Appendix I
Handicapping Labio-Lingual Deviations (HLD)

DCH HANDICAPPING LABIO-LINGUAL DEVIATIONS FORM (HLD INDEX)

The Handicapping Labio-Lingual Deviations Form (HLD) consistent with guidelines from the American Association of Orthodontists (AAO), is a quantitative, objective method for measuring the presence or **absence, as well as the degree** of a handicap malocclusion caused by the components of the index. It is not used to diagnose malocclusion. The HLD provides a single score, based on a series of measurements that represent the degree to which a case deviates from normal alignment and occlusion. Deciduous teeth and teeth not fully erupted should not be scored. **Please follow the scoring instructions attached and include the required documentation**.

Conditions Observed	**HLD Score**
THE FOLLOWING IF DETERMINED BY CLINICAL REVIEW, MAY BE AUTOMATIC QUALIFYING CONDITIONS If any condition #1 through #9 applies, please indicate with an "X" in the column and submit the form.	
1. Jaws and/or dentition which are profoundly affected by a congenital or developmental disorder (craniofacial anomalies), trauma or pathology. (See instructions or Clinical Guidelines)	☐
2. Overjet greater than 9 mm with incompetent lips	☐
3. Reverse overjet greater than 3.5 mm	☐
4. Deep Impinging Overbite (with evidence of occlusal contact into the opposing soft tissue resulting in tissue damage; tissue damage must be visible on photographic images)	☐
5. Anterior and/or posterior crossbite of 3 or more teeth per arch	☐
6. Crowding or spacing of 10 mm or more, in either the maxillary or mandibular arch (excluding 3rd molars)	☐
7. Lateral or anterior open bite: 2 mm or more; of 4 or more teeth per arch.	☐
8. Impactions required for function where eruption is impeded but extraction is not indicated (excluding third molars)	☐
9. Congenitally missing teeth (excluding third molars) of at least one tooth per quadrant	☐
Continue to score below if there are no qualifying conditions checked above, the remaining conditions require a minimum score of "28" to qualify for comprehensive treatment. Score each condition that applies according to examination findings using the HLD Index Scoring Instructions. Limited Orthodontics (when applicable) is scored on a subset of the below.	
10. Overjet in mm	mm x1
11. Reverse Overjet (Mandibular Protrusion) in mm – see scoring instructions	mm x5
12. Overbite in mm	mm x1
13. Open Bite in mm	mm x4
14. Ectopic Eruption, (Number of teeth, excluding third molars) (Do not double score with crowding	# x3
15. Anterior Crowding: check box ☐ Maxilla ☐ Mandible Greater than 3.5mm per arch; add 5 points for each arch if applicable.	Max 5 Mand 5
16. Labio-Lingual Spread in mm	mm x1
17. Posterior Unilateral Crossbite (must involve two or more adjacent teeth, one of which must be a molar.	Score 4
18. Bilateral Crossbite (Must involve two or more adjacent teeth including a molar on both sides)	Score 8
19. Crossbite of individual anterior teeth when clinical attachment loss and recession of the gingival margin are present	Score 8
20. Psychosocial factors require detailed documentation letter by mental health provider as described by mental health clinical criteria of psychological/psychiatric diagnosis, prognosis and that orthodontic correction will improve mental/psychological condition.	☐ TBD per review of documentation
Total	

I certify under the pains and penalties of perjury that I am the treating dentist identified on this form. I certify that the medical necessity information on this form is true, accurate, and complete, to the best of my knowledge. I understand that I may be subject to civil penalties or criminal prosecution for any falsification, omission, or concealment of any material fact contained herein.

Signature of treating Dentist: _____ Date:_____Printed name and NPI: _____
(Signature and date stamps, or the signature of anyone other than the provider, are not acceptable)

Handicapping Labio-Lingual Deviation Index Scoring Instructions

The Handicapping Labio-Lingual Deviations Form (HLD) consistent with guidelines from the American Association of Orthodontists (AAO), is a quantitative, objective method for measuring the presence or **absence, as well as the degree** of a handicap malocclusion caused by the components of the index. It is not used to diagnose malocclusion. The HLD provides a single score, based on a series of measurements that represent the degree to which a case deviates from normal alignment and occlusion. Deciduous teeth and teeth not fully erupted should not be scored.

The following documentation is required to be submitted. Any authorization request submitted without complete documentation will be noted as "incomplete documentation received" denial exclusion.

- ☐ The completed HLD Scoring Index Form
- ☐ Any supporting documentation describing the nature of the severe physically handicapping malocclusion, and relevant to determining the nature and extent of the handicap
- ☐ Orthodontic Treatment plan
- ☐ A panoramic and/or full mouth series of intra-oral x-rays
- ☐ A cephalometric x-ray (if taken) with teeth in centric occlusion
- ☐ Facial photographs of frontal and profile views
- ☐ Intra-oral photographs depicting right and left occlusal relationships as well as an anterior view
- ☐ Maxillary and mandibular occlusal photographs
- ☐ Photos of articulated models or 3D scans can be submitted optionally (Do NOT send stone casts)
- ☐ Requests where there is significant disparity between the evaluation and narrative and objective documentation (e.g., photographs and / or x-rays) will be returned for clarification without review
- ☐ All x-rays, photographs and other required documents should be dated and labeled with the patient's name, Date of Birth (DOB)

The following information provides definition and guidelines for the categories on the HLD Index: (Acceptable clinical documentation must include all the above noted clinical information and any specific documentation noted below). All measurements are scaled in millimeters. Entering "0" must record absence of any conditions.

