MAKING OCCLUS-O-GUIDE® AND NITE-GUIDE® APPLICABLE TO MOST MALOCCLUSIONS – ALTERATIONS, ADJUSTMENTS, ADDITIONS, COMBINATIONS AND HELPFUL HINTS FOR SUCCESSFUL TREATMENT

The Occlus-o-Guide® and Nite-Guide® are probably the most versatile of all functional appliances because they can be combined with numerous other techniques and varied in their use to gain advantages in treatment. A summary of these combinations and variations are as follows:

A. TO ENHANCE OVERBITE CORRECTIONS:

OCCLUS-O-GUIDE® -

1. Addition of self-cure acrylic in the anterior region of the upper and/or lower arch. This speeds overbite reduction towards the end of the correction with the Occlus-o-Guide® particularly if less that 4mm of correction remains. One must monitor the correction carefully so as not to have an anterior open-bite develop. Overbites that exceed 5mm correct at the rate of 0.8mm per month, but drop to 0.4mm per month when less than that. This procedure increases the speed of correction by increasing the material vertically between the upper and lower incisors. The acrylic must be at least 3mm thick to prevent breakage when exercising with the appliance.

2. Use of an anterior bite plate in off-hours. The easiest way to accomplish this is to make an upper Hawley retainer with an acrylic anterior shelf to enable the posterior teeth to be separated in the hours when the Occlus-o-Guide® is not being worn. This additional appliance is usually made after the Occlus-o-Guide® has been worn at least 2 months so that it's fit is more coordinated with the changes that occur in the occlusion from active appliance wear. This bite-plate procedure is particularly helpful in children that are not fully cooperative where the Occlus-o-Guide® is worn actively only about one hour daily instead of 2 or more hours. It also helps in cases where there is irregular active wear from day to day. It is important that the child wear the Occlus-o-Guide® at night, however, since this will aid in the correction of overjet, which the Hawley appliance is not as efficient at doing.

3. Use of a Bionator in off-hours. This is a similar procedure to the anterior bite shelf (described in #2 above), however, it has the added advantage of aiding in the correction of severe overjets which the Hawley is incapable of doing. Therefore, this procedure is more advantageous in cases with severe overjets of over 8-10mm severity. The Bionator is worn during daytime hours when the Occlus-o-Guide® is not being worn. Since the Occlus-o-Guide® works twice as fast as the Bionator and is more efficient at straightening the teeth, it is advisable to wear it as much as possible. In other words, the Occlus-o-Guide® should be worn normally for 2 or more hours each day actively as well as while sleeping and the Bionator can be worn passively the rest of the time. This maximizes the correction.

4. Spread out the active wear to different times of the day. If the Occlus-o-Guide® is worn actively at least 3 different times per day instead of during one single longer period, it increases the speed of correction. If the wear can be before meals it is particularly helpful. Schedules of wear that involve a half hour of active wear before breakfast and an hour before dinner reduces the collapse of the overbite during these critical times. If it can be worn for a half-hour before lunch it also helps. The opening of the jaw is created by active wear which straightens crowded anterior teeth and produces inter-incisal contacts which is increased as the retraction forces are exerted against the maxilla creating further overjet reduction which forces the jaws apart anteriorly. This then provides an inter-occlusal opening that allows posterior teeth to erupt into. When this opening occurs prior to a meal, the tendency for this opening to return and to depress recently erupted posterior teeth is reduced. When a child wears the appliance

actively during one period of time, such as after dinner, they have many hours of potential relapse until the next evening when they wear it again actively.

