Known as America’s pastime, baseball remains a popular sport for all ages. Nearly six million adolescents age seven to 17 participate in the United States alone. Thousands more play collegiate and professional baseball. Not usually considered an injury-prone sport, baseball players see their share of injuries that can be classified into two types—traumatic and overuse. Traumatic injuries usually occur from a sudden force or impact such as a concussion or fracture. Overuse injuries occur over time and often start as a small, nagging ache or pain, but can become serious.

Pitchers are at the greatest risk for sustaining a throwing injury to the arm. The extreme forces and torques seen in the shoulder and elbow during the act of throwing can lead to significant injury without proper conditioning during the off-season. Unfortunately, the gains made in the off-season quickly dissipate once the season starts unless an in-season program is continued.

To continue the benefits, maintain performance and minimize the risk for injury, Dr. Steven Chudik, orthopaedic surgeon, sports medicine physician and founder of the Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation (OTRF), along with Larana Stropus, MS, ATC/L, and Keith Tesch, CSCS, CNT, developed an efficient and effective in-season stretching and conditioning program based on research and their years of experience treating athletes. The program contains specific exercises for the shoulder and elbow to increase the strength and endurance of the dynamic (muscular) stabilizers and protect the passive restraints (bone, ligaments, and joint capsule) from the high forces seen during throwing. The OTRF program also contains core, flexibility and power exercises needed to prevent injury and maintain performance.

It is important to remember that conditioning programs alone are unable to reproduce the extreme forces and torques seen at the shoulder and elbow during the act of throwing. Therefore, any player that throws also must throw to train in the preseason, maintain in the off- and in-season, and return to play after an injury. Data-based Interval Throwing Programs (ITP) are an integral part of progressive training or graded return of a thrower to the game.

An ITP is based on throwing at incremental distances to build throwers’ arm strength and endurance gradually. Typically, these age-specific programs begin with a short toss (as in playing catch) and progress in intensity and the number of throws incorporating pitching statistics, field dimensions, performance restrictions, throwing research and an understanding of how various injuries heal. This allows the thrower to develop strength and endurance, as well as gradually increase pitch speed in a safe manner. The ITP should be completed prior to the season, before returning to throwing following time off, or after rehabilitating an injury. The OTRF In-Season Stretching and Conditioning Program is designed to work in conjunction with any ITP you choose to use. If you do not presently incorporate an ITP in your throwers’ conditioning, Dr. Chudik created three ITP programs he provides to players recovering from an injury—Little Leaguers’ (age 9-12), adolescent players (age 13-14) and high school, college and professional players. To receive a copy of an age-specific ITP program, email Dr. Chudik’s at stevenchudikmd@gmail.com. Please specify the age group of the program you wish to receive.
## Stretches

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest</td>
<td>30 Seconds</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
<tr>
<td>Tricep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoulder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeper Stretch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Squat</td>
<td>10 Repetitions Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foot to Hand</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Perform these stretches before the Day 1 & 2 exercises. Make sure to properly warm-up prior to stretching with a light jog or jumping jacks.

## Day 1 Exercises

### Warm-Ups

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>M Exercises</td>
<td>0-2 lbs.</td>
<td>1</td>
<td>10</td>
<td>None. Move to Next Exercise</td>
</tr>
<tr>
<td>T Exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W Exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I Exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y Exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Strength Exercises

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Shrug from Hang Clean</td>
<td>80% 1 Rep Max</td>
<td>3</td>
<td>3</td>
<td>3 Minutes</td>
</tr>
<tr>
<td>Cable Chop</td>
<td>Variable</td>
<td>2</td>
<td>6</td>
<td>1 Minute</td>
</tr>
<tr>
<td>Side Plank Row</td>
<td>Medium to Heavy</td>
<td>2</td>
<td>12</td>
<td>30 Seconds</td>
</tr>
<tr>
<td>Towel Pull-Ups</td>
<td>Body Weight to 110% of Body Weight</td>
<td>3</td>
<td>1 to 4</td>
<td>3 Minutes</td>
</tr>
<tr>
<td>Incline Plank Row</td>
<td>Variable</td>
<td>3</td>
<td>3</td>
<td>30 Seconds</td>
</tr>
</tbody>
</table>

*If you are unable to perform an exercise using proper form, then lower the weight to complete the repetitions safely.*

*Choose a weight to perform the exercise with proper form to complete 10 Reps Max*
## Day 2 Exercises

