

The Evolution of Sports Medicine

Terry K. Gemas, MD

Competition is inherent in all animals, including humans. We compete to dominate, we compete for survival. We compete for friends and mates. We compete for promotions in the work environment. And, of course, we compete on the playing surfaces in various athletic arenas.

You could say that competition is as much part of our life as life itself.

In ancient times, this need for competition led to friendly “combat” through sports. It became a generally safe way to release energy and satisfy our hunger to compete. But it wasn’t always so. During the rise of the great Central and South American Indian empires, these competitions had their consequences; losing sometimes meant loss of one’s life and a sacrifice to the gods. However, no mention of “friendly conflicts” was ever recorded until the rise of the Greek civilization. The advent of the Panhellenic Games (the most famous of these being the Olympic Games) was organized athletic as well as religious festivals. The events led to the production of coaches and trainers to aid athletes in achieving their optimal levels of success.

It was during this time in Athens the first professional athletes were born. The early athletic trainers, known as *gymnastes*, were men who had a base knowledge of diet, anatomy, and physiology to help keep these athletes in good condition. As this “art of sports medicine” developed, many of the athletic trainers and coaches of that time period were also physicians.

Perhaps the greatest of all the Greek trainers, Herodicus, was a physician as well. Living in the 5th century B.C., his claim to fame was that he was the teacher of Hippocrates of Cos, the “father of modern medicine.” Herodicus is given credit for being the “father of sports medicine” and the first physician to recommend exercise for the treatment of disease. Applying this concept, Asclepiades, a physician during the time of Christ, used massage and exercise for treatment of different ailments as well.

In ancient Rome during the 2nd century A.D., Galen served as court physician for Marcus Aurelius and later as the “team physician” at the gladiatorial school at Pergamum. He wrote numerous transcripts regarding the relationship between athletic performance and proper diet, rest, and abstinence from alcohol and sex. He noted how exercise led to improved physical conditioning. He was one of the first physician-philosophers and had a keen interest in the psychological make-up of certain individuals and their particular sport.

After the fall of the Roman Empire, interest in sports became nearly non-existent. It wasn't until the late 19th century with the establishment of both intercollegiate and interscholastic athletes in the United States that sports activities regained their popularity. With this renewed interest, the first modern day athletic trainers were born. Most had a crude knowledge of anatomy and physiology; their general purpose was to give massages, apply topical healing ointments, and instruct the athlete on some home remedies.

However, as the importance of sports progressed, athletic trainers evolved into a major influence in athletes' lives. Following WWI, the appearance of the athletic trainer became commonplace in intercollegiate athletics. One of the biggest influences in developing the athletic trainer into a capable and most importantly, credible, specialist in the sports medicine community resulted from the work of Dr. S.E. Bilik, a physician who in 1917 wrote the first major text on athletic training and the care of athletic injuries.

Today, the athletic trainer is a well-qualified individual with the expertise in the prevention and treatment of athletic injuries. He/she is a college graduate and certified in the field of athletic training by the National Athletic Trainers' Association. They are on the front lines of sports medicine. These individuals are a vital piece in the team approach to taking care of athletes and their injuries.

The sports medicine physician has evolved in much the same manner as the athletic trainer. Most equate this individual as the “team doc” for the local high school, college, club, or professional team. Historically, and certainly most recently, these team physicians are generally orthopaedic surgeons with either fellowship training or a special,

personal interest in sports medicine. Though it is not a prerequisite to be an orthopaedic surgeon, these specialists have gravitated towards the treatment of athletes in a very natural way based on their training: orthopaedic surgeons diagnose and treat (many times surgically) musculoskeletal ailments which make up the majority of athletic injuries.

Today's society demands more specialization both in and out of the sports arena. In the past, a general practitioner was considered qualified to hold the helm as the team physician. As time progressed, the demand for specialization of our team docs grew. In fact, after completing a grueling 5-year internship/residency training program, many orthopaedic surgeons choose to sub-specialize in one of the several different areas of orthopaedics by completing an additional "fellowship" year. One of those subspecialty areas is sports medicine. This is a concentrated, intense year of taking care of sports medicine injuries, both surgical and non-surgical, traveling with their respective teams, supplying sideline coverage for games, and learning how to communicate with not only the athlete, but also the parents, coaches, and -of course- the athletic trainer. Once this year of fellowship is completed, the fellowship-trained orthopaedist may choose to sit for the sports medicine specialty exam and if successfully passed, he/she will have obtained a certificate of advanced qualification in orthopaedic sports medicine. (It is estimated that currently only about 2000 orthopaedic surgeons in the world hold this distinction.)

White Rock Lake and its surrounding area is a haven for athletes. We shouldn't take it for granted. It is a beautiful and special place to train for your sport or just exercise in general, such as going for a nice leisurely walk or jog, bike ride, or roller blading it. Whether you're a weekend warrior or part of a local organized team, injuries can occur. When they do, it's important to get treated correctly by the proper health professional: one that has the expertise to get you back safely and quickly to the sport you love to compete at. For competition is truly the essence of life, right?

Go, get 'em!

Dr. Gemas is a board certified orthopaedic surgeon and founder of Lakewood Orthopaedics & Sports Medicine here in the White Rock Lake area. He is fellowship-trained in sports medicine and holds a CAQ in orthopaedic sports medicine. His colleague, Dr. Nilpesh Patel, is fellowship-trained in hand & elbow injuries. You can contact them at www.lakewoodorthoandsportsmed.com or (469)341-5676.

References:

Arnheim, DD. *Modern Principles of Athletic Training*, 6th ed., 1985.

Wikipedia.