

May 2007

Strike Out Young Pitchers' Arm Problems



During the height of his career, Hall of Fame pitcher Nolan Ryan could throw more than a hundred pitches in an average game and still be fresh for his next start just days later. His personal exercise regimen afforded him this level of athleticism. Should you expect the same type of performance from your Little Leaguer? The answer is clearly no. You need to watch for certain signals on the mound that tell you that enough might be enough for a young player.

While the muscle-cell elasticity of children is usually greater than that of adults, the general lack of muscle development in children doesn't allow for the extended fatigue that a full regulation game, including warm-ups, creates. Communication is key; when play is prolonged, check regularly with the pitcher to monitor any issues that may arise. But remember that children, just like adults, can allow pride to take precedence over pain or potential long-term muscle damage.

Stretching and temperature control can directly affect the number of pitches a pitcher throws. Pitchers will ice their arms to ensure that any swelling can be addressed immediately; when pitching in cool weather, the pitcher must keep his arm warm in a jacket between innings. Most parents cannot budget to hire medical staff to attend to their little Roger Clemens, but there are things you can do yourself to ensure that your child's physical well-being is protected.

- **Introduce a routine of pregame stretching** that includes the lower body as well as the upper body. Remember that just the time your children spend on their feet can take a toll on their bodies, in addition to the twisting their legs and lower trunk go through during each pitch.
- **Keep a cooler filled with ice** so that if an injury occurs, swelling and loss of function may be controlled.

Taking these precautions and measures in conjunction with a regular exercise schedule will help ensure that your child's experience in baseball or softball is a rewarding one as well as a physically enriching one.

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Total Knee Replacement: What to Expect



Total knee replacement is usually performed on patients whose arthritis causes pain that seriously interferes with normal daily activities such as walking. An orthopedic surgeon removes the knee joint and inserts a prosthetic device that replaces the end of the bones with metal and plastic, allowing relatively pain-free movement of the joint.

Several different techniques and types of replacement components are employed; no consensus currently exists among experts regarding which operative technique and prosthetic device are best. After the operation is performed under general anesthesia, most patients can expect a three- to five-day stay in the hospital while they are monitored for excessive pain, bleeding and infection. Serious complications, such as infection and loosening of

the prosthetic device, are unusual. A total knee replacement can last for up to 20 years, depending on the recipient's activity level.

After surgery, patients need to begin range-of-motion exercises almost immediately, under the supervision of a physical therapist or doctor. (Range of motion refers to moving the joint—passively or actively—through the full range of its capability.) These exercises help prevent scar tissue from forming, which would limit joint mobility. Patients also start exercises for strengthening the knee, and as soon as possible, are encouraged to walk. In the beginning, a walker or crutches is used for support; as recovery progresses, patients can switch to a cane and then finally to unassisted walking.

The recovery process may take anywhere from three months to one year. **Most patients recover functional range of motion**—they are able to walk and exercise (within limits). Long term, patients are urged not to engage in high-impact activities with weight bearing on the knee; thus, jumping and running are not recommended postoperatively. **A large majority of patients report a favorable view of the procedure.**

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Physio Balls: Not Just Another Fad



For many years, physio balls, also known as exercise or gym balls, have been a staple in almost every gym and physical therapy office. Although the physio ball may look like another fitness gimmick, it is not. The proper use of physio balls in sports training can provide significant improvements to balance and core stability.

Physio balls are inherently unstable and, therefore, add a complex dimension to exercise resulting in a more comprehensive workout. When used properly, physio balls can improve the body's stabilization and coordination systems while increasing torso strength, stability and body control, all of which can help prevent injuries or aid in the rehabilitation process.

The physio ball can also be used for stretching and mobilizing the spine and extremities. People suffering from low back pain and weakness, general back stiffness or poor posture can benefit from its use. Because of their easy portability, **physio balls can be used in any number of different settings**, including the home, office or gym. Simply replacing your office chair with a physio ball is an easy way to strengthen the postural muscles that support the spine while you work.

