

Better bite for Manny Ramirez

New mouthguard suits slugger

By Michael Silverman / Red Sox Notebook | Thursday, May 22, 2008 | <http://www.bostonherald.com> | [Boston Red Sox](#)

It's not a tobacco pouch, a bag of sunflower seeds or a pack of bubble gum, but sitting in a "D"-shaped container in **Manny Ramirez [stats]**' left back pocket is a little device that the **Red Sox [team stats]** slugger has been popping into his mouth before at-bats this season.

It is a high-tech mouthpiece - a Pure Power Mouthguard, to be precise - that Ramirez uses to help relax his jaw, neck and head muscles as he swings his bat. The theory behind the device is, according to Dr. Steven Bader of Ultimate Aesthetics in Newton and a representative for its maker, that when the muscles of the head and neck are relaxed to the point where the lower jaw position can be measured, "you can create a bite that improves strength, balance and flexibility."



Photo by Matt Stone

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IN MANNY'S MOUTH

One of baseball's best is extolling the virtues of innovative mouthguard

JASON MALLOY
The Truro Daily News

TRURO – One of the most feared hitters in professional baseball is sporting a new look with a Truro connection this spring.

Boston Red Sox slugger Manny Ramirez is the latest athlete to sign up for the Pure Power Edge, a piece of plastic which improves strength and balance by placing the jaw in the optimal position to

enhance performance. Truro dentist Dr. Anil Makkar and partner fitness trainer Chuck Sproule developed the mouthpiece and mouthguard.

Makkar was in Fort Myers, Florida on Saturday to deliver the Edge to Red Sox players, who had tested the product three weeks earlier, when Ramirez asked to speak with Makkar in private.

"He says, 'Doc, I've been getting crazy results with this mouthpiece,'" he said.

The 11-time all-star who receives upwards of 200 requests a month to endorse products even asked Makkar if he could be their spokesman.

"Every time he hits a ball he's going to smile at the camera and point to it," Makkar said Monday.

"You couldn't ask for anything better."

Makkar said it was unbelievable to receive that kind of endorsement.

"Manny said, 'if you're not using an appliance such as this you're not playing to your fullest potential,'" the founder said.

Makkar has always believed in the product's science despite critics scoffing at the idea. Now he has testimonials from professional athletes providing more credibility.



Figure 1 Dr. Anil Makkar, right, has found a friend in Manny Ramirez. The Boston Red Sox outfielder is the biggest name professional athlete to wear Makkar's Pure Power Edge.

“I have heard from the best that it does work,” he said proudly.

“Pro athletes have proven to me that it does work.”

The Edge uses the same science as the mouthguard but is designed to only cover the bottom teeth and is for traditionally non-contact sports like baseball, golf and swimming. Currently two universities, Rutgers in New Jersey and the University of Calgary, are conducting studies to test the product.

Makkar is also receiving interest from investors who want to do an initial public offering on the stock market south of the border.

Some potential investors believe the company can become as big as Nike and Reebok.

<http://www.trurodaily.com/index.cfm?sid=118141&sc=68>

The Florida Times-Union

July 30, 2008

Can dentistry boost athletes?

By **MIKE McCALL**,
The Times-Union

There's a new performance-enhancer coming to professional and amateur locker rooms.

It's not a pill, won't fit in a syringe and can't be blended into a shake or smoothie. Plus, it's legal.

It might sound ridiculous that a mouthguard could make a significant difference in performance, but the makers of the Pure Power Edge say it improves body alignment, strength, balance, flexibility and endurance.

"I know it works," said Jacksonville dentist Scott Wagner, one of about 200 dentists worldwide selling the specially fitted mouthguards. "There hasn't been a single athlete that I haven't been able to make stronger, better or faster."

That seems like a sensational claim, but athletes are buying it - and the PPE costs \$900 for amateurs and \$1,700 for professionals.

How it works

The key to the PPE lies in neuromuscular dentistry and the belief that jaw alignment can have a major effect on the rest of the body. According to the Canada-based company that markets the PPE, the jaw is not in its optimal position for 90 percent of the population - an overbite in most cases.

Wagner said the brain spends half of its energy on head, neck and jaw position, and by finding the ideal jaw position and locking it in place with a fitted mouthguard, strength is released to the



Figure 1 Photo provided by Scott Wagner

Manny Ramirez of the Boston Red Sox (left) poses with Jacksonville dentist Scott Wagner, who fitted Ramirez with a special mouthguard. Ramirez, on his own, worked out with the gooey green molding material in his mouth.

rest of the body because the brain can focus more on core muscles. Endurance improves because the PPE opens up the airway and allows for better circulation and oxygen flow, Wagner said.

"A lot of our football players tell us that they feel stronger in the fourth quarter, and this is coming from guys who were adamant that they didn't want to wear a mouthguard, even though it's required," Wagner said. "Now, when you see that they won't go to the gym or anywhere without it, that's powerful."

When fitting athletes, Wagner finds the ideal jaw location by using low-frequency electronic pulses to relax the muscles in the head and neck so the jaw is in its natural resting position. He then hooks the patient up to a computer and analyzes bite registrations to find the strongest bite, which Wagner said is like a fingerprint.

A mold is taken and sent to a lab, and the client receives the mouthguard in about 10 days.

Not the first attempt

The PPE is a new take on an old idea. Orthodontist Richard Kaufman was featured in *Sports Illustrated* for his work in outfitting members of the U.S. bobsled and luge teams with performance-enhancing mouthpieces before the 1980 Winter Olympics.

Kaufman's device - known as MORA (mandibular orthopedic repositioning appliance) - caused a stir, so much so that the American Dental Association conducted strength tests in 1984 on 14 Louisville football players using no mouthpiece, a typical boil-and-bite mouthguard and the MORA.

