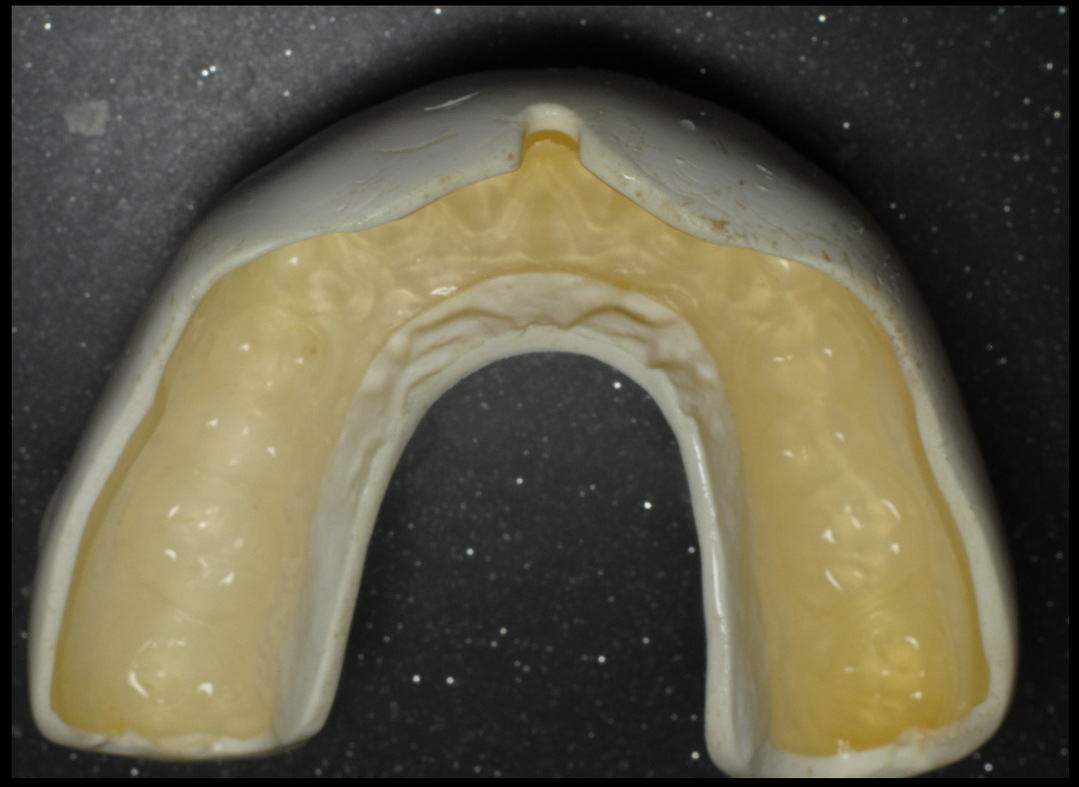
Sports Guard

Protect Against Traumatic Brain Injury

A tale of two guards

The guard on the left was made in an orthopedically correct position with the jaw (condyle) properly stabilized in the socket (fossa) of the skull. The guard on the right was also custom-made, but without the benefit of a seated jaw joint.



The guard on the left is well made without delimitation of the inner surface, as seen in the guard on the right.

The guard on the left allows all of the lower teeth to comfortably rest into the biting surface. The guard on the right only touches in the back, creating a fulcrum which pulls the jaw bone out of the socket. This destabilizes the jaw joint. In the event of a blow to the head or jaw, the destabilized jaw joint is more likely to allow an injury, including a traumatic brain injury. (A 2014 study published in the Academy of General Dentistry showed that high school football players wearing over-the-counter guards were more than twice as likely to suffer traumatic brain injury as those wearing custom mouthguards.

The guard on the left fits properly and supports the jaw without causing the jaw to open too wide and distract from the joint. The guard on the right holds the jaw too open and pulls the jaw joint out of the socket, destabilizing the jaw joint.

The guard on the left is smaller so fewer muscles are needed to pull the teeth and lips together over the guard. When these muscles are not recruited to close the jaw, they can be liberated for athletic endeavors, where they belong.

Notice how the guard on the left allows comfortable jaw and lip position. The guard on the right pulls the jaw open and stresses the muscles of the lips and face.

The guard on the left allows the jaw to close to a comfortable dimension, allowing a neutral neck position and muscle engagement. The guard on the right forces the jaw to open too widely, tilting the head back and destabilizing the joint and muscles.