



strength
and
conditioning

A voluntary program for prospective
Varsity and JV baseball players



NOTE: Athletes who are playing a winter scholastic sport for Athens High School will not be permitted to participate in off-season baseball activities. We want you to focus 100% of your attention on the sport that is in season.

The Goals of Strength & Conditioning For Baseball

Our strength and conditioning will actually be broken into two categories: off-season and pre-season. During the off-season workouts will consist of mostly core lifts and a total fitness program that is not "sport specific." However, as we get closer to the baseball season we will shift into more of a pre-season mindset, where workouts will consist of more "baseball-specific" exercises. Here's a breakdown of the two different sets of goals:

OFF-SEASON GOAL: To prepare a general fitness base to build functional strength, especially focusing on core and cardio-respiratory exercises.

PRE-SEASON GOAL: To train to compete, developing functional speed, strength, and power using baseball specific exercises and workouts in addition to continuing core strength workouts.

Principles of Strength & Conditioning For Baseball

Baseball training should focus on gaining strength, not bulky beach muscles. Strength training and bodybuilding are two very different things. Baseball training focuses on explosiveness and power (core) while also caring for the smaller muscles and tendons such as those in the throwing arm. Some principles of baseball weight training are:

- Do more with medicine balls, kettle bells, and bands that simulate real baseball movements
- Do plyometrics to increase power and explosiveness
- Avoid overhead lifts (military press, any raises above the shoulder)
- Pitchers avoid back squats; instead do either front squats or dumbbell squats
- Pitchers avoid power cleans (potential problems with wrist and elbow)

Strength... Basic strength or functional strength is the foundation on which every baseball player should be built. You cannot hit, throw, or run if you are unable to move and control your own body weight. Strength can be broken down into three main areas; lower body, core, and upper body. All three are dependent upon one another, so if you have a deficiency in one, there is no way to maximize your potential as a ballplayer.

The lower body exercises we will use to develop strength are: squat, front squat, step up, and lunge. Each exercise should be modified to best suit the level of strength for each individual.

The core exercises we will use are: floor abdominal work, dead lift, medicine ball twist and throws, floor lower back work, hyperextensions, and reverse hyperextensions. The majority of these exercises are done with body weight, with exception of the dead lift and medicine balls.

The upper body exercises we will use to develop strength are: bench press, push-ups, pull-ups, row, lat pull, shoulder raises, extensions, and wrist rolls. The joints that comprise the upper body have the highest rate of injury amongst baseball players. It is imperative to train every muscle, not just the large ones, to give each joint the maximum amount of support.

Speed... There is an old saying that speed kills. This is especially true on the baseball field. A player who is able steal bases has an immeasurable worth to his team. Many people believe you are either born fast or slow. This is true to a degree, but anyone can be made faster by teaching technique. Speed progression is broken down into acceleration, top end speed, and deceleration. The most important aspect for a baseball player is the acceleration phase. This is termed the "jump", as in "he got a good jump." This aspect is trained through weighted exercises such as; sled pulls and/or hill runs. We will also spend a lot of time on proper first steps. The body has to learn exactly where to step to optimize forward propulsion.

The second aspect we will train is top end speed. As a baseball player you never get to spend a whole lot of time in this phase, unless you're an outfielder. An exercise we might use for this would be running down hill.



The last phase is deceleration, and players should work on this phase to prevent injury. There are two types of deceleration in baseball—sudden and gradual. Sudden stops are all various forms of slides. These are primarily used on the base path but are also used on occasion when fielding a ball. Gradual stops are the easiest thing to learn and we will spend the least amount of time on teaching this aspect.

Power... This might be the most under trained aspect among most baseball teams. All baseball players, hitters and pitchers, must have explosive power. It does not matter whether we are talking about throwing, hitting, or running; all involve triple extension at a high rate of speed. This triple extension, simultaneous movement of the hip, knee, and ankle, is best trained by exercises such as power shrugs and plyometric exercises, which is explosive movement of just a player's body weight. These exercises include jumps, hops, and bounds.

Agility... Agility is the ability to change the direction the body is traveling quickly and efficiently. It is utilized both in fielding and running bases. For example, a player on first has to be able to get back when a pitcher throws to first, even though his body movement is directed towards second; or when fielding a ground ball and the ball takes an unexpected bounce the player must change direction in order to field the ball. We will work on this aspect of training through the use of cone drills.

Injury Prevention... Injury prevention is a high priority. If a player is hurt then he cannot play and help the baseball team. This is why it is vital for every athlete to work out properly in the off-season, preseason, in-season, and post-season.

Schedule & Exercises

The weekly training schedule should include 3-to-4 strength sessions per week, plus 2 or 3 cardio workouts. Strength sessions will include lifts for upper and lower body, as well as medicine ball exercises and plyometrics. Cardio will include HIIT (High Intensity Interval Training), which will mostly be running but could also include swimming, cycling, elliptical, etc.

