

Baseball Fit - *Preventive Exercises for a Winning Season*

As weather warms and winter sports wind down, attention turns to the promise of a new baseball season and the championships ahead.

Now is the time to begin preparing.

At the core of a successful team are strong players - *physically strong, well rested and well conditioned.*

Baseball is one of the few sports played almost daily throughout the entire season. For young players beginning in little league, this amounts to a lot of plays by high school. The frequency of repetitive stress injuries in youth baseball have increased over the years, particularly with the rise in special “elite” teams and extended seasons. This is most evident in young pitchers, on which much research has focused and for which Pitch Count guidelines have been developed.

Although baseball is not considered a contact sport, injuries can result from contact with the ball and other players, as well as poor form/technique, or an awkward movement during a play.

Some of the most common baseball injuries include:

- Injuries in the shoulder and elbow (Little Leaguer’s Shoulder, Little Leaguer’s Elbow)
- Knee injuries
- Muscle pulls
- Ligament injuries
- Fractures (Finger, Distal Radius/Wrist)
- Concussions

While some injuries resulting from collision with another player are getting hit by the ball cannot be avoided, exercise can aid in reducing risks or preventing many repetitive stress related injuries.

Repetitive injuries are the result of repetitive use, stress and trauma to the soft tissues of the body (muscles, tendons, bones and joints), which are not given adequate time for proper healing. They are sometimes called cumulative trauma, repetitive stress or overuse injuries.

To avoid such repetitive stress conditions and muscle fatigue, players should have a dedicated fitness program - ideally one that is also specific to the position they play. This should include overall strengthening and endurance, along with specific exercises to equally strengthen the muscles of the limb(s) most used. Such fitness programs should also include stretching and rest between play.

Exercise programs should also be age appropriate. Young, developing players are encouraged to build strength through resistance rather than weights. Involvement in other seasonal sports such as swimming and running can also provide excellent overall strengthening and endurance.

Strength and Conditioning Exercises - Upper Body

As a throwing sport, exercises for baseball concentrate heavily on the upper body - arms and shoulder. Core strength is also essential for pitching velocity, hitting power and running speed.

The key to any exercise program is the balanced/equal strengthening of muscle groups. For the upper body, this includes triceps/biceps, trapezius, rotator group, and deltoids.

Some Effective Arm, Shoulder and Core Exercises Include:

- **Resistance bands** - These can be effective in building arm and shoulder strength. ([View video](#) on how these bands are used in exercise programs.)
- **Push ups** - Traditional push ups are very effective in building upper body strength (arms, shoulders, back and core/abdominal muscles).
- **Pull ups** - Using your own body weight/strength these work on the biceps, upper shoulder and back, upper abdominals and obliques.
- **The Plank** - strengthens the core, lower back and oblique muscles. ([View video](#) demonstration of the Plank.)

Exercises to Improve Leg Strength

Lower body strength and conditioning is as important as upper body training for young athletes. Leg strength impacts throwing velocity, bat speed/force and running speed.

Squats, lunges and running are among the most effective ways to strengthen the lower body.

Stretching

Stretching is a very important part of an exercise program for athletes in any sport. During exercise and play muscles contract. When muscles contract, they produce tension at the point where the muscle is connected to the tendon. Stretching helps lengthen, relax and restore muscles to their natural state.

Stretching following activity is as important as stretching while warming up before practice and play.

Some easy, yet effective stretches include:

- **Elbow Pulls** - Raise the right arm as though asking a question and drop the forearm behind the head though leaving the elbow in the air. Pull the elbow to the left with the left arm until you feel the stretch, hold briefly then repeat several times. Do the same on the opposite side.
- **Cross Body Arm Pulls** - Straighten your right arm and pull it across the front of your body, cradling the forearm and elbow with the left hand, pull the arm towards the left across the body until you feel the stretch. Hold the stretch briefly, then repeat on the opposite side.
- **Shoulder Stretch** - Lay face down on a floor mat and stretch arms overhead to form a “Y,” with palms facing down on the floor. With forehead on the ground, retract shoulder blades while lifting arms off the ground (still outstretched). Hold for a couple of seconds while squeezing the shoulder blades together. Be careful not to “shrug” the shoulders up. Return to

starting position and perform several sets of 10 repetitions. To work the back a little differently, perform this same exercise with the arms straight out to your sides, forming the shape of a “T.”

- **Runner’s Lunge** - Position into a deep lunge on your right leg, drop the knee of your left leg and lean forward over the right quad until you feel the stretch, hold for several seconds. Repeat on opposite leg.
- **Hamstring Stretch** - Stand flat on the floor with feet a little less than hip width apart. Lean forward and place palm of your hands flat on the floor just in front of your feet, hold for several seconds.

Remember that resting is as important as any of the components in a training program.