5. Check the Occlus-o-Guide® at each visit for vertical anterior break-through. This breakage when an incisor (upper and/or lower) cuts into or through the entire anterior vertical plastic isthmus is caused by active nighttime bruxism. Whenever an incisor cuts into the plastic, the over-bite correction slows or stops. In fact, if the entire isthmus is broken through, the vertical over-bite starts increasing, due to occlusal force only being placed on the posterior teeth. If the isthmus is only slightly broken into, the area can be repaired with about 3mm of self-cure acrylic. If the entire isthmus is broken, a new appliance must be issued. The best way to avoid this break-through problem from bruxism is to fabricate an anterior bite shelf (as in A-2) which is worn at night while sleeping (and can be worn also in the off-hours during the day as in A-2). While a new undamaged appliance is worn actively during the day, Occlus-o-Guide® appliances are not broken through like this from daytime exercise – it is only caused by excessive bruxism. There is also an Occlus-o-Guide® appliance that is made from hard plastic that also can be used during sleeping hours which prevents break-through but should not be used while exercising during the day.

6. Close anterior interproximal spaces when no overjet is present. Anterior spacing, especially in the upper arch disrupts the reduction of overbite when it will not be closed with a correcting overjet (but can also affect the overbite correction when present in the lower arch). These spaces must be closed before the overbite will usually improve. This is done with the placement of labio-lingual wires (.020", 1/2mm round wire) into the Occlus-o-Guide® to create mesially-directed forces. Once these incisal interproximal spaces are closed, the overbite begins to correct.

7. Change the lingual inclination of the upper incisors. When the upper incisors are lingually inclined, this slows the overbite correction and also makes it more difficult to retain satisfactorily once the overbite is corrected. It is recommended that lingual cleats be placed behind the lingually inclined teeth as the Occlus-o-Guide® is being worn. Once the correction is made, if incisal lingual inclination is still present, lingual root torque with limited fixed orthodontics following the active Occlus-o-Guide® treatment is recommended.

8. Do not pre-correct lower incisal crowding. Overbite corrects faster with the Occlus-o-Guide® when mandibular crowding is present. It is sometimes difficult to decide whether to initially strip the lower deciduous canines when beginning the use of the Occlus-o-Guide® to correct a severe overbite or to postpone it until after the overbite is corrected. When one strips the canines after the overbite is corrected, it speeds the correction but increases the risk of labializing the incisors with the potential of labial gingival recession. One alternative to this dilemma is to postpone stripping and closely monitor the patient for any evidence of gingival recession or significant labial tipping. If either occurs, the deciduous canines are then quickly stripped which stops either problem from increasing.

9. Placement of a mandibular bumper. A lower bumper can decrease the overbite by about 2mm with a couple of months of distalization. This can be maximized by also placing some slight expansion into the bumper prior to seating. One must be cautious not to place too much buccal movement into the bumper; otherwise a cross-bite can be created.

10. Restrict gum chewing. Excessive daily gum chewing can decrease the vertical dimension established by active wear of the Occlus-o-Guide®. This tends to decrease the progress of overbite correction.

11. Restrict eating between meals. Anything that increases the occlusal forces between the upper and lower posterior segments tends to accelerate the collapse of the established vertical dimension and slows the progress of the correction of the overbite.

12. **Time eruption with the pubertal spurt if possible.** If the child is late (11-13 years of age) with the exfoliation of the posterior deciduous teeth, try to postpone the initiation of the treatment until the pubertal spurt starts. This can be verified with a skeletal age determination from a hand film. When eruption of the canines and premolars occur at the same time as the pubertal spurt, the overbite correction is accelerated dramatically.

13. **Time overbite correction with the eruption of lower canines.** Overbite retention is usually greatly enhanced if many opposing posterior teeth have erupted while the Occlus-o-Guide® has been used. For example, if treatment has been properly started when the mandibular canines are first erupting, there will usually be 8 newly erupted teeth opposing each other (canines, premolars, and second molars) with adult collagenous fiber formation. This multiple eruption of posterior teeth followed by adult fiber formation resists collapse of the vertical, and these cases often require little or no retention.

14. **Try to create a slight open-bite.** Some children are very motivated in their wear of the appliance, and should not be discouraged or have their wear cut back too early. When over-wear creates a slight open-bite (1 to 2mm), long-term stability of the overbite is usually extremely successful. One also can add acrylic (about 3mm as in A-1) near the end of the treatment to stimulate some additional overbite correction. One has to be careful not to create too great an open-bite (over 2mm) with this procedure. Careful monitoring of the patient is required (once per month) until the optimum amount of open-bite is achieved. Once this proper amount is obtained, the daytime exercise is simply reduced in amount. If the open-bite seems to persist, clenching of about 200 times a day for about one-month without the Occlus-o-Guide® in the mouth will usually bring the occlusion back to normal and will retain quite well at that position.

15. **Cut off the end of the Occlus-o-Guide®.** This removes the support to prevent overeruption of the first permanent molars. Therefore, the first permanent molars are allowed to super-erupt and can help to quickly open the bite. Once a slight open bite is created (1 to 2mm), the use of the regular appliance with normal molar coverage is then resumed.

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16. **Prevent overbite with the Nite-Guide® if possible.** Early prevention of the overbite during the eruption of the upper and lower permanent incisors is much easier to accomplish with only passive sleeping wear. If timing at this age is possible (4-7 years of age); this is the procedure of choice. Almost all children get success from this procedure or an increase of about 20% of successful results (90% of cases get success with the Nite-Guide® versus about 70% with the Occlus-o-Guide®).

17. **Prevent lingual inclination of upper incisors.** In a technique similar to A-7, lingual cleats (usually 2 per each incisor) are placed lingual to erupting teeth in cases with obvious, lingually inclined erupting maxillary incisors. Sometimes as the tooth is almost fully erupted, a single cleat can be placed towards the labial gingival margin also. This changes the inclination of these teeth and will prevent the tendency for increased relapse in these cases. The extreme lingual inclination is often or almost always preceded by a deciduous dentition with excessive lingual inclination of the upper deciduous incisors.

18. **Trim lower incisal edges slightly.** If one has had some slight overbite relapse with either the Occlus-o-Guide® or Nite-Guide® treatment procedure, the incisal edges can be trimmed slightly from the lower incisors. This accomplishes a couple of goals. First it reduces the overbite 1 or 2mm, and creates a thicker incisal edge. This reduces the tendency for crowding relapse by making it more difficult to develop overlapping of the teeth with slipped contacts. It also slightly narrows the incisors mesio-distally without stripping interproximally.

19. **Start Nite-Guide® with eruption of lower incisors.** This allows the overbite to be corrected in the most efficient manner. Whether the child wears the Nite-Guide® only one hour each night passively or all night long makes no significant difference in the final overbite correction.

20. **If some adult incisors have already erupted, wear Nite-Guide® one hour actively each day.** When the timing of the Nite-Guide® is slightly late and some incisors have already erupted for not more than 6 months, wear the Nite-Guide® about one hour actively each day in addition to night time wear. This will depress the already erupted permanent incisors while there is still a minimum of adult collagenous fiber formation present.

21. **Wear the Nite-Guide® one night per week for retention.** This amount of wear up until the time of the loss of the first lower deciduous canine or first molar will reduce the risk of increased overbite during this phase.

22. **Wear the Nite-Guide® every night during eruption of posteriors.** Protection of the established overbite is enhanced during the exfoliation of the deciduous posteriors (canines and molars) by having the child wear the Occlus-o-Guide® (second appliance worn passively in the Nite-Guide® technique) every night until all of these permanent canines and premolars are fully erupted.

