

Conditioning Drills, by Ed Cheff & Bruce Madsen

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Baseball is an explosive sport. Hitting, throwing, and running are short-duration, high-speed, explosive activities. In this chapter, coaching staff and players are asked to spend valuable time and energy on conditioning. In case you're unsure about the value of conditioning in baseball, we'll begin with a clear and logical explanation of the rationale behind the conditioning process. Our goal is your players' enthusiastic commitment toward baseball excellence through conditioning--not just grudging compliance in the face of authority.

During rest and inactivity, 80 to 85 percent of a person's blood (the body's primary heating agent) pools in the core organs of the brain, rib cage, and abdomen, making for a diminished blood supply in the body's muscles and connective tissue. As a consequence, muscles and tissue are cool at the start of a practice. These cool muscles and connective tissue lose their flexibility and elastic properties; they move sluggishly, like licorice in the refrigerator.

A rich blood supply in the muscles and surrounding tissue is unnecessary during times of relative inactivity. But if you don't allow adequate time and movements for blood redistribution before transitioning into high-force activities, you greatly increase the risk of muscle and connective tissue damage.

Any aerobic activity that exclusively employs the legs (biking, stair stepping) will not lubricate and warm up the torso and upper extremities. While the progressive speed increases in walking to jogging to moderate-speed running are adequate to begin the warm-up process, alone they aren't enough.

In baseball, the pitching arm moves backward (externally rotating the humerus) to a frighteningly extreme range of motion. Then it violently reverses directions, moving forward (internally rotating the humerus) at up to 100 mph. This explosion is sometimes repeated up to 140 times per game. Think of racing full speed in reverse and then slamming the transmission in drive and immediately accelerating up to 100 mph. The preparation for explosively violent activity must be progressive, task specific, and executed with precision.

An average baseball game lasts about two and a half hours. Some go much longer. How much of that time is spent sitting and standing around? The cardiovascular training in our program is strictly encouraged for players with excessive body fat. If fat inhibits a player's performance, it's then treated as a problem.

Our conditioning drills must be sport and task specific to fully prepare our team for injury prevention and maximum sport performance. Our focus is on high-intensity explosive activities that trigger fast-twitch muscle fibers. Our training protocol is biomechanical and baseball specific; it includes drills for flexibility, strength, speed, agility, quickness, and muscular endurance.

PREGAME WARM-UP

Focus To lubricate joints while moving blood out of the core organs and into the joints, muscles, and connective tissue.

Setup All players participate at once. You need an open area, either indoors or outdoors, to complete these drills. After the jogging, line up players for stretching; it's recommended that five players are in each line. This creates less rest time and more consistent moving and agility.

Procedure Begin the activity with 8 to 10 minutes of low-intensity jogging with a gradual increase in stride length. Now that the muscular tissue is warm dynamically, stretch all of the

major muscle groups. Then have players line up in groups of five or fewer. Our goal is to have each player perform all of the exercises two times at the distance of 90 feet, down and back being counted as one repetition.

1. High knees. Stay on toes and jog forward, touching the ground as many times as possible while moving forward. It should take about 10 seconds to travel 90 feet.
2. Power skips. Lift one leg up at a time while exploding upright with the other. The knee should explode up, stretching the hamstring, during this exercise.
3. Side bursts. Begin with feet together. Stay low and explode in the direction you're headed by accelerating one leg. Hop out and land on one foot followed by the other. Maintain balance and stay low.
4. Backward run. Run backward with big strides. Stretch the legs back as far as they can reach.
5. Sprint. Sprint 90 feet at about 85 to 90 percent maximum effort.

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