

STRAIGHT TALK ABOUT BRACES



A Guide to Orthodontics for Children and Teens

Orthodontics to the Rescue

Of course you want your teeth to look their best and work right. If they don't, you may feel self-conscious. You may also have more tooth decay, gum disease, and jaw problems. That's where an **orthodontist** can help. He or she is a specially trained dentist who straightens teeth (orthodontics) and alters bone growth in the jaws (dentofacial orthopedics).



What Causes Orthodontic Problems?

Problems occur when the jaws and teeth do not meet right. This is called a **malocclusion** (*mal* means “badly” and *occlude* means “to close”).

- A **skeletal malocclusion** occurs when one jaw doesn't line up with the other, or when the jaws are too big or too small for the teeth.
- A **dental malocclusion** occurs when the teeth are out of line, crowded, turned, or spread out. This can happen with or without a jaw problem.

Your malocclusion may have come from your parents. If you inherited large teeth from one parent and small jaws from the other parent, your jaws and teeth may not line up right. Or your malocclusion may be due to poor dental care or habits you had, such as sucking your thumb.

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

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When Should Treatment Start?

The best time to start treatment depends on your problem. Often, treatment is done in two phases.

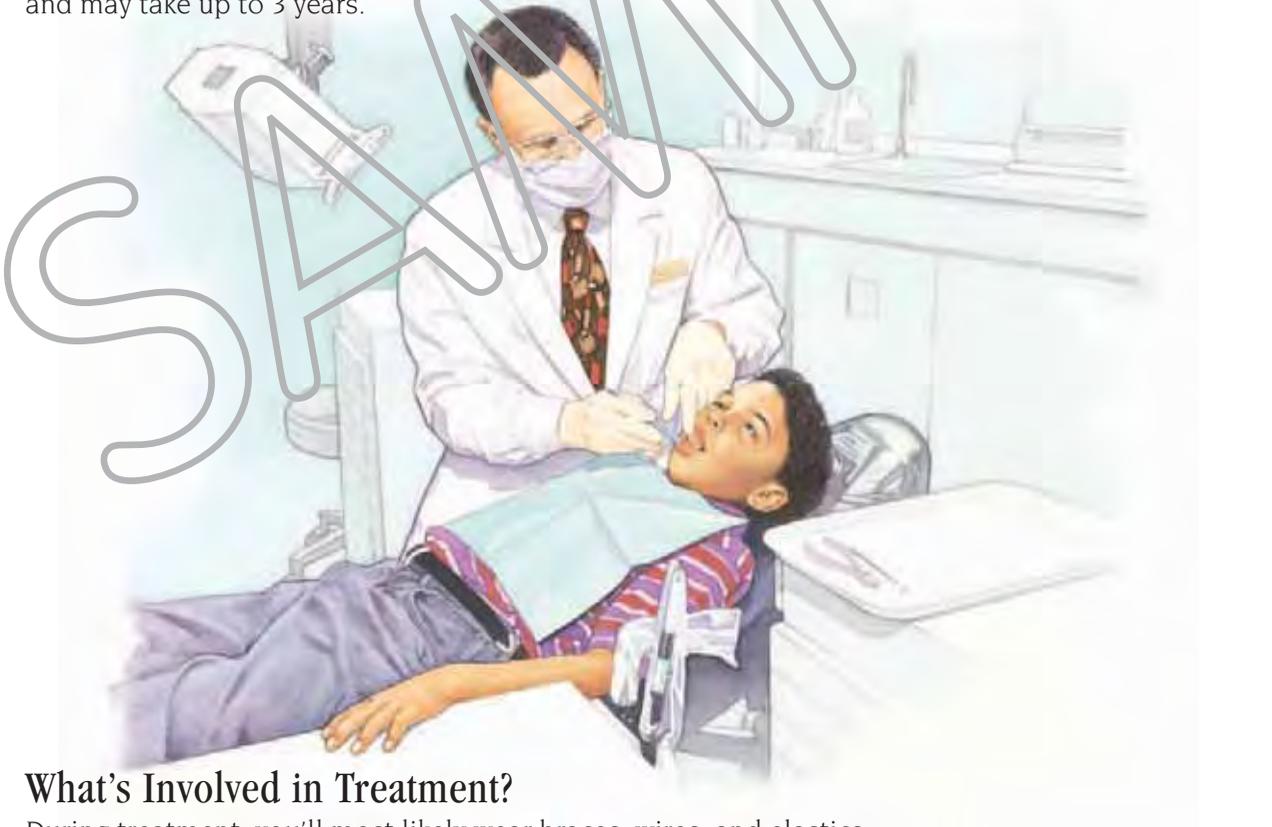
- If your jaws are not aligned right, or are too big or too small, your orthodontist may start treatment while the jaws are growing. This is called **Phase I**. Phase I most often occurs between ages 6–11 and takes about a year. Afterward, your orthodontist will see you regularly for several years to check your adult teeth as they come in.
- If your adult teeth are not properly aligned when they come in (ages 11–13), they will need to be straightened. This is called **Phase II**. Most children who have Phase I treatment also need Phase II. Phase II takes about 1–2 years.

Don't worry, though. Even if treatment doesn't start early, your problem most often can still be corrected. Treatment is then done in one step, and may take up to 3 years.

What Are the Benefits of Orthodontic Treatment?

The benefits of orthodontics can last a lifetime.

- You'll have a nicer smile.
- With better looks, you may have more self-confidence.
- Your teeth will be easier to take care of. You'll be less likely to have tooth decay, gum disease, or jaw problems.
- Your teeth will be less likely to chip or break.
- You will have a better ability to chew.



What's Involved in Treatment?

