

# Bowling - Stress - The Body

Suffering an injury can be a terrible and aggravating experience. Across the globe, bowlers much like you frequently sustain injuries ranging from muscle sprains and joint strains, to the more severe orthopedic and chronic pain problems. Though not all injuries are career ending or life threatening, all do require some form of appropriate (medical) attention guided toward the path of effective recovery.

It is very difficult to bowl, let alone bowl effectively, when injured or recovering from injury. I'm sure many of you have tried, and for some reason, a nagging injury always seems to crop its annoying head. The bowling fires that motivate my participation burn ferociously inside of me, and I know too well the temptation to bowl injured is nothing but a first class ticket to further aggravation.

Injuries interrupt training, cause de-conditioning, and can be downright discouraging ... and how long does it take to recover from a severe injury? Well, I can tell you firsthand. Last March I ruptured my right Achilles tendon. Eleven months later, I am finally starting to feel competitively confident in my game after a 6-month layoff and 5 months of serious training on the lanes and in the gym. It often takes athletes months of serious training to gain back what was lost. I experienced it, and am a testament of the benefits of training and nutrition.

The human body is designed to move in many fluid and meticulous manners. Knowledge of the machinelike nature of the body is necessary to understand the effects and stress of sport. Bowling, like all other sports, has very sport-specific stresses and stressors that impact the body. These forces such as impact and shearing forces are what cause the injuries we face, and are faced to deal with. Knowledge of the forces and stresses of our sport will undoubtedly provide you with a greater appreciation for the advances in sport science, and how you can advance your bowling career.

Stress from bowling can occur with unnatural or improper repetitive movements of the approach, arm swing, release, and follow-through. The muscles, tendons, ligaments, and other soft tissues often become weakened and damaged through all the unnecessary twisting, turning, and jerking of ones technique. To date, little has been done on injury identification and injury management for bowling, which is one of our areas of research and expertise. Ironically, the need for sport medicine is greater than ever before.

My goal has always been to teach bowling coaches the unique mannerisms of the human anatomy, so they will have a better understanding of biomechanics, and how to properly teach the physical game. It also is to train competitive bowlers in order for them to minimize their risk of injury, advance and lengthen their careers, and expand their physical capabilities to do more with a bowling ball.

## A Question of Stress

One of the first things I looked at in my initial research of injury and bowling, some 8-10 years ago, was the effect of continuous bowling on the body? Questions that were initially asked included:

1. Does throwing a 16-pound ball in one way, damage the body more than another?
2. What affect does increased practice and competition have on the body and its energy systems?
3. Will sport-specific training minimize the risk for injury?
4. Is it physically safe to ballistically twist and turn when throwing the ball to gain more revolutions?

These became some of the more valuable areas to investigate, and will apply as well next month as we discuss bowling's most prominent injury ... Bowler's Tendonitis. For now, start thinking along the lines that the body is subject to wear and tear from bowling. The more frequent we bowl, the more wear and tear we experience. The more you twist and turn your body, the more forces applied to its tissues.

The body is not oblivious to an occasional flat tire or a breakdown. Repeating a motion over and over again places many physical stresses on the joints including the bones, muscles, tendons, ligaments, cartilage, and other supporting tissues. Performing our sport as often as we do places tremendous stress on many of the joints, thereby requiring increased levels of physical fitness to support the activity. Without it, a breakdown is sure to occur.

Next month, let's dive into Bowlers' Tendonitis and learn more about our sport's most common injury.