BASEBALL
STRENGTH & CONDITIONING
MANUAL: PITCHERS
GENERAL STRENGTH TRAINING RULES

1. **Follow the prescribed workout.** Players should do only the workouts given by the strength coach or trainer. They should not attempt weights they cannot handle or exercises that have not been prescribed. Questions about the program should be directly asked to the strength coach.

2. **Maintain proper conduct at all times.** Put all barbells and plates back where they belong. If you get something out; put it back.

3. **Wear proper attire.** The proper attire for strength training is athletic shoes with laces tied, socks, shorts, and t-shirts.

4. **No eating, drinking, or chewing.** Workouts are not the time for snacks or chewing tobacco. Players can accidentally swallow or choke on them.

5. **Help and respect other players.** Always help players by spotting. Do not interfere, harass, or interrupt other players. Everyone should use proper language.

6. **No lounging.** Only players who are working out should be in the weight room.

LIFTING GUIDELINES

1. **Work major exercises**
2. **Work each muscle group twice weekly**
3. **Include shoulder, scapular, rotator cuff, and core**

The most important factor is that you never miss a workout. Be **consistent**.

Consistency in practice will mean consistency, and longevity, in performance. The smarter we are in pacing ourselves and in appropriately setting our challenges, the more **durable** athletes we will become. Smart workouts lead to good performances and long, healthy seasons.
STRENGTH TRAINING GUIDELINES

1. Always complete your baseball skill work before you lift.

2. Warm-up & stretch prior to lifting.

3. **Rest periods**—one & a half to two minutes for major exercises like the squat or lunge, shorter rest periods for minor exercises. If you start cutting into rest periods, then you will not be able to train heavy enough to get the desired results.

4. Practice good mechanics. Do not sacrifice technique for too much weight.

5. No forced repetitions. Lift each rep on your own—**use a spotter**!

6. Squats and lunges never under 5 reps

7. Lift the weight smoothly with strict control.

8. Utilize full range of motion on every exercise.

9. Always keep your back straight & knees bent when lifting.

10. Do all of the prescribed sets and reps for each exercise before moving to the next exercise.

11. **No** lat pulls behind the head or overhead exercises.

12. Do not try and lift through pain. Know the difference between muscle fatigue and actual pain.

13. Complete all exercises unless you have been instructed to avoid certain movements.

14. Post workout cool down, **abdominals & trunk routine**, dedicate 10-15 minutes to flexibility.
SPEED WORK

Regardless of your position, speed, power, and agility are key physical components of a baseball player. An athlete cannot reach his speed potential by simply running sprints. A number of training elements must be fused together in order to achieve maximum running potential. Just as a chain is limited in strength by its weakest link, sprinting is limited by factors such as lack of muscular power, flexibility, or poor technique.

In setting up an in-season program, the drills chosen should be short and intense simulating baseball actions. When working to improve speed, power, and agility, the muscles of the hips and legs should be as fresh as possible. You cannot improve and maintain these components if your legs are fatigued because the contraction of the muscles will be too slow. To keep your legs as fresh as possible, you must give yourself plenty of rest between runs. Although you may not be breathing hard after a run, your legs are still recovering. The energy in your muscles must be replenished before you will be able to carry out each drill forcefully enough to improve your speed, power, and agility.

10 YARD BURSTS
1. Will develop power and acceleration
2. Assume the base-stealing stance
3. Explode for 10 yards as fast as possible
4. Full recovery between runs.

20 YARD SPRINTS
1. Will develop acceleration and speed
2. Assume the base-stealing stance
3. Sprint 20 yards as fast as possible
4. Full recovery between runs.

LADDER SPRINTS
1. Will improve speed maintenance
2. Assume the base-stealing stance
3. Sprint 30,40,50,60 yards
4. Rest one minute between runs.

SHUTTLE RUNS
1. Will improve speed endurance
2. Assume the base-stealing stance
3. Sprint 30 yds and run back (10-12 s)
4. Rest 30 seconds between runs (3-6)

CARDIO WORK

Cardio workouts in the offseason are critical to working out lactic acid from throwing/ lifting along with providing a base level of fitness that will allow for high repetition drills without sacrificing technique from exhaustion. Cardio work can be rotated through various workouts including jogging, biking, swimming, pick-up basketball (until preseason starts) or any activity that produces an extended time (45 min) in your target heart rate (approx. 140-170 bpm).
ORGANIZATIONAL ROUTINES:
The drills in this section are to be performed each day before running. They are simple drills which not only warm up your body for the activity, but they are also designed to help with active flexibility of the hip and leg area as well as develop the muscle and technique necessary for speed improvement. Warming up also increases the blood flow to the muscles, this protects you from potential injury. Other warm up activities include jogging, cycling, or jumping rope.

