How To Make The Progressive Invisible Aligner® Work For You

The Progressive Invisible Aligner System

- ❑ How The Progressive Invisible Aligner Works
- ❑ Getting Started
- ❑ Case Selection
- ❑ Estimating The Number Of Corrective Stages
- ❑ Interproximal Reduction Guidelines
- ❑ Appliance Enhancement Instructions
- ❑ Delivery
- ❑ Patient Care

havenortho
ORTHODONTIC LABORATORY
havenortho.com lab@havenortho.com

REV. 2

Progressive Invisible Aligners are designed to treat minor malalignments of the anterior teeth including slight rotations, torque, tipping, and spacing.

How The Progressive Invisible Aligner Works

Most aligner systems only movie teeth up to 1/2mm per set-up, the Progressive Invisible Aligner can achieve up to 1mm of tooth movement per arch. （When adjacent teeth are moving in opposite directions, a total of projected movement should not exceed 1mm. ）

Original Work Models — Upper and Lower

Setup

Aligner 1 — Hard/Soft

Aligner 2 — Hard

Aligner #1: 1.3mm Progressive Invisible Aligner Hard/Soft highly flexible material

Aligner #2: 1mm Progressive Invisible Aligner hard material

Each aligner is worn 2-3 weeks depending on the case.

If after 3 setups, more movement in needed, send another impression and the process is repeated.

Getting Started

1 ） Evaluate your patient — use the **Case Selection** information on page 2 to help determine if the tooth movement your patient desires is achievable with the Progressive Invisible Aligner.

2 ） Estimate the number of corrective stages — using the information found on pages 3 and 4, estimate conservatively 1mm per setup. Upon request, we will evaluate the models, estimate the number of corrective stages required, and contact you with our recommendation.

3 ） Send upper and lower poly vinyl siloxane impressions （PVS ） or stone models and an Rx.

4 ） You will receive 2, 4 or 6 progressive aligners per arch, depending on the needs of the case. If additional movement （beyond the 6 aligners ） is required, send in the new set of impressions or stone models and we will repeat the process.

Case Selection

There are a number of cases which can be successfully treated with the Progressive Invisible Aligner. The images represent the different kinds of labial movement that can be achieved.

When The Progressive Invisible Aligner Is Right For Your Patient

The Progressive Invisible Aligner is designed for anterior tooth movement, it is not suitable for posterior tooth movement.

Incisor And Canine Correction With The Progressive Invisible Aligner

Canine correction should be limited to 1/4mm per stage.

Labial Movement Reset 2-2

Labial Movement & Rotation Reset 2-2

Labial Movement & Rotation Reset 2-2

Labial Movement & Rotation Reset 2-2

Labial Movement & Rotation Reset 3-3

When The Progressive Invisible Aligner May Not Be Right

There may be some cases where the movement desired can be achieved faster or more economically with an alternative treatment option.
The Progressive Invisible Aligner can then be used as a finishing appliance.

Contact Haven Ortho if you have any questions or would like us to provide you with a recommendation.

Not enough retention, teeth are still erupting.

Too much cuspid movement required.

Estimating The Number Of Corrective Stages

Each corrective stage achieves up to 1mm of tooth movement. Which each stage（setup），2 corrective aligners are provided:

1）1.3mm hard/soft aligner

This hard/soft aligner is worn for 2-3 weeks to achieve correction.

2）1 mm hard aligner

This hard aligner is worn for another 2-3 weeks to finalize correction.

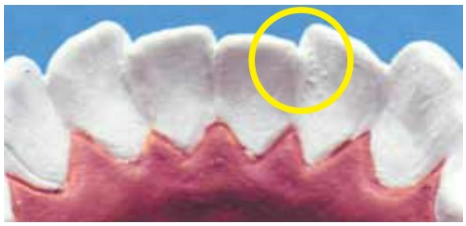
Step 1: Evaluate the dentition to determine if the desired movement can be achieved with the amount of space available in both the upper and lower dentition or if interproximal reduction is needed to achieve the desired movement. Refer to the **Interproximal Reduction Guidelines** located on page 5.