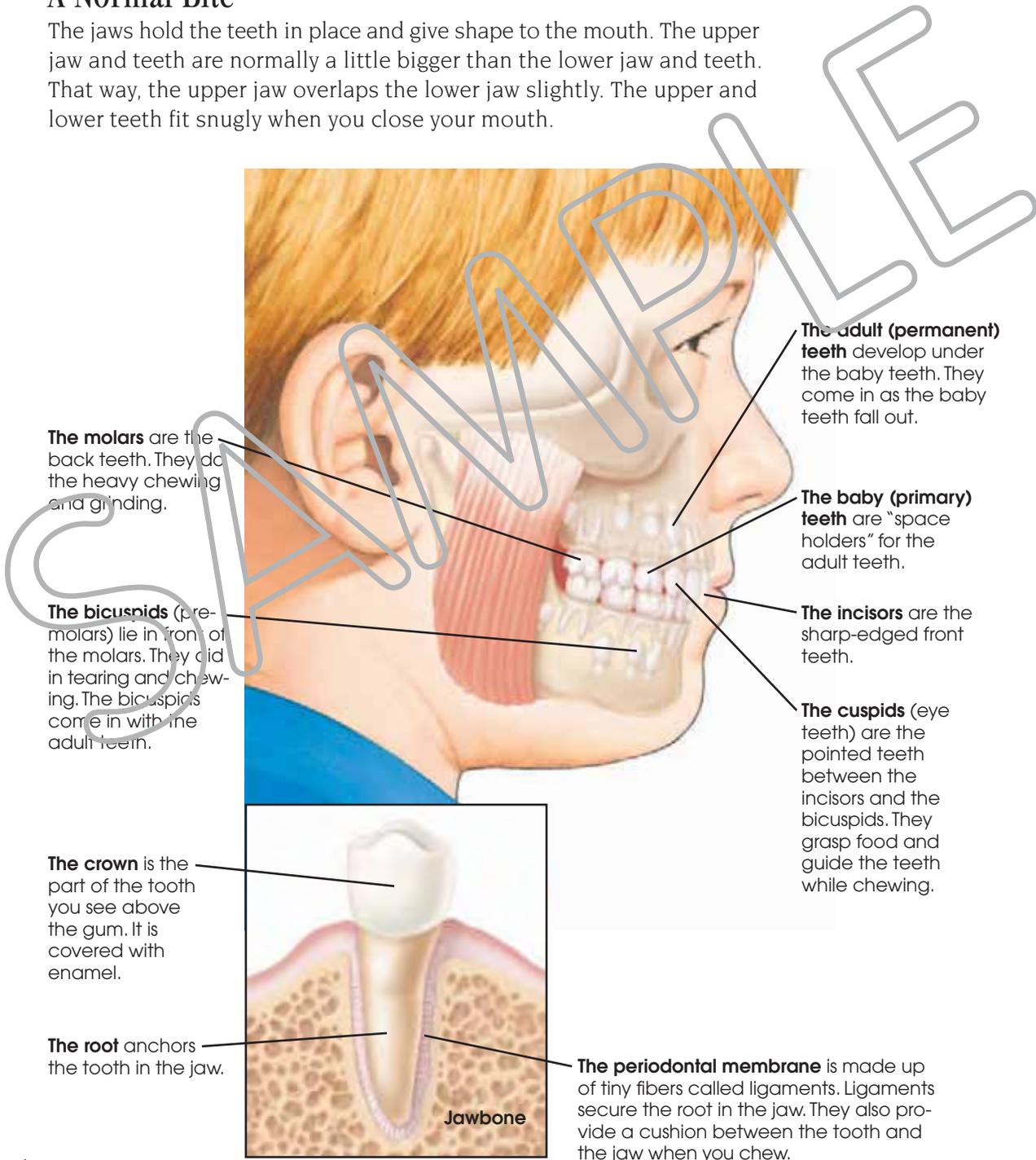
During treatment, you'll most likely wear braces, wires, and elastics. You may also have other appliances, such as headgear. All of these put pressure on your jaws and teeth to guide them into the right place. Treatment doesn't work overnight. But most people who have orthodontic treatment think the results are worth it.

A Look Inside Your Mouth

Nature gives you two sets of teeth. The first set is your baby, or primary, teeth. They are later replaced by your adult, or permanent, teeth. When the jaws grow normally and the permanent teeth are in the correct place, you have a normal bite. But if the jaws grow too much or too little, or if the teeth don't come in straight, you have a bite problem.

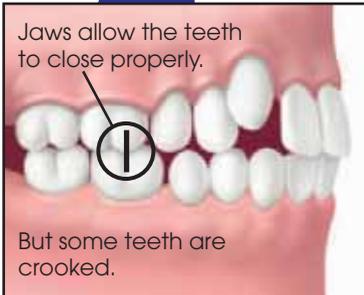
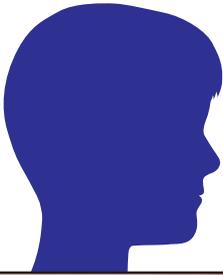
A Normal Bite

The jaws hold the teeth in place and give shape to the mouth. The upper jaw and teeth are normally a little bigger than the lower jaw and teeth. That way, the upper jaw overlaps the lower jaw slightly. The upper and lower teeth fit snugly when you close your mouth.



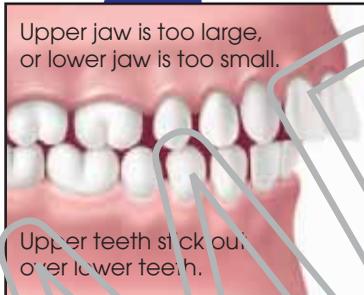
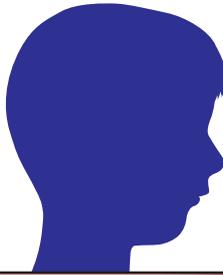
Common Bite Problems

If your jaws don't line up, your teeth don't close properly. The same is true if your teeth are turned, crowded, or missing. Bite problems fall into three classes of malocclusions. Other bite problems can also occur, either on their own or along with a malocclusion.



