Evolution of Soccer Cleat Technology

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Changes in the technology behind soccer cleats is improving the game, both for the pro and the weekend warrior.

/Newswire.net -- March 5, 2016--Over the past few years, we’ve seen some pretty drastic improvements in athletic apparel. New materials and technologies have given way to lighter weight designs that help prevent injury and increase agility. In particular, this has positively impacted the sport of soccer.

History of the Soccer Cleat

The black soccer cleat with white stripes and embellishments is one of soccer’s iconic images. When you see one of these cleats – or boots, as some prefer to call them – your mind immediately jumps to soccer.

The first pair of soccer cleats was reportedly designed for King Henry VIII. The cleats were made from leather and hand-stitched by Cornelius Johnson, the royal cordwainer. While very little is known about King Henry’s passion for the sport, he certainly wasn’t the last one to buy a pair of cleats.

As the game grew in popularity throughout England over the next 300-plus years, more and more players started asking for this specialized footwear. However, since most players didn’t have the extra income to spend on custom cleats, they would simply wear their leather boots and put nails into the bottom to help with traction. In 1863, for obvious reasons, nails became outlawed as part of the cleat.

In the late 1880s and early 1890s, leather studs started replacing sharp nails and the modern soccer cleat began to take form. The biggest changes occurred during the 20th century, as cleats started to become lighter weight and grips were enhanced thanks to rubber soles.

And now, here we are in the 21st century where customization is the name of the game. Technology has evolved to such a level that players can request cleats that serve a very specific purpose.

Options Abound in Today’s Marketplace

“At its core, soccer boot technology aims to improve a players game in three major categories; movement, ball interaction, and comfort/protection,” says Adrian Lim, a biomechanical engineer. In order to grow market share and attract consumers, global brands like Nike, Adidas, and Puma are all fighting to achieve perfection in each of these three categories.

In pursuit of better movement, ball interaction, and comfort, cleat manufacturers have begun producing a number of specialized options for players. Instead of having one or two options – like there were in the past – even amateur players now have dozens of different types to choose from. In any given shop, players may find soccer cleats designed for soft ground, artificial grass, indoor turf, and other surfaces.

While the aesthetic differences between these different cleat options may not be readily apparent to the average player, the functional discrepancies are quite obvious when the cleats are used in a competitive environment.

So how exactly are these manufacturers creating such unique cleats? Well, it typically comes down to the material, the positioning and length of the spikes, the placement of the laces, and the weight and construction of the shoe.

While looking at the different types of cleats is intriguing from an athletic standpoint, it’s arguably more impressive when viewed from the design and development side. Brands are pouring millions of dollars into research and development, hoping to find the next big technology.

We’ve come a long way since the rudimentary cleats of King Henry’s era, but there’s still plenty of room for growth. In the coming months and years, safety, comfort, and injury prevention will be the primary focuses.

The Importance of Footwear in Sports
The importance of footwear in athletics cannot be overstated. Foot and ankle injuries are among the most common in sports like soccer, football, basketball, and baseball. And while all injuries can't be avoided, significant risk can be mitigated by wearing the right cleat or shoe. Understanding where we’ve come and where we’re going can give you a greater respect for this growing industry.