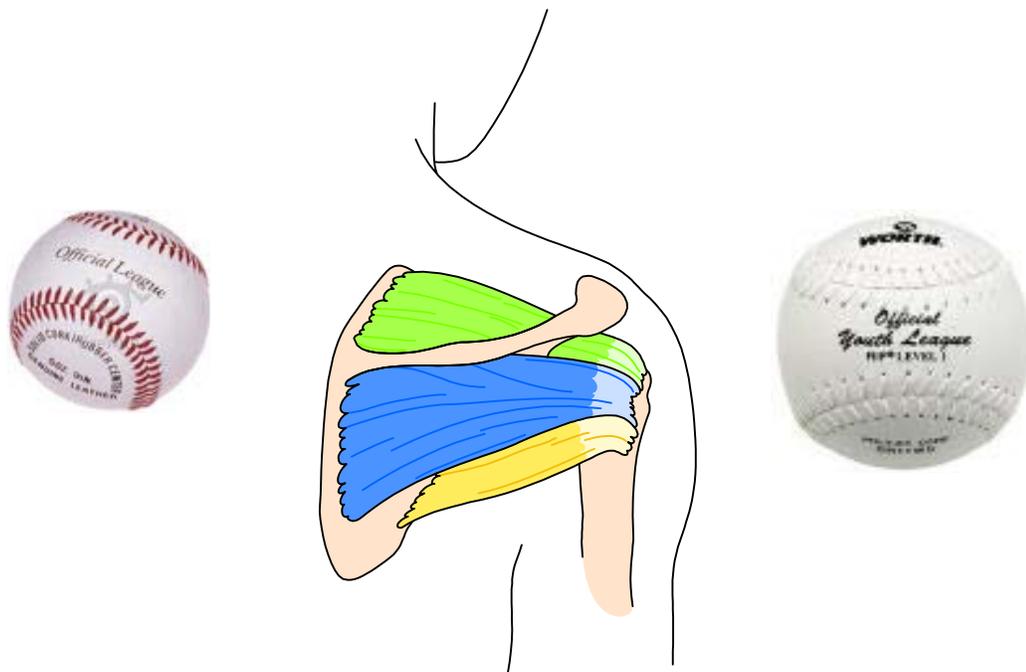


# ***Baseball / Softball Program to Condition Arm***



## ***and Increase Throwing Velocity***

**2nd Edition**

**By Steve Zawrotny MS, CSCS**

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## ***About the Author*** **page 1**

Steve is a former NCAA Division 1 college pitcher and current Certified Strength and Conditioning Specialist. He has nearly 30 years of combined experience as an athlete, coach, and physical fitness specialist. As an all-star high school pitcher growing up in the Los Angeles, California area, he was recruited by some of the top college baseball programs in the west. Attending Brigham Young University (BYU) on a baseball scholarship, his career there was cut short due to an arm injury. He then became a graduate assistant baseball coach at BYU before going on to coach at the high school level, including successful Varsity, Connie Mack, and American Legion programs. A few of his players have gone on to play in college and professionally.

Steve specializes in Baseball Pitching instruction and Baseball/Softball Bat Speed Development Training for both individuals and teams in the Oklahoma City area, and consulting by Telephone and Online. He can be reached by email at [steve@baseballfit.com](mailto:steve@baseballfit.com) or by phone, 405.373.3253

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- Director of Training for ***BASEBALL FIT*** Hitting & Pitching Academy, a sports training service specializing in baseball and softball specific strength, conditioning and skills development

## ***Introduction*** **page 2**

Numerous studies have repeatedly demonstrated that lifting weights in and of itself does little or nothing to increase throwing strength or velocity. One study showed that using a regimen of shoulder dumbbell exercises can help ***maintain*** throwing velocity during the course of a season.<sup>1</sup> Doubtless, a properly designed resistance program, performed throughout the course of a season, will help a player maintain strength and be less susceptible to breakdown and injury.

A conditioning principle that ***has*** been shown to increase throwing strength and velocity is Specific Resistance Training (SRT). SRT for throwing involves the use of training tools like surgical tubing, flex-bands, wall pulleys, and under or over-weighted implements, such as baseballs. [NOTE: Tubing and flex bands, while useful for conditioning the arm, have not been shown to increase throwing velocity.]