1. **Cleft Palate or other craniofacial anomalies:** REQUIRES CERTIFICATION (Attach report from the "diagnosing specialist" indicating the diagnosis, the severity and scope of diagnosis, and the resulting complications including effect of the diagnosis on occlusion, oral health, and oral function.) Examples of cranio-facial anomalies include cleft lip, cleft palate, hemifacial microsomia, deformational plagiocephaly. These would not include normal or skeletal malocclusion. Traumatic deviations include for example, loss of a premaxilla segment due to burns or an accident, the result of osteomyelitis or other gross pathology. Facial Discrepancies requiring Surgical Malocclusion with Orthognathic surgery examples include B.S.S.O., S.A.R.P.E., and Lefort Osteotomy ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

2. **Overjet greater than 9 mm:** This is recorded with the patient in the centric occlusion and measured from the labial of the lower incisor to the labial of the upper incisor. The measurement could apply to a protruding single tooth as well as to the whole arch. The measurement is read

and rounded off to the nearest millimeter and entered on the form. This condition is considered a handicapping malocclusion. ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

3. **Reverse overjet greater than 3.5 mm**: This is recorded with the patient in the centric occlusion and measured from the labial of the lower incisor to the labial of the upper incisor. ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

4. **Deep Impinging Overbite:** When lower incisors are destroying, (tissue destruction of the palate must be clearly visible in mouth and reproducible and visible. The lower teeth must be clearly touching the palate and there must be clear evidence of damage visible on the submitted documentation; touching or slight indentations do not qualify.) (Indicate an "X" if present and score no further. ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

5. **Anterior and Posterior Crossbite** – A crossbite of three or more teeth per arch, one of which must be a molar for posterior crossbite. in which the maxillary posterior teeth involved may be palatal to normal relationships or completely buccal to the mandibular posterior teeth. Anterior crossbite, three or more teeth per arch. ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

6. **Crowding or Spacing of 10 mm or more in the maxillary or mandibular arch** (excluding third molars). ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

7. **Lateral or anterior open bite**. 2 mm or more; of 4 or more teeth per arch. ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

8. **Impactions.** Required for function where eruption is impeded but extraction is not indicated (excluding third molars). Note may be applicable only to limited orthodontics. ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

9. **Congenitally missing teeth (**excluding third molars) of at least one tooth per quadrant required for function**.** ***Indicate with an "X" on the score form, attach documentation of condition, and do not score any further.***

10. **Overjet in millimeters:** Indicate an "X" on the form. This is recorded with the patient in the centric occlusion and measured from the labial of the lower incisor to the labial of the upper incisor. The measurement could apply to a protruding single tooth as well as to the whole arch. The measurement is read and rounded off to the nearest millimeter and entered on the form.

11. **Mandibular Protrusion (Reverse Overjet) in Millimeters:** Score exactly as measured from the buccal groove of the first mandibular molar to the MB cusp of the first maxillary molar. The measurement in millimeters is entered on the form and multiplied by five.

12. **Overbite in Millimeters:** A pencil mark on the tooth indicating the extent of overlap facilitates this measurement. It is measured by rounding off to the nearest millimeter and entered on the form. "Reverse" overbite may exist in certain conditions and should be measured and recorded.

13. **Open Bite in Millimeters:** This condition is defined as the absence of occlusal contact in the

anterior region. It is measured from edge to edge in millimeters. This measurement is entered on the form and multiplied by four. In cases of pronounced protrusion associated with open bite, measurement of the open bite is not always possible. In those cases, a close approximation can usually be estimated.

14. **Ectopic Eruption:** Count each tooth, excluding third molars. Enter the number of ectopic teeth on the form and multiply by three. If Condition No. 13, Anterior Crowding, is also present, with an ectopic eruption in the anterior portion of the mouth, score only the most severe condition. Do not score both conditions.

15. **Anterior Crowding:** Arch length insufficiency must exceed 3.5mm. Mild rotations that may react favorably to stripping or mild expansion procedures are not to be scored as crowded. Enter five points for maxillary and mandibular anterior crowding. If Condition No. 12, ectopic eruption, is also present in the anterior portion of the mouth, score the most severe condition**. Do not score both conditions.**

16. **Labio-Lingual Spread:** The measurement tool is used to determine the extent of deviation from a normal arch. Where there is only a protruded or lingually displaced anterior tooth, the measurement should be made from the incisal edge of that tooth to the normal arch line. Otherwise, the total distance between the most protruded tooth and the lingually displaced anterior tooth is measured. The labio- lingual spread probably comes close to a measurement of overall deviation from what would have been a normal arch. If multiple anterior crowding of teeth is observed, all deviations from the normal arch should be measured for labio-lingual spread, but only the most severe individual measurement should be entered on the index.

17. **Posterior Unilateral Crossbite:** Posterior Unilateral - This condition involves two or more adjacent teeth, one of which must be a molar. The crossbite must be one in which the maxillary posterior teeth involved may either be both palatal or both completely buccal in relation to the mandibular posterior teeth.

18. **Bilateral Posterior Crossbite:** This condition involves two or more adjacent teeth on both sides including a molar. The presence of a bilateral crossbite is indicated by a score of eight on the form.

19. **Crossbite of Individual Anterior Teeth:** Acceptable clinical documentation must include all the above noted clinical information together with supportive diagnostic intra-oral photographs of the anterior teeth demonstrating clinical attachment loss and gingival margin recession to less than 2 mm.