The ADA found that the MORA had no effect on muscular strength, a determination that PPE makers are seeking to disprove.

"Without this computer equipment, I couldn't do this," Wagner said. "Kaufman's mouthpiece worked, but only about half the time, because it was based off of a complete guess."

Catching on

Wagner has fitted local athletes and members of the Boston Red Sox with the device, and PPE clients can be found throughout professional sports leagues as well as college sports, golf, mixed martial arts, weightlifting, track and field and beyond.

Some athletes have reported a difference of 20 to 30 pounds in the weight room when using the PPE - which is made from acrylic and laminate and fits over the bottom teeth - or its version for contact sports, the Pure Power Mouthguard, which looks like a typical soft mouthpiece.

"You really notice a major difference in your longevity, energy and focus," said St. Louis Rams kicker Josh Brown, who began using the PPE before the 2007 season, when he played for the Seattle Seahawks. "Seeing the difference in the amount of weight you can lift is almost

immediate for anyone who puts it in. I noticed it a lot on the field when I wasn't getting tired, and I felt stronger at the end of games."

Wagner was able to make believers out of several Red Sox players while visiting the team during spring training in Fort Myers.

Wagner said his proposal was met with plenty of skepticism at first, but that changed after he persuaded Boston outfielder Manny Ramirez to get fitted.

Wagner took Ramirez's bite registrations and used a quick-setting dental gel to make a mold. Wagner then conducted strength tests, and the quirky Ramirez insisted on wearing the goo-like substance throughout that day's practice.

"It was hilarious. That stuff doesn't taste good," Wagner said. "Everyone was calling his name when he walked by, and the fans were like, 'What was that green stuff in his mouth?' "

Wagner said he also fitted Boston second baseman Dustin Pedroia, pitcher Javier Lopez, shortstop Jed Lowrie and pitcher Jonathan Papelbon, a Jacksonville native.

"We're in the process of changing the pro-level industry right now, and as that happens, there will be a trickle-down effect to amateur athletes and guys who just want an edge," Wagner said. "You have to change the industry first; otherwise, it won't work."

Traditional dentists skeptical

The first industry that PPE dentists will have to change is their own.

The mouthguard faces plenty of doubters within the dental community, and it sparks debate between two schools of thought. Neuromuscular dentists such as Wagner stand opposed to the larger group of traditional dentists on the relationship between jaw alignment and strength.

"There is truth to the statement that when the jaw muscles are out of whack that it throws off posture and things like that," said Jason Olitsky, a Jacksonville cosmetic dentist. "Over time, that can cause significant problems, so a guard that aligns the bite would keep strain off the muscles. I can see how that would be a benefit to athletes, but I can't see it being helpful to a massive amount of people. It seems like it would be a select few people."

Olitsky, who also worked with the Jacksonville Barracudas hockey team, said increased strength or stamina could come from mental changes in an athlete. He didn't rule out that the PPE could produce results for some athletes, but he added that the smaller number of neuromuscular dentists and the high price of equipment to make the mouthguards would likely hold the PPE back.

However, PPE proponents think they hold a trump card.

Paul Fitzgerald, director of public relations for Pure Power Athletics Group, said a major American university is conducting a test on its athletes with the mouthguards that should be released in the next two months.

Should the results provide what those in the company expect - a contradiction of the 1984 ADA study - the PPE could take off quickly.

"We are going to be making some announcements in the next three to six months with some of the world's biggest athletes," Fitzgerald said.

NBA star Michael Redd has started using the mouthpiece and will wear it in the Beijing Olympics with Team USA. Others are waiting for the results of the study to make their endorsements official.

"I would call this revolution that's about to happen like when Nike changed sports," Wagner said. "I think that's how big this is. At some point in time, in the next three to five years, you're going to see every major sport in the world using these."

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This story can be found on Jacksonville.com at http://www.jacksonville.com/tu-online/stories/073008/spl_311199619.shtml.

Action! Around the Bay State

By Carol Beggy and Mark Shanahan, Globe Staff | May 21, 2008

Manny's magical mouth guard

Never mind his diet or daily workout regimen. It's apparently a mouth guard that has **Manny Ramirez** hitting the hide off the ball. The future Hall of Famer is one of several Sox who've started sporting the Pure Power Mouthguard, an unusual device created by Canadian dentist Dr. **Anil Makkar**. We're told Manny, who doesn't flack for many products, is wild about the PPM, and swears it's helping his already-sweet swing. "Believe it or not, he came to us," says **Terry Klironomos**, marketing director for the Nova Scotia-based Pure Power Athletics Group Inc. According to Klironomos, **Jonathan Papelbon**, **Dustin Pedroia**, **Javier Lopez**, and **Jed Lowrie** all have been fitted with the magic mouthpiece. (The company says 150 pro athletes now wear one, including Blue Jays pitchers **Shaun Marcum** and **Dustin McGowan**, and Seattle Seahawks kicker **Josh Brown**.) So how does it work? Using electronic stimulation, measurement, and analysis, dentists create a unique PPM that puts an athlete's jaw into the "optimal position" to maximize performance. "The process gets rid of all the tension in the head and neck, and increases strength, flexibility, and range of motion," Dr. **Gary Lederman**, a New York dentist who fits athletes with PPMs, told us yesterday. "We can't take all the credit, but Manny's certainly having a fine season, isn't he?" Ramirez has become increasingly inquisitive as he seeks to extend his career. He was observed reading **Rhonda Byrne**'s new age self-help book "The Secret" during spring training, and also meditates and does yoga.

http://www.boston.com/lifestyle/food/articles/2008/05/21/action_around_the_bay_state?mode=PF