A sample schedule might look something like this:

- **MONDAY:** Strength (lower body)
- **TUESDAY:** Energy (cardio)
- **WEDNESDAY:** Strength (upper body)
- **THURSDAY:** Energy (cardio)
- **FRIDAY:** Strength (lower body)
- **SATURDAY:** Strength (upper body)
- **SUNDAY:** Rest (or optional cardio)

On "Strength" days, the agenda should be something like this:

- **Warm-up:** Jog 5 minutes, dynamic warm-up stretching (full body)
- **Speed/Quickness:** Plyometrics, X-jumps and dot drills (2 X 10)
 - **Strength/Power:** Workload should be a weight that can be accomplished with good form in 4 sets of 8-10 reps (squats 3 sets of 8-10 reps; dead lift 2 sets of 8-10 reps); 2 light warm-up sets for each lift before beginning workload
 - Lower Body Days – DB or front squats, dead lift, DB lunge, MD ball drills, calf raises, forearm wrist rolls, sit-ups
 - Upper Body Days – DB or front squats, DB bench, lat pull (overhand), DB incline press, triceps press, seated row, forearm wrist rolls, MD ball drills, sit-ups
- **Cool-Down:** Jog and walk 5 minutes, stretch

On "Energy" days, the agenda should be something like this:

- **Warm-up:** Jog 5 minutes, dynamic stretching (full body)
- **Intervals:** 10 X 100 yards (sprints)
- **Aerobic Options:** Stair-climb or cycle (15-20 minutes), jump rope (10 minutes)
- **Cool-Down:** Jog and walk 5 minutes, stretch



Throwing

We may have some open gym opportunities to throw beginning in December. Until then, give your arm a rest and focus on core body strength.

Swings and Hitting

You can (should) incorporate 100 swings a day into your personal strength training routine. They can be dry cuts, or if you have an opportunity and place to hit balls into a net off tees, then that will be good also.

Nutrition

Do not take this aspect for granted. Too many young athletes waste their workouts on poor eating habits. Strength training puts a lot of stress on the body, and good nutritional habits are required in order to fully absorb and adapt to such stress, so that the stress builds the body up instead of breaking it down. It is a proven scientific fact that athletes perform better when they incorporate special nutrition practices with their strength training. Athens Baseball players should do their best to form the following nutritional habits:

HABIT #1: Eat every two or three hours. Eating frequently is proven to raise the body's metabolism and limit fat storage. However, these frequent meals and snacks must consist of food items such as lean proteins, fruits, vegetables, and nuts.

HABIT #2: Eat lean protein on each eating occasion or as often as you possibly can. These include chicken, lean cuts of beef and pork, turkey fish, eggs, milk.

HABIT #3: Eat vegetables on every eating occasion. Most of us need to develop a better habit of choosing to eat vegetables. If you make it a rule to eat at least one small serving of vegetables every time we eat anything at all, then such a habit is attainable.

HABIT #4: Eat veggies and fruits with any meal, but other "carbs" only after exercise. Limit simple carbs from your diet except shortly after exercise (since carbohydrates are the body's primary energy source for training. But limiting simple carbs will help to maintain lean body mass.

HABIT #5: Eat healthy fats daily. There are three basic categories of fats: saturated, polyunsaturated, and monounsaturated. Limit saturated fats and increase monounsaturated fats and polyunsaturated fats. Saturated fats are often found in fried foods (fast food restaurants), baked goods, and processed foods. Good sources of polyunsaturated and monounsaturated fats are found in fish, nuts, flaxseed, and olive oil.

HABIT #6: Don't drink beverages with more than zero calories. Replace pop and sugary drinks with water, green tea, and protein shakes. Save the Gatorade for after athletic performance (it is extremely high in simple sugars). Every athlete should strive to drink at least 64 ounces of water per day.

HABIT #7: Eat whole foods instead of supplements. Your body is designed to absorb and metabolize unprocessed foods, fresh fruits, vegetables, seafood, and lean meats. Base your diet on these things. The only supplement you really need is a good multivitamin.

HABIT #8: Plan ahead. The easiest way to fall into bad nutritional habits is to not plan on what you will eat. Eating well requires preparation. Make this a priority in your strength training.

HABIT #9: Eat as wide a variety of foods as possible. Eat a variety of foods from all the food groups.

HABIT #10: Don't break the rules. Be committed to eating right. Good nutrition is vital to strength training.

