Interproximal Reduction









Reducing Tooth Widths for Form, Function and Stability

About the AAO:

Founded in 1900, the American Association of Orthodontists (AAO) has more than 15,500 members. Active AAO members limit their practices to the dental specialty of Orthodontics and Dentofacial Orthopedics. Orthodontists are dental specialists with at least two years of advanced orthodontic education after dental school.

The purposes of the American Association of Orthodontists and its member orthodontists are: to advance the art and science of orthodontics;

to encourage and sponsor research;

to strive for and maintain the highest standards of excellence in orthodontic education and practice;

and to make significant contributions to the health of the public.

You Are On Your Way To A Healthy, New Smile.

To help you achieve it, your orthodontist feels that interproximal reduction, making some of your teeth slightly narrower, will contribute to the successful outcome of your orthodontic treatment. It may also contribute to long-term stability of your results after your braces are removed. Interproximal reduction is

the removal of some of the outer tooth surface, called enamel, usually between teeth that touch; it has been used in orthodontics since the 1940s. It is also known as slenderizing, stripping, enamel reduction, reproximation and selective reduction.



Whatever the name, the intentions are the same to acquire more space for your teeth, to bring your teeth into alignment, to improve your bite (the way your teeth come together) or to make the teeth more attractive. Sometimes interproximal reduction is done alone, but it is usually done in combination with orthodontic appliance treatment. Sometimes it is even done in conjunction with tooth extractions. Sometimes it is done following orthodontic treatment to establish stability. Many times front teeth are contoured during or after orthodontic treatment to create a balanced and harmonious appearance of teeth. Your orthodontist will recommend enamel reduction if it is a solution to your individual need.



2 mm deficient

(Illustration not to scale)

Interproximal reduction (also known as slenderizing, stripping, enamel reduction, reproximation and selective reduction) is a means by which additional space is acquired for your teeth. This illustration shows how 2mm of space can be gained through the process of interproximal reduction.



Will Interproximal Reduction Damage My Teeth Or Gums?

The health of your teeth and gums is of utmost concern to your orthodontist. Studies among patients who have had interproximal reduction show that the procedure does not make teeth more susceptible to tooth decay. Nor does the procedure predispose gums to gum disease. Occasionally, some patients may experience some sensitivity to hot or cold. Overall, the results are generally positive.

Front teeth form the framework upon which lips rest. Evaluating facial characteristics through photographs and x-rays is an essential step in orthodontic treatment. Your orthodontist will examine your facial appearance and decide whether or not interproximal reduction is suitable or beneficial.



The primary reason orthodontists choose to perform interproximal reduction on some patients is to reduce the size of the teeth so that they can be aligned properly. Studies among patients who have had interproximal reduction show that the procedure does not make teeth more susceptible to tooth decay nor does it predispose gums to gum disease.

How Does Interproximal Reduction Work?

- 1. Your doctor will identify which teeth are to be slenderized.
- 2. Enamel is removed from the sides of each tooth, where the tooth comes in contact with neighboring teeth. The enamel may be removed manually or with the aid of a specially-designed dental handpiece.
- 3. Your orthodontist carefully removes the desired amount of enamel, leaving each tooth with sufficient enamel to remain healthy and sound.
- 4. In performing enamel reduction, the doctor carefully creates needed space that will allow teeth to be placed so that the bite is improved and the teeth take on a pleasing appearance.
- 5. Desired positioning can be achieved after teeth are slenderized.





Extra space is created when tooth width is reduced. These before and after photos demonstrate how slenderized teeth can be positioned during orthodontic treatment. The orthodontist can also shape teeth to create a more attractive appearance.

How Will My Orthodontist Decide Whether Or Not I Need Interproximal Reduction?

When deciding if reshaping of teeth is to your benefit, your orthodontist will consider such factors as the size and shape of your teeth, their positions and alignment, and your facial features. Front teeth form the framework upon which lips rest, and their positions play an important role in facial appearance. Sometimes the orthodontist may suggest the removal of teeth to enhance the facial appearance. Education and experience in evaluating facial characteristics allow the orthodontist to develop a treatment goal that produces a healthy bite, which can contribute to nice-looking teeth and facial attractiveness.

The removal of the enamel generally causes no discomfort for most patients because there are no nerve endings in the outer layer of the tooth.

After the teeth have been slenderized, they are smoothed and polished. Your doctor may recommend a topical fluoride treatment, as well as daily use of a fluoride rinse to help the teeth maintain their resistance to decay.



This patient had interproximal reduction performed as part of her comprehensive orthodontic treatment. Small amounts of space were created to allow teeth to be positioned for optimal function. The patient's front teeth were shaped to provide a more atractive appearance.