Step 2: Using a digital caliper, measure the distance between the incisal edge of the most lingual tooth to the incisal edge of the most labial tooth that requires the greatest amount of movement.

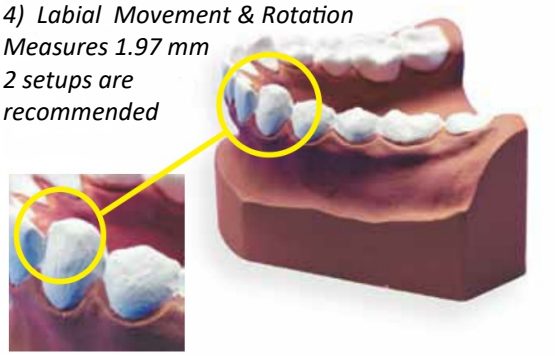
1) Labial Movement
Measures: 3.81mm
5 setups are recommended.
Note: The fifth setup is required because the lateral incisor is blocked by adjacent teeth.

2) Labial Movement & Rotation
Measures 2.4mm
3 setups are recommended

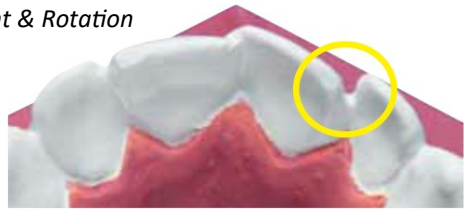
3) Labial Movement & Rotation
Measures 1.55mm
2 setups are recommended



4) Labial Movement & Rotation
Measures 1.97 mm
2 setups are recommended



5) Labial Movement & Rotation
Measures 1.9 mm
2 setups are recommended



Step 3: The greatest distance measured equals the number of stages or setups.

Use this table as a reference guide:

For movement of	Estimated # of stages
up to 1.0mm	1 stage/setup
1.1mm—2.0mm	2 stages/setups
2.1mm—3mm	3 stages/setups

NOTE: If there is severe crowding or teeth/tooth angle（which makes seating the appliance difficult），it is recommended to estimate one additional corrective stage or setup.

Step 4: Interproximal stripping or reduction of the enamel where appropriate, may be required to create space for crowded teeth which will allow for planned tooth movement. An overview of **Interproximal Reduction Guidelines** based on our recommendation for reduction is included on page 5.

Step 5: Speaking with your patient. Discuss the possibility of interproximal reduction and the cost per stage/ setup with your patient. Make sure the patient understands that there will be additional cost if additional movement is desired. Explain that your patient will be given wear instructions and in addition to following the instructions, patient compliance is vital to ensure that the Progressive Invisible Aligner achieves the desired results.

Step 6: Once the course of treatment has been discussed with the patient, impressions can be taken and models poured.

NOTE: It is important to send both an upper and lower impression or model. Even if you are only moving teeth on the upper or lower, the opposing model is critical to evaluate the occlusion to ensure that adequate space is available to achieve the desired movement.

Fabrication Requirements

1）Upper and lower poly vinyl siloxane（PVS）impressions or stone models

2）Rx outlining treatment objects

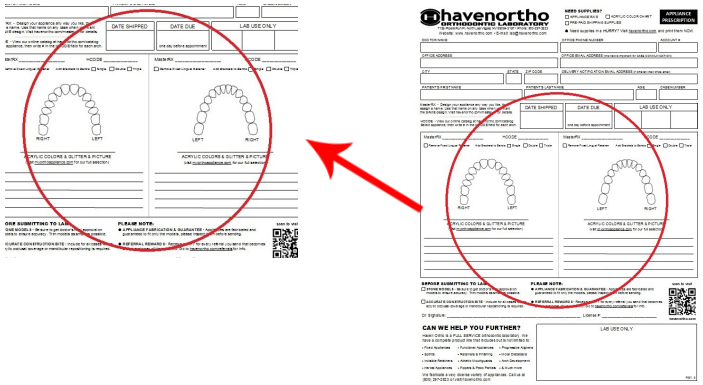
Recommendations

- Check occlusion for any interferences that would inhibit desired movement
- Check models for distortion