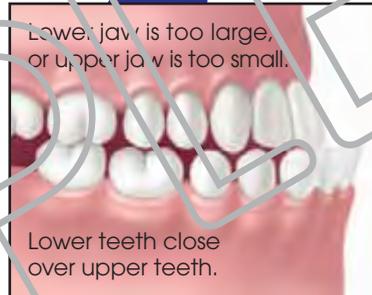
Jaws allow the teeth to close properly.
But some teeth are crooked.

Normal Bite with Crooked Teeth (Class I)
The jaws line up with each other, but the teeth don't close right. This causes a dental malocclusion. The teeth may be too large, too small, trapped in the bone (impacted), or turned.



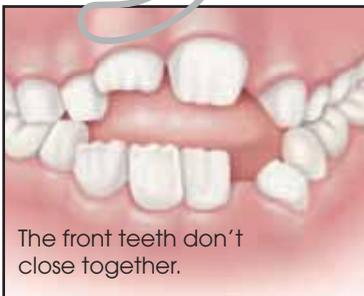
Upper jaw is too large, or lower jaw is too small.
Upper teeth stick out over lower teeth.

Overbite (Class II)
The upper jaw is too large and sticks out over the lower jaw. Or the lower jaw may be too small or too far back. This causes "buck teeth" or "rabbit teeth." An overbite is most often caused by a skeletal malocclusion.



Lower jaw is too large, or upper jaw is too small.
Lower teeth close over upper teeth.

Underbite (Class III)
The lower jaw is too large or too far forward. Or the upper jaw may be too small. Then the lower teeth close in front of the upper teeth. An underbite is most often caused by a skeletal malocclusion.



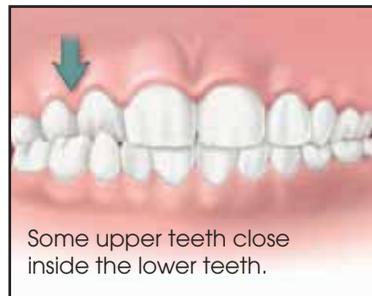
The front teeth don't close together.

Open Bite
Some of the back teeth close properly, but the front teeth don't meet. Thumb sucking and tongue thrusting can cause an open bite.



The lower front teeth hit the roof of the mouth.

Closed (Deep) Bite
The upper teeth overlap the lower teeth too much. Then the lower incisors can press into the roof of your mouth when you chew.



Some upper teeth close inside the lower teeth.

Crossbite
Some upper teeth close inside the lower teeth. This happens if one jaw is too big or too small, or some teeth are not aligned right.

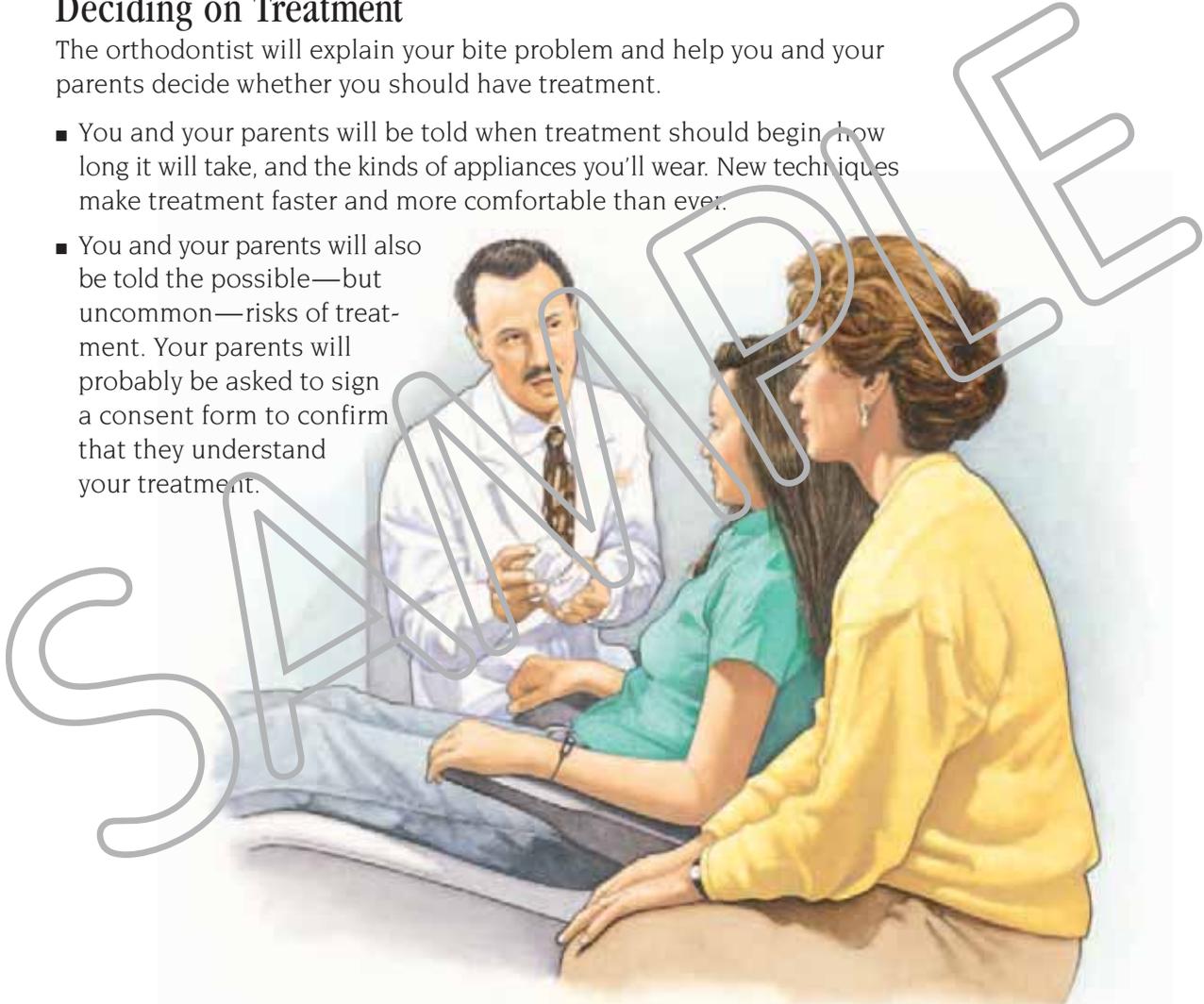
Before Treatment Starts

During your first visit, the orthodontist examines your jaws and teeth. He or she can then tell you and your parents whether you need treatment and what treatment will involve. If your parents decide to go ahead with treatment, the orthodontist will do a study of your jaws and teeth and make a treatment plan for you.

Deciding on Treatment

The orthodontist will explain your bite problem and help you and your parents decide whether you should have treatment.

- You and your parents will be told when treatment should begin, how long it will take, and the kinds of appliances you'll wear. New techniques make treatment faster and more comfortable than ever.
- You and your parents will also be told the possible—but uncommon—risks of treatment. Your parents will probably be asked to sign a consent form to confirm that they understand your treatment.



To the Parent: Arranging for Payment

Orthodontic treatment is an investment in your child's future. The orthodontist or staff will discuss the cost of treatment with you.

- Your dental insurance plan may help pay some of the costs. Check with your employer or with the insurance company.
- You can also ask the orthodontist or staff about arranging a payment plan.

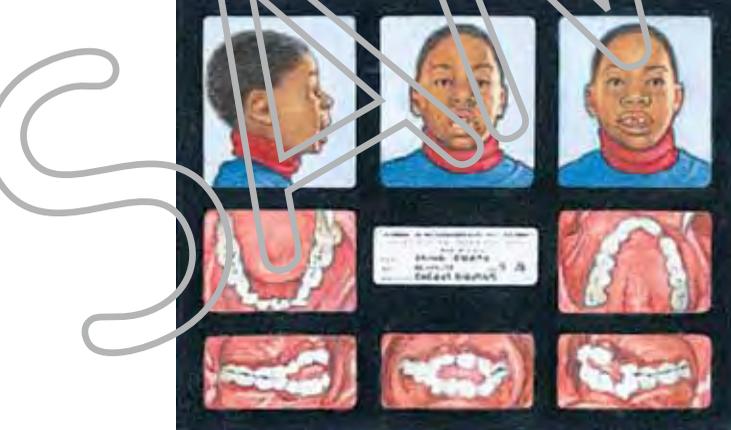
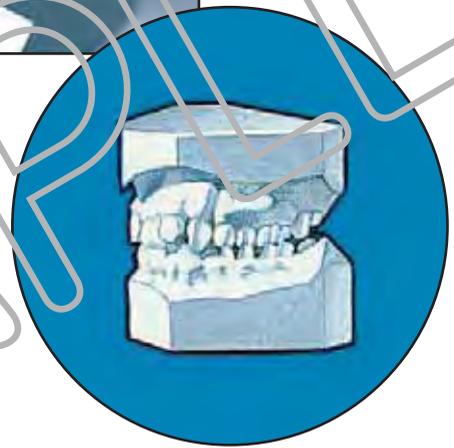
Your Orthodontic Exam

Before treatment starts, your orthodontist will make a detailed study of your bite. He or she will take x-rays and photographs, and make models of your teeth and jaws. These allow your orthodontist to make the best treatment plan for you.

X-rays are taken of your head, neck, jaws, and teeth. These are special x-rays. They are used to measure your teeth and jaws and to help plan your treatment.



Impressions (molds) are taken of your upper and lower teeth. They are made by pressing a soft material over your teeth and allowing it to harden. The material will be removed after a minute or two. **Models** are then made by pouring plaster into the molds. The models show how your teeth and jaws fit together.



Photographs of your profile, face, and teeth may also be taken before treatment. They help diagnose your problem. Later on, you can compare them to the results of your treatment.

Your Treatment Schedule

The orthodontist or staff will discuss your appointment schedule with you and your parents.

- Your first few appointments will most likely be about a week apart. Once your appliances are in place, you'll most likely see your orthodontist every 3–7 weeks. You'll need to go even less often between Phase I and Phase II, and once you're wearing a retainer.
- During your treatment, you still need to see your family dentist. Having your teeth cleaned and checked regularly helps prevent tooth decay and gum problems.

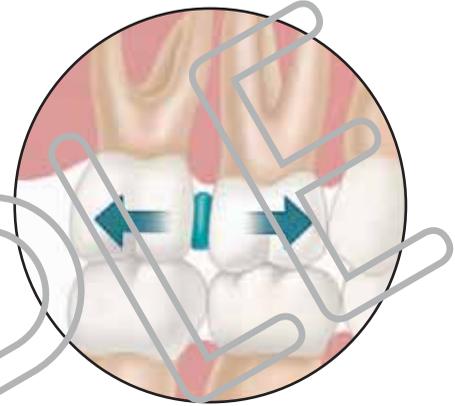
Your Braces

Braces guide your teeth into their proper place. They can be used in both Phase I and Phase II of treatment. How braces move your teeth depends on the way pressure is put on the teeth. It also depends on how long you wear the braces. Your orthodontist will choose the best kind of braces for your problem.

Spacers

A week or two before you get your braces, your orthodontist may put **spacers** (separators) between your back teeth. These are small elastics or wires that fit between the teeth. They help move the teeth slightly apart so that there's room to put the bands on.

- Don't floss between any teeth where there's a spacer. But be sure to floss between all the other teeth.
- Don't eat anything sticky or chewy, such as caramels.
- If a spacer falls out, call your orthodontist. The spacer may need to be replaced.



Braces: A Parts List

Your braces are custom-fit to your mouth. That way they move your teeth exactly as needed. Each part plays a role in this movement.

Archwires are thin wires that form a track to guide the teeth as they move.

Brackets are small squares attached to each tooth. They act like handles to hold the teeth on the archwires. They can be clear, silver, gold, or tooth-colored.

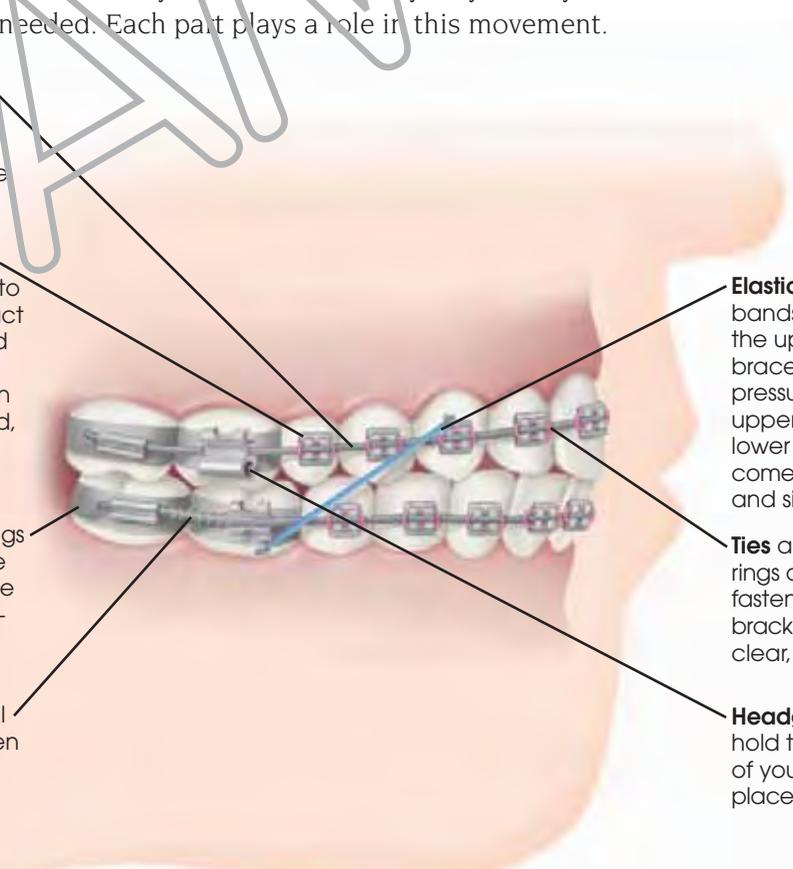
Bands are metal rings that go around the teeth. They hold the brackets and archwires on the teeth.

Springs push or pull on brackets to open or close the space between teeth.

Elastics are rubber bands that connect the upper and lower braces. They apply pressure to move upper teeth against lower teeth. Elastics come in many colors and sizes.

Ties are small rubber rings or fine wires that fasten archwires to brackets. They can be clear, silver, or colored.

Headgear tubes hold the facebow of your headgear in place (see page 10).

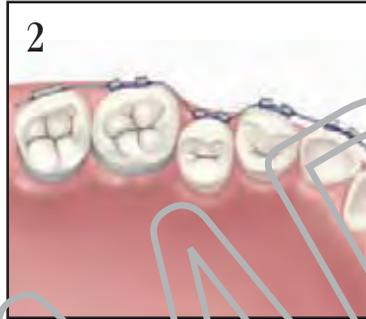


Braces Move Your Teeth

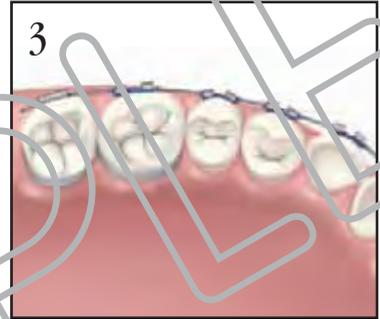
How your teeth move depends on how pressure is put on the archwires, springs, and elastics. Your orthodontist may use archwires made of new, space-age materials. These archwires may not need to be adjusted very often. Other kinds of archwires are adjusted more often. Your teeth may feel sore or a little loose right after an adjustment. That's because the teeth are moving in the bone. The soreness will go away as your jaw adjusts. You may want to eat soft foods at first. You can also ask your orthodontist about taking pain medication.



1
When the teeth begin to move, a flexible archwire puts pressure on the teeth. It guides the way the teeth move.



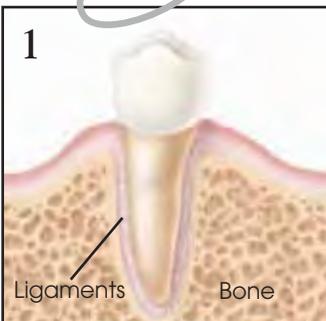
2
As the teeth move into line, stiffer archwires and shorter ties replace more flexible ones. Stiffer archwires put greater pressure on the teeth.



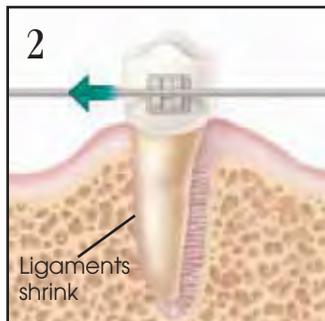
3
When the teeth are properly aligned, firm archwires hold the teeth in the right place while the jawbone adjusts. This may take several months.

Your Jawbone Adjusts

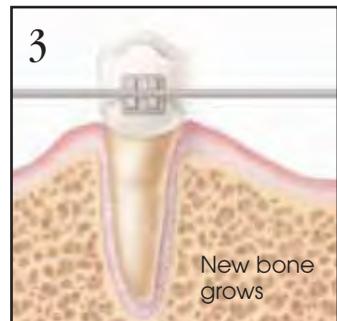
When pressure is put on your teeth, the jawbone surrounding your teeth also changes shape. Old bone dissolves, and new bone grows in to support the teeth in their new place.



1
Bone supports the tooth. As pressure is put on the tooth, the jawbone adapts. This allows the tooth to move. The way the tooth moves depends on how pressure is applied.



2
Pressure causes ligaments to shrink and bone to dissolve as the tooth moves forward. The ligaments on the other side stretch as the tooth moves away.



3
New bone grows in on the side where the ligaments have stretched. The new bone fills the gap behind the shifting tooth to support the tooth in its new place.

Other Orthodontic Appliances

Before you get braces—or sometimes along with your braces—you may wear other appliances. Each one treats a different bite problem. Some appliances can only be adjusted or removed by the orthodontist. Others you can take out and put in. Be sure to wear your appliance exactly as your orthodontist tells you. This can shorten your treatment time.

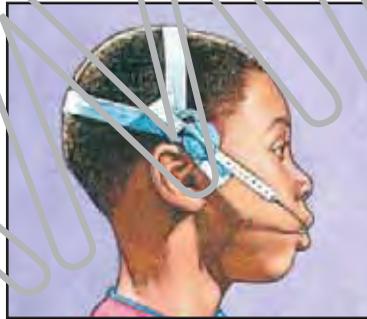
Headgear

If you have a bite problem, you may need headgear. It may be used during Phase I or Phase II of treatment. Headgear most often has a neck or head strap and a facebow. The facebow is attached to headgear tubes on the back teeth. Using your neck or head as an anchor, the strap and facebow put pressure on the upper jaw and teeth to slow growth of the upper jaw.

- Wear your headgear each day for as long as you're told. Otherwise, your treatment will take longer. Your headgear will feel more comfortable as you get used to wearing it. Be sure to wear it to all your appointments with your orthodontist.
- Take your headgear off when you eat and when you play sports.



❑ **Neck Strap Headgear** either keeps the upper jaw from growing, or pulls the upper teeth back.



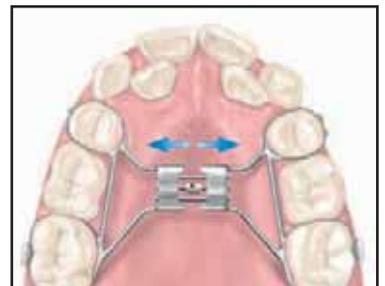
❑ **High-Pull Headgear** pulls the upper jaw and teeth up and back so they align with the lower jaw and teeth.



❑ **Reverse-Pull Headgear** pushes against the forehead and chin to pull the upper jaw and teeth forward.

A Palatal Expander

The bones in the roof of the mouth make up the **palate**. If the palate is too narrow, the upper teeth may not have room to grow in. A palatal expander gently moves the bones apart and widens the upper jaw. A palatal expander can be fixed or removable. It may be adjusted in the orthodontist's office, or you may adjust it yourself. You may see a space between your front teeth at first. The gap will go away when the teeth are later moved into their proper place.



Fixed Appliances

Fixed appliances help correct a bite problem. Some move teeth or correct habits. They may stop you from pushing your tongue against your front teeth or sucking your thumb. Others move the jaws into alignment. Fixed appliances can be used during Phase I or Phase II of treatment. Only the orthodontist can adjust or remove them.

- Brush your appliance whenever you brush your teeth. Then rinse your mouth with water to remove any bits of food.
- Do not push on your appliance with your tongue or fingers. And don't bite your nails or chew on the ends of pencils. This can break your appliance.
- Avoid icy, sticky, or crunchy foods. They can bend or loosen your appliance.



□ A **Lingual Arch** widens the lower jaw and teeth. It can also be used as a space retainer until the permanent teeth have come in.



□ A **Herbst Appliance** holds the lower jaw in a forward position while pushing the upper jaw backward.

Removable Appliances

Removable appliances help train the jaws to move into the right place. They can be taken out when you eat or play sports. You should also take them out to clean them. But they should be worn the rest of the time. Removable appliances may be worn during Phase I or Phase II of treatment.

- Take your appliance out and brush it whenever you brush or floss your teeth.
- Take your appliance out to eat. Rinse it and put it in its case. *Never* put it in a paper towel or napkin—it could be thrown out by mistake.
- Never put your appliance where it could get hot and melt or distort.
- Keep your appliance away from pets.



□ A **Twin Block** fits on the upper and lower teeth. It holds the upper jaw and teeth back while moving the lower jaw and teeth forward.

Helpful Hints

You may be surprised at how quickly you get used to your appliances. Then life should be much the same as before. You can still play sports and even play your musical instrument. But you do need to be careful of your appliances. That's because they can be easily damaged. Follow the tips below. If you do, you may get your appliances off sooner!



When You Eat

Softer Is Better

Soups, stews, pasta, enchiladas, and rice and won ton dishes are good choices. Chicken, fish, and meat loaf are easy to chew, too.

Make It Bite-Size

- Cut chewy foods like steak, pizza, and submarine sandwiches into pieces.
- Cut meat off the bone. Chewing on bones can loosen an appliance.
- Slice fresh vegetables and fruit. Biting into a whole carrot or apple can damage a wire or other appliance.
- Cut fresh corn off the cob before you eat it.

Avoid These Troublemakers

Sticky Foods

Bubble gum, caramels, taffy, jellybeans, and other sticky foods can loosen or even break your appliances.

Hard, Crunchy Foods

Ice, popcorn, nuts, corn chips, crusty bread, and hard candy can damage a wire or appliance.

Sugary Foods

Sweets and soft drinks can cause tooth decay under appliances. If you eat them, brush your teeth right away.

When You Play Sports

Wear a Mouthguard

You can still play soccer and other contact sports. But you need to get a special mouthguard from your orthodontist. This mouthguard fits over your braces. It helps protect your appliances and keep them from getting broken.

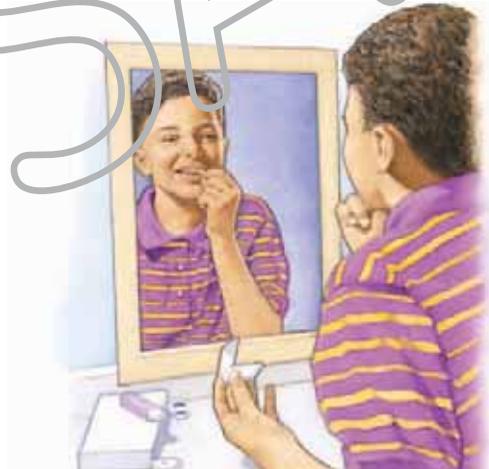
Caring for Your Appliances

If a Wire Gets Loose

Gently tuck the wire back in place with a blunt object, such as the eraser end of a pencil. If you can't nudge it back, cover the end with a piece of wax or sugarless gum. Then give your orthodontist a call.

The Ins and Outs of Headgear

- Always undo the strap on your headgear *before* you slide the facebow into or out of your mouth. And don't force your headgear in or out, or tug on it.
- If your headgear breaks, or if you lose it, call your orthodontist right away.



Keep Things Out of Your Mouth

Biting your fingernails or chewing on the ends of pencils can loosen or even break appliances. So can picking at them. Keep everything except food out of your mouth. That way you'll get your appliances off sooner.

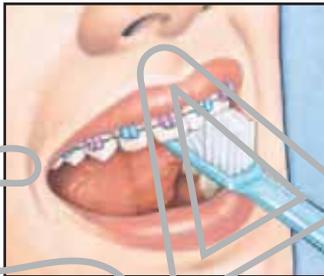
Keep Brushing and Flossing

Brushing and flossing are just as important when you wear appliances. That's because there are so many places for food to get stuck and plaque to build up. The best way to prevent problems is to brush after every meal or snack, floss once a day, and use a fluoride rinse. Always use a soft brush and a fluoride toothpaste.

Do It Right!

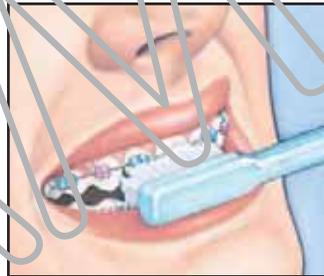
Brush the Outsides and Insides

Brush the outside of each tooth, using a circular motion. Then brush the inside.



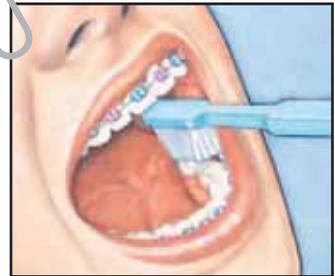
Brush the Brackets and Gums

Brush slowly between the brackets and gums. Tilt the bristles into the gums, and brush using a circular motion. Be sure to brush the gums around the front teeth, too.



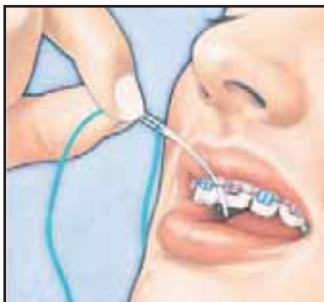
Brush the Tops of the Teeth

Clean the top of each tooth with a back-and-forth motion. Brush your tongue, too. Then rinse your mouth. If your teeth and appliances don't shine, start over and brush them again.



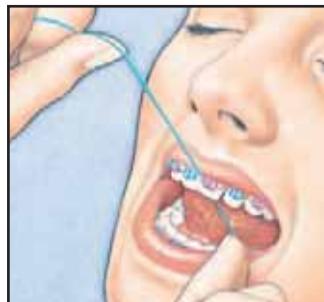
Thread the Floss

Thread the floss through the threader. Then slip the floss behind the archwire. Or use floss with a foam or gauze coating.



Work the Floss

Pull the floss between two teeth. Work it up and down under your gums. Repeat between every tooth. Then rinse.



Special Aids

- **A fluoride mouth rinse** can help prevent tooth decay. It can also help keep plaque from building up around your braces and leaving marks on your teeth. Use it after you brush and floss.
- **An electric toothbrush** can make cleaning each tooth easier. But you still need to floss.

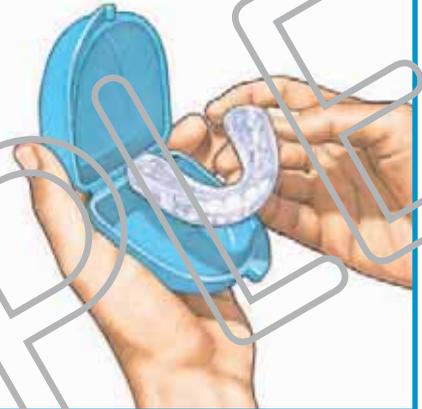
Hold That Smile!

You've worn your appliances just as your orthodontist told you. You've brushed and flossed your teeth every day. You've kept all your appointments. Now it's time for your appliances to come off! This doesn't hurt, and it doesn't take long. When your appliances first come off, you may wear a positioner. Then you'll most likely have a retainer.

If You Have a Positioner

Sometimes a positioner is used to help finish moving the teeth, or to move the teeth just a little. It is made of rubber or plastic.