23. **Extend wear of Nite-Guide® or Occlus-o-Guide® beyond normal time.** The overbite can be stimulated to correct by encouraging the most posteriorly erupting molars to super-erupt (see A-15). In the Nite-Guide® technique, when a second larger appliance is inserted to continue the arch enlargement while the lower adult laterals are erupting, a Nite-Guide® "C" Series appliance can be used instead of switching to an Occlus-o-Guide® "G" Series. This allows the first permanent molars to be uncovered by the appliance, so that they can continue to erupt. This eruption can often drive the bite open very quickly. This does increase face height and if the child has an excessively long face, it would generally be contraindicated if a very deep bite would be opened in this way. At a later age when the second permanent molars are erupting, either a Nite-Guide® "C" Series can be placed, or the "G" Series can be used after these teeth erupt to stimulate the opening. Another method is to place a Nite-Guide® "C" appliance or simply cut off the end of the "G" appliance anytime during the mixed dentition to accelerate the overbite correction (as in A-15) while the first permanent molars are erupting.

B. TO ENHANCE OVERJET CORRECTION.

OCCLUS-O-GUIDE® -

24. **Use of a Hawley appliance with labial bow.** In severe overjets with spaced upper permanent incisors that tend to resist correction with active Occlus-o-Guide® wear can benefit from the placement of a Hawley with a labial bow. This appliance is worn in the daytime hours when the Occlus-o-Guide® is not being used. This enables the upper anterior spaces to be closed even if there is a tongue-thrust present. This technique works well below the age of 9 years. After this age, usually swallowing instruction is required initially, before any appliance should be used. If such a late-starting case is attempted, significant progress in overjet reduction should be seen first without the use of an appliance before any attempt at treatment is contemplated. When a Hawley is used to close some of these anterior spaces prior to 9 years of age, a couple of sharp wires (.030", 1mm) are made to protrude from the plastic palate of the Hawley, lingual to the incisors; as a reminder to the patient where to keep the tongue at rest and during swallowing. Exercising the lips by forcefully closing them together when the Occlus-o-Guide® appliance is in place, and keeping the lower lip in front of the upper incisors at all times when no appliance is in place helps (see B-25 and B-26).

25. **Exercise by closing lips over the appliance.** This aids in developing the orbicularis oris muscle and teaches the child to keep the lips closed during resting posture. This frequently aids in the retention of the overjet during the day when the Occlus-o-Guide® or Nite-Guide® is not being used.

26. **Keep lower lip in front of upper incisors when not using the appliance.** This aids in the consistent retraction of the upper incisors and prevents daytime relapse. Usually when the incisors have been retracted a few millimeters, the placement of the lower lip in this way speeds the correction considerably whether using the Occlus-o-Guide® and Nite-Guide® appliance.

27. **Use of the "H" Series mandibular advancement appliance.** This appliance advances the mandible 3mm beyond an end-to-end relation and stimulates the mandible to advance in resistant cases. One must monitor the case carefully and when the jaws are properly aligned, the "H" appliance is stopped, and the original "G" Series is resumed as a retainer.

28. **Use of a Bionator during the day.** This procedure is particularly helpful in very severe overjet corrections and can speed the treatment considerably (see A-3). It is recommended that the impressions for the fabrication of the Bionator be made after the Occlus-o-Guide® has been used for several months so that the appliance will fit better to the partially corrected occlusion.

29. **Use of a cervical headgear to retract the whole maxilla in order to reduce the overjet.** This procedure is only used when there is an obvious maxillary protrusive appearance. The upper cervical headgear is adjusted so that the inner bow touches the labial segment of the Occlus-o-Guide®. This places all of the pressure directly against the maxilla and will retract the entire maxilla.

30. **Correct overjet during a major growth spurt.** If the patient is around 9 to 11 years of age, it is helpful to take a hand film to determine the skeletal age and try and time the correction with the pubertal growth spurt.

31. **Correct overjet while upper incisors are present.** During the exfoliation of the upper deciduous incisors, little overjet can be corrected. Better progress in the treatment is obtained either before the deciduous incisors are lost or after the upper permanent incisors (centrals) are erupted.

32. **Beware of any open-bite in a severe overjet before treatment begins.** Any severe overjet where the upper and lower incisors are not in contact either with each other or where the lower incisors do not touch the palate, usually have a tongue-thrust swallowing pattern. These cases often are difficult to completely correct without swallowing instruction. This usually should precede the initiation of treatment (see B-24).