Interproximal Reduction Guidelines

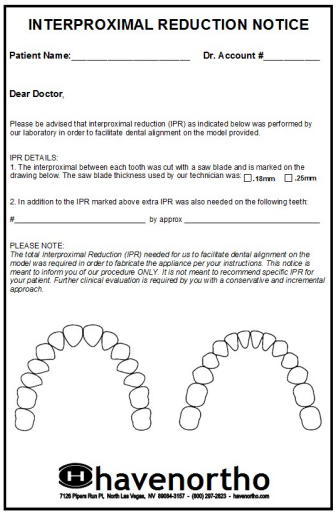
Tooth-size reduction, also termed enamel or interproximal reproximation, stripping, or enamel reduction, involves the removal of imterproximal enamel that reduces mesial-distal widths.

The clinician should indicate the teeth to be repositioned on a prescription form.



In the laboratory, teeth to be moved are sectioned and reset to an ideal alignment.

The laboratory will indicate the specific interproximal reduction that was completed in the lab.



INTERPROXIMAL REDUCTION NOTICE

Patient Name:_____ Dr. Account #_____

Dear Doctor,

Please be advised that interproximal reduction (IPR) as indicated below was performed by our laboratory in order to facilitate dental alignment on the model provided.

IPR DETAILS:
1. The interproximal between each tooth was cut with a saw blade and is marked on the drawing below. The saw blade thickness used by our technician was: ☐ .18mm ☐ .26mm

2. In addition to the IPR marked above extra IPR was also needed on the following teeth:

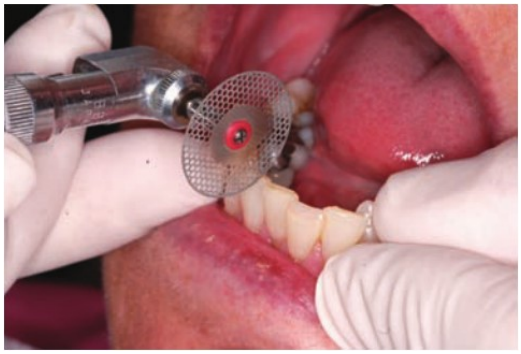
#_____ by approx _____

PLEASE NOTE:
The total Interproximal Reduction (IPR) needed for us to facilitate dental alignment on the model was required in order to fabricate the appliance per your instructions. This notice is meant to inform you of our procedure ONLY. It is not meant to recommend specific IPR for your patient. Further clinical evaluation is required by you with a conservative and incremental approach.

havenortho

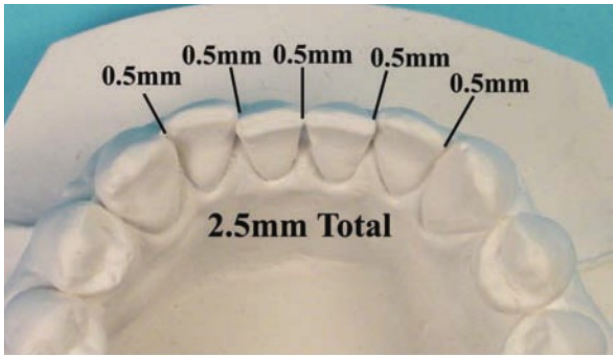
In many cases, reproximation of interproximal contacts is necessary. Interproximal reduction is a procedure to create space for crowding and increase stability by flattening curved contact surfaces. This is accomplished with abrasive strips or discs. A space analysis of the anterior alignment must be completed during the diagnostic phase of treatment and this may be complemented with a partial or gnathologic diagnostic setup. Crowding up to 2.5 mm may be resolved, without flaring the anterior teeth labially, by removal of enamel between the five contact areas.

Diamond Strip



Abrasive Disc

Many authors recognize reduction of one-half of the interproximal enamel per mesial or distal surface as a safe procedure. This represents .5 mm per contact for 2.5 mm of total space to be gained between the cuspids. In terms of safety, hand-held or motor driven abrasive strips are preferred for reproximation, but care still must be taken to avoid trauma to the gingiva. Surfaces prepared with coarse abrasive products should always be finished with finer grades.

