



Nomenclature for Device Characterizations

Device selection is a very important part of providing effective oral appliance therapy and is reviewed throughout the AADSM Mastery Program. To ensure unbiased education that is applicable as device manufacturers change and products evolve, the AADSM Mastery Program uses categories, rather than device names, to guide dentists through oral appliance evaluation and selection. Industry has been provided with a listing of these classifications and should be able to provide you with details about their products using these classifications.

The order of the following classifications is intentional in that it directs practitioners through a linear thought process, first excluding the components that may be most problematic for the needs of their unique patient, followed by a consideration of those potentially most beneficial to that patient, and finally arriving at a selection of one or several patient compatible devices with custom design features.

Materials

Consider patient allergies or sensitivities, inherent material strength, recommended minimum thickness. In alphabetical order:

- A. Acrylics
 - 1. Hard acrylic (PMMA-polymethylmethacrylate)
 - a) "Salt and pepper" additive technique
 - b) Milled from controlled-cure, medical grade
 - 2. Thermal acrylic (Astron Clear Splint, Fricke Clear Soft, Talon) - rigid at room temp and flexible at intraoral temp
 - 3. Multiple-phase acrylic
 - a) Hard shell with flexible liner - "hard-soft"
 - b) Hard shell with thermal resin (ThermAcryl) - rigid at mouth temp, fluid at 160 degrees
- B. Acrylic/Metal combinations
- C. Metals
- D. Pressure-formed thermoplastics
- E. Printed nylon

Retention Mechanism

Retention is achieved through flexion into undercuts and frictional resistance to displacement. Consider tooth height, anatomy and angulation. Consider missing teeth or compromised teeth. Consider path of placement and removal. The following list is in order of retention relying mostly

on flexion into undercuts progressing to retention involving more frictional resistance to displacement:

- A. Metal
 - 1. Distal molar wrap
 - 2. Interproximal ball clasps, C clasps
- B. Nylon rebound
- C. Flexible liners and thermal acrylics
- D. Pressure-formed thermoplastic rebound
- E. Thermoplastic resin remolding (ThermAcryl)
- F. Milled precision fit

Extension

Consider device construction and its unalterable areas of bulk or extension that could interfere with unique oral anatomy (e.g., exostosis, tongue position, lip length) or dental alignment (e.g. Curve of Spee, Curve of Wilson, deep overbite). In alphabetical order:

- A. Teeth and extension beyond teeth
- B. Teeth only
- C. Teeth-partial lingual coverage or lingual-less
- D. Teeth-partial occlusal coverage

Attachment and propulsion

Consider patient's ability to open mouth or move mandible laterally with device retained. Consider force vectors of connection mechanism with implications on compromised dentition or retention during mandibular movements. Consider hardware impact on soft tissues. Consider PDAC guidelines. In alphabetical order:

- A. Attached
 - 1. Bilateral compression
 - 2. Bilateral traction
 - 3. Midline traction
- B. Unattached
 - 1. Bilateral interlocking

Protrusive Mechanism and Protrusive Range of Motion (pROM)

Consider patient's pretreatment pROM and treatment goal position. Consider patient's dexterity if self-advancement planned. In alphabetical order:

- A. Incremental units or exchangeable pieces
- B. Screw turn
- C. Strap change

Occlusal support

Consider parafunctional habits. In alphabetical order:

- A. Anterior
- B. Full occlusal
- C. Posterior
- D. Tripod

Customizable options

In alphabetical order:

- A. Accommodation for mouth breathing
- B. Anterior ramp
- C. Attachment for PAP
 - 1. Adaptable chairside with pre-manufactured components
 - 2. Lab adaptation
- D. Elastic attachments to promote mouth closure
- E. Minimal interocclusal distance
- F. Open screws during fabrication for retrusion ROM
- G. Reinforcement



Nomenclature for Protrusive Bite Gauges

As with device selection, the AADSM Mastery Program provides an overview of protrusive bite acquisition. The AADSM Mastery Program uses the following category descriptors to review the many styles of bite gauges and to educate dentists on the best practices for bite acquisition.

In alphabetical order:

- A. Horizontal sliding bite gauge
- B. Horizontal sliding bite gauge with vertical adjustment ramp
- C. System of horizontal positioning simulators and vertical keys
- D. Three-axis bite gauge