ATHENS HIGH SCHOOL BASEBALL
 OFF-SEASON STRENGTH & CONDITIONING PROGRAM



NAME: _____

LOWER BODY STRENGTH DAY: _____ DATE: _____ TIME: _____ LENGTH OF WORKOUT: _____

EXERCISE	----- DEFINED -----			WORK SETS
Jog, Dynamic Warm-up stretching				5 min jog, 12 stretches
Plyometrics, X-Jumps, Dot Drills				10 X 2
Medicine Ball Drills				10 X 2

EXERCISE	----- WARM-UP SETS -----			WORK SETS
Squats (front or DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 3
Calf Raises (DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Dead Lift	_____ X 5 X 2	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 2
Forearms Wrist Rolls (weighted rope)				5 X 3
Forward Lunges (DB)				10 X 2
Sit-ups				50 X 2 (or 25 X 4)

Body Weight: _____

Cardio? YES NO If yes, what and length/time: _____

Nutrition Notes:

ATHENS HIGH SCHOOL BASEBALL
 OFF-SEASON STRENGTH & CONDITIONING PROGRAM



NAME: _____

ENERGY (Cardio) DAY: _____ DATE: _____ TIME: _____ LENGTH OF WORKOUT: _____

EXERCISE	----- DEFINED -----			WORK SETS
Jog, Dynamic Warm-up stretching				5 min jog, 12 stretches
Intervals (Sprints, 10 X 100 yards)				10 X 100 yards
Aerobic (stair-climb, cycle, jump rope, etc)				10-15 minutes
Cool Down Jog & Walk, Stretch				5 minutes

Body Weight: _____

Nutrition Notes:

ATHENS HIGH SCHOOL BASEBALL
 OFF-SEASON STRENGTH & CONDITIONING PROGRAM



NAME: _____

UPPER BODY STRENGTH DAY: _____ DATE: _____ TIME: _____ LENGTH OF WORKOUT: _____

EXERCISE	----- DEFINED -----			WORK SETS
Jog, Dynamic Warm-up stretching				5 min jog, 12 stretches
Plyometrics, X-Jumps, Dot Drills				10 X 2
Medicine Ball Drills				10 X 2

EXERCISE	----- WARM-UP SETS -----			WORK SETS
Squats (front or DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 3
Bench Press (DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Lat Pulls (overhand)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Incline Bench Press (DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Triceps Press	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Seated Rows	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Forearms Wrist Rolls (weighted rope)				5 X 3
Sit-ups				50 X 2 (or 25 X 4)

Body Weight: _____

Cardio? YES NO If yes, what and length/time: _____

Nutrition Notes:

ATHENS HIGH SCHOOL BASEBALL
 OFF-SEASON STRENGTH & CONDITIONING PROGRAM



NAME: _____

ENERGY (Cardio) DAY: _____ DATE: _____ TIME: _____ LENGTH OF WORKOUT: _____

EXERCISE	----- DEFINED -----			WORK SETS
Jog, Dynamic Warm-up stretching				5 min jog, 12 stretches
Intervals (Sprints, 10 X 100 yards)				10 X 100 yards
Aerobic (stair-climb, cycle, jump rope, etc)				10-15 minutes
Cool Down Jog & Walk, Stretch				5 minutes

Body Weight: _____

Nutrition Notes:

ATHENS HIGH SCHOOL BASEBALL
 OFF-SEASON STRENGTH & CONDITIONING PROGRAM



NAME: _____

LOWER BODY STRENGTH DAY: _____ DATE: _____ TIME: _____ LENGTH OF WORKOUT: _____

EXERCISE	----- DEFINED -----			WORK SETS
Jog, Dynamic Warm-up stretching				5 min jog, 12 stretches
Plyometrics, X-Jumps, Dot Drills				10 X 2
Medicine Ball Drills				10 X 2

EXERCISE	----- WARM-UP SETS -----			WORK SETS
Squats (front or DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 3
Calf Raises (DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Dead Lift	_____ X 5 X 2	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 2
Forearms Wrist Rolls (weighted rope)				5 X 3
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Body Weight: _____

Cardio? YES NO If yes, what and length/time: _____

Nutrition Notes:

ATHENS HIGH SCHOOL BASEBALL
 OFF-SEASON STRENGTH & CONDITIONING PROGRAM



NAME: _____

UPPER BODY STRENGTH DAY: _____ DATE: _____ TIME: _____ LENGTH OF WORKOUT: _____

EXERCISE	----- DEFINED -----			WORK SETS
Jog, Dynamic Warm-up stretching				5 min jog, 12 stretches
Plyometrics, X-Jumps, Dot Drills				10 X 2
Medicine Ball Drills				10 X 2

EXERCISE	----- WARM-UP SETS -----			WORK SETS
Squats (front or DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 3
Bench Press (DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Lat Pulls (overhand)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
Incline Bench Press (DB)	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
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Seated Rows	_____ X 5 X 1	_____ X 3 X 1	_____ X 2 X 1	_____ X 8-10 X 4
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Body Weight: _____

Cardio? YES NO If yes, what and length/time: _____

Nutrition Notes: