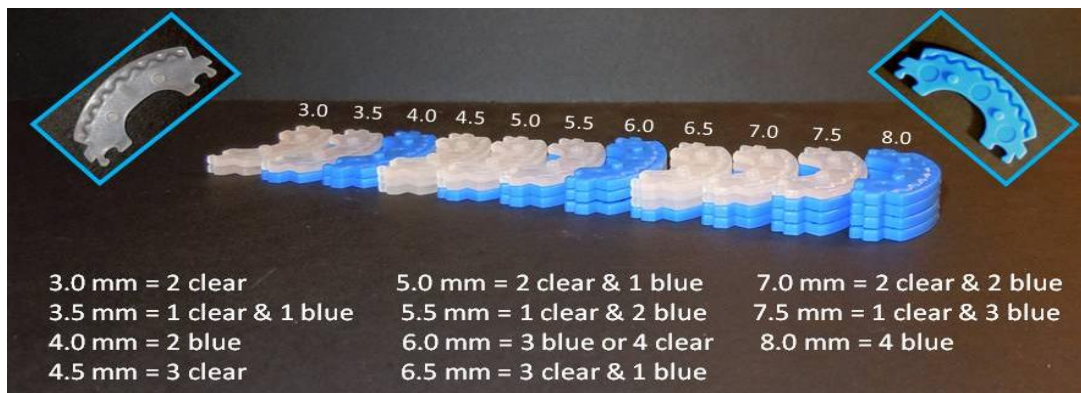


Tips on how to determine the correct maxillo-mandibular relationship using manual muscle testing and the Bite Shims.

View video at www.express4power.com



Bite Technique Using Manual Muscle Testing

1. The first step is to test the athlete's muscle resistance before introducing any shims.
 - A. First have them stand with their lips together, teeth comfortably apart, and tongue in the floor of their mouth. Then have them extend their right arm. Push down on arm for 1 to 3 seconds. Most people will test facilitated.



B. Then have them stand with their lips together while biting or clenching on their back teeth, and repeat the test. Most people will test inhibited.



C. Lastly, ask them stand with their lips together, teeth apart, and tongue in the roof of the mouth again, but this time ask them step on a small pad. In step 1 this was a position of facilitation. By introducing a postural imbalance, most people will now test inhibited.



2. Repeat the muscle test with the introduction of shims.

A. Muscle test with a clear shim and lips together. Increase in increments of 0.5 mm until you find the position of maximum facilitation. For example, if athlete is facilitated with 3.0 mm, test 3.5 mm. If facilitated with 3.5 mm opening, increase to 4 mm. If the athlete is

not facilitated at 4 mm, 3.5 mm would be the best vertical opening. **Athlete MUST be able to close their lips with the stack of shims in place.**



B. Separate shims and put smooth side to smooth side. Hold between your thumb and index finger. Extrude a thin ribbon of bite registration material on top and bottom of shims, insert into mouth and ask athlete to bite together. (Please be sure to insert the shims so the incisal edge of 8 and 9 are at the front edge of the shims. This placement will enable the athlete to close his/her lips.) When set, this will allow the athlete to be able to slide their jaw in all directions.



3. Lastly, test to establish facilitation and complete the bite registration.

A. In order to demonstrate facilitation and inhibition to the athlete, move the jaw in any direction and test in each position. Dr. Moses asks athletes to slide to the right side 1 mm and then to the left side 1 mm and muscle test. Most athletes test inhibited in these 2 positions.

B. Ask the athlete to find their midline and muscle test. Ask the athlete to protrude and retrude until you find the most facilitated position. This is known as THE LOCK.

C. Extrude bite registration material in the posterior areas and connect to the shims. Be sure to extrude material into the keyholes on the shims and overlap bite material onto the facial over the cuspids. This bite is referred to as the masseter dominant bite. The temporalis muscle is limited in closure by the shims. The masseter muscles are not as limited and can exert more closure force.



If you are uncertain that there is a lock...

1. Keep shims in place in the anterior of the mouth in the most facilitated bite possible. Extrude bite registration material in the molar area and do not connect to the shims. At this time add a glop of bite registration material over the area of the upper and lower central incisors. When the bite registration material is COMPLETELY set in the molar area, remove the shims by asking the athlete to open ever so slightly, just enough to take the shims out. Have the athlete close down and make sure the bite registration material is firmly in place in the posterior area.

2. Manual muscle test the athlete while biting on the molar stops that you have created. If they are more facilitated in this position, extrude bite registration material from the posterior of one side to the posterior of the other side, overlapping your molar stops. Your bite registration will be one solid arch-shaped piece. This is called the distraction bite or the temporalis dominant bite. In this position, the masseter muscles are limited by the bite registration material in the posterior area. When the shims are removed from the front and the athlete is biting on the posterior stops, the muscle forces change.

3. If the athlete is less facilitated in this position than with the shims in the anterior area, take out the posterior stops, put the shims back in place and return to the Masseter dominant bite. **In our practice, Dr. Moses uses the masseter dominant bite 95% of the time.** Trim off all soft tissue before sending your case to the lab.

