

PRI® MMOO (Mandibular Molar Occlusal Orthotic)

Purpose: You have received a Mandibular Molar Occlusal Orthotic (MMOO) appliance from your dentist to assist in the management of your head and neck position. The manner in which your teeth contact each other (whether a “good” bite or “bad” bite) directs your head and neck into its normal orientation (“good” or “bad”) through the sensory input your brain receives from the teeth and ligaments of the teeth as well as the mechanical position of the jaw bone (mandible) and jaw sockets (temporal bones). Since we have recommended you receive a MMOO appliance we feel the position and/or sense of your bite is a contributing factor to your ability or inability to maintain a proper resting position (neutrality) of your head and neck.



How it works: The appliance is designed and calibrated by the dentist and therapists together to give you balanced posterior molar contact while your neck is in a neutral state. Often over-referenced anterior teeth can be a factor in forward head posture, extended neck postures and over-referencing of the balls of the feet. The sense of even posterior contact with the MMOO splint gives your brain a consistent appropriate sense of where your head and neck should be positioned with each other when in that neutral state. Molar contact in general is utilized by your brain as a “floor” to rest your head upon. If that “floor” is not in an appropriate position your head position and neck position may be imbalanced. This posterior sense will be integrated with appropriate sense of the floor under your heels for further upright integration and postural control. The smooth, flat surface of the splint will also “free-up” the mandible and occlusion to reduce both the neurological and mechanical influences of the bite position. The MMOO appliance has built into it canine guidance ramps on either side to give you appropriate references when moving your jaw from side to side. For example, if you move your jaw to the right your right canines will come in contact with the splint to dis-occlude the teeth on the left and vice-versa. This way no matter where you position your jaw you will have a reference point to bring you back to a neutral state or position.

At the time of the bite registration and dispensal of the appliance the correct position of the neck will be assured by your PT or case manager, using whatever other tools are needed (shoes, glasses, etc.), to make sure the correct position is calibrated into your appliance.

When to wear it: In general the MMOO appliance is worn for nighttime use indefinitely, and with any PT or other physical activity. Typically we encourage more use of the splint during the daytime even when not doing your activities and hope that gradually you will need the splint just for night times. Your PT or case manager will assist you in specifics for your use of this appliance including when to wear it, what to do with it in, and what else to wear with it (i.e. glasses etc.).

What to do with it in: Typically if you are recommended to have a MMOO appliance made, your neck and head have not been assuming an appropriate rest position, which typically manifests itself as tension and/or lack of mobility. Movement of the jaw, head, and neck independent of each other becomes challenged. This can lead to muscle misuse, overuse or underuse due to the positional and structural limitations. Once the MMOO is in place and calibrated to ensure head and neck neutral positioning, activity is then encouraged to move the head, neck, and jaw independently of each other without interference from the old bite position or pattern.

At rest the jaw is typically open with the teeth not touching, but the habitual touching of teeth occurs with swallowing and speech. We would encourage a resting tongue position where the tip of the tongue rests lightly on the hard palate behind the upper front teeth. The lingual bar (the metal piece that connects the 2 sides) should help reinforce this proper tongue position. At that point there should be even contact in the posterior teeth without interference from the anterior teeth.

We would encourage:

- Frequent movement of the jaw to the right and left sensing the canine “ramp” as the jaw moves from side to side while keeping the tongue resting behind the upper teeth. For example as the jaw slides to the right the right canine should hit the ramp and as the right canine slides up the ramp the left teeth should no longer be in contact with the splint. Then as the jaw slides left the left canine slides on the ramp and the right teeth should no longer contact the splint. This sense of either right or left teeth contacting the splint helps sensory awareness of where the jaw is positioned, where neutral is, and engages the musculature of the jaw in a normal manner (as is needed for efficient and normal speech, chewing and breathing).
- Throughout your day keeping only posterior contact with the splint turn your head from side to side in a comfortable range of motion and swing your arms with walking ensuring your trunk is rotating from side to side.

All these things will help retrain your body to move in a more “normal” efficient manner with the neutral starting point pre-set by the tools given to you. You will probably also be given other exercises to encourage neck and trunk movement (rotation) without interference from your teeth.

If you have specific questions please do not hesitate to contact your Postural Restoration Institute(PRI)® trained physical therapist or PRIME case manager.

*For more information on the science of Postural Restoration® or the Postural Restoration Institute (PRI)® from which the concepts and purpose for this splint are designed and developed please see www.posturalrestoration.com for more information.