How Will This Procedure Help My Treatment?

Interproximal reduction will help your orthodontist position your teeth for good function and good looks. In some cases, enough space can be created so that teeth do not need to be removed. After your braces are removed, your more slender teeth are more likely to stay where your orthodontist has moved them.



Prior to interproximal reduction, teeth slightly overlap.



After wires are removed, the orthodontist gains some space by gently contouring the sides of the overlapping teeth.



Following interproximal reduction, teeth have sufficient room to align, the patient has a more aesthetically-pleasing smile and an improved bite.

It's Important To Choose An Orthodontist.

An orthodontist is a specialist in the diagnosis, prevention and treatment of dental and facial irregularities. All orthodontists are dentists, but only about six percent of dentists are orthodontists. Admission to orthodontic programs is extremely competitive and selective.

It takes many years to become an orthodontist, and the educational requirements are demanding.

An orthodontist must complete college requirements before starting a three-to-five-year graduate program at a dental school accredited by the American Dental Association (ADA). After dental school, at least two or three academic years of advanced specialty education at an ADA-accredited orthodontic program are required to be an orthodontist. The demanding program includes advanced education in biomedical, behavioral and basic sciences. The orthodontic student learns the complex skills required to manage tooth movement (orthodontics) and guide facial development (dentofacial orthopedics).

Only dentists who have successfully completed these advanced specialty education programs may call themselves orthodontists.



What Is Orthodontics?

Orthodontics is the branch of dentistry that is officially known as Orthodontics and Dentofacial Orthopedics. The purpose of orthodontics is to treat any type of malocclusion, which is simply another way of saying "bad bite."



When you have a malocclusion, that means your teeth, lips and/or jaws don't line up the way they should. As a result, your teeth may be crooked, your bite may not work correctly and your jaws may look unbalanced.

To fix bad bites, orthodontists—dentists who are specially trained—use braces and other corrective procedures, including materials often called "appliances," to achieve tooth and jaw alignment. This correction of the teeth and their supportive structures makes for a healthy, attractive smile.



Partnership: You, Your Orthodontist and Your Dentist.

Achieving healthy, beautiful smiles is a team effort that involves the orthodontist, the family dentist, the patient (and the parents, if the patient is young) and, as needed, other dental specialists. The orthodontist provides the expertise, the treatment plan and the techniques to straighten teeth and align the jaws. The family dentist helps make sure that teeth and gums stay clean and healthy. *The patient must cooperate by following the dentist's and orthodontist's instructions carefully so that the teeth and jaws move in the way desired and on the prescribed schedule.*

Because dental hygiene is so important, regular visits to the family dentist must continue every six months during orthodontic treatment (or more often, if recommended). It is essential that the patient avoid food which may damage orthodontic appliances. The patient must also maintain a healthy, nutritional diet to achieve the best possible results from treatment. A good diet provides essential nutrients to bones and tissues undergoing change during orthodontic treatment.



For a Smile that's Good for Life:

- Follow the American Dental Association's recommendation and start dental visits by your child's first birthday.
- Make regular visits to your dentist at least every six months.
- Take your child for an orthodontic check-up no later than age 7. If a problem is detected, your orthodontist can determine the best time to start treatment.
- Get your child an orthodontic check-up even if he or she is past age 7. Although an early check-up can be extremely beneficial, the fact is that most orthodontic patients begin active treatment between ages 9 and 14.
- Keep in mind that orthodontic treatment can also benefit adults. Less visible, more comfortable braces make treatment more appealing than ever, and healthy teeth, bones and gums of almost any age respond well to treatment.
- Choose an orthodontist the dental specialist who is uniquely qualified to treat orthodontic problems.
- Take advantage of the affordability of orthodontic treatment today. Most orthodontists have a variety of convenient payment plans.
- Remember that successful orthodontic treatment is the result of a partnership. The orthodontist, family dentist and, *especially*, a cooperative patient all work together to create a healthy, beautiful smile that's good for life.

The members of the American Association of Orthodontists wish you and your family good dental health.

For information on orthodontics, visit the American Association of Orthodontists' Web site at www.braces.org or call 1-800-STRAIGHT.

Please note: The 1-800-STRAIGHT toll-free number works for calls from the United States AND Canada.



American Association of Orthodontists

401 North Lindbergh Boulevard Saint Louis, Missouri 63141-7816

314.993.1700 1-800-STRAIGHT (consumer information line)

> www.braces.org Email: info@aaortho.org

© 2009 American Association of Orthodontists