**Running Drills**

* Do these warm up drills every day, first thing, before stretching or running.

**High Knees:** Develops the muscles needed for a fast stride & improves flexibility in the hamstrings.
1) Drive knees high & forcefully for 10 yards.
2) When one leg is lifted, the others should be fully extended.
3) Bend forward at waist & keep back straight.
4) Drive arms vigorously.
5) Concentrate on moving legs up and down, with little forward movement.
6) Take short quick steps.

**Butt-Kickers:** Develops active quadriceps flexibility.

1) Alternately swing heel of each foot to buttocks.
2) Movement is quick & smooth with motion. Produced mainly at knee joint.
3) Concentrate on moving legs up and down. With little forward movement for 10 yards.
4) Take short quick steps.

**Walking Lunges:** Develops hip, groin, and thigh flexibility.

1) Begin by stepping forward with right leg (exaggerate your normal stride length).
2) When your right foot is planted, lower your left knee close to the ground.
3) Use your right leg to pull your left leg off the ground so you can step forward with left.
4) Repeat, alternating right & left for 10 yards.
Shuffle: Develops lateral movement and adductor/abductors.

1) Get into a good athletic stance with knees slightly flexed and shoulders facing squarely forward.
2) Move laterally 20 yards to your left, without crossing the feet, and without letting feet hit one another.
3) Face the same direction and return to the start line.
4) Remain in the power position, keep head up, and shoulders square.

Carioca Drill: Develops lateral movement and hip flexibility.

1) Get into a good athletic stance with knees slightly flexed and shoulders facing squarely forward.
2) Move laterally 20 yards to your left, crossing the right foot over in front of the left, and then bring the right behind.
3) Face the same direction and return to the start line.
4) Remain in the power position, twist hips around as fast as possible.

Backward Running: Develops hip flexor/hamstring flexibility.

1) Concentrate on pulling heel to buttocks.
2) Reach back extending foot with stride, and pull hips through.
3) Repeat, alternating right & left.
4) Distance is 30 yards.

Build Ups: Develops sprint mechanics.

1) Start off with standing start and go into a slow run.
2) Gradually build up speed until you are at full speed at 30 yards.
3) Gradually slow down over next 30 feet.
4) Do not accelerate/decelerate too quickly.
Proper stretching is the key to both completing your warm up and developing greater flexibility. The more flexible a player is, the less susceptible he is to injury and the better he is able to perform better in all components that make up a baseball athlete. Since the stretching program is preceded each day by a warm up the muscles of the body are more responsive to the stretching, which will improve your flexibility.

Below are some easy guidelines to assure you get the most from the stretching program:
1. All stretches should be performed without bouncing until an easy stretch is felt.
2. Do not over-stretch, there should be no pain.
3. Hold each stretch for 15 to 20 seconds.

**Upper Body**

![Upper Body Stretches](image)

- Trunk Twist
- Wood Chopper
- Lean
- Arm Circles
- Arm Across
- Arm Behind
- Forearm

**Standing Lower Body**

![Standing Lower Body Stretches](image)

- Hamstring
- Lat. Lunge
- Groin
- Lunge
- Spiderman
- Quad
- Calf

**Sitting Lower Body**

![Sitting Lower Body Stretches](image)

- Hamstring
- Groin
- Spinal Twist
- Quad
- Glute
- Calf
Ground Based Core #1

**Toe Touch**
2 x 15

**Reverse Crunch**
2 x 20

**V-Twist**
2 x 15 ea.

**Butterfly Crunch**
2 x 15

**Oblique Crunch**
2 x 15 ea.

**Scuba Diver**
2 x 12 ea.
Ground Based Core #2

Floor Slaps
- 2 x 15

Bicycle Crunch
- 2 x 10 ea.

Cherry Pickers
- 2 x 10 ea.

Single Leg Jack
- Knife 2 x 10 ea.

Windshield Wipers
- 2 x 10 ea.

Superman
- 2 x 12
Ground Based Core #3

Crunch
2 x 15

Alternate Toe
Touch 2 x 10ea.

Reverse Fig.-
4 2 x 15ea.

Suitcase
Crunch 2 x 10

Deadfish
2 x 10ea.

Quadraped
2 x 10ea.
Ground Based Core #4

- **Straight Leg Crunch** 2 x 15

- **Lower Abs** 2 x 20

- **Heel Swivel** 2 x 10ea.