This particular program employs SRT in conjunction with a training principle known as Progressive Overload. You will be throwing overweight, underweight, and regular weight baseballs or softballs, also known as OVERload/UNDERload training (OU). Clinical studies have shown that overhand throwing of all three types of baseballs will increase velocity:<sup>2</sup>

<b>WEIGHT OF BALL</b>	<b>INCREASE IN VELOCITY</b>
<b>4 ounces (underweight)</b>	<b>4.72 mph</b>
<b>5 ounces (normal weight)</b>	<b>0.88 mph</b>
<b>6 ounces (overweight)</b>	<b>3.75 mph</b>

Note that while the best results in the study were obtained via the UNDERWEIGHT (4 oz.) ball, throwing all three weights of balls increased velocity, so the key is *if you want to increase velocity, throw - a lot.* This principle holds for softball players as well, with the appropriate weight for **softballs being 5.2 oz. (underweight), 6.5 oz. (normal weight), and 7.8 oz. (overweight).**

1. Jackson, J.B. The effects of weight training on the velocity of a thrown baseball. Master's thesis, Central Michigan University, 1994.
2. Derenne, C. Increasing Throwing Velocity. *Athlet. J.* 65(9): 36-39. 1985

***Introduction, cont.***  
**page 3**

The program you are about to embark on uses three different ball weights. DO NOT vary from these weights - throwing heavier balls will not help and could lead to problems! This system has been proven to work, by both on-field experience as well as the aforementioned research studies. But it requires hard work on your part. Follow the routine as specified. If possible, have your throwing velocity measured before and after completing the program. But don't worry if you aren't able to do this – you'll know by the response of your catcher and other teammates that your arm has improved!

Again, this program is stressful on the arm and care needs to be taken. Some soreness and stiffness is likely. If the soreness/stiffness dissipates as you warm up, continue on with that day's workout. If the pain continues or worsens, rest your arm that day and continue the program on your next scheduled workout day. As part of each workout, do the following:

- Properly warm up. RC strengthening exercises are a good way to start
- Warm down after. RC flexibility exercises are ideal for this
- Consider icing your shoulder and elbow for 20 minutes after each throwing workout
- BE SURE TO USE PROPER THROWING MECHANICS!

**ARM PAIN:** Should significant arm pain arise during any phase of this program, immediately discontinue throwing and seek appropriate medical attention.

## ***Program Benefits*** **page 4**

**T**his program is a sport-specific strength and conditioning workout that employs a safe and highly effective training method known as OVERload/UNDERload training (OU). It progressively overloads the arm with moderately weighted balls and a gradually increasing number of throws. It is **NOT** a “How-To-Throw” instructional, as there are plenty of those on the market already. This program has been shown to accomplish a number of key objectives:

- 1) Increases *Strength* of the muscles and tendons involved in throwing (via throwing all 3 types of balls, particularly the overweight ball).
- 2) Increases *Strength-Endurance* of the muscles and tendons involved in throwing (especially important).
- 3) Develops *Enhanced Neuromuscular Memory* via the under-weighted ball. Because this ball is lighter than normal, the arm “learns” to accelerate through the throwing range of motion more quickly. Faster arm movement translates to increased throwing velocity. This is also known as “OVERSPEED” training.
- 4) Less incidence of injury. Each time you complete the program, the structures of your throwing arm will become more conditioned and resistant to pain and injury. I strongly encourage you to continue with the prescribed Rotator Cuff strength and flexibility exercises (detailed later in this booklet) on a continuing basis, regardless of how many times you perform the throwing part of this program.
- 5) An increase in throwing velocity of as much as 4-6 mph. Gains of more than 10 mph are not unusual. The time frame will vary for this, but you should begin seeing results around week six.

You can use this program over and over again for as long as you are playing ball. I recommend a week or two of active rest before re-starting the program. Each time you complete the workout, you should add on a few additional mph to your throws. This progress should continue until you reach your genetic threshold, whatever that may be.

Keep in mind too that this is a conditioning workout and the effects will wear off when you stop doing it, like any other type of training that is discontinued. To help maintain the gains you will make, do one 90-throw session per week during your competitive season. Then, do the workout again in the off-season before your next competitive season.

## ***The Throwing Program*** **page 5**

**Y**ou can do this workout in one of two ways:

- With or without a partner

With a partner: Each of you make the specified throws to each other as explained in this workout.

Without a partner: Make your throws into a net, backstop or other collection device. Choose something that won't damage your balls. For the sake of convenience, you may want to purchase at least a dozen of each type of ball used in this program. If possible, make the throws from the distances detailed below. If you're doing this indoors during the winter, unable to throw outside or in a large indoor facility.

Program length: 12 weeks, 3 days per week for full program. It can also be performed in one-month increments. Continue with rotator cuff strength and flexibility work throughout. You should complete Module 1 (weeks 1-4) before Module 2 (weeks 5-8), and Module 2 before Module 3 (weeks 9-12).

Once you have completed all 12 weeks and are properly conditioned thereby, you can start subsequent workouts from Week One, or jump ahead to Module 2 (weeks 5-8) or Module 3 (weeks 9-12).