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagonal 1</td>
<td>Medium</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
<tr>
<td>Follow Through</td>
<td>Medium</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
<tr>
<td>2-Hand External Rotation</td>
<td>2-4 lbs.</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
<tr>
<td>1-Arm Overhead Bounce</td>
<td>2-4 lbs.</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
<tr>
<td>2-Hand Wall Bounce</td>
<td>8-10 lbs.</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

### Strength Exercises

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Pull from Hang Clean</td>
<td>80% of 1 Rep Max</td>
<td>3</td>
<td>3</td>
<td>3 Minutes</td>
</tr>
<tr>
<td>1-Arm Push Press</td>
<td>30% of 3 Reps Max on Bench</td>
<td>3</td>
<td>3</td>
<td>90 Seconds Between Arms</td>
</tr>
<tr>
<td>Side Plank Wave</td>
<td>5-10 lbs.</td>
<td>2</td>
<td>12</td>
<td>30 Seconds</td>
</tr>
<tr>
<td>Plank 1-Arm Lift</td>
<td>Body Weight</td>
<td>2</td>
<td>30 Seconds</td>
<td>30 Seconds</td>
</tr>
</tbody>
</table>

⚠️ If you are unable to perform an exercise using proper form, then lower the weight to complete the repetitions safely.

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**IMPORTANT**

Two workouts (Day 1 & Day 2) should be performed per week—not consecutively. Always allow 24 hours of rest prior to the day of pitching.
Stretch
Chest
(2 Days per Week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest</td>
<td>30 Seconds</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Stand in a doorway or squat rack.
2. Place both hands on the sides and slide them up until a stretch is felt.
3. To intensify the stretch, take a step forward while keeping your hands in the doorway or on the squat rack. You should feel a stretch in the front of your shoulder and chest.

To vary the stretch, slide the hands up and hold, or slide them down and hold.
Stretch

Tricep

(2 Days per Week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tricep</td>
<td>30 Seconds</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Stand with your feet shoulder-width apart.
2. Raise both arms above your head, bending them at the elbows.
3. With your right hand, reach across and grasp your left elbow.
4. Gently pull your left elbow toward your head to slowly stretch your tricep muscle on the back of your upper arm.
5. Hold your elbow for 30 seconds making sure you feel a good stretch the entire time.
6. Relax and repeat, then change arms. This completes one set.
Stretch
Shoulder
(2 Days per Week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder</td>
<td>30 Seconds</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Extend your left arm across your chest.
2. Curl your right arm around your extended left arm at the elbow to cradle it.
3. While keeping your left elbow straight, gently pull it across your chest by pulling your right arm toward your chest.
4. Pull your left arm until a good stretch is felt in the back of your shoulder.
5. Hold that position for 30 seconds. Relax and repeat before changing arms. This completes one set.
Stretch

Lats

(2 Days per week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lats</td>
<td>30 Seconds</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Stand in a doorway or inside a squat rack.
2. Place your feet together with your toes touching the squat rack floor support bar. (If using a doorway, align your feet to a line in the middle of the door jamb).
3. Grab the post (door frame) with both hands as shown.
4. Lean away from the post (door frame) toward the center of the rack (door jamb) as shown.
5. Hold for 30 seconds and repeat.

A stretch should be felt on the sides of your upper body.
### Stretch

#### Sleeper Stretch

(2 Days per week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleeper Stretch</td>
<td>30 Seconds</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Lay on your right side on the floor or a bench (as shown).
2. Position your right arm so your elbow is in line with your right shoulder.
3. With your left free hand, grasp your right arm by the wrist and gently push it toward the floor. You should feel a stretch in the front portion of your right shoulder.
4. Hold this position for 30 seconds. Relax and repeat before switching sides/arms.
Stretch

Deep Squat
(2 Days per week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Squat</td>
<td>10 Repetitions Total</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Stand with your feet shoulder-width apart.
2. Bend forward from the hips attempting to touch the floor between your feet.
3. While keeping your hands on the floor, squat down.
4. Remain in the squat position and raise your right arm overhead (as shown).
5. While still in a squat with your right arm raised, raise your left arm overhead. This completes one repetition.
6. Return to a standing position and repeat the exercise.
Stretch
Foot to Hand
(2 Days per week)

<table>
<thead>
<tr>
<th>Body Area Concentration</th>
<th>Hold Time or Repetitions</th>
<th>Sets</th>
<th>Number of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot to Hand</td>
<td>10 Repetitions Total</td>
<td>2</td>
<td>2 Days per Week</td>
</tr>
</tbody>
</table>

1. Assume the plank position with your arms directly inline with your shoulders (as shown).
2. Lift your right foot and bring it forward placing it next to your right hand.
3. Return your right foot to resume the plank position.
4. Repeat the exercise with your left foot to complete one repetition.
Warm-Ups
M Exercise
(Day 1)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>M Exercises</td>
<td>0-2 lbs.</td>
<td>1</td>
<td>10</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Lay face down on a bench (as shown) with your head extending off the bench and your arms touching the floor.
2. Raise your arms and position your hands so your thumbs point toward the ceiling.
3. Squeeze your shoulder blades together and raise your arms toward the ceiling. Your upper body should take the form of an “M” during the exercise.
4. Lower your arms and repeat nine more times to complete one set.

To increase the difficulty/intensity, use small hand weights during the exercise.
Warm-Ups

T Exercise

(Day 1)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>T Exercises</td>
<td>0-2 lbs.</td>
<td>1</td>
<td>10</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Lay face down on a bench (as shown) with your head extending off the bench and your arms touching the floor.
2. Raise your arms and rotate your hands so your palms face toward the ceiling.
3. Squeeze your shoulder blades together and raise your arms toward the ceiling. Your upper body should take the form of an “T” during the exercise.
4. Lower your arms and repeat nine times to complete one set.

To increase the difficulty/intensity, use small hand weights during the exercise.
Warm-Ups

W Exercise

(Day 1)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>W Exercises</td>
<td>0-2 lbs.</td>
<td>1</td>
<td>10</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Lay face down on a bench (as shown) with your head extending off the bench and your arms touching the floor.
2. Raise your arms and position your hands so they are open and your palms point toward the floor.
3. Squeeze your shoulder blades together and raise your arms toward the ceiling. Your upper body should take the form of an “W” during the exercise.
4. Lower your arms and repeat nine more times to complete one set.

To increase the difficulty/intensity, use small hands weights during the exercise.
Warm-Ups

**I Exercise**

(Day 1)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Exercises</td>
<td>0-2 lbs.</td>
<td>1</td>
<td>10</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Lay face down on a bench (as shown) with your head extending off the bench and your arms touching the floor.
2. Raise your arms and position your hands behind you so they are open and your palms point toward your hips.
3. Squeeze your shoulder blades together and pull your arms toward your hips. Your upper body should take the form of an “I” during the exercise.
4. Lower your arms and repeat nine times to complete one set.

To increase the difficulty/intensity, use small hand weights during the exercise.
Warm-Ups

Y Exercise

(Day 1)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y Exercises</td>
<td>0-2 lbs.</td>
<td>1</td>
<td>10</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Lay face down on a bench (as shown) with your head extending off the bench and your arms touching the floor.
2. Raise your arms and position your hands so your thumbs point toward the ceiling.
3. Squeeze your shoulder blades together and raise your arms overhead. Your upper body should take the form of an “Y” during the exercise.
4. Lower your arms and relax and repeat nine times to complete one set.

To increase the difficulty/intensity, use small hand weights during the exercise.
Strength

Power Shrug from Hang

(Day 1)

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Shrug from Hang Clean</td>
<td>80% 1 Rep Max</td>
<td>3</td>
<td>3</td>
<td>3 Minutes</td>
</tr>
</tbody>
</table>

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.
5. Lower the bar, return to your heels and repeat.
1. Stand with your feet shoulder-width apart and perpendicular to the cable rack or band.
2. Grasp the rope or handle with both hands (as shown).
3. While keeping both elbows straight, rotate your hips forward pulling your arms in a downward motion similar to chopping wood. Remember, rotate your back foot to avoid stressing your knee.
4. Return to your original position allowing the cable/band to retract in a controlled manner.
5. Repeat the exercise to complete the required repetitions.
6. Turn around and face the other direction. Repeat the exercise pulling the cable the other direction.

★ Variable: Choose a weight to perform the exercise with proper form to complete 10 Reps Max

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Chop</td>
<td>Variable ★</td>
<td>2</td>
<td>6</td>
<td>1 Minute</td>
</tr>
</tbody>
</table>
Strength

Side Plank Row

(Day 1)

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side Plank Row</td>
<td>Medium to Heavy</td>
<td>2</td>
<td>12</td>
<td>30 Seconds</td>
</tr>
</tbody>
</table>

1. Attach a Theraband™ band to a stable surface approximately two feet off the floor.
2. Grasp the band in your left hand.
3. Lay on your right side aligning your head, hips and ankles in a straight line.
4. While keeping your elbow on the ground directly under your shoulder, raise your entire body off the ground without rotating your hips forward or backward (as shown).
5. When balanced, pull the band towards you with your left arm.
6. Keep your left arm extended and lift your left leg towards the ceiling.
7. Pull your left arm back and lower your left leg, then your body and repeat.
8. Change sides and repeat to complete one set.
Strength
Towel Pull-Up
(Day 1)

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towel Pull-Up</td>
<td>Body Weight to 110% of Body Weight</td>
<td>3</td>
<td>1 to 4</td>
<td>3 Minutes</td>
</tr>
</tbody>
</table>

1. Grab two sturdy hand towels.
2. Hook them over the chin-up bar.
3. Grasp the towels, one in each hand (as shown) and perform a chin-up.
4. Lower your body and repeat.

Use ankle weights or weight belt to achieve 110% of body weight.
Incline Plank Row (Day 1)

1. Lean over a bench or stable surface that is about knee-high.
2. Grab the weight in your left hand.
3. Place your right hand on the bench and lower yourself so you assume the plank position (as shown).
4. Widen your stance for balance.
5. While in the plank position, perform a single arm row movement pulling your left hand back while keeping your elbow at your side.
6. Lower the weight and repeat two more times. Then place the weight in your right hand and repeat to complete one set.

★ Variable: Choose a weight to perform the exercise with proper form to complete 10 Reps Max
Warm-Ups

Diagonal 1

(Day 2)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagonal 1</td>
<td>Medium</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Wrap a Theraband™ around the bottom of a squat rack or other stable surface.
2. Position yourself about 4 to 5 feet from the squat rack standing parallel to the bar and with your feet shoulder-width apart.
3. Grasp the band with the hand furthest from the squat rack by extending your arm across your body (as shown).
4. Keeping your elbow straight, pull the band across your body until your arm is fully extended toward the ceiling.
5. Lower your arm in a controlled manner and repeat five more times. Change arms and repeat to complete one set.
Warm-Ups

Follow Through

(Day 2)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow Through</td>
<td>Medium</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Loop a piece of Theraband™ through a chin-up bar.
2. Standing with your left leg facing the bar, place the band in your left hand and step forward until there is slight tension on the band.
3. Assume a “thrower’s stance.” Allow your left arm to extend behind your rear leg.
4. In a controlled manner, mimic a throw through the follow-through.
5. Return your stance and “throw” five more times before changing arms. Repeat the exercise with your other hand to complete one set.
Warm-Ups

2-Hand External Rotation

(Day 2)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hand External Rotation</td>
<td>Medium</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Grab a piece of Theraband™ or tubing with both hands (as shown).
2. While keeping your elbows close to your sides, pull both hands away from your body at the same time. Adjust the tension of the band by placing your hands closer together or farther apart on the band.
3. Return your hands to the starting position and repeat five more times to complete one set.
Warm-Ups

1-Arm Overhead Bounce

(Day 2)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Arm Overhead Bounce</td>
<td>2-4 lbs.</td>
<td>2</td>
<td>6</td>
<td>None. Move to Next Exercise</td>
</tr>
</tbody>
</table>

1. Stand facing a solid wall.
2. Place a weighted ball in your right hand and raise your right arm up over your head.
3. While keeping your arm raised over your head, toss the ball towards the wall.
4. Catch the ball with your right hand as it rebounds off the wall. Repeat five times. Change hands and repeat the exercise to complete one set.
Warm-Ups

2-Hand Wall Bounce
(Day 2)

<table>
<thead>
<tr>
<th>Warm-Ups</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hand Wall Bounce</td>
<td>8-10 lbs.</td>
<td>2</td>
<td>6</td>
<td>None. Move to next exercise</td>
</tr>
</tbody>
</table>

1. Stand facing a solid wall.
2. Holding a ball in both hands, raise your arms up over your head and slightly forward.
3. While keeping your arm raised and elbows close to your head, toss the weighted ball towards the wall.
4. Catch the ball as it rebounds off the wall. Repeat five times to complete one set.
Strength

High Pull from Hang

(Day 2)

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Pull from Hang Clean</td>
<td>80% of 1 Rep Max</td>
<td>3</td>
<td>3</td>
<td>3 Minutes</td>
</tr>
</tbody>
</table>

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 remain over the bar with your arms straight and elbows facing out. Keep your weight 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, transferring weight to the balls of your feet.
5. Lower the bar, return to heels and repeat.
Strength

1-Arm Push Press

(Day 2)

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Arm Push Press</td>
<td>30% of 3 Rep Max on Bench</td>
<td>3</td>
<td>3 Repetitions</td>
<td>90 Seconds Between Arms</td>
</tr>
</tbody>
</table>

1. Standing with your feet shoulder-width apart, grab the weight in the right hand.
2. Bend your arm with the weight at the elbow and raise it so the weight is over your right shoulder (as shown).
3. Quickly bend your knees to perform a counter-movement.
4. In a controlled, explosive manner, straighten both legs and arm pushing the weight overhead and transferring weight to the balls of your feet.
5. Return to your heels, lower the weight and return to the starting position.
6. Repeat two more times. Place the weight in your other hand and repeat. This completes one set.
### Strength

**Side Plank Wave**

*(Day 2)*

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side Plank Wave</td>
<td>5 to 10 lbs.</td>
<td>2</td>
<td>12</td>
<td>30 Seconds</td>
</tr>
</tbody>
</table>

1. Lay on your right side aligning your head, hips and ankles in a straight line.
2. Grasp the weight in your **left** hand.
3. While keeping your **right** elbow on the ground directly under your shoulder, raise your entire body off the ground (as shown) without rotating your hips.
4. When balanced, punch forward with your **left** hand and weight.
5. Keep your left arm extended and in a controlled manner, raise your left arm and weight toward the ceiling until your left arm is aligned with your left shoulder (as shown).
6. Slowly lower your left arm, hand, weight and body to the starting position and repeat 11 times. Change sides and perform the exercises with the weight in your **right** hand to complete one set.
Strength

**Plank 1-Arm Lift**
(Day 2)

<table>
<thead>
<tr>
<th>Strength Exercises</th>
<th>Weight</th>
<th>Sets</th>
<th>Repetitions</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plank 1-Arm Lift</td>
<td>Body Weight</td>
<td>2</td>
<td>30 Seconds</td>
<td>30 Seconds</td>
</tr>
</tbody>
</table>

1. Assume the plank position resting on your toes and arms positioned so your elbows are bent and directly below your shoulders (as shown).
2. While keeping your back flat, raise and straighten your right arm so your hand extends in front of your head (as shown).
3. Widen your foot stance as needed for balance.
4. Lower your arm to the starting position and repeat for 30 seconds. Change arms and repeat to complete one set.
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 so they can compete and perform at their highest level and ability.

This program is based upon research which found athletes need to incorporate specific exercises into their weekly training schedules not only to maintain strength, but more important, help minimize injuries. To maximize the benefit 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 Shoulder and Knee Injury Clinic, Dr. Chudik is the founder and president of the Orthopaedic Sports Medicine Teaching and Research Foundation (OTRF) and an associate professor at Loyola School of Medicine.

Keith Tesch, CSCS, CNT
For more than ten years, Keith has been in the fitness industry working as a personal trainer and sports performance specialist, a position he currently holds with ATI Physical Therapy in Naperville, Ill. During the past five years, he has helped individuals regain their strength and range of motion through research-based programs.

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 and sports medicine physician. 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 630-794-8668.

Injury Hotline

Dr. Chudik and his staff understand the importance of school athletic personnel needing access to reliable sports medicine and training information outside the hours of the Sports Medicine Injury Clinic. To accommodate that need, Dr. Chudik has an “Injury Hotline” just for athletic trainers. Athletic trainers interested in learning more about this special service should email Dr. Chudik at stevenchudikmd@gmail.com/.

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.

Spring 2013

Incorporating an In-Season Stretching and Conditioning Program to Prevent Baseball Injuries

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Larana Stropus
Editor & Athletic Consultant

Steven Chudik, MD
Publisher

Emanuel Morris
Carmine Van Deven
Athletic Models

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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 a 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 baseball stretching and conditioning 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.

Sports Medicine Injury Clinic

Monday Evenings
Call 630-794-8668

Sign Up Today!
Don’t miss another issue of *Active Bones*, a monthly E-newsletter from OTRF. Each issue is filled with information to help you stay healthy and live an active life. Simply email us at: stevenchudikmd.com to receive the next issue of *Active Bones*. 

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