33. **Encourage 2 to 4 hours of active exercise each day after 7-8 years of age.** This active wear will restrict forward maxillary growth after the upper incisal spaces are fully closed. When the forward maxillary growth is reduced, less mandibular advancement is required for the same result. This increases the efficiency of correction considerably (about 30%).

NITE-GUIDE® -

34. **Place scotch-style tape over the lips at night.** This aids in keeping the lips together while sleeping and helps in preventing the child from thumb or finger sucking at night. This is particularly beneficial during the use of the Nite-Guide® technique at 4 to 7 years of age.

35. **Use of Nite-Guide® at 4-7 years of age.** Early correction of the overjet is extremely efficient since there is a greater mandibular growth at this time and it also produces better advancement when incisors are erupting. The reason for this efficiency during incisal eruption is that the developing overbite is prevented from developing and therefore does not increase face height. When the overbite is reduced by lengthening the face after the incisors are fully erupted into an overbite, the mandible is opened and rotates slightly posteriorly, which increases the amount of advancement required.

36. **Use of the Nite-Guide® during the day at 4-7 years of age.** Daytime wear can accelerate the correction of severe overjets before the permanent incisors have erupted. Active daytime wear is often not necessary. Two or three hours of passive wear together with nighttime wear can increase the speed and efficiency of the overjet correction considerably.

C. TO ENHANCE CROWDING CORRECTION.

OCCLUS-O-GUIDE® -

37. **Start the Occlus-o-Guide® treatment before the deciduous second molars are lost.** The second deciduous molar is about 2.5mm wider mesio-distally than the second premolar that replaces it. This enables an additional 2mm of additional arch length per side on the lower arch for efficient crowding correction. Therefore, when the treatment begins, one must first strip 2mm from each side by disking the mesial of each of the lower second deciduous molars. In this way an additional 4mm of arch length is created. In the upper the same procedure can be done, but the stripping should not be quite so much (about 1.5mm per side) since the difference in size in the upper arch is about 1.5mm per side (see C-41).

38. **Start the Occlus-o-Guide® ideally, as the lower deciduous canine is lost.** This allows each erupting permanent posterior tooth to be able to erupt distally by sequentially stripping the tooth behind each erupting adult tooth. As the canine erupts, the mesial of the first deciduous molar is stripped allowing the canine to erupt distally and not to place pressure anteriorly which might tend to increase the incisal crowding. When the first premolar erupts, the mesial of the second deciduous molar is stripped in the same way. In this way, the least adverse effect on any incisal crowding will be made, and also allow up to 4mm of incisal crowding to be corrected without labial tipping of the lower incisors.

39. **Wear the Occlus-o-Guide® 2 to 4 hours actively each day while the upper adult canines erupt.** This forces the canines to squeeze their way into the arch and increases the space in the upper anterior segment. Rarely is their any problem in the canine area (regarding labially crowded out upper canines) when this active wear takes place. When the appliance is worn passively at night during this eruptive phase, about 20% to 30% of cases require distalization of molars to enable the upper canines to erupt properly.

40. **Expand the upper arch when bilateral constriction is present.** This is particularly important when there is a cross-bite, a definite lateral mandibular displacement is present, and there is incisal arch shortage. This often can be corrected with a Quad-Helix or molar bands with soldered lingual extensions and an accessory expandable labial arch (usually of .045" or 1mm diameter) or an upper bumper. If severe upper incisal arch shortage is present (over 3-4mm) with maxillary constriction, then a rapid palatal expansion appliance should be used.