### Protocol:

- Suggestion: Perform RC strength work as a warm up, RC flexibility as a warm down.
- Rest arm on off-days, no throwing.
- Make all throws in the following order - **heavy, light, normal weight**, baseball and softball
- For all sessions, make half of throws at "long toss" distance (about 130 feet) and the other half at your game-position distance. For example, if you're a 3B, make half of your throws at the distance of a throw from 3B to 1B
- Finish with Wrist Snap Drill

Throw with normal effort, especially early on. Throw harder as your arm adapts to the stress, getting to maximal effort with all throws as soon as possible. This timeframe will vary from person to person, but should begin by week three or four at the latest.

After completing your OU throwing workout, finish with 3 sets of 12 “Wrist Snap” throws as described below. Rest 30 seconds between sets. The key is to use only the wrist when performing this drill. If possible, use a heavier ball than you would use in competition. For example, the ball used in the illustrations below is a 12 oz softball. If you don’t have access to a heavy ball, just use a regular baseball or softball. This drill teaches the arm to snap the wrist at the end of a throw, adding more momentum and hence, velocity to the throw.

### **WRIST SNAP DRILL**

**Overhand throwers**, both baseball and softball, will perform this drill as follows:



- 1) Place the elbow of the throwing arm in the palm of the hand of the non-throwing arm.
- 2) Holding the ball in the throwing hand, extend the wrist slightly, then snap it forward forcefully, propelling the ball.
- 3) Be sure to keep the elbow at a ninety-degree angle as shown, using ONLY the wrist to throw the ball.

**Windmill pitchers** will perform the drill as follows:

With your throwing arm hanging by your side, ball in hand, slightly extend your wrist, then forcefully snap it forward, propelling the ball. Keep the elbow straight, so as to use only the wrist to throw the ball. Do not move feet.

### **PLAYERS 14 AND UNDER**

- Use ONLY the 4 oz. and 5 oz. balls for baseball players and 5.2 oz. and 6.5 oz. for softball players the first time through the program.
- Perform ONLY MODULES 1 & 2, along with the Wrist Snap Drill.
- After completing the full two month program, if your arm feels good and your mechanics are sound, you can go ahead and add the 6 oz ball to the workout the next time you do it. Keep the numbers of throws the same, doing only MODULES 1 and 2.

## ***The Rotator Cuff*** **page 7**

**T**he shoulder, by its very construction, is an unstable joint. Three bones join together to form the shoulder girdle - the humerus (upper arm), clavicle (collar bone), and scapula (blade). The “soft tissue” components are seven ligaments and more than 15 muscles and their tendons. Combined, these bones, ligaments, muscles and tendons allow for the greatest range of motion (ROM) and performance of the greatest variety of activities of all joints in the body - flexion, extension, abduction (horizontally and laterally), adduction (horizontally and laterally), internal rotation, external rotation, and circumduction. In addition, the scapula can be elevated, depressed, protracted, and retracted.

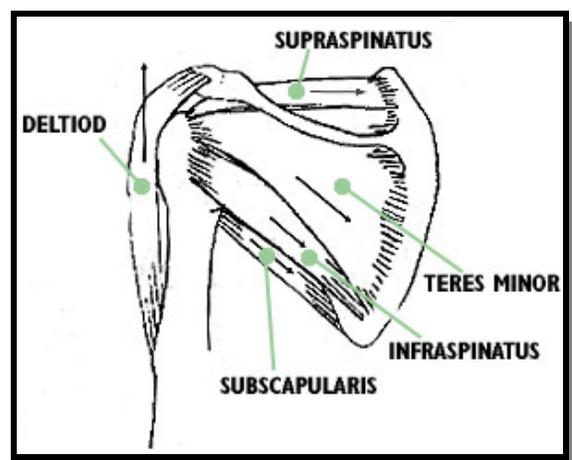
While this great variety of movements allows for a diversity of activities it also increases injury potential. Many of these potential injuries involve shoulder **musculature** because all of the aforementioned movements require one or more muscles for activation.

In the next few pages we'll concentrate on the muscles of the rotator cuff (RC) - the muscles that both internally and externally rotate the shoulder. These muscles are crucial for the act of throwing a baseball or softball and are also used during a number of other sports activities such as the tennis and volleyball serves, volleyball spike/kill, football passing, and the butterfly stroke in swimming.

The RC is composed of 4 relatively small muscles and particularly their tendons:

- Supraspinatus
- Teres minor
- Infraspinatus
- Subscapularis

*This is a posterior view of the shoulder joint, showing the four rotator cuff muscles. The deltoid is not a part of the cuff.*



They can be further sub-classified as follows:

**INTERNAL ROTATORS (IT)**

- Subscapularis\*
- Supraspinatus\*
- Teres Major
- Latissimus Dorsi
- Pectoralis Major
- Deltoid (anterior)

**EXTERNAL ROTATORS (ET)**

- Teres Minor\*
- Infraspinatus\*
- Deltoid  
(posterior)

And yet one other way to look at these muscles is from a throwing standpoint:

**THROWING ACC-CELERATORS**

Subscapularis\*  
Supraspinatus\*  
Pectoralis Major  
Latissimus Dorsi  
Teres Major  
Deltoid (anterior)

**THROWING DE-CELERATORS**

Infraspinatus\*  
Teres Minor\*  
Deltoid (posterior)

The Throwing Accelerators help speed up and move the arm forward during a throw to the release point, with the Throwing Decelerators helping slow down the arm after release.

