

HOW TO USE THE PERFIT® BUMPER

You will find the Perfit bumper is made to fit the lower arch perfectly in two to three tries in about two minutes. You will not have to spend 15-minute sessions with 15 embarrassing tries in and out of the mouth to get a good fit with the other bumpers. It has been designed by a discriminating orthodontist who has had 30 years of experience using bumpers. They have been designed to give you all the possible advantages and yet none of the disadvantages of presently available bumpers. The labial shield is thin, smooth, food and stain resistant, and resists bacterial absorption. The patients' comments on its comfort compared to other styles are most favorable. The labial surface area is only large enough to get the good distalization force from the lower lip and yet not too small in size as to be ineffective. In fact, as the distalization requirements diminish, the labial shield can gradually be trimmed down in size and polished to a bright finish (with an acrylic bur followed with pumice). In other words, the bumper can be used for either distalization by leaving the shield on or by removing most of the shield as an anchorage stabilizer or space maintainer. The hooks in the canine area are two-way type hooks that can be used for either mesially or distally-directed elastics. They are most frequently used for trying back one or both sides of the bumper so that it cannot be removed by the patient, which insures complete cooperation.

The distal stops vary in their position in 2.5mm. increments so that the most accurate fit can be obtained and the bend does not have to be individualized for each patient. There are nine individual sizes, each varying from one to the next by 2.5mm. on each side. It is recommended that the proper bumper size be estimated by placing a sample bumper on the study model to see if the stops are positioned over the mesial of the 0.045 molar tubes. The remainder of the appliance should fit about 2 to 3 mm. buccally and labially from the tissues from one side to the other. It is especially important to have the bumper clear the canine eminence on each side by at least 2 mm. to avoid tissue damage over the root of the canine. The top margin of the bumper should usually be level with the cemento-enamel junction of the lower incisors, so the lower lip can come up over the bumper naturally and touch the lower incisors to prevent their labial tipping. When tying in the bumper with a chain elastic, be sure to place the end loop of the elastic around the molar tube before inserting the bumper. Then tie the other end of the chain to the bumper hook. By doing it this way, the elastic will not disengage from the tube if the bumper is pulled in a forward direction by the patient.

The uses for a bumper are:

- 1. Distalize the molars** (upper or lower) by advancing the bumper 1 mm. (each side) per month. Spaces will start opening, usually between the deciduous molars (or bicuspids), after the second month. A maximum of about 3 mm. is possible per side in about 4 months. Be careful not to impact the second molars -- be sure there is space distal to the first molar when the second molar is below the cemento-enamel junction of the lower first molar. Do not distalize while the second molar crown is positioned at the C-E junction of the first molar with no space present between the two molars. When

the permanent second molar crown is halfway up the crown of the first molar, distalization can be resumed.

2. Develop the lower and/or upper arch by distalizing and expanding at the same time. One can enhance this technique by soldering a wire (0.037" diameter) to the lingual of each molar band with the free end of the wire coming forward to wrap around the mesial of the deciduous canine. Therefore, the posterior teeth from the permanent molar to the deciduous canine act as one segment. As the molars distalize, the developing space opens up mesial to the canines where it can efficiently be used to uncrowd the permanent (or deciduous) incisors.

3. Distalize the upper molars or upper arch by simply using the force of the bumper in the upper arch against the molar tubes (or the whole arch if tied back with an upper wire or upper arch wire with brackets). An alternative method is by using a lower bumper with Class II elastics against an upper arch wire or distal sliding jigs against the upper molars attached to an upper arch wire.

4. Labialize the lower (or upper) incisors by elevating the lower (or upper) bumper in an incisal direction to relieve the front teeth from the lingual force of the lip. One must be careful in the lower arch that this is only done when there is a definite lingual inclination of the incisors, otherwise there is the risk of causing gingival (and alveolar bone) resorption.

5. Protect anchorage during the use of the Class II elastics or canine retraction in extraction cases. Do not exceed 3 to 4 ounces of total mesial force against the molars otherwise anchorage will usually slip. The anchorage is protected completely in 83% of cases provided the bumper is used to distalize the molars for one month prior to elastic use.

6. Distalize first permanent molars in second molar extraction cases. This is extremely efficient and can effectively distalize up to about 5 mm. per side.

7. Distalize deciduous second molars prior to first permanent molar eruption in order to create additional space for potentially severely crowded cases. See (1) for potential lower molar impaction avoidance. Can be very useful in cases where there is suspected permanent incisal crowding of more than 6 to 7 mm..

8. Prevent mesial migration of lower first permanent molars when the second molars erupt, in order to preserve the leeway space (of Baume) and gain space for erupting bicuspid and permanent canines when the incisors are short of space.

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