- **Legs Up Crunch** 2 x 20

- **Floating Toe Touch** 2 x 10ea.

- **Dead Bug** 2 x 10ea.
Dynamic Warm-Up Routine #1

High Knee Pull
10 yards

Ankle Pull
10 yards

Ankle Cradle
10 yards

Int./Ext. Hip Rotation
10 yards

Walking Lunge
w/twist 10 yards

Tin Soldier
10 yards
Dynamic Warm-Up Routine #2

- High Knee Pull 10 yards
- Ankle Pull 10 yards
- Knee Cradle 10 yards
- Lateral Lunge 10 yards
- Walking S.L.D.L. 10 yards
- Tin Soldier 10 yards
Hip Series

**Abduction**
- 2 levels
- 10 each level

**Flexion**
- 10 reps

**Small Circles**
- 10 Clockwise
- 10 Counterclockwise

**Adduction**
- 10 reps
Medicine Ball Program

**Linear Throw (2 x 10 each side)**

**Purpose:** To develop power in the muscles of the torso.

**Technique:** Face the wall about 3’ away, in a basic athletic stance with the knees bent and hips back. Throw from the hips and feet through the trunk and finish with your hands. Front twist throws are performed one side at a time. Work on increasing ball speed, not weight.

**Lateral Throw (2 x 10 each side)**

**Purpose:** To develop power in the muscles of the torso.

**Technique:** Laterally face the wall about 3’ away, in a basic athletic stance with the knees bent and hips back. Throw from the hips and feet through the trunk and finish with your hands.

**Reverse Throw (2 x 10 each side)**

**Purpose:** To develop power in the muscles of the torso.

**Technique:** Back to the wall about 3’ away in a basic athletic stance with the knees bent and hips back. Throw from the hips and feet through the trunk and finish with your hands.

**Standing Overhead Pitch (2 x 10)**

**Purpose:** To develop muscles in the torso and shoulders.

**Technique:** Face the wall about 6’ away, in a basic stretch stance holding the ball with two hands. Proceed into an upright position with knee raised and ball up at head level. Initiate throw from the ground up, using the torso and shoulders to rotate and extend the upper body forward and down in a throwing motion. Finish with both arms extended and follow through.

**Standing Overhead Throw (2 x 10)**

**Purpose:** To strengthen the abdominals and rotator cuff muscles.

**Technique:** Face the wall about 6’ away, with feet shoulder width apart. Begin with the ball extended over your head, and then proceed downward. The abs are the primary mover and should generate the most force, while the arms are meant to assist and finish off the motion.

A good set of throws should look like a good series of shots or swings and should be fluid, with smooth switching from eccentric to concentric action. Athletes should throw as if they want to damage the wall and the ball. They should throw the ball so that the rebound returns the ball to their hands. Athletes can move closer to or farther from the wall, depending on their power output.
Forearm Routine

**Forearm Pronation**

**Purpose:** To strengthen and support the elbow musculature.

**Technique:** With your elbow bent and your forearm resting on your thigh, hold a hammer weight with the palm up. Rotate your wrist completely so the palm is facing down. Repeat until repetitions are completed.

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**Forearm Supination**

**Purpose:** To strengthen and support the elbow musculature.

**Technique:** With your elbow bent and your forearm resting on your thigh, hold a hammer weight with your palm down. Rotate your wrist completely until your palm is facing up. Repeat until repetitions are completed.

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**Wrist Flexion**

**Purpose:** To strengthen and support the elbow musculature.

**Technique:** Sit with your knees bent, your forearm resting on your thigh, and your wrist hanging over your knee. With your palm facing up, raise the weight until your wrist is completely flexed. Slowly lower the weight to the starting position.

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**Wrist Extension**

**Purpose:** To strengthen and support the elbow musculature.

**Technique:** Sit with your knees bent, your forearm resting on your thigh, and your wrist hanging over your knee. With the back of your hand up, raise the weight until your wrist is completely extended. Slowly lower the weight to the starting position.

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**Ulnar Deviation**

**Purpose:** To strengthen and support the elbow musculature.

**Technique:** Stand with the hammer weight in your hand and the weighted end towards the back, palm facing your side. Let the weight hang to the ground. Raise the weight towards the back of your elbow until you cannot contract any more. Slowly lower the weight to the starting position.