\* Part of the Rotator Cuff (RC)

**WHAT DOES THE ROTATOR CUFF DO?**

The RC connects the humerus to the scapula. The cuff itself is composed of the tendons of the four rotator muscles. During the act of throwing, the RC performs several key functions:

- Stabilizes the shoulder
- Internally and Externally rotates the shoulder

- Helps accelerate the arm in order to make a throw
- Slows down or decelerates the arm after release of the throw

It is useful to notice that the IRs are both more numerous and more powerful than the ERs. The two ERs that perform decelerating work are relatively small, accomplishing their task by ***eccentrically*** (muscle lengthening) contracting. Eccentric contractions are more damaging to muscle fiber than concentric (muscle shortening); hence, the greater potential for injury to the External Rotators during an overhand throw.

## **SHOULDER PAIN – AN OVERVIEW OF SOME CAUSES**

Because the human arm is poorly designed for making an overhand throw, the RC tendons and muscles of a player who makes dozens of overhand throws, particularly baseball pitchers, suffer extreme damage - ***microtrauma***. This damage can progress to a more severe injury in a variety of ways:

- Overuse
- Poor Conditioning
- Improper Throwing Mechanics

This microtrauma is a normal part of the physical exertion of overhand throwing and it heals, but the muscle-tendon unit becomes more fibrous (less elastic) over time from this repeated cycle of damage and repair. The consequent shortening and loss of flexibility can lead to problems for the throwing athlete who does no strength or flexibility work on these structures.

In addition, a simple ***imbalance of strength and flexibility*** between the IRs and ERs can lead to shoulder problems. This is one of the chief causes of shoulder pain in throwing athletes who also train with weights. Strength imbalances between other arm muscles, such as the elbow flexors and extensors, can cause arm pain and injury at the elbow joint. A leading cause of pulled hamstring muscles is an imbalance of strength between knee flexors (the usually weaker hamstrings) and knee extensors (quadriceps).

knee extensors (quadriceps). Proper guidance in strength program design and performance is necessary to help avoid these kinds of injuries

Typically, without proper guidance, baseball players who also lift weights make the mistake of doing too much work to strengthen the IRs and do little or nothing for the ERs. Lifts such as the bench press and extensive lat and deltoid work, while helping sculpt a muscular physique, can end up creating problems for the throwing athlete. Appropriate flexibility is often neglected as well, contributing further to tightness in the front of the shoulder (IRs) and a lack of strength behind it (ERs). This imbalance causes a misalignment of the humerus. The misaligned humerus places additional stress on shoulder stabilizer muscles - the rotator cuff.

This incorrect resistance training results in ERs that are unconditioned and subject to fatigue and breakdown during repeated overhand throws as they attempt to both stabilize the misaligned humerus and decelerate it during an over hand throw.

Common shoulder injuries from throwing include:

- Impingement
- Bursitis
- Tendonitis



## **CONDITIONING – A KEY TO INJURY PREVENTION**

**IMPORTANT NOTE:** While it is beyond the scope of this booklet to teach proper throwing skills, it is important to know that even the best conditioning cannot make up for incorrect throwing technique. Be sure to work closely with your coach to develop proper throwing mechanics.

Appropriate conditioning of the RC requires both resistance and flexibility training. The purpose of conditioning the RC is to develop ***strength endurance*** of these four muscles and ***adequate flexibility*** by stretching them as well as the shoulder joint capsule. For “preventive maintenance” - the point of this section - keep this general rule in mind:

***“STRETCH the Internal Rotators, STRENGTHEN the External Rotators”***

## ***The Rotator Cuff Strength Workout*** page 11

The following is a basic resistance program that will work well for athletes of all ages and ability levels. Do this program 2 days per week. If you are combining this with the **throwing workout on pages 6 - 8**, do these exercises on your off-throwing

MUSCLE	EXERCISE	MUSCLE ACTION
Supraspinatus	<ul style="list-style-type: none"> <li>Lying Side Supranspinatus Fly</li> <li>Lying Side Lateral Raise</li> </ul>	<ul style="list-style-type: none"> <li>Along w/ medial head of the Deltoid, laterally abducts the shoulder</li> <li><u>Internal Rotator</u></li> </ul>
Infraspinatus Teres Minor	<ul style="list-style-type: none"> <li>Bent over Lateral Raises</li> <li>External Rotation Lift</li> </ul>	Both muscles are <u>External Rotators</u> w/ assistance from the posterior head of the Deltoid
Subscapularis	Scapular Push Ups	<u>Internal Rotator</u>

days. Or, do the strength exercises as part of your warm up, and the flexibility work as part of your warm down.

When using these exercises as part of your warm-up for the **Throwing Program**, do 1-2 sets of each of these strength exercises. For a warm-down, do 1-2 sets of each of the flexibility exercises. For the long term health of your arm, it is important that you don't skip past a good warm-up and warm-down. If you prefer, use a different type of warm-up, but the warm-down flexibility is a must!

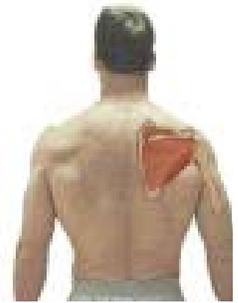
Start your RC strength conditioning with no weight so as to properly learn the movements for the first few workouts, then use a 1 or 2 lb. dumbbell as appropriate. While the largest, strongest players may use as much as 10 lbs per hand, most players will never need to exceed 5-6 lbs. The RC muscles are small and don't require heavy weights for adequate conditioning.

**Alternative to using dumbbells:** Grab a can of corn or beans out of your kitchen cabinet weighing 16 oz or so. Cans are easy to hold and perform the lifts with. You can always purchase dumbbells later on.

## ***The Rotator Cuff Strength Workout*** **page 12**

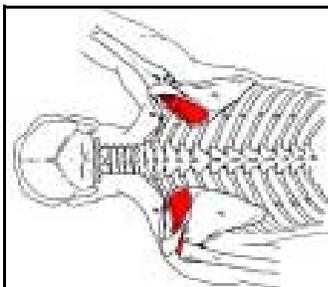
- 3 sets X 10 reps for all exercises
- 30 second rest period between each set
- Concentrate on performing each set correctly

Use a “fast up, slow down” cadence for each rep. You want to progress to 3 X 20 for a particular weight, then increase the weight by a pound and start over at 3 X 10. Repeat this cycle until at some point in the future, you are doing 3 X 20 with 5-6 lbs. Continuing to workout at this level of conditioning will keep the RC in good shape for throwing on a regular basis.



### **STRENGTH EXERCISE DESCRIPTIONS**

1) **Lying Side Supraspinatus Fly:** Lay on a bench or floor, on non-throwing side. Grab a dumbbell with an overhand (palm down) grip, then internally rotate your shoulder so your thumb is pointing downwards, little finger on top. Keeping arm straight, lift arm upwards 45 degrees, about halfway. For reference, all the way up would be 90 degrees.



*Posterior View,  
Supraspinatus*



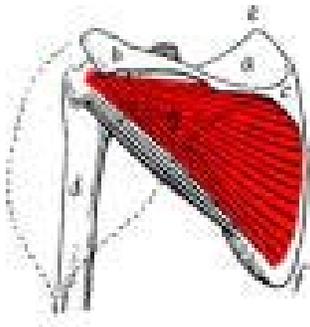
*Starting Position*



*Ending Position*

## ***The Rotator Cuff Strength Workout*** **page 13**

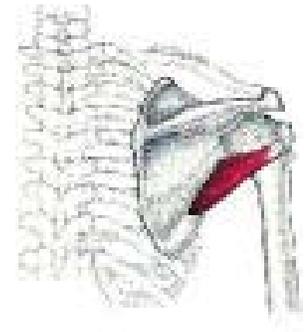
2) **Bent Over Lateral Raise**: Stand with your feet spread apart and knees slightly bent. Bend forward at the waist and keep your back straight. Hold the dumbbells with your elbows slightly bent. Raise the dumbbells up to your sides.



*Infraspinatus,  
posterior view*



-keep back straight  
-chest out  
-head up



*Teres Minor,  
posterior view*

3) **Lying Side Lateral Raise**: Lie on your non-throwing side, on a bench or the floor. With your throwing hand, grab a dumbbell with an overhand (palm down) grip. With the dumbbell resting on the floor, raise the dumbbell even with your shoulder or slightly above. Vary the starting position from in front of the body to behind the body as well.



*Starting Position*

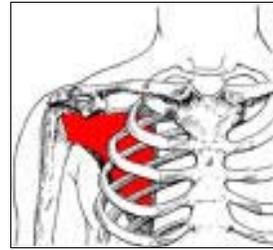


*Ending Position*

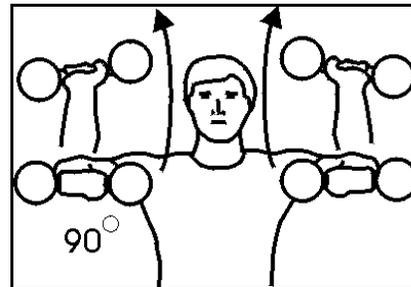
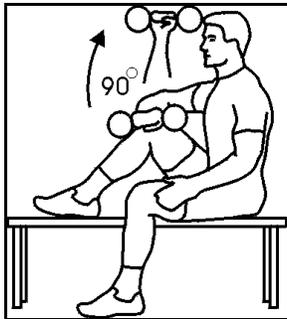
## ***The Rotator Cuff Strength Workout*** **page 14**

4) **Scapular Push Ups:** Assume a regular push up position. Without bending elbows, pull shoulder blades together (retraction), then push apart (protraction). All work should be done with the shoulders and not the chest or triceps. This exercise can also be done from the bent-knee position or standing up, leaning against a wall.