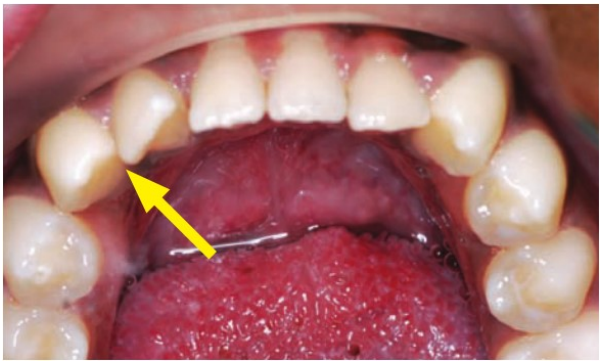


*A **maximum** of 0.5 mm interproximal reduction per contact is recommended. Therefore, a total of 2.5 mm of tooth-size reduction is possible from cuspid to cuspid.*

It is advantageous to complete reproximation during one appointment, as a thickness gauge can verify each interproximal space opened. For example, the flat end of a periodontal probe measures approximately .25 mm at the 1–3 mm portion and .5 mm at the 7–9 mm portion.

Alternatively, a leaf gauge in occlusal registration procedures has individual plastic strips that are .125 mm in thickness. The most precise amount of enamel removed is made by reducing one proximal surface at a time with a single-sided abrasive strip.

The clinician should be aware that as the degree of crowding and overlap increases, the contact is skewed to the labial or lingual enamel surfaces.



Therefore, a single or double-sided abrasive instrument is not initially indicated since enamel would not be removed at the most mesial or distal tooth surfaces. As teeth align (derotate) with aligner wear, reproximation is then appropriate.

Reproximation over multiple appointments also can be an option. First, the thickness of the strip must be accurately measured with a micrometer. Interproximal enamel is removed until the strip passes with minimal binding. This represents the approximate strip thickness and space opened. Reduction of five anterior contacts distributed evenly between the mesial and distal contacts thus removes 0.7 mm of enamel per appointment. The amount of enamel removed should be recorded at every appointment in the treatment chart.

Abrasive discs in a low-speed handpiece permit faster removal but present an increased risk of soft tissue injury. Also, these enamel surfaces must be further contoured and finished by hand with flexible strips. An in-office topical fluoride rinse is recommended following any enamel reduction procedure.

A distinction should be noted between the preceding procedures to resolve minor anterior crowding and another space-gaining method known as air-rotor stripping. The latter technique removes up to 9 mm of enamel (6.4 mm from the posterior contacts) with a high-speed handpiece in comprehensive orthodontic treatment with fixed or removable appliances.

Appliance Enhancement Instructions

Dear Doctor: This appliance incorporates tooth surface enhancements for more challenging orthodontic movements and/or retention. The enhancements, commonly referred to as attachments or buttons, are clearly visible on the models returned to you, and must be clinically reproduced on your patient's teeth.

Please Follow These Simple Steps To Apply The Attachments:

1) Review the corrected, plaster/wax model to visualize the locations and sizes of the attachment to be reproduced. **(Figure 1)**

2) Condition the patient's selected tooth surfaces.

3) Place a slight excess of flowable composite into the attachment indentations in the transparent transfer tray provided. **(Figures 2a, 2b)**

4) Firmly place the loaded template over the patient's teeth and cure the composite according to the manufacturer's recommendation.

5) Remove and preserve the template.

6) Clean any excess flash as necessary.

7) This appliance is now ready for patient use.