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**Radial Deviation**

**Purpose:** To strengthen and support the elbow musculature.

**Technique:** Stand with the hammer weight in your hand and the weighted end towards your front, palm facing your side. Let the weight hang to the ground. Raise the weight towards the front of your elbow until you cannot contract any more. Slowly lower the weight to the starting position.
Lifting Exercises

Squat

Description: Start with feet slightly more than shoulder width apart, weight back, and a neutral spine. Slowly squat down slightly above parallel keeping weight on heels.

DB Squat

Description: Take one dumbbell and position it under your chin with your fingers facing your head. Start with feet slightly more than shoulder width apart, weight back, and a neutral spine. Slowly squat down slightly above parallel, keeping weight on heels, and the head facing forward.

Lunge

Description: Lift knee parallel to ground. Stride out keeping head and chest up, and front heel down. Lead knee should always be behind toes. Lower back knee to just above the ground. DO NOT hit knee on ground. Quickly drive back into starting position alternating legs.

Leg Press

Description: With feet wider than shoulder width, toes slightly pointed outward, and knees slightly bent, lower weight throw full range of motion. Return to starting position.

Step Ups

Description: Step up with front foot completely on box. Drive back leg up parallel with floor. Return to starting position and alternate.
Lifting Exercises

Single Leg Dead Lift

Description: On one foot and one DB in your hand, slowly bend at waist while keeping the back leg straight. Keep the same angle in the front knee and the hips straight.

Dalls Squat

Description: With the back foot elevated, lunge forward, keeping the lead knee behind the lead toe.

Leg Extensions

Description: Set pivot point of machine to knee joint. Set leg pad on back of ankles. Contract hamstrings raising lever arm just above the glute and slowly return to original position.

PB Leg Curl

Description: Place back of ankles on PB. Bridge hips up followed by a leg curl keeping thighs and torso in alignment. Reverse.
Lifting Exercises

Physioball Adductions

Description: In seated position, hold PB between legs. Squeeze ball with knees. Hold for one second and slowly release. Continue until all reps are completed.

Incline Bench Press

Description: With dumbbells just above chest and slightly outside shoulders; press weight straight up. Slowly lower weight and repeat.

DB Bench Press

Description: With dumbbells just above chest and slightly outside shoulders; press weight straight up. Slowly lower weight and repeat.

Lat. Pulldown

Description: Keep back straight and slightly angled away. Pull and squeeze shoulder blades together in back followed by pulling bar towards chest just below chin.

Seated Row

Description: Pull and squeeze shoulder blades together in back.
Lifting Exercises

DB Row

Description: Establish 3-point stabilization with hand, knee, and outer leg. Maintain a straight back and raise dumbbell even with chest. Slowly lower weight back down.

Inverted Row

Description: With either overhand or underhand grip slightly wider than shoulder width, hang from bar with body straight. Pull chest up to bar while keeping body in line.

Lat Pullover

Description: With elbows slightly bent and hands wider than shoulder width on the lat bar, slowly push bar downward to your thighs, keeping elbows in same position throughout lift. Slowly return to starting position.

Biceps Curl

Description: With DBs at your side, slowly lift DB with palms up until even with shoulders, keeping back straight. Contract at top and slowly lower.

Triceps Pushdown

Description: With hands in front, slowly push bar until arms are extended, keeping elbows close to your side. Slowly return to starting position.
Lifting Exercises

Shrugs

Description: Slightly pull shoulder blades back, followed by pulling shoulders up and return to starting position.

DAILY NUTRITION CHECKLIST

Eat breakfast within one hour of waking up everyday
- To supply energy for competitive practices and intense workouts.
- Choose mostly carbohydrates such as fruits, juices, bagels and cereals.

Eat small frequent meals early and often
- To jump start your metabolism and burn calories faster.
- Eat five to six meals per day every three to four hours.

Drink water throughout the day
- To prevent fatigue and promote peak performance of your muscles.
- Drink water with every meal, when you wake up and before bed.

Eat protein with every meal
- To support muscle tissue recovery, growth and development.
- Choose lean sources such as chicken breast, turkey, skim milk, low-fat yogurt and egg whites.

Substitute refined sugars with fruits and vegetables
- To replace unnecessary calories with essential vitamins and minerals that aid your metabolism.
- A pineapple instead of potato chips, carrots instead of cookies, and broccoli instead of breads.

Avoid “empty calories”
- To reduce overall caloric intake by limiting foods with simple sugars and high fat content.
- Limit obvious poor choices such as fried foods, sweets, dressings, soft drinks and alcohol.

Make post-workout/practice nutrition a priority
- To restore electrolytes, rehydrate, refuel and rebuild muscles for future competition.
- Drink Gatorade to replace lost sodium, potassium and chloride. Drink water for rehydration.
- Eat a meal within 30 minutes after training that includes carbohydrates for muscle glycogen storage and protein to rebuild muscles.