Anterior View,  
Subscapularis



5) **External Rotation:** While sitting on bench with elbow on knee or table, laterally abduct shoulder and flex elbow to 90 degrees. With small weight in hand, externally rotate shoulder to vertical position, slowly return to starting position. A variation on the starting position would be to stand and rest your elbow on something at shoulder level, then perform the same arm actions.



### **RC FLEXIBILITY PROGRAM**

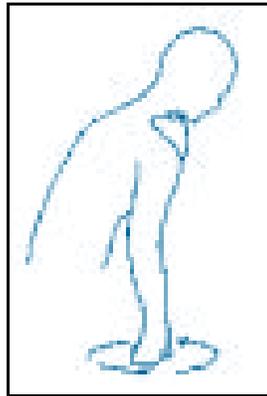
The RC muscles/tendons essentially share the same insertion point, so these few flexibility exercises will do a good job, working all four of the RC muscles and their tendons.

- Circumduction Pendulum (Arm Hang)
- Posterior Shoulder Stretch
- Pectoral Stretch
- Shoulder - Lat Stretch

## ***The Rotator Cuff Flexibility Workout*** **page 15**

Do each exercise three times, eventually working up to five “reps” of each. Perform each stretch for 20-30 seconds, holding each position just at the point of discomfort. Upon reaching five reps of each, continue the workout at that level to maintain RC flexibility.

**1) Circumduction Pendulum (Arm Hang):** Bend at waist, allow throwing arm to hang straight down, dangling freely. Swing arm ten times in a clockwise direction, making progressively larger circles. Then reverse and repeat motion in a counter-clockwise direction. When you are comfortable with this movement, you can add a 1-2 lb weight, eventually up to 5-6 lbs. maximum.

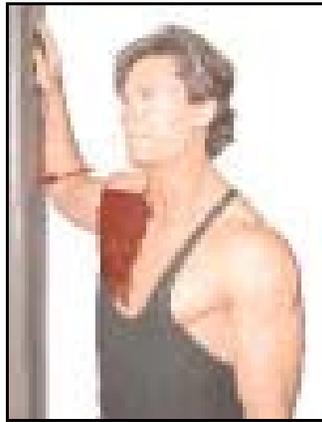


**2) Posterior Shoulder Stretch:** Grasp throwing arm at elbow and pull across your chest so you feel a stretch at the back of this shoulder. Hold for 20-30 seconds, repeat 3-5 times.



***The Rotator Cuff Flexibility Workout***  
**page 16**

3) **Pectoral Stretch**: With throwing arm bent at 90 degrees, place entire forearm and most of upper arm against a wall. Rotate opposite shoulder and hip away while pushing this arm against the wall. Hold for 20-30 seconds, repeat 3-5 times. As you become more flexible, vary your arm position on the wall (higher and lower) to stretch pecs at different angles.



4) **Shoulder - Lat Stretch**: Flex throwing elbow and pull this arm overhead and behind head as far as possible. With other hand, grab this elbow and pull inwards Bend sideways, opposite of elbow. Hold for 20-30 seconds. Repeat 3-5 times.



## ***Throwing Program Progress Chart*** page 17

### **MODULE 1 - WEEKS 1 & 2**

<b>NUMBER OF THROWS</b>
12 of each weight - Total Throws per Session = <b>36</b>

<b>Week 1</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 12	___ x 12	___ x 12	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 12	___ x 12	___ x 12	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 12	___ x 12	___ x 12	___ x 12 ___ x 12 ___ x 12

<b>Week 2</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 12	___ x 12	___ x 12	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 12	___ x 12	___ x 12	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 12	___ x 12	___ x 12	___ x 12 ___ x 12 ___ x 12

### **WEEKS 3 & 4**

<b>NUMBER OF THROWS</b>
15 of each weight Total Throws per Session = <b>45</b>

<b>Week 3</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 15	___ x 15	___ x 15	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 15	___ x 15	___ x 15	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 15	___ x 15	___ x 15	___ x 12 ___ x 12 ___ x 12

<b>Week 4</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 15	___ x 15	___ x 15	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 15	___ x 15	___ x 15	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 15	___ x 15	___ x 15	___ x 12 ___ x 12 ___ x 12

