

Mouthguards aid balance

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Can a mouthguard actually improve athletic performance?

A new scientifically designed mouthguard may improve balance, posture, flexibility and even strength over short bouts of physical activity.

According to Dr. Derryl Dangstorp, a neuromuscular dentist in Regina, overbites are a barrier to peak athletic performance for a majority of people. The body automatically compensates by tilting the head forward on the spine and as a result the jaw, neck and upper back muscles are tense and core balance is thrown off. The Pure Power Mouthguard (PPM) which first came out in 2007, is designed on the basis of neuromuscular dentistry and works to correct these problems. The mouthguards cost up to \$2,000 and are fitted perfectly to an individual's teeth on both the upper and lower jaws, allowing for better stability than other athletic mouthguards.

Dangstorp said the mouthguard is fabricated with an ideal bite and results in better joint alignment from the jaw to the spine. In a year and a half, he has outfitted about 20 local athletes of all ages and levels for the device, from 13-year-old hockey players, to CFL football players, and recreational middle-aged golfers.

"We found that our athletes were stronger, had better balance, a lot of them felt that it was way more comfortable. Many have said they breathe better with it," Dangstorp said.

One of the easiest ways to demonstrate the way the mouthguard works is with a pen test. First, each patient tries his strength, balance and flexibility in simple exercises. Then he is asked to bite down on a pen as he performs the same exercise. Although it does not have an equal effect, the pen slightly improves jaw alignment. Dangstorp said many patients are surprised to notice a difference already in their balance, arm strength and range of motion while stretching.

A research study by a team at Rutgers University, comparing the effects of the PPM and another custom-fit mouthguard, backs up the claim that the product will "significantly improve peak power bouts of exercise."

For contact sports such as football and hockey, the mouthguard protects the jaw while benefiting the athlete in terms of balance, strength and comfort. The PPM company also has a lower model that is used for training and non-contact sports such as baseball and golf to improve flexibility.

"Once again you are putting your body back into its ideal alignment, allowing it to work efficiently," Dangstorp explained.

Across North America, over 300 professional athletes are using the PPM along with

1,000 college, Olympic and amateur athletes.

(Story provided courtesy of the Canada E-Library, 2009)