Make post-game meals filling but healthy
- Target vegetables as primary food choices.
- To prevent unwanted fat storage during your sleep and slowed metabolism the next day.
- Avoid eating foods rich in fats (saturated and transfats).
## WORKOUTS
### OFFSEASON PHASE 1 (Oct- Nov)

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
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<td>Warm Up</td>
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<tr>
<td>Squats 5x5 @ 85%</td>
<td>Jobes (3-5lb weight)</td>
<td>DB Bench 5x5 @ 85%</td>
<td>Jobes (3-5lb weight)</td>
<td>Squats 5x5 @ 55%</td>
<td>DB Bench 5x5 @ 50%</td>
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<td>Leg Press 5x5 @ 85%</td>
<td>Face pulls</td>
<td>DB Row 5x5 @ 85%</td>
<td>20 yd Sprints (5 sets)</td>
<td>Leg Press 5x5 @ 55%</td>
<td>DB Row 5x5 @ 55%</td>
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<tr>
<td>Lunge 3x5 @ 85%</td>
<td>Band Pull Apart Super Series</td>
<td>Incline DB Bench 3x5 @ 85%</td>
<td>Ladder Sprints (1x3 yds; 1x40yds; 1x50yds; 1x60yds)</td>
<td>Step-Ups 3x10 @ 75%</td>
<td>Inverted Row 3x10</td>
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<tr>
<td>Single Leg Deadlift 3x5 @ 85%</td>
<td>30 Minute Flow Yoga Routine</td>
<td>Seated Row 3x5 @ 85%</td>
<td>Shuttle Runs (6 sets)</td>
<td>DB Squat 3x10 @ 75%</td>
<td>Lat Pull Over 3x10 @ 75%</td>
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<tr>
<td>Dallas Squat 2x8 @ 75%</td>
<td>Lat Pulldown 2x8 @ 75%</td>
<td>20 Minute Flow Yoga Routine</td>
<td>PB Leg Curl 2x15-20</td>
<td>Biceps Curl 2x15 % 65%</td>
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<tr>
<td>Leg Extension 2x8 @ 75%</td>
<td>Med Ball Program</td>
<td>PB Adductions 2x15-20 @ 65%</td>
<td>Triceps Pushdown 2x15</td>
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<tr>
<td>Hip Series</td>
<td>Forearm Routine (1x20 of each)</td>
<td>Hip Series</td>
<td>Shrug 4x15 % 65%</td>
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<td>Forearm Routine (1x20 of each)</td>
<td>Core Base Exercise #2</td>
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<td>Forearm Routine (1x20 of each)</td>
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<td>Jobes (3-5lb weight)</td>
<td>DB Bench 5x5 @ 85%</td>
<td>10 yd Bursts (10 sets)</td>
<td>Squats 5x5 @ 55%</td>
<td>Jobes (3-5lb weight)</td>
<td>Long Toss</td>
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<tr>
<td>Leg Press 5x5 @ 85%</td>
<td>45 Min Pool Workout</td>
<td>DB Row 5x5 @ 85%</td>
<td>20 yd Sprints (5 sets)</td>
<td>Bench Press 5x5 @ 55%</td>
<td>Long Toss</td>
<td>45 Min Cardio Work</td>
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<td>Lunge 3x5 @ 85%</td>
<td>Band Pull Aparts Super Series</td>
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<td>Ladder Sprints (1x3 yds; 1x40yds; 1x50yds; 1x60yds)</td>
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<td>Hip Series</td>
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<td>Triceps Pushdown 2x15 @ 65%</td>
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## WORKOUTS
### OFFSEASON PHASE 3 (Dec 26th - JAN 26th)
**USE IN CONJUNCTION WITH 7 DAY THROWING CYCLE AND LONG TOSS PROGRAM**

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<tr>
<td>Squats 5x5 @85%</td>
<td>Yoga Workout</td>
<td>DB Bench 5x5 @85%</td>
<td>45 Minute Pool or Cardio Workout</td>
<td>Lunge 3x5 @85%</td>
<td>Cardio (30-45 mins)</td>
<td></td>
</tr>
<tr>
<td>Leg Press 5x5 @ 85%</td>
<td>DB Row 5x5 @ 85%</td>
<td>Dallas Squat 2x8 @ 75%</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Single Leg Deadlift 3x5 @85%</td>
<td>Seated Row 3x5 @85%</td>
<td>Inverted Row 3x10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leg Extension 2x8 @75%</td>
<td>Lat Pulldown 2x8 @ 75%</td>
<td>DB Squat 3x10 @ 75%</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Hip Series</td>
<td>Med Ball Program</td>
<td>PF Leg Curl 2x15-20</td>
<td></td>
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</tr>
<tr>
<td>Core Base Exercise #1</td>
<td>Core Base Exercise #2</td>
<td>Core Base Exercise #3 or #4</td>
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</tbody>
</table>
Long Toss Program

The aim of our long-toss program is to increase arm strength, condition arm for preseason, and find consistency in mechanics. With that in mind, any player who desires to achieve increased arm strength can utilize the following routine that has been prescribed for pitchers.