41. **Sequentially strip deciduous posteriors.** Up to 4mm of crowding can easily be accommodated when the patient is started before the deciduous posteriors are completely exfoliated (ages 8-11). Ideally the case should start, as the lower deciduous canine is lost. But 4mm of crowding of the permanent incisors (lower and upper) can be corrected by stripping the mesial of the deciduous canine (lower), the mesial and/or distal of the first deciduous molar (lower or upper) and the mesial of the second deciduous molar (lower or upper). Do not strip the upper deciduous canine, since if the permanent upper canine erupts later than the premolars (particularly in "ugly duckling" type cases when the canine is heavily inclined mesially into the root of the lateral), it needs as much room as it can get without having the deciduous canine reduced in width mesio-distally. This stripping should occur as the Occlus-o-Guide® appliance is started. Resist stripping any tooth while the permanent incisors are erupting, otherwise you reduce the natural arch enlargement taking place at this time (5-7 years of age).

42. **A bumper can obtain up to 4mm of additional space.** The use of a lower or upper bumper can bilaterally create up to 2 to 3mm of space per side. One must be cautious, however, not to impact molars not yet erupted. One technique that is quite helpful is to solder a lingual extension wire (.036' or 1.25mm) that wraps around the mesial of the deciduous canine (frequently that has had the mesial

surface disked). The wire is thinned similar to a ribbon as it wraps around the mesial surface. As the bumper is advanced and distalizes the posterior segment about 1mm per month, the space opens up mesial to the canine where it is needed the most. It is recommended that the bumper is tied in to maximize its distalizing effect.

43. **Use of a cervical headgear in the upper arch.** A headgear can be used in a similar way to the bumper (see C-42) and is extremely effective since the Occlus-o-Guide® squeezes the other teeth back distally against the molar that the headgear is attached to. The distalizing effect, therefore, is increased considerably. Typically the headgear is adjusted to place force only against the molars and therefore, there is a slight space (2mm) between the inner bow and the Occlus-o-Guide® appliance. If the inner bow touches the labial segment of the appliance, the whole maxilla will be retracted as seen in B-30.

D. TO ENHANCE OPEN-BITE CORRECTION.

OCCLUS-O-GUIDE® -

44. **Begin the Nite-Guide® procedure as the lower centrals first erupt.** The maximum amount of expansion is obtained if the timing coincides with the eruption of the lower adult centrals. If it is later (as the laterals erupt), the full expansion is reduced by 1.5mm. If the timing is considerably before the eruption of the centrals, it makes it more difficult to do an accurate arch length analysis and usually prolongs the Nite-Guide® procedure.

45. **The use of a bumpers with lingual extensions increases the arch length in borderline crowded cases.** In Nite-Guide® cases that are at the upper end of potential arch length shortage (lower arch for upper) where future stripping of the deciduous canines might not provide sufficient space (7mm. or more of arch length shortage between the deciduous and permanent incisors, or 4mm. or more of permanent adult incisal crowding), a bumper with lingual extensions from the molar bands to engage the mesial of the deciduous canines can be extremely helpful in providing several millimeters of additional space anteriorly (see C-42).

46. **Make sure nasal breathing is satisfactory.** In cases with enlarged adenoids, a deviated nasal septum, or blocked nasal passages, these cases should be referred out to their family physician, allergist, or ear, nose, and throat specialists for an evaluation before an attempt is made to correct open-bite tendencies due to these causes.

47. **If an anterior tongue-thrust exists, it must be eliminated first.** This is particularly important if the child is over 8 years of age. Significant progress must be seen in spontaneous closure of the open-bite as a result if successful myofunctional therapy before appliance therapy is begun.

48. **Placement of a Hawley with palatal spikes as a reminder to swallow correctly.** This appliance not only can aid in forming a correct swallow but also aids in retracting the protrusive maxillary incisors (see B-24).

49. **Slit the Occlus-o-Guide® appliance vertically in the incisal area.** This eliminates the depressive forces against the incisors and will begin to depress the posterior teeth to reduce an open-bite.

50. **Usually open-bite corrections are contraindications after 9 or 10 years of age.** The most successful time to correct open-bites due to thumb or finger habits is before the upper incisors are erupted (before 8 years of age). Once the upper incisors have stopped erupting for several months (3 to 6 months), the open-bite becomes difficult to correct. There are cases though at later ages (after 9 years of age) where when the sucking habit is stopped, the open-bite will completely correct at the same time.

