



active
living for
all ages

SPRING 2010

InMotion

Stay Motivated to Exercise

Are you having a hard time getting started or staying motivated to exercise? It is well known that regular exercise is recommended for maintaining your optimal health. There are several methods to get you started or to keep you exercising. The following tips may help:

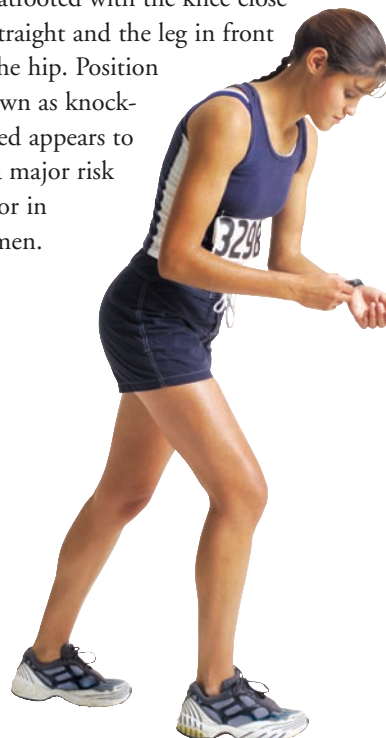
- Exercise with a friend or partner who is motivated as well. It is harder to skip a workout when someone else is involved.
- Try exercising first thing in the morning. This helps you get your day off to a good start and there generally are fewer potential conflicts at the beginning of the day.
- Get an exercise coach or trainer to help set up your routine and monitor your progress.
- Keep a log or record of your exercise that documents your efforts.
- Set a goal for exercising. This could be a certain body weight, waist size or number of days per week or month.
- Mix it up. There are so many healthy activities out there. It may make things more interesting if you try new things.
- Sign up for an exercise class or register for a local event or race that you can train for.
- Make exercise enjoyable by listening to music or a book on tape.
- Reward yourself for your efforts. This can be putting money in a jar each time you exercise or making a special purchase if you reach your goals.

Good luck and get exercising.

by Brian Wolf, MD

Common Knee Injury More Likely in Women

The anterior cruciate ligament (ACL) is one of the most commonly disrupted ligaments in the knee. Each year in the United States there are approximately 150,000 ACL injuries or 1 in 3,000 in the general population. Female athletes participating in basketball and soccer are 2 to 8 times more likely to suffer an ACL injury compared to their male counterparts. The knee injury is also associated with a large healthcare cost estimated at more than half a billion dollars annually. More than 70% of ACL injuries occur without contact. Noncontact injuries happen during landing or a sharp cutting maneuver. The dangerous landing position is flatfooted with the knee close to straight and the leg in front of the hip. Position known as knock-kneed appears to be a major risk factor in women.



An additional risk factor for women appears to be estrogen, which may cause ligament loosening.

The goal of ACL prevention programs is to reverse the dangerous straight leg position creating bending at the joints so the muscles can absorb the landing forces. Emphasis is placed on teaching landing on the balls of the feet with the knees bent and the chest over the knees. Feedback on proper knee positioning to prevent inward buckling is also critical to the success of the program. Balance training with the use of wobble or balance boards can also be helpful in reducing injuries. Prevention drills can be incorporated into the warm-up portion of practice sessions. An example in soccer is a drill where athletes jump over a soccer ball and are trained to land on the balls of their feet with the knees bent and the chest over the knees.

If you'd like more information on ACL injuries, please send an e-mail to inmotion@aossm.org and put ACL injuries in the subject line.

By Barry Boden, MD

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Monitoring Baseball Pitching Counts Prevents Overuse Injury

Baseball pitchers have an increased risk of injuries to the shoulder and elbow. Throughout the past decade, studies have reported an increased rate of shoulder and elbow injuries and surgeries among adolescent pitchers. There are likely many factors that have contributed to this “epidemic,” including poor pitching form, premature use of curveballs, and overuse. Of these, overuse appears to be the most important. Recent reports have shown that injured pitchers pitched significantly more innings, threw significantly more pitches, and pitched more months throughout the year compared to pitchers who were not injured. In an attempt to lower injury rates, several of baseball’s governing bodies have issued rules to limit the number of pitches thrown by young pitchers per week. The guidelines established by USA Baseball and Little League Baseball are outlined below.

In addition to watching pitching counts, all pitchers should refrain from throwing competitively at least four



months out of the year and limit the number of showcases they attend. Pitchers should also be wary of throwing that is not considered in pitch counts. Therefore, pitchers should limit excessive warm-ups and avoid playing catcher due to the number of throws required during a game.

Shoulder and elbow soreness is an important indicator of injury and/or impending injury and should be taken seriously. If a young pitcher experiences any shoulder or elbow soreness and/or requires ice and/or anti-inflammatory medications such as ibuprofen or aspirin

for comfort, he/she should avoid pitching until the pain resolves. Any pitcher who continues to have soreness despite an adequate period of rest should consult a physician for further evaluation.

For more information on preventing youth sports injuries and what you can do to be an advocate for sports safety with your child, please visit www.STOPSportsInjuries.org.

by Robert Gallo, MD

PITCH COUNTS FOR YOUTH BASEBALL		
AGE (YRS)	2006 USA BASEBALL GUIDELINES	2008 LITTLE LEAGUE BASEBALL REGULATIONS
DAILY LIMITS		
17-18	n/a	105/day
15-16	n/a	95/day
13-14	75/game	85/day
11-12	75/game	75/day
9-10	50/game	50/day
7-8	n/a	
WEEKLY LIMITS		
17-18	n/a	26-50 pitches → 1 day rest 51-75 pitches → 2 days rest 76-105 pitches → 3 days rest
15-16	n/a	21-40 pitches → 1 day rest 41-60 pitches → 2 days rest > 60 pitches → 3 days rest

Stress Fractures Caused by Over Training

A stress fracture occurs when a bone cannot respond adequately to the forces placed upon it. Normally, bones are constantly rebuilding themselves, reacting to the stresses placed on them, and producing new bone in areas of bone that have broken down. If this process becomes unbalanced, micro cracks, or “stress fractures,” can develop. A stress fracture causes a weak spot in the bone which may develop into a complete fracture.

The most common cause of stress fractures is overtraining. Stress fractures usually occur in athletes or military recruits. Training errors such as sudden increases in training intensity or duration can lead to stress fractures. Other changes in training regimens can also lead to stress fractures, including changes in shoe wear, running or training surface, and workout routines.

The main symptom of a stress fracture is pain. Typically, pain due to stress fractures gets worse with activity and is relieved by rest. There usually is a history of a recent increase in training intensity or duration. Sometimes there can also be direct tenderness on the bone. For deeper bones, pain can be elicited indirectly, such as with movement of the bone or use of the bone.

Because of the risk that a stress fracture may progress to a complete fracture, it is important to make an accurate diagnosis. It is recommended that an athlete consult a physician if there is pain with activity that does not improve with three to seven days of rest. After taking a history and performing a physical examination, the doctor will usually order an x-ray of the affected body part. Unfortunately, many stress fractures do not show up clearly on regular x-rays, and it is sometimes necessary to get further tests, such as a bone scan or an MRI.



For most stress fractures, the treatment is simply rest from activities that cause pain. In lower extremity stress fractures, cross-training with lower impact exercises such as swimming, biking, and elliptical trainer is allowed. In some cases, reducing the mileage or training on a softer surface is all that is needed. It is also important to maximize the body’s overall ability to produce healthy bone. This means proper rest, sleep, and an adequate diet which includes appropriate amounts of protein, calcium, vitamin D, and calories.

Hormonal issues are especially important in females. Overtraining and inadequate caloric intake can result in menstrual irregularities such as lack of periods. These hormonal imbalances result in a predisposition to stress fractures and difficulty in healing already established stress fractures.

In summary, it is important that stress fractures are properly recognized and treated. Ideally, it would be best to prevent stress fractures from developing in the first place. Proper nutrition and gradual and intelligent progression of physical activities are the most important factors for preventing stress fractures. One guideline is the “rule of tens”, which means that the intensity or duration of any physical activity should increase by no more than 10 % per week.

For a free tip sheet on stress fractures, send an email to inmotion@aossm.org and put **Stress Fractures** in the subject line. For more information on prevention and trauma injuries in kids, please visit www.STOPSportsInjuries.org

By Kenneth Fine, MD.



DESIO SPORTS MEDICINE
Stephen M. Desio, M.D.



About AOSSM and *In Motion*

As a world leader in sports medicine education, the American Orthopaedic Society for Sports Medicine (AOSSM) is pleased to provide you with this complimentary copy of *In Motion: Active Living for All Ages*. We have designed the publication to highlight relevant information for multiple age groups from exercise and rehabilitation to nutrition and psychology.

This important educational tool is published quarterly and can be purchased in bulk for a nominal fee for distribution in waiting rooms and other public areas. **If you purchase 50 or more copies of any three issues (Spring, Summer, Fall, Winter) you'll get the fourth set of issues free!**

In Motion is now also available electronically! AOSSM members can add their practice name and logo to an electronic version of *In Motion*. Personalizing *In Motion* is an easy way to get pertinent, patient-friendly sports medicine information to your patients with just a click of a mouse. For more information, please e-mail Lisa Weisenberger at lisa@aossm.org or contact the Society at 847/292-4900.

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STOP Sports Injuries Campaign Hopes to Increase Awareness



AOSSM and its' partners are embarking on a new youth sports safety initiative to better educate parents, coaches and athletes about the importance of sports safety – especially as it relates to overuse and trauma injuries. Those organizations who have agreed to take part in the national campaign include the American Academy of Orthopaedic Surgeons, National Athletic Trainers' Association, American Academy of Pediatrics, American Medical Society for Sports Medicine, National Strength and Conditioning Association and SAFE Kids USA.

Here's a list of a few simple ways you can get involved and prevent sports injuries in kids:

- Link your organization's Web site to www.STOPSportsInjuries.org
- Become a fan of STOP Sports Injuries on Facebook
- Take the Pledge to prevent youth sports injuries
- Follow us on Twitter
- Read and provide the educational materials to healthcare providers, parents, coaches and athletes in your area
- Give a presentation to a local community coach or parent group
- Establish an event to talk about youth sports safety and why it's important
- Write a letter to the editor of your local paper

To learn about the campaign and all it entails visit www.STOPSportsInjuries.org.

All of the information on the website is free and easily downloadable. Twenty-two tip sheets, two versions of posters, prescription pads, stickers, and tattoos are available with more resources and materials being regularly developed.

By Lisa Weisenberger