

# Guards fit for a King

## Stow dentist's mouth gear is worn by LeBron

By Cheryl Powell  
Beacon Journal medical writer

Published on Sunday, Aug 10, 2008

**STOW:** A local dentist is depending on word of mouth to sell his protective product to Little Leaguers and elite pros alike.

So it certainly helps that some million-dollar mouths — including the mug of Cavs star and Olympian LeBron James — use Dan Brett's custom mouth guards to protect their pearly whites.



**Dentist Dan Brett, president of Sportsguard Laboratories in Stow, shows how his custom mouth guards helps prevent athletic injuries. (Phil Masturzo/Akron Beacon Journal)**

In a simple office tucked inside a business complex off Fishcreek Road, Brett's Sportsguard Laboratories Inc. crafts colorful mouth guards individually formed from the stone molds of mouths of thousands of athletes nationwide.

"There's only one mouth guard you need," Brett said, "and that's the one that stays in place on impact."

Since starting the venture in 1996, Brett said, he's provided custom-made mouth guards for players in the National Hockey League, National Football League, National Basketball Association, numerous colleges and countless high school and youth programs.

And, yes, that includes Akron native LeBron James, who started using a custom mouth guard from Sportsguard Laboratories bearing the moniker "King James" across the front while playing at St. Vincent-St. Mary High School.

James now prefers clear mouth guards, Brett said, but Sportsguard Laboratories did create one red, white and blue version embossed with "USA" in gold for the Olympic games.

Brian Knight, athletic trainer for St. Vincent-St. Mary, introduced James to Sportsguard's mouth guards. Knight continues to order the guards for James.

"He likes to wear the product," Knight said. "If a guy is worth \$100 million, he's not going to wear something he doesn't like."

## **Idea takes root**

Brett got the idea to start his business after hearing about a new technology to make custom mouth guards while attending an industry seminar.

Traditionally, custom mouth guards have been made using a vacuum machine that applies low heat and a vacuum to soften a single layer of plastic around a stone mold.

The newer approach uses a pressure-lamination machine that combines heat and pressure to laminate one or several layers of plastic around a stone model of the athlete's mouth. The thickness can be modified in various spots, depending on the sport and the amount of protection needed.

At the time, Brett had a private dental practice in Kent and was Kent State University's team dentist.

He decided to invest in one of the \$3,000 pressure-lamination machines, called a Druformat, and sell custom mouth guards as a side business.

After a little research, he said, he discovered little had changed in the last few decades when it came to ethylene vinyl acetate, the material typically used to make mouth guards.

Brett worked with two Akron companies — first A. Schulman Inc. and then Artemis Industries — to develop a proprietary polymer in 2000 called PolyShoK.

PolyShoK combines ethylene vinyl acetate and "a rubber-type compound" to make the material more energy absorbent, Brett said.

## **Customized protection**

Sportsguard now makes custom mouth guards marketed under the BIOguard name in 12 colors and embossed with team logos, players' names and numbers and other custom touches.

Some athletes at St. Vincent-St. Mary request mouth guards with Bible verses, nicknames or even their mother's name, Knight said.

"If the kid has something that's customized to them, they're more likely to wear it," Knight said. "It's fashionable. . . . The kids love that stuff. I don't really care, as long as the kids protect their teeth."

John Faulstick, Kent State's associate athletic director for medical services, said he's found the custom mouth guard from Sportsguard is "truly a custom mouthpiece" with a good fit.

Kent State provides Sportsguard's custom guards to all women's field hockey and football players, who are required by the National Collegiate Athletic Association to wear mouth protection. Other athletes are encouraged — but not required — to wear them.

"The athlete is able to talk with the mouthpiece in," Faulstick said. "It's fitted right to the teeth so they can talk and yell and holler and communicate with their teammates without having to mumble. If the mouth guard stays in place, they're more compliant in using it."

## **Preventing injuries**

According to the American Dental Association, more than 2 million teeth are knocked out each year from sports-related injuries.

Mouth guards prevent more than 200,000 injuries annually among high school and college athletes, the association estimates.

Most dental associations recommend the custom versions because of evidence that they fit better, are less likely to move and tend to be more comfortable for athletes.

But any mouth guard is better than nothing, experts say.

The American Association of Endodontists concludes: "While custom mouth guards professionally fitted by a dentist offer the best protection from dental injury, using any type of mouth guard helps to safeguard natural teeth and reduce the chance of dental trauma."

### **Growing business**

Sportsguard is looking to take a bigger bite of the overall U.S. mouth guard industry, which experts estimate is about \$40 million a year.

More than 90 percent of the products purchased today are non-custom, stock or "boil-and-bite" versions, sold primarily at sporting-goods stores, Brett said.

This year, Brett expects to sell more than 5,000 custom mouth guards. He declined to release sales figures, other than to say the venture has been profitable for about three years.

"We don't really advertise," Brett said. "It's just word of mouth."

Martin Robins, dentist for the Florida Panthers in the National Hockey League, started using Brett's custom mouth guards about 10 years ago after dentists for other NHL teams recommended them.

"So far, this is the best thing we've come across," Robins said. "These are multilaminates, and they offer the player at least some degree of protection with their facial bone and the teeth themselves."

Unlike decades ago, Robins said, the majority of hockey players now wear custom mouth guards because "it's not exactly a chick magnet to have missing teeth."

### **Variety of molds**

The majority of Sportsguard's sales are to dentists, who send their patients' molds to the Stow lab.

In addition, Sportsguard markets a line of pre-made, boil-and-bite guards through dental suppliers for about \$5 to \$10.

The company subcontracts with Enterprise Plastics Inc. in Kent to make the retail products.

Sportsguard charges about \$30 to \$50 per custom mouth guard, though patients pay as much as \$400, depending on their dentist's professional fees.

The company also has expanded into the direct-to-consumer market with a selfimpression kit that allows an athlete to make his or her own mold and send it to Sportsguard for a custom mouth guard. The kit sells for \$49.95, including the custom mouth guard.

"We want to get to every athlete and at last give them the opportunity to have good protection," Brett said.

The logo for Ohio.com features the word "Ohio" in a large, bold, black, italicized sans-serif font. A red circle is positioned between the "o" and the ".com". The ".com" is in a smaller, bold, black, italicized sans-serif font.

**August 15, 2008**