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51. **Placement of an anti-sucking device if a habit exists.** If a sucking habit is present, the child is encouraged to substitute the Nite-Guide® or Occlus-o-Guide® appliance for the thumb or finger. No more than two months of attempting to substitute the appliance successfully for the thumb should be given. If after two months has elapsed and the child still sucks the thumb, an anti-sucking device is cemented to place (see D-50). The Nite-Guide® or Occlus-o-Guide® is worn over the anti-sucking device.

52. **Try to correct an open-bite before 8 years of age.** If the open-bite is accompanied by a thumb or finger sucking habit, this habit must be stopped prior to full eruption of the incisors, otherwise an anterior tongue-thrust swallowing pattern might develop that is most difficult to fully correct at 10 years of age or older. This is probably due to the establishment of permanent synapses in the frontal lobe that become "fixed" at about 8 or 9 years of age. Relearning tongue patterns in swallowing as well as language learning and tongue coordination becomes very difficult and in many cases impossible after 10 years of age. If the child does not successfully substitute the Nite-Guide® or Occlus-o-Guide® appliance for the thumb or finger, an anti-sucking device should be placed after about two months or at least by the time the upper incisors are erupting.

53. **It is important to correct any excessive overjet when the open-bite is eliminated.** If this is not done, then the corrected thumb or finger habit will allow complete eruption of the incisors without the benefit of an inter-incisal contact resulting in the development of an excessive overbite.

E. TO ENHANCE CORRECTION OF TMD PROBLEMS.

NITE-GUIDE® AND OCCLUS-GUIDE® -

54. **It is important to correct joint problems while jaw growth remains.** This jaw growth allows the mandible to be retained in a forward position when it is artificially advanced by the Nite-Guide® or Occlus-o-Guide® appliance. If there is no growth remaining, the jaw will usually gradually slip back and the joint problem returns.

55. **Correct only TMD problems when an overbite and overjet are present.** This allows the appliance to advance and open the mandible slightly, which will successfully correct most TMD problems. If an open-bite exists, the Occlus-o-Guide® will not correct an accompanying TMD problem. See E-54 for details of correction.

56. **Make sure symptoms disappear when patient functions in a simulated Class I position.** Have the patient position the mandible down and forward into an artificial Class I jaw relation. Then have the patient open and close to this position. If the symptoms (such as clicking) disappear in this position, the joint problems will usually be corrected as the case is corrected and will stay corrected if sufficient mandibular growth is still present.

57. **In TMD cases with no overjet and a deep overbite, place cleats to labialize the upper incisors.** This is helpful to obtain some overjet so that the mandible can be advanced.

58. **Use of a sagittal in TMD cases with lingually tipped upper incisors.** This helps to labialize the upper incisors in order to be able to advance the mandible.

59. **Use of a Hawley with lingual finger springs to labialize upper incisors.** This helps in a similar way to E55 and E56. This enables the mandible to be advanced enough to eliminate the TMJ symptoms.

60. **Do not correct TMD with the Nite-Guide® or Occlus-o-Guide® in open-bite cases.** For successful correction of most TMD cases with the Occlus-o-Guide® or Nite-Guide®, the mandible must be opened slightly. With an open-bite this does not happen with these appliances.

61. **In "closed-lock" cases use a splint first for several months before using the Nite-Guide® or Occlus-o-Guide®.** The reason for this is to enable the ligaments to heal first prior to the use of the appliance.

62. **In adults with TMD, make sure the freeway space is 4mm or more.** This allows sufficient vertical space for posterior tooth eruption without creating interferences.

63. **In adults be prepared to retain for long time or forever.** Usually once the joint problems are corrected, the Occlus-o-Guide® can be worn one night per week to keep the person symptom free.

Succesful: 9/30/98