**MODULE 2 - WEEKS 5 & 6**

<b>NUMBER OF THROWS</b>
18 of each weight - Total Throws per Session = <b>54</b>

<b>Week 5</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 18	___ x 18	___ x 18	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 18	___ x 18	___ x 18	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 18	___ x 18	___ x 18	___ x 12 ___ x 12 ___ x 12

<b>Week 6</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 18	___ x 18	___ x 18	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 18	___ x 18	___ x 18	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 18	___ x 18	___ x 18	___ x 12 ___ x 12 ___ x 12

**WEEKS 7 & 8**

<b>NUMBER OF THROWS</b>
24 of each weight Total Throws per Session = <b>72</b>

<b>Week 7</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 24	___ x 24	___ x 24	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 24	___ x 24	___ x 24	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 24	___ x 24	___ x 24	___ x 12 ___ x 12 ___ x 12

<b>Week 8</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 24	___ x 24	___ x 24	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 24	___ x 24	___ x 24	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 24	___ x 24	___ x 24	___ x 12 ___ x 12 ___ x 12

**MODULE 3 - WEEKS 9 & 10**

<b>NUMBER OF THROWS</b>
30 of each weight - Total Throws per Session = <b>90</b>

<b>Week 9</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 30	___ x 30	___ x 30	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 30	___ x 30	___ x 30	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 30	___ x 30	___ x 30	___ x 12 ___ x 12 ___ x 12

<b>Week 10</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 30	___ x 30	___ x 30	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 30	___ x 30	___ x 30	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 30	___ x 30	___ x 30	___ x 12 ___ x 12 ___ x 12

**WEEKS 11 & 12**

<b>NUMBER OF THROWS</b>
36 of each weight Total Throws per Session = <b>108</b>

<b>Week 11</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 36	___ x 36	___ x 36	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 36	___ x 36	___ x 36	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 36	___ x 36	___ x 36	___ x 12 ___ x 12 ___ x 12

<b>Week 12</b>	OVER	UNDER	GAME	Wrist Snap Drill
Session 1	___ x 36	___ x 36	___ x 36	___ x 12 ___ x 12 ___ x 12
Session 2	___ x 36	___ x 36	___ x 36	___ x 12 ___ x 12 ___ x 12
Session 3	___ x 36	___ x 36	___ x 36	___ x 12 ___ x 12 ___ x 12

## *Notes*

***"The results have been little short of astounding. ... We did not clock my son when he started, but the difference is obvious... after about 5 weeks I switched to a catcher's mitt out of self-preservation! " - Doug S., St. Paul, MN***

"I use Steve's workouts as a part of my Daily Training Program and I have never had better results. His programs work and have helped my arm drastically. Within the last three months my velocity has gone from 84mph up to 88mph" **Jason Anderson, Former Anaheim Angels Organization pitcher**

"She has pitched really well and has thrown 2 no hitters this year so far and is working really hard. We used your training manual along with your three weighted softball workout throughout the winter... The workout helped her pick up her speed." **Lynn P., Marysville, TN**

"He's a 5'4" 145 lbs 12yr old catcher/3rd baseman. His throws have gone up 10 mph across the corners. Playing on 90' bases this fall has been an easy adjustment and, thanks to your programs, next spring will be a blast. I highly recommend this for any child planning on moving up to 60'/90' baseball! He's the best player on his team now and wants to meet you someday. Thanks for the help!" **Adam and James Smith Hatfield, PA**

"I followed your baseball throwing program for the full twelve weeks and increased my pitching velocity by 4-5 mph, consistently! Thanks for your great program." **Andy Schon, Walsh University**

"I used your arm strengthening workout for my son last year during the off season. The program worked great and he was able to add about 5-6 mph with no injuries through the year." **D. H., Diana, TX**

"I implemented the weighted baseball throwing program for our high school pitchers beginning March 25. When I gunned them on May 5 the average gain was 3.5 mph. We've had enough success that I convinced my college head coach to let me institute it with our college pitchers." **Don Spore, Pitching/Catching Coach, Wartburg College, ranked #13 in NCAA Div-3 College Baseball**

"I am coming off a shoulder injury and in the past 2 months have followed your throwing program and have yet to feel the slightest discomfort so far this season... After my first start I went 6 innings with no discomfort to my shoulder what-so-ever and that is twice the amount of time I would have gone any-time last year, healthy or not." **P. P., Winston Salem, NC**

"I've been doing the arm strength and bat speed training and they've worked a ton. My throwing velocity went from 74 to 85 mph as a middle infielder ..." **Justin Lemmo, High School Junior**

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The ***Baseball/Softball Program to Condition Arm and Increase Throwing Velocity, 2nd Edition*** is intended for coaches, parents, and players at all levels of the game. Literally thousands of baseball and softball players throughout the world, from Little League through college and the professional ranks, are dramatically improving their throwing velocity and arm strength.

