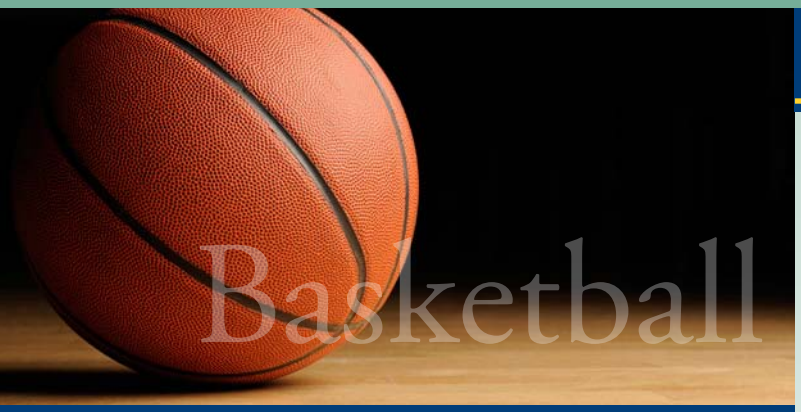


Strength Maintenance Program *continued*

IMPORTANT NOTICE

Not all exercises are suitable for everyone. Consult your physician before beginning this or any other exercise program. Also, always warm up for several minutes before beginning any workout and **NEVER** exercise beyond the level at which you feel comfortable. If at any time you feel you are exercising beyond your current fitness abilities, or feel discomfort, discontinue exercise immediately and reconsider your participation in this program.

The in-season basketball maintenance program provided in this newsletter should not be attempted by anyone who does not meet minimum fitness requirements, or who has a history of hip, knee, ankle, shoulder, elbow, wrist or spinal (neck or back) problems. **THIS WARNING IS NOT TO BE DISCOUNTED.** There are many other fitness alternatives if you have weaknesses or are prone to injuries. The user assumes all risks of injury in the use of this program.

Plyometric Training for Athletes

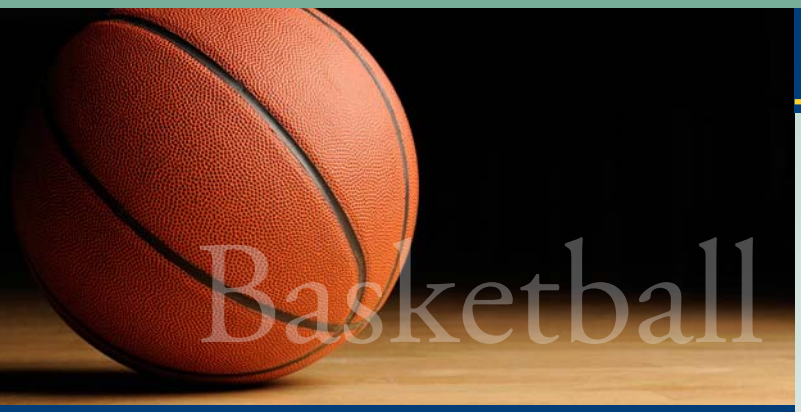
The in-season basketball strength maintenance program detailed in this issue includes plyometric exercises. The term plyometrics is frequently misused, misunderstood and sometimes even feared by athletes, coaches and parents. Plyometrics however, when used properly with other types of training, can be an excellent way to improve athletic performance and prevent injury. Plyometrics is a training method for developing explosive power. Explosive power is demonstrated in athletic activities such as a basketball when a player jumps for a rebound, in tennis when a player serves, or in track when a sprinter comes out of the starting blocks. Because so many sports call for explosive power, it makes sense to include plyometric training techniques for most competitive athletes.

To appreciate the benefits of plyometric training, it is helpful to understand how muscles work. There are two types of muscle contraction—concentric (positive) and eccentric (negative). During a concentric muscle contraction, such as curling a dumbbell (biceps) or standing from a squat position (quadriceps, gluteus maximus), the muscle fibers shorten. During an eccentric muscle contraction, such as lowering the dumbbell curl (biceps) or squatting (quadriceps, gluteus maximus), the muscle fibers lengthen. Plyometric training incorporates eccentric (negative) muscle extension followed immediately by explosive concentric (positive) muscle contraction. For example, jumping back on a box immediately after jumping off is an excellent plyometric exercise that can help increase an athlete's vertical leap for sports like volleyball and basketball. By including plyometric exercises like the box jump helps train muscles to better perform the explosive movements required during athletic competition.

Performing plyometric exercises, or any explosive athletic activity, carry some injury risk. However, if performed correctly with proper warm up and technique, plyometrics may actually help prevent injury during competition. Recent research shows plyometric training can be performed safely by children as young as age 12—if done properly. Injuries most frequently occur from trying to utilize a "one size fits all" plyometric program for a group of athletes.

Keys to a safe plyometric program

1. Assess each athlete's ability to perform plyometric drills.
2. Use a logical progression from easy to more difficult activities based on each athlete's performance.



Plyometric Training for Athletes *continued*

3. Ensure each activity is performed using proper technique.
4. Warm-up properly before starting a plyometric program.

There are references available to assist with the development of a plyometric program. These include books such as ***High Powered Plyometrics*** by James C. Radcliffe and Robert C. Farentinos; ***Essentials of Strength Training and Conditioning*** edited by Thomas R. Baechle and videos such as ***Jump! Jump! Jump!*** by Vern Gambetta and Steve Odgers. Also, you can consult with Dr. Steven Chudik, orthopaedic surgeon and sports medicine physician at the Steven Chudik Shoulder and Knee Injury Clinic and founder of the Sports Medicine Teaching/Research Foundation as well as his staff. To contact Dr. Chudik or his staff you can email them at stevenchudikmd@gmail.com.

New MRI Speeds Diagnosis, Treatment

During the past ten years, Dr. Steven C. Chudik, an orthopaedic surgeon specializing in shoulder and knee injuries, has successfully treated thousands of injured athletes of every age. For those in need of Dr. Chudik's orthopaedic expertise, diagnosis and treatment are now quicker with the arrival of a Siemens high field, open-bore magnetic resonance imaging (MRI) machine at his Westmont office location.

"The key to returning a patient back to their active lifestyle is a prompt and accurate diagnosis so they can begin the correct treatment pathway right away," explained Dr. Chudik. "The availability of an onsite MRI with advanced imaging capability allows us to do this faster."

According to Dr. Chudik, the Clinic has a therapy center and an X-ray suite to help facilitate patient care, but the addition of the MRI allows him to more accurately see soft-tissue, ligament and cartilage injuries and make an immediate diagnosis. This permits Dr. Chudik to begin treatment immediately rather than delaying his diagnosis and initiation of treatment for days or weeks waiting for results to be sent from a hospital or other MRI center.

"The addition of the MRI also is a tremendous advantage for the athletes I see in my Clinic," said Dr. Chudik. "The Clinic has been addressing the needs of injured athletes on Monday evenings from 6 p.m. to 8 p.m. for the past ten years and was established to ensure prompt diagnosis and treatment by an orthopaedic surgeon board-certified in orthopaedic sports medicine," he explained.

The new MRI has a 70 cm opening, the largest of any design, which makes it less tunnel-like. It also has the shortest bore length so most patients can have their heads outside the machine during the imaging process.

"We are pleased to provide this advanced diagnostic service as part of our full-service, sub-specialty orthopaedic practice and understand the peace of mind it can bring to patients, parents, athletic trainers and coaches knowing we offer complete, efficient and excellent care to expedite an athlete's safe return to their sport," Dr. Chudik said.