

# Injury Report - Tendonitis

Suffering an injury can be both a tormenting and learning experience. As you probably know many professional athletes, not excluding bowlers, encounter injuries daily ranging from minor sprains and strains to more severe orthopedic problems. Not all injuries are career or life threatening and given proper and immediate attention an athlete can recover efficiently from an acute or chronic injury.

## Cumulative Trauma Disorders

The human body is designed to move in many fluid and meticulous manners, though it is subject to wear and tear. Repeating a motion over and over again can generate physical problems that worsen if the body is forced in an unnatural fashion. After extensive periods of unnatural repetitious movement muscles, tendons, and joints often become weakened and damaged. The Cumulative Trauma Self-Help Manual by MacLeod and Saunders refers to this as repetitious trauma or cumulative trauma disorder. That being the trauma or injury occurred from the cumulative movements.

There are several different types of cumulative trauma disorders including which tendonitis is probably the most prevalent. Tendonitis is irritation and swelling of the tendons derived from the repetitive movements.

**\*a TENDON is the attachment extending from the muscle to the bone.**

Tendonitis is a nagging ever-present injury that once developed never seems to go away. Tendonitis produces a dull ache or sometimes-sharp piercing pain that persists with most any movement of the specific joint. The type of pain is directly related to the severity of the injury.

Many bowlers experience tendonitis once or more during a career. Some more severe cases require greater amounts of treatment, therapy, and recovery time, proper attention of the injured individual implementing home remedies. Tendonitis can occur to any athlete, especially bowlers.

Chronic tendon irritation, commonly known as bowler's tendonitis, senior bowlers face frequently. It usually occurs near the medial epicondyle side of the elbow joint. Often, youth bowlers develop tendonitis remaining growth processes accompanying the cumulative stresses also at high risk of developing tendonitis primarily from the degenerative accompanying a decline in physical fitness level. Though youth are growth processes, seniors should pay closer attention to the physical prevention and reduction section of this article.

## Causes Of Cumulative Trauma Disorders

Several factors contribute to the risk of acquiring a cumulative trauma these factors does not necessarily cause the problem, but rather increases injury. Three specific factors that directly relate to bowler's tendonitis

1. **Poor Posture or Bowling Mechanics** - unnatural movement will increase the risk.
2. **High Repetition** - this is one bowlers cannot get away from.
3. **Poor Physical Condition** - weaker or stiffer muscles and joints tend to increase the risk.

## Prevention And Reduction

1. **Early Recognition** - quickly recognizing an injury exists will result in swifter action taken to ensure a productive recovery.
2. **Reduce and Eliminate** - minimizing the causes of cumulative trauma aids prevention and reduction of the risk of injury. This includes proper bowling technique and improved physical fitness via the exercise program. Senior bowlers can slow and hypothetically reverse the degenerative process through a properly designed and supervised exercise program.
3. **Obtain Adequate Medical Attention** - once an injury is suspected or determined, act fast.

## The Specifics Of The Elbow

The elbow consists of three bones, a humerus, radius, and ulna, all ranges in motion. It is classified as a hinge joint that allows only flexion sagittal plane. The muscle groups that stabilize the elbow are the forearm extensors. These muscles contract by shortening to pull causing movement to occur. The two specific movements of the elbow are:

1. **Flexion** - with arm fully straightened, flex the bicep muscle to
2. **Extension** - with the arm fully bent, flex the triceps muscle to the radioulnar joint is formed at the base of the ulna and radius essentially at the elbow joint. The radioulnar joint allows the forearm and under. The muscles found deep in the forearm and attaching these particular motions. These muscles are also important for stabilizing the elbow joint often developing tendonitis at the attachments. These muscles contract by shortening to pull the bones different directions causing movement to occur. The two specific movements of the radioulnar joint are:
3. **Pronation** - roll the forearm and hand over toward the center of the body (palm facing down).
4. **Supination** - roll the forearm and hand over away from the center of the body (palm facing up). Recovering from bowlers' tendonitis or proactively taking the initiative to strengthen the elbow and radioulnar joints are the focal for the following exercise prescription. Each exercise is designed to work a specific muscle of the elbow region. Adhering to the guidelines before beginning the routine is pertinent.

- Consult a doctor or physician before starting an exercise
- Perform each exercise two or three days a week allowing each session.
- Perform each exercise for one set of 10 - 12 repetitions.
- Do each exercise slowly and methodically throughout the
- Do each exercise counting four seconds during the positive the negative phase.
- Use minimal resistance beginning the routine and routinely irritating the tendons.
- If pain or discomfort continues for more than one or two days consult the doctor immediately.

## Specific Elbow Strengthening Exercises

1. **Elbow Flexion** - sit in a chair with resistance in hand and arms at the side of the body. Allow the thumbs to face forward so the palm of the hand is facing the hip or side of the body. Slowly flex the bicep muscle and curl the resistance upwardly allowing the thumb to lead the way. Do not allow the shoulder to move forward during the movement. Hold for a second at the top position then lower slowly. Before the elbow reaches the finish position, maintain the tension and begin the next repetition.
2. **Elbow Extension** - sit in a chair with resistance in hand. Raise arms overhead so elbows are fairly close to the ears. Start with arms fully straightened. Slowly lower the resistance by allowing the elbow joint to bend. The elbows should still be pointed upward while the resistance is lowered toward the base of the neck. Once the resistance reaches the base of the neck, flex the triceps muscle and extend the arm up to a near fully straightened position. Before the elbow reaches the finish position, maintain the tension and begin the next repetition.
3. **Pronation/Supination** - sit in a chair with resistance in hand and arms at the side of the body. Allow the thumbs to face forward so the palm of the hand is facing the hip or side of the body. Begin this exercise by slowly rotating the palm of the hand inward to the farthest point, then rotate outward to the farthest point. This is considered one repetition. Continue this inward outward rotation slowly and continuously for the remainder to the set.

Strengthening the elbow and radioulnar joints is crucial for tendonitis rehabilitation and prevention. Always start with minimal resistance to avoid re-injuring the tendons. Slowly perform each exercise faithfully on a set routine or schedule. Constantly fuel the body with the proper nutrition it so desires. Finally, if you have any questions or concerns about consult a physician or medical provider.