Suitable for all age groups and ability levels, it incorporates the proven training principle known as "OVERload/ UNDERload training. While this type of training is relatively new to baseball and softball, it has been used safely and successfully for decades by the NFL, NBA, and Olympic Swimmers and Track and Field athletes, amongst others.

Updated with new, effective exercises, Illustrations, charts, and clear, well-written explanations, the ***Baseball/Softball Program to Condition Arm and Increase Throwing Velocity, 2nd Edition*** is the ultimate guide to what it takes to improve any ball player's ability to throw the ball harder and with more velocity!

## ***Training Tools & Information to Improve Your Game***

***Baseball/Softball Program to Increase Bat Speed & Hitting Power:*** A workout program designed to increase bat speed and hitting power. Includes tips and ideas on bat grip and stance to help increase hitting power, wood bats vs. aluminum, mental practice and more. A proven hitting workout with unique and vital information to help your game you won't find anywhere else! **\$14.99**

***Strength and Conditioning for Baseball and Softball:*** Looking for a baseball/softball-specific workout to help you get in shape for your season? This is the program you need, covering weight lifting, power (plyometrics), flexibility, and sprint/interval training for energy system training. Periodized for off-season/preseason and in-season/maintenance **\$14.99**



Markwort Speed Sensor 9" Baseball-White Cover Press start, throw the ball, and the LCD indicator displays pitch speed in MPH upon impact. Official size and weight of a regulation baseball and used as a training aid for any age or skill level. Measure distance between pitcher and catcher with included measuring string and enter one of 8 predetermined distances into Speed Sensor (20', 30', 40', 46', 50', 60.6', 70' and 80') . GripSense technology begins to record the speed automatically the moment the ball is released. For pitching throwing training only, NOT TO BE HIT WITH A BAT OR THROWN AGAINST HARD SURFACES! Measures speeds up to 120 MPH.

**29.95 + \$7.00 s/h**

**Strengthen your BODY - Elevate Your GAME**



**WEIGHTED BASEBALLS** - 4 oz, 5 oz, & 6 oz baseballs. These are the proper weights of balls for a baseball player to use in conjunction with the **Baseball/Softball Throwing Program to Condition Arm and Increase Throwing Velocity.**

**SET OF ALL THREE - \$24.95**



**WEIGHTED SOFTBALLS** - 5.2 oz, 6.5 oz, & 7.8 oz softballs. These are the proper weights of balls for a softball player to use in conjunction with the **Baseball/Softball Throwing Program to Condition Arm and Increase Throwing Velocity.**

**SET OF ALL THREE - \$30.95**



The BIG Z Power Hitting Training System is the first bat speed training program that offers OverLoad, UnderLoad, and GameLoad training with a single bat. Pictured to the left is the ADULT bat (\$64.95 + s/h), with the YOUTH on the right (\$54.95 + s/h). This complete training system includes the Bat Speed Training Program (a \$9.99 value) **Will help you swing 6 to 8 miles-per-hour faster and drive the ball 40 feet deeper in as little as 6 weeks.** VISIT <http://www.baseballfit.com/bat-speed.htm> to learn more about this exciting new training device.

To order any of these products, use your credit card online at [www.BaseballFit.com](http://www.BaseballFit.com), fill in a copy of this form and mail a Check or Money Order to: **BASEBALL FIT** 11204 Dover Ct. Yukon, OK 73099 **OR** call us at 405.373.3253

\_\_\_\_\_ Set of Three Weighted BASEBALLS, \$24.95 plus \$7.00 shipping/handling each

\_\_\_\_\_ Set of Three Weighted SOFTBALLS, \$30.95 plus \$8.00 shipping/handling each

\_\_\_\_\_ BIG Z Power Hitting Training System - **ADULT**. \$64.95 + \$10.25 s/h each. Order this size if your game bat is 30 oz in weight. If you'd like a CUSTOM size bat, add \$10 and specify the weight in ounces you require.

\_\_\_\_\_ BIG Z Power Hitting Training System - **YOUTH**. \$54.95 + \$9.25 s/h each. Order this size if your game bat is 20 oz in weight. If you'd like a CUSTOM size bat, add \$10 and specify the weight in ounces you require

\_\_\_\_\_ BOOKLET: Baseball/Softball Program to Increase Bat Speed & Hitting Power \$14.99 plus \$2.85 s/h

\_\_\_\_\_ BOOKLET: Strength & Conditioning for Baseball and Softball, \$14.99 plus \$2.85 s/h

\_\_\_\_\_ Radar Baseball, \$29.95 + \$7.00 shipping/handling

**\* Both the ADULT & YOUTH Big Z Power Hitting Systems include a FREE copy of the Bat Speed Program, a \$14.99 value**

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In case we have a question about your order