Active pelvic stabilization and shoulder and hip-girdle stabilization are among the most targeted results from physio ball training. Naturally, because activities that can be performed with a physio ball are almost unlimited, so too are the muscles that may be exercised. Successful use nearly always comes back to control of the torso and pelvic/hip muscles.

At first, physio ball exercises can be difficult because of the balance and muscle strength they require. Although the positions used to achieve results are varied, **the user must employ correct technique and follow a well-structured training routine**. Because exercises performed incorrectly can aggravate spinal pain, **a health professional should prescribe and monitor physio ball exercises**. We can help you develop an exercise plan utilizing physio balls that ensures you obtain the greatest benefit from them.

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Exercise: Working Out the Details



Why is it recommended that you work out three to five times a week? For decades, experts have known that **regular exercise helps to do more than just promote weight loss**. It alleviates stress, helps to lower cholesterol, promotes joint health and keeps your blood pressure low. In many ways, these benefits overshadow any weight loss you may achieve.

What sort of exercise is best? It can be as simple as walking for 30 minutes at a brisk pace. Many people can be turned off by the idea of prolonged exercise sessions and, as a result, lack any real fitness program in their day-to-day lives. But any physical rigorousness that you can complete in a given day can be interpreted as exercise. Imagine taking a half hour every other day and walking around your neighborhood or, during inclement weather, the mall; this is a viable exercise routine that virtually anyone can complete. Some other easy exercises include:

- **Light weightlifting using hand weights or reasonable household objects;**
- **Sit-ups;**
- **Push-ups; and**
- **Any imaginable activity that will raise your heart rate and keep it elevated for approximately 30 minutes.**

For those of you who are more ambitious, personal gyms offer a variety of classes. Typically meeting once or twice a week for about an hour, classes include martial arts, cardio routines and almost any amalgam of activities that elevate your heart rate. When you combine one of these classes with alternating cardio or weightlifting sessions, you create a well-rounded exercise regimen that promotes physical well-being. **Not only will you look better, you will feel better and be more energetic!**

Once you start a regular schedule of exercise, you will almost immediately begin to feel a difference. This will help motivate you to exercise on those days that you just don't feel like working out. Many of us lack motivation to exercise, but in time it will become part of your day-to-day life—something that you simply cannot live without. We can help you develop an exercise program that will match your physical abilities and fitness goals.

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Selecting the Proper Running Shoe



You might think that buying a pair of running shoes is more an issue of fashion than a serious decision that takes any technical consideration. Nothing could be further from the truth; in fact, **selecting the proper running shoe is pivotal to protecting your joints from injury.**

Shoe technology now incorporates different types of construction and materials to help prevent injuries and improve overall comfort. The different types of shoes are named according to their cushioning systems and what each provides the runner. Running shoes now come in three major categories: cushioned, stability and motion control, which ensure comfort, proper function for the foot and correct support.

For those with a neutral gait: A cushioned shoe has a soft midsole made from single-density ethylvinylacetate (a dense foam also known as EVA) and is very flexible. Recommended for use by males weighing less than 180 pounds and females weighing less than 150 pounds, the shoe has a cushioned midsole that allows for abundant shock absorption in the heel.

For those with a slight or moderate overpronation: Pronation is the inward and downward rotation of the medial bones in the middle portion of the foot; in running, the foot tends to collapse on its inside. For running, the stability shoe is best. These shoes contain double-density EVA and a roll bar made of polyurethane in the posterior aspect of the midsole. The stability shoe comes in semi-curved and semi-curved/straight shapes to accommodate the foot shape of overpronators.

For those who have severe overpronation: A motion control shoe gives the greatest stability. It is made with the same construction as the stability shoe, but is firmer. The motion control shoe also comes in straight or semi-curved/straight shapes because severe overpronators tend to have flat feet.

Research shows that the proper running shoe can alleviate pain associated with running and help correct biomechanical errors that may otherwise lead to injuries. Some suggestions when shopping for running shoes: buy shoes at the end of the day, walk in the shoes for several minutes to insure proper fit and comfort, and don't always use cost as a measure. Many mid-priced shoes are as good as the most expensive shoes. A physical therapist can assess your gait to assist with the selection of the correct running shoe, as well as develop an individualized running program just for you.