**GOALS:**
1. Increase arm/hand speed.
2. Increase arm strength/muscular endurance.
3. Improve balance/rhythm.
4. Improve feel for pitching grips.
5. Accentuate mechanical flaws.
6. Develop visual results on change-up for pitchers.

**Implementation:**
1. Before the long toss program begins, all pre-practice warm-ups should be completed. When temperature is below 50 degrees ensure that you have a sweat **BEFORE** you start to throw.
2. I would highly encourage long tossing outside as long as temperature is over 30 degrees.
3. This is a continuous program designed to reach maximum distance by maintaining a constant “throwing arc.” This should never exceed 3 times your height.
4. Once the max distance is reached, players will compress approx. 6-8 ft per throw. During this period it is critical to remain at 95% effort and gradually work release point out in front. Think 15-18 ft arc going out, flat line coming in.
5. The overall process should take 10-15 minutes, focus on replicating movement and mechanics versus speed.

**Mechanics:**
1. Use normal arm slot/angle.
2. Four seam grip.
3. Release the ball out in front - flex the knee - bend the back.
4. Always follow through - **don’t recoil**.
5. Step behind when you throw, don’t crow hop. This helps promote sound mechanics by keeping the front side closed.
6. **Don’t substitute distance by changing your arm angle.**

**Change-up:** (Pitchers only)
1. Improves confidence of grip/feel.
2. Can see the desired movement.
3. The most common problem with the change-up is that it is not thrown with fastball arm speed.
By throwing change-ups at 120-150 ft, this helps develop a feel for creating the proper arm action.

4. Pitchers should use their change up grip when long tossing every 3rd or 4th throw.

* The following routine is implemented during phase 2 and 3 of pitcher’s off season workout.

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
</tr>
</thead>
<tbody>
<tr>
<td># Throws</td>
<td>Distance</td>
</tr>
<tr>
<td>10-15</td>
<td>30 ft</td>
</tr>
<tr>
<td>15-20</td>
<td>45 ft</td>
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<tr>
<td>20-25</td>
<td>60 ft</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 3</th>
<th>Weeks 4/5</th>
</tr>
</thead>
<tbody>
<tr>
<td># Throws</td>
<td>Distance</td>
</tr>
<tr>
<td>5-10</td>
<td>30-45 ft</td>
</tr>
<tr>
<td>5-10</td>
<td>45-60 ft</td>
</tr>
<tr>
<td>10-15</td>
<td>75 ft</td>
</tr>
<tr>
<td>10-15</td>
<td>90 ft</td>
</tr>
<tr>
<td>15-20</td>
<td>120 ft</td>
</tr>
<tr>
<td><strong>compress 120ft to 60ft</strong></td>
<td>95%</td>
</tr>
</tbody>
</table>
This light dumbbell routine is intended to strengthen the shoulder and increase flexibility. We are not looking to add mass or overdevelop the shoulder, the intention is to increase flexibility/range of motion and strengthen the rotator cuff. Players should start with 3 lb dumbbells for the first 2 weeks of the program, performing slow, 3 count reps with little to no rest between sets. Once comfortable players can progress to 5lb weights - do not exceed 5lbs.

**Standing:**
1. **Forward Raise.** Stand with arms at the sides. Keeping your arms straight, slowly raise your hands (dumbbells) to shoulder height, pause and return. 2 sets of 10 each - one thumb up, one palm down.
2. **Lateral Raise.** Stand with your arms at the sides. Keeping your arms straight, slowly raise your hands (dumbbells) to shoulder height, pause and return. 2 sets of 10 each - one thumb up, one palm down.
3. **Supraspinatus Fly (Empty Can).** Stand with both arms down by your sides and hands rotated inward as far as possible with thumbs pointing down. Keep your arms straight, slowly raise your hands (dumbbells) forward and out to the sides, as if pouring water out of a can, pause and return. 1 set of 20.