Figure 1

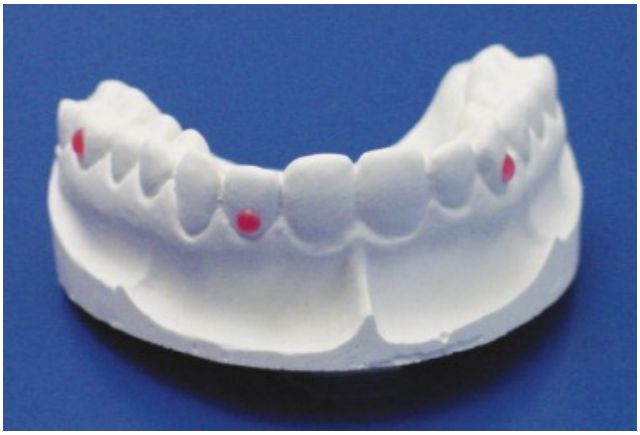


Figure 2a

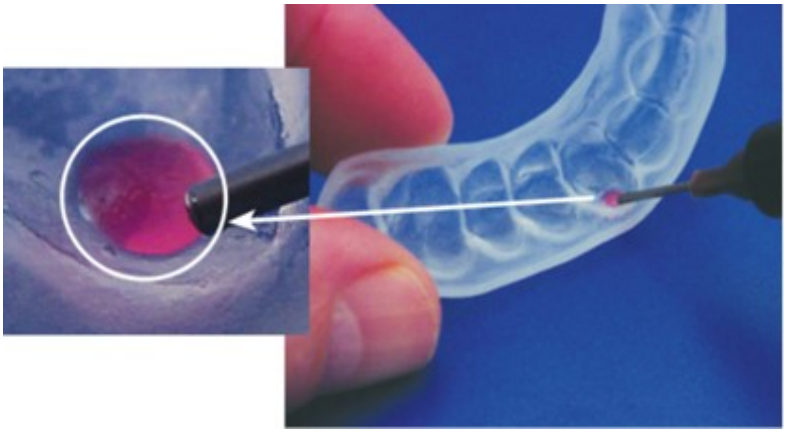
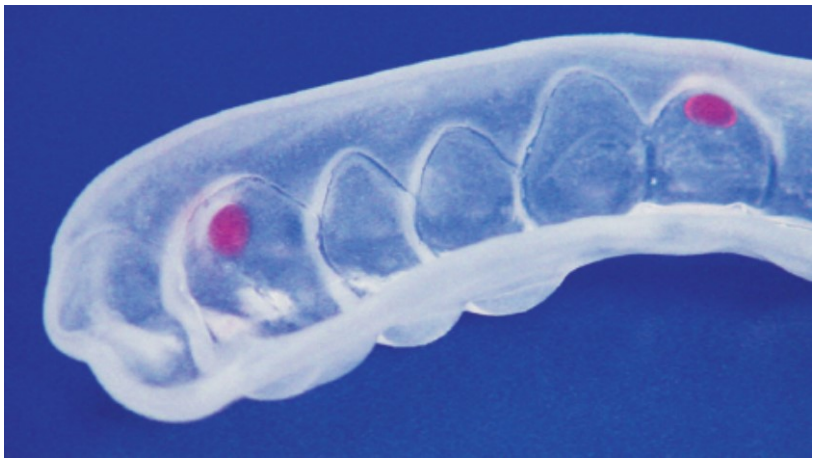


Figure 2b



Delivery

Most appliances seat well upon delivery. Check appliance fit against the patient ' s dentition. Usually, the appliance should seat well onto the teeth that were not repositioned in the lab setup. Initially, the appliance may not fully seat at the reset area, but over time, as teeth move it will settle in place.

If needed, some simple adjustments can be made to increase retention.

Increase the flexibility of the appliance by trimming the incisal edge of the hard/soft appliance at the reset area. A carbide taper bur works best.

NOTE: *To avoid reducing the tooth moving capacity of the appliance, remove a minimal amount of material needed to expose the incisal edge.* After 2-3 weeks, the appliance should be replaced with the hard appliance to complete this phase of alignment.

Patient Care

Aligner appliance wear should be full time, except while eating, playing certain musical instruments, or contact sports. Patient maintenance involves brushing the appliance with toothpaste daily. Do not soak the appliance in mouthwash that contains alcohol. This could damage certain plastics or cause discoloration.

Progressive Invisible Aligners®

Less Expensive

More Control

Customized to your needs

Contact us for more information, RX forms, and shipping supplies.

havenortho
ORTHODONTIC LABORATORY
havenortho.com lab@havenortho.com