

Lacrosse—Not All Sticks Come from Trees

Lacrosse has evolved from the training of the warriors of Native American tribes to the game that is played today in stadiums and on high school fields; it has become one of the fastest growing team sports in the United States. Since 1999, participation by players ages 15 and under has doubled to more than 60,000, and high schools report more than 72,000 male and 15,000 female students playing lacrosse. The game was named for the sticks the players used, which to the early French explorers looked like a bishop's crosier.



Depending on geographic area, there were three variations of the Native American game and the equipment used. The southeastern tribes (Cherokee, Choctaw, Chickasaw, Creek, Seminole, and Yuchi) played a double-stick version of the game. They used two 2 ½-foot-long sticks to retrieve a small deerskin ball; the ball was cupped between the sticks. The Great Lakes tribes played with a 3-foot stick, which ended in a round closed pocket about 3 or 4 inches in diameter usually made of wood that was charred and scraped to shape. The Iroquois and New England tribes used the precursor to the lacrosse sticks used today. These were more than 3 feet long, and the shaft ended in a crook with a large triangular surface of webbing extending as much as two-thirds the length of the stick. The early sticks were made of hickory wood.

In 1964, the first plastic head was invented; it was a lightweight, symmetrical, perfectly balanced triangular urethane plastic head with a traditional leather thong and synthetic cord pocket, attached to a wooden pole. The introduction of the first plastic stick made it possible to standardize all sticks so that they could be of the same lengths, widths, weight, and balance. With the improvements in plastics, manufacturers discovered how to make the sticks almost unbreakable.

Today's players use sticks with heads made of plastic; shafts made of aluminum, graphite, titanium, Kevlar®, or alloys of aluminum, magnesium, scandium, and zinc; pockets made of nylon mesh; and hard rubber balls. The goal posts are made of steel, PVC, and aluminum, instead of rocks and trees, and the nets are made of nylon. Even the clothing and safety accessories players wear have benefited from innovations of the 20th and 21st centuries. Gloves and pads for the chest, arms, and legs all have plastic and some have gel technology to protect the players.



Although magnesium is produced in the United States, most of the magnesium consumed is imported, mainly from Canada. The world's leading producer of primary magnesium is China.

In the United States, zinc is produced mainly in Alaska and Tennessee, but most of the zinc consumed in the United States is imported. China is the world's leading producer of zinc.

For more information on the minerals used to make lacrosse sticks, see the USGS minerals information Web site at <http://minerals.usgs.gov/minerals>.

Sources

LaxHistory.com, 2001, *The history of lacrosse* (<http://www.laxhistory.com>)

US Lacrosse, 2004, *About lacrosse—Brief history* (<http://www.lacrosse.org>)