**Lying on Floor:**
4. **Internal Rotation.** Lie on your back with arm down by your side. Bend elbow to 90 degrees and hold against your side. Keeping your elbow against your side, slowly lower (external rotation) dumbbell away from your side as far as you can. Pause and bring it back across the chest. 1 set of 20.
5. **External Rotation.** Lie on one side with your knees bent. Bend elbow to 90 degrees and let your forearm and hand rest across your stomach. Keeping your elbow against your side, slowly raise (external rotation) the dumbbell until it is straight up in the air. Pause and return. 1 set of 20.

**Lying on Bench:**
6. **High Elbow and External Rotation.** Lie face down on bench/plyo box with chest hanging off the end so that arms hang freely towards floor. Bring elbows up to the level of the back by pinching shoulder blades together with elbows bent at a 90 degree angle. In that position, externally rotate shoulders (as if cocking to throw) as far as possible, keeping elbows high and in right angle position, pause. Return to previous high elbow position by internally rotating (reverse direction) and lower arms to the original starting position. 4 step exercise: squeeze scapula, raise arms, un-raise, and relax scapula. 1 set of 20.
7. **Horizontal Abduction w/ Full External Rotation.** Lie on table, face down, arm hanging straight to the floor. Raise arm out to the side slightly in front of shoulder, parallel to the floor with thumb rotated up (hitchhiker position), hold 2 seconds and lower slowly. 1 set of 20.
For the month of January pitchers will transition from building strength/ endurance to honing technique and building muscle memory from 60 ft. This transition will prepare you for the upcoming preseason, ensuring a healthy 6 weeks of practice before opening day.

GOALS:

1. Increase arm strength/muscular endurance.
2. Improve balance/rhythm/direction.
3. Begin throwing focused bullpens.
4. Improve concentration/confidence in one’s ability.
5. Improve consistency in mechanics/ results.

Implementation:

6. Before throwing program begins, all pre-practice warm-ups should be completed. When temperature is below 50 degrees ensure that you have a sweat **BEFORE** you start to throw.

7. I would highly encourage throwing inside during the month of Jan. If the temperature is under 30 degrees **DO NOT THROW OUTSIDE**.

8. This is a 7 day, 4 week program that will transition from building strength, to throwing with a purpose.

9. Continue to use proper long toss protocol.

10. Box work should be done at 70% from flat ground or mound w/ a squatting catcher. The focus is on getting proper tilt to work down in zone and hit spots.

11. The overall process should take 15-20 minutes, focus on replicating movement and mechanics versus speed.
Day 1: Light Toss
Jobes or band, Throwing progressions, Light toss (60-90 ft). Loosen arm, ensure full range of motion. Go through pick off series

Day 2: Long Toss
Jobes or band, Throwing progressions, Long Toss (120 ft)

<table>
<thead>
<tr>
<th># Throws</th>
<th>Distance</th>
<th>Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10</td>
<td>30-45 ft</td>
<td>50%</td>
</tr>
<tr>
<td>5-10</td>
<td>45-60 ft</td>
<td>60%</td>
</tr>
<tr>
<td>10-15</td>
<td>75 ft</td>
<td>70%</td>
</tr>
<tr>
<td>10-15</td>
<td>90 ft</td>
<td>80%</td>
</tr>
<tr>
<td>15-20</td>
<td>120 ft</td>
<td>95%</td>
</tr>
<tr>
<td><strong>compress</strong></td>
<td><strong>120ft to 60ft</strong></td>
<td><strong>95%</strong></td>
</tr>
</tbody>
</table>

Day 3: Box Work
Jobes or band, Throwing progressions, Light toss (60 ft), Flat ground box work (45 ft, 70% effort). Throw change up during box work.

Day 4: OFF

Day 5: Long Toss
Jobes or band, Long Toss (120 ft) same as Day 2

Day 6: Pen
Jobes or band, Throwing progressions, Pen

Weeks 1 & 2 (Flat ground)
-30 pitch FB/CH only
-All box pitches: work on knee high/ split the plate
-All from windup

Weeks 3 & 4 (Mound)
-40 pitch FB/CH/ CB
-25 box/ 15 tilt: working both sides of the plate- remain down in the zone
-20 from windup/ 20 from stretch

Day 7: OFF
Pool Training Routines:

Players have the option of rotating pool workouts in for cardio or adding it to a day’s lifting routine. Keep the workouts approx. 45 minutes in duration with a 10 min warm-up/stretch, 25 minutes of interval/swimming work and 10 minutes of cool down. Be creative, you can perform almost any plyometric routine, form run or explosive movements in the pool for a workout. Swimming strokes are fine in moderation; avoid more than 1 or 2 laps of freestyle as this stroke has higher stress on shoulders.

Stretch (10 Min)

Form Running Warm-up (5 min)
- High knees 2×25 m
- Butt kicks 2×25 m
- High knee carioca 2x25 m
- Lateral hops 2x25 m
- Back pedal 2×25 m

Treading Routine (15 minutes w/ 30 sec break between sets)
1) Standard water treads – 1 x 90 sec.
2) Water treads legs only – 1 x 90 sec.
3) Water treads arms only – 1 x 90 sec.
4) Water treads right arm holding left foot – 1 x 60 sec.
5) Water treads left arm holding right foot – 1 x 60 sec.

Primary Exercises (Pick 5-6)
All exercises are to be performed in chest-deep water with a one-minute rest period between sets and exercises.
- Run in place – 3x30 seconds all-out runs.
- Supported lateral leg swings – 3×10 lateral swings (abduction/adduction) with each leg while holding on to the side of the pool with both hands.
- Supported forward / backward leg swings – 3×10 (flexion/extension) with each leg while holding on to the side of the pool with one hand.
- Tuck jumps – 3x15 bending knees upon landing after each jump.
- Trunk rotations – 5×30 seconds trunk twists (left/right) with both arms extended in front of the chest and palms together. Start slow and gradually increase speed.
- Pistol Squat Jumps- 2 x 10 (each leg)
- Kick board – 2x 25 m.
• Free style swim – 2x 25 m
• Breast stroke swim – 2x 25 m

**Cool Down (6 sets)**

1) Cell phone back and forth (3 sets)
Do the side stroke while holding a fun noodle in one hand. Try to hold the noodle out of the water as high as possible. Change arms after 1 lap.

2) Sea horse (1 minute)
Tread water using just your hands while extending your legs straight in front of you. Put fun noodle between your knees and try to propel yourself to the other side of the pool using just your arms.

**Yoga:**

15-20 minutes of ‘Flow’ or ‘Vinyasa’ yoga a few days a week will have tremendous benefits on flexibility, core strength and balance. The internet has many videos that will provide a full body workout ranging in time and technical movements. The following links contain good intro level instruction, as you feel more comfortable feel free to advance to different routines.

Links:
http://www.youtube.com/watch?v=rRSEUBCJ7Ag
http://www.youtube.com/watch?v=HmZfwoUU3WQ
http://www.youtube.com/watch?v=NYhBFAr8mzo (Yoga 101 app on ITunes)
IN-SEASON

1. Any player who has been assigned to a rehab program must have an established time for his individual work and treatment. This should be coordinated with the athletic training staff and is of higher priority than lifting program.

Starting Pitchers:
Day
1. Should perform 20-30min ride on bike and shoulder routine on game days.
2. Should perform Primary lift (High/Moderate Volume) the day after start. Conditioning is 30-45min run.
3. Side day: Conditioning is interval pole routine. Perform iron scap shoulder routine.
4. Should perform Secondary lift (Moderate/Low Volume) the day after pen. Conditioning is long sprints.
5. Conditioning is short sprints.

<table>
<thead>
<tr>
<th>Day 1 (Start)</th>
<th>Day 2</th>
<th>Day 3 (Side)</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditioning</td>
<td>Interval Poles</td>
<td>Long Sprints</td>
<td>Short Sprints</td>
<td></td>
</tr>
<tr>
<td>Bike: 20-30min</td>
<td>Run: 30-45min</td>
<td>Misc. Routines</td>
<td>40-60yrd</td>
<td>20-30yrd</td>
</tr>
<tr>
<td>Shoulder Routine</td>
<td>Primary Lift</td>
<td>Shoulder Routine</td>
<td>Secondary Lift</td>
<td>Agility Work</td>
</tr>
</tbody>
</table>

Relief Pitchers:
1. Should perform strength training program two days a week. At least two days between lifts and no more than three between workouts.
2. Should lift on “down days” if the above parameters are met.
3. Shoulder Routine should be performed at least twice a week and preferably on throw days.
4. Core work should be performed 3 to 5 days a week.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interval Poles</td>
<td>Speed Endurance</td>
<td>Speed Endurance</td>
<td>Interval Poles</td>
<td>Speed Agility</td>
<td>Pole Routes</td>
<td>Recovery Day</td>
</tr>
<tr>
<td>Primary Lift</td>
<td></td>
<td></td>
<td></td>
<td>Secondary Lift</td>
<td></td>
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