

Get Ready, Get Set — Warm-up To Play

As they walk onto the field or court before a game or practice, athletes tend to do one of two things: they either pick up a ball and start throwing, shooting, or kicking without any preparation to play, or they plant themselves down on the ground and proceed to stretch for 20 minutes. Athletes call this their warm-up. However, neither approach is a successful way to warm up the body. There is an alternative to both of these traditional warm-up routines. This alternative requires a methodical approach, in which you examine the workout/competition slated for that day and then structure the warm-up to match. This allows proper preparation for training and competition and thus can be a key element in the athlete's ultimate success or failure.

Why Warm Up?

The warm-up may be the most important component of the whole workout because it is a bridge between normal daily activity and training. A good warm-up will prepare the athlete for a sound workout, as well as set the tempo for the workout. A poor warm-up will result in a sub-par workout or, at the very least, will cause the first part of the actual training to be performed at a less-than-optimum level. What happens is that the body attempts to warm up during the training. A 15 to 20-minute warm-up daily is a significant accumulation of training time over the course of a training year.

One final reason not to short-change the warm-up: when put in the context of total training time for the year, warming up will occupy one-fourth to one-fifth of the training time.

Consider all the things a proper warm-up can do:

- Help to prevent injury.
- Raise core temperature of the body.
- Raise the level of excitation of the nervous system.
- Improve elasticity and the contractile ability of the muscles.
- Improve efficiency of the cardio-vascular and respiratory systems.
- Shorten reaction time.
- Enhance overall coordination.
- Regulate the emotional and arousal state.
- Raise work capacity.

Because the warm-up is so important, it must be as thoroughly planned as the workout itself. It must allow a seamless flow into the actual training session, and it must dovetail with the planned objective of the training session. Therefore, it is important to vary the warm-up based upon the objective of the actual workout. The mindset must be that the workout starts with the warm-up; it is not a separate part.

Also note that when working with young athletes, a good thorough warm-up can comprise the entire workout. The first few training sessions should consist of little more than an extensive warm-up with an emphasis on correct execution of the exercises and a routine of preparation to play or train.

One more point before we get into the specifics: stretching is not a warm-up! Stretching may be part of a thorough warm-up, but only if it is active and dynamic, as opposed to static. According to Thomas Kurz, in *Science of Sports Training* (Stadion Publishing Co., 1991), "Doing static stretches before a workout that consists of dynamic actions is counterproductive. The goal of the warm-up, which is to improve coordination, elasticity, and contractability of muscles and breathing efficiency, cannot be achieved by doing static stretches, isometric or relaxed. Isometric tensions will only make you tired and decrease your coordination. Passive, relaxed stretches, on the other hand, have a calming effect and can even make you sleepy."

Components of a Warm-up

A proper warm-up can consist of a wide variety of exercises. The key is choosing those that will enhance the workout to come. In determining your warm-up routine, consider the components listed below, thinking about the content of the actual workout, the location of the workout within the weekly training cycle, and the needs of the individual athlete.

Light Aerobic Activity — This involves three to five minutes of continuous rhythmic activity, which can be light running, jumping rope, StairMaster, or bike riding. The goal is to raise the core temperature of the body.

Loosening — Use large-amplitude movements incorporating flexion/extension, rotation, and bending. These movements are dynamic, not ballistic. The emphasis should be on rhythm, gradually working to the end range of movements. Exercises should include leg swings, arm circles, and trunk rotations. The goal is to lubricate the joints.

Balance — This component should incorporate both static and dynamic balance activities. Use a combination of balance beams, foam rollers, and balance single-leg squats. The goal is to heighten proprioception.

Flexibility — This involves range of motion with control. Stretches should be held for one to two seconds. The emphasis should be on the muscle groups that undergo the most stress. It is not necessary to stretch every muscle of the body, as that would be an inefficient use of warm-up time. The goal is to improve range of motion.

Coordination — Always work on fundamental

*Most athletes equate
warming up with
stretching. the truth is, a
proper warm-up entails
much, much more.*

movement skill before specific sport skill. Emphasize rhythm and tempo of the exercise. