



## Incorporating an in-season football strength maintenance program

During football season, it is easy for players to lose the strength and power they spent all off season developing. To help prevent that from occurring, Dr. Steven Chudik, orthopaedic surgeon and sports medicine physician and founder of the Orthopaedic Surgery and Sports Medicine Teaching/Research Foundation (OTRF), recommends incorporating an in-season sport-specific, goal-oriented, maintenance exercise program into the weekly practice schedule. Research shows just 30 minutes of exercise two days a week can help keep players strong all season long.

Peak football performance needs strength and explosive power. Therefore, an in-season training program should include only structural or multiple joint exercises that target major muscle groups like the bench press, squat and power cleans. These in-season exercises should focus on the concentric phase (raising the weight and shortening the muscle) and avoid single joint exercises like hamstring and bicep curls and

flys. They are associated with the eccentric phase (lowering the weight and lengthening the muscle) that can increase the risk of a significant strain or injury during explosive acceleration/deceleration football maneuvers. Core exercises like “side planks” also will help performance and injury prevention.

### Precautions

With any exercise program, it is very important to make sure players maintain good form throughout the repetitions. This maximizes the benefits of the exercise and avoids injury. Other precautions to observe when lifting weights are to do the “high pull” and “power shrug” separately (normally components of the full power clean maneuver) and from a hang position rather than a



complete power clean or front squats instead of back squats. Partial clean maneuvers are less complicated and easier to maintain good form. Front squats are less taxing on the low back.

Below is a recommended in-season workout program. It is a two day program based on a Friday night game schedule. Ideally, the first workout is the Monday after the Friday game. This allows two days of rest. The second workout should be no later than Wednesday to allow at least one day of rest before the game and a day of rest from your Monday workout.

Before starting the program, spend at least five minutes warming-up by doing easy exercises such as push-ups, body weight squats and pull-downs with light weights. All weightlifting exercises should be performed at 85% of one repetition maximum (1 RM).

### Monday Workout

Exercise	Sets	Reps	Rest Between Sets
High Pull from Hang	4	3	3 minutes
Front Squat	4	5	2 minutes
Dumbbell Shoulder Press	4	5	2 minutes
Plank Arm and Leg Raise	3	12	30 seconds

### Wednesday Workout

Exercise	Sets	Reps	Rest between sets
Power Shrug from Hang	4	3	3 minutes
Bench Press	4	5	2 minutes
Bent-Over Barbell Row	4	5	2 minutes
Side Plank with Horizontal Fly	3	12	30 seconds

### 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 football maintenance program provided in this publication 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.

# High Pull from Hang

Sets	Reps	Rest Time
4	3	3 minutes



1. Stand with your feet shoulder-width apart. Grab the bar in an overhand grip with your hands positioned just outside your knees.
2. With your back flat, raise the bar to just below your knees. Your shoulders should be over the bar with your arms straight and elbows facing out. Your weight should be in the heels with your knees slightly bent and hips pushed back.
3. Straighten your hips, knees and ankles while bringing the bar up in an explosive, vertical pull.
4. Shrug your shoulders to bring the bar up to your chest.



# Front Squat

Sets	Reps	Rest Time
4	3	3 minutes



1. Stand with your feet shoulder-width apart and your toes turned out slightly.
2. Using an underhand grip, grab the bar and unrack the weight bringing the bar to rest across your shoulders.
3. Keeping your back straight and head up, push your hips backward as you bend your knees to squat. Stop when your thighs are, or nearly are, parallel to the floor—but no further—with the bar at shoulder-height.
4. Stand up driving through the heels and exhaling as you come out of the squat.
5. Bend your knees and return the bar to the rack. Repeat.



# Dumbbell Shoulder Press

Sets	Reps	Rest Time
4	5	2 minutes



1. Position the bench so the back of it is vertical, or sit on the bench as close to vertical as possible.
  2. Grasp the dumbbells. With your palms facing in, bend your elbows and raise the weights to shoulder height.
  3. With your back straight ( $90^\circ$  to your hips) or resting against the bench back, straighten your elbows pressing the weights upwards and over your head.
  4. Turn your hands so they face forward. Lower your arms and repeat.
- Note: *For a variation, you also can perform this exercise while standing.*

# Plank Arm and Leg Raise

Sets	Reps	Rest Time
3	12	30 seconds

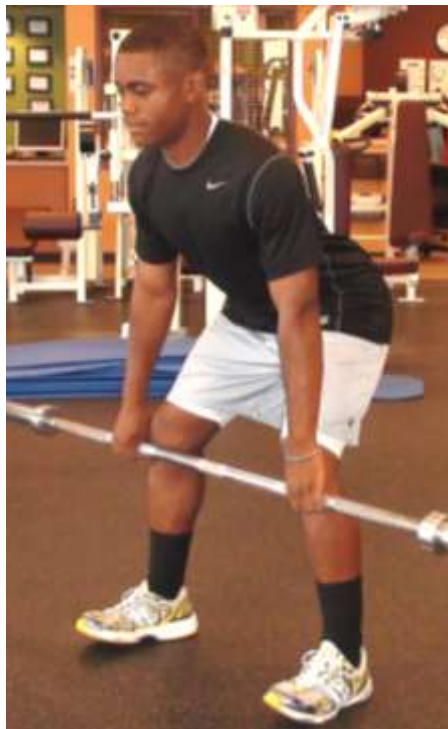


1. Assume the plank position as shown, resting on your toes and bent arms with your elbows directly under your shoulders.
2. While maintaining the plank position, raise your right arm and left leg at the same time. For a variation, keep your arm and leg raised for 5 seconds before switching.
3. Return to the starting position and repeat the exercise with your left arm and right leg. This completes one repetition.
4. Maintain a neutral spine and tucked chin throughout the entire exercise.
5. Repeat the exercises to complete the sets and repetitions listed above.



# Power Shrug from Hang

Sets	Reps	Rest Time
4	3	3 minutes



1. Stand with your feet shoulder-width apart. Grab the bar in an overhand grip with your hands positioned just outside your knees.
2. With your back flat, raise the bar to just below your knees. Your shoulders should be over the bar with your arms straight and elbows facing out. Your weight should be in the heels with your knees slightly bent and hips pushed back.
3. Straighten your hips, knees and ankles in an explosive vertical pull, keeping your arms straight.
4. Shrug your shoulders transferring your weight to the balls of your feet.



# Bench Press

Sets	Reps	Rest Time
4	5	2 minutes



1. With both feet on the floor, lie on your back with your head, shoulders and hips touching the bench.
2. Bend your arms at your elbows so they are at 90° to your shoulders.
3. Place your hands on the bar directly above your elbows.
4. Lift bar off the rack and lower it until your elbows are even with shoulders.  
*Note: The bar may touch chest only if elbows are even with shoulders.*
5. Push the bar up evenly with both arms until they are straight. Hold for five seconds, then lower and repeat.





# Bent-Over Barbell Row

Sets	Reps	Rest Time
4	5	2 minutes



1. Stand with your feet shoulder-width apart.
2. Grab the bar with an underhand grip placing your hands just outside your knees.
3. With a flat back, raise the bar and hold it at your knees. Keep your hips, back and chest out.
4. As you raise the bar to your stomach, bring your shoulder blades together.
5. Lower the bar and repeat.



# Side Plank with Horizontal Fly

Sets	Reps	Rest Time
3	12	30 seconds



1. Lie on your side with one elbow directly under your shoulder and your feet stacked on top of one another.
2. With your top/free arm, reach up into the air and lift your hips up off the floor keeping your body in a straight line from the shoulders to ankles.
3. While your hips are off the floor, reach in front of your body with your top/free arm. As your arm comes in front, do not let your hips roll backwards or your shoulders roll forward.
4. Lower yourself and repeat.
5. For a more advance exercise, use a small hand weight between 5-10 lbs.



## Sports Medicine, Injury Prevention Expertise Provided by Team Chudik

The goal of Dr. Steven Chudik and his health performance team, Larana Stropus and Keith Tesch, is to provide you and your athletes with reliable and proven training information to help athletes compete and perform at their highest level and ability.

The *In-Season Football Strength Maintenance Program* is based upon research that found athletes need to incorporate specific exercises into their weekly training schedules to not only maintain their strength, but more important, help minimize their injuries. To maximize the benefits of this program, it is important for players to follow the recommended number of sets and repetitions while maintaining proper form at all times. Failure to do so could result in an injury.



Steven C. Chudik, MD

Board-certified physician in orthopaedics and sports medicine with the Steven Chudik MD Shoulder and Knee Injury Clinic, Dr. Chudik is a pioneer in arthroscopic shoulder and knee surgery. He is the founder and president of the Orthopaedic Sports Medicine Teaching and Research Foundation (OTRF), a clinical assistant professor at Loyola University Medical Center and a research associate at Argonne National Laboratories.



Keith Tesch, CSCS, CNT

For more than 14 years, Keith has been a personal trainer in the fitness industry. He provides post-therapy training in a physical therapy setting helping individuals and athletes gain strength, lose weight and improve their lifestyles through healthy habit changes. Keith focuses on achieving results through research-based programs and techniques. He is the fitness director at Body Solutions in Naperville and Bolingbrook, Ill.



Larana Stropus, MS, ATC/L

A certified and licensed athletic trainer, Larana holds a B.S. in Kinesiology and M.S. in Exercise Science. She has more than 11 years of experience in athletic training, personal training and teaching. She also served as the athletic trainer for the Olympic Development Women's Soccer program and helped develop exercise prescriptions and training programs for elite athletes including the Chicago Blackhawks.

## Sports Injury Medicine Clinic

As further assistance to coaches, athletic trainers, players and parents, Dr. Chudik has a Monday evening Sports Medicine Injury Clinic in his Westmont office. During this time, athletes can be seen and treated by Dr. Chudik, a board-certified orthopaedic surgeon, sports medicine physician and *US News & World Report* Top Doctor in Orthopaedics. An added benefit to athletes seen in the Clinic is the availability of an X-ray suite and an open-bore, high-field magnetic resonance imaging (MRI) machine. This onsite diagnostic capability eliminates the need of added appointments and delayed diagnosis and treatment. To schedule an appointment with Dr. Chudik call 630-920-2350.

## About OTRF

Dr. Steven Chudik, orthopaedic surgeon and sports medicine physician with the Steven Chudik Shoulder & Knee Injury Clinic, Westmont, Ill., founded the Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation (OTRF) in 2007. OTRF is a nonprofit, 501(c)(3) organization dedicated to funding research and education for the purpose of keeping people active and healthy. In an effort to prevent injury and remain active—especially for young athletes—Dr. Chudik saw a growing demand from patients, clinicians and other healthcare professionals for up-to-date medical information and unbiased research on injury prevention, arthritis and wear and tear on the musculoskeletal systems—joints, cartilage, tendons, ligaments, etc. In response to these requests, OTRF produces and distributes a monthly newsletter, shares information about health performance-related issues such as nutrition and fitness, hosts athletic training educational programs and conducts seminars for healthcare providers and the community. The Foundation also funds unbiased orthopaedic research and technologies in emerging areas such as arthroscopic and minimally invasive surgery for shoulder and knee sports injuries. For additional information or to learn about charitable donation opportunities, contact Dr. Chudik at 630-794-8668.

*Fall 2014*

### Incorporating an In-Season Strength Maintenance Program

Keith Tesch  
Editor & Athletic Consultant

Larana Stropus  
Editor & Athletic Consultant

Steven Chudik, MD  
Publisher

Emanuel Morris  
Athletic Model

Free sport-specific conditioning programs available  
Email us to receive our other sports conditioning programs. Please specify the programs you wish to receive:

- ACL 5
- Baseball
- Basketball
- Lacrosse
- Soccer
- Youth Fitness



Sign up for our *Active Bones* e-newsletter and receive all future conditioning program releases. Our email address is:  
[stevenchudikmd@hoasc.com/](mailto:stevenchudikmd@hoasc.com/).

© 2014 Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation (OTRF). All rights reserved. For reprints or copy permission, contact Dr. Steven Chudik at [stevenchudikmd@hoasc.com/](mailto:stevenchudikmd@hoasc.com/).



ORTHOPAEDIC SURGERY AND SPORTS MEDICINE  
TEACHING AND RESEARCH FOUNDATION