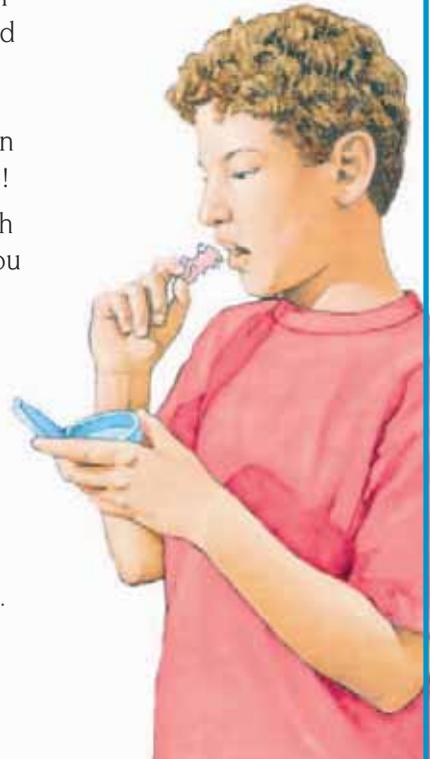
- Wear your positioner just as your orthodontist tells you. If you don't, your teeth won't move as they should.
- Brush your positioner every day with toothpaste. Clean it once a week with a denture cleaner.



Wearing a Retainer

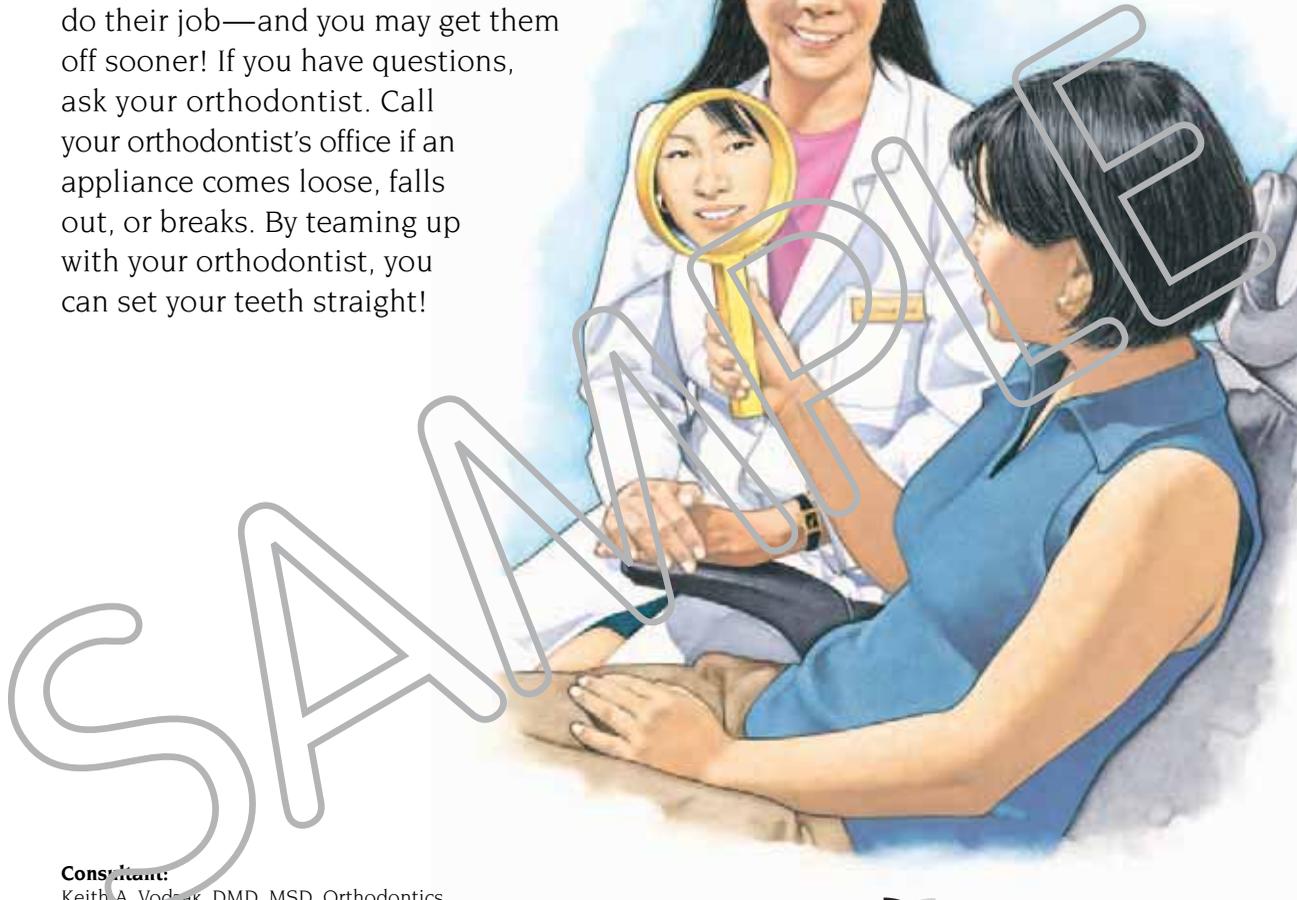
You will get a retainer when your braces come off, or after you've worn a positioner. You may also wear a retainer between Phase I and Phase II.

- Your retainer holds your teeth in their new place. Wear it exactly as directed. This may be every day at first, then a few nights a week. If you don't wear it, your teeth may start to go back to where they were. Then you could need braces again.
- Whenever you take your retainer out, rinse it and put it in its case. If you wrap it in a tissue or napkin, it may end up in the garbage by mistake!
- Brush your retainer with toothpaste each time you brush your teeth. Then rinse it in cold water. Clean it with a denture cleaner at least once a week.
- Retainers are plastic. That means they can melt. Don't leave your retainer in a warm place.
- Call your orthodontist right away if you lose or break your retainer.



It Takes Teamwork

You play a big role in your treatment. Do your part. Take care of your appliances. Brush and floss your teeth every day. And keep your appointments. You also need to wear your appliances exactly as your orthodontist tells you. That way they'll do their job—and you may get them off sooner! If you have questions, ask your orthodontist. Call your orthodontist's office if an appliance comes loose, falls out, or breaks. By teaming up with your orthodontist, you can set your teeth straight!



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