it may be a month or more before your braces are fully in place.

Preparing Your Teeth

If your molars fit tightly together, your orthodontist may shift them slightly before constructing your braces. Your teeth will also be cleaned and polished so your braces can be properly placed.

Spacers

Small pieces of elastic or wire (**spacers**) may be inserted between your molars. This creates space so that bands can then be placed on these teeth. Spacers may cause some discomfort, but aspirin helps relieve the ache.



Spacers may be left in place for a few days or several weeks depending on how tightly your teeth are positioned.

Constructing the Framework

After your teeth are prepared, your orthodontist begins placing your bands, brackets, and wires. Your braces may seem bulky at first, but you'll feel more at ease after they've been in place a few days.

Bands

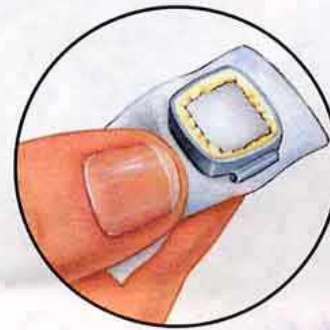
Your orthodontist may apply bands to your molars a few at a time or all at once. Cement is placed inside the metal band, which is then slipped over your tooth. Within minutes, the band is fixed in place.

Brackets

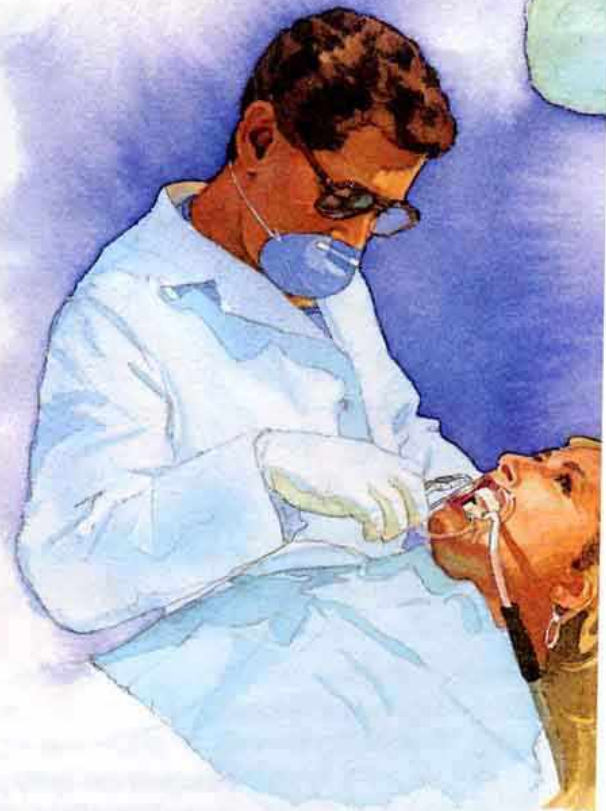
Brackets may be bonded directly to the surface of the tooth. To improve the hold, your teeth are painted with a special solution before the bonding agent and bracket are applied.

Archwires and Ligatures

Once your bands and brackets are in place, archwires are fastened to the brackets with wire or plastic ligatures. For the best treatment results, your orthodontist may adjust your archwires every four to six weeks.



Bands are cemented in place to provide a firm anchor for the rest of your braces.



Brackets may be applied one jaw at a time, so you can adjust gradually to the changes in your mouth.

YOUR ROLE IN TREATMENT

You've made the decision to wear braces. Now you may be concerned about achieving the best possible outcome. By caring for your braces and wearing your elastics or headgear as directed, you may turn a minor improvement into a spectacular "renovation." After your braces are removed, you can keep your new smile intact by wearing a retainer as your orthodontist instructs.

Foods to Favor

Wearing braces doesn't have to mean giving up your favorite foods. With a little planning, you can have your favorite flavors and still protect your braces. Remember these tips when you sit down to eat.

- Pick softer foods, such as poultry or seafood. Soups, stews, and pastas are also good choices.
- Cut foods into small pieces that can be easily chewed. You can still eat steak, pizza, and crusty bread—just remember to use your knife.
- Slice fresh fruit and vegetables into bite-size pieces. Cutting corn off the cob makes it easier to eat.

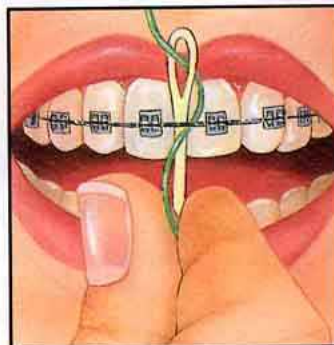


Four troublemakers to avoid are sticky, hard, crunchy, and sweet foods.

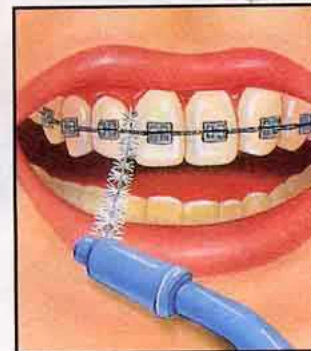


Cleaning and Polishing

Braces create countless nooks and crannies where food can lodge. Not only can this lead to cavities and gum problems, it also detracts from your appearance. Do your teeth (and your self-esteem) a favor and brush after every meal. To keep both your teeth and your braces in good condition, try brushing with softer strokes for a longer time. Your orthodontist may know about special dental supplies to help polish your smile. Why not ask for suggestions?



A floss threader slips the floss under the archwire so you can pull the floss between your teeth and under your gums.



An interdental brush, oral irrigator, and fluoride rinse can clean the hard-to-reach spaces between your teeth and braces.



A removable retainer may be worn at night to keep your teeth from drifting out of alignment.

Keeping Your Appointments

To achieve the best results, your orthodontist will check the position of your bands and brackets on a regular basis. Afterward, he or she may adjust your archwires, altering the pressure on your teeth. By keeping these scheduled appointments, you help shorten the length of your treatment.

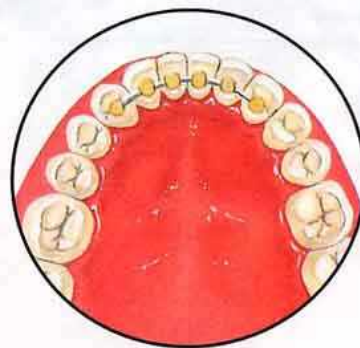
Call Your Orthodontist

Emergency orthodontic visits are rare, but situations may arise that require a special office visit. Don't hesitate to call your orthodontist if either of the following occurs:

- A piece of your braces breaks off.
- You experience pain that isn't relieved by aspirin or an aspirin substitute.

Retaining Your Smile

Once your teeth are aligned, your orthodontist uses special instruments or heat-activated debonders to remove your braces. Afterward, your orthodontist will prescribe an appliance called a **retainer**, which looks very much like removable braces. But, unlike removable braces, the retainer exerts no pressure on your teeth. It simply holds them in their newly aligned position. To maintain your new smile, follow your orthodontist's instructions on how often and how long to wear your retainer.



A retainer wire is sometimes bonded behind the lower teeth to provide invisible, full-time support.

PLAN FOR YOUR NEW SMILE

Knowing your goals before you start will help you achieve the best orthodontic results. Talk with your orthodontist about how braces can help improve both your appearance and your overall dental health. If you're willing to commit the time, it's never too late to plan for a new smile. More people are keeping their teeth for a lifetime, so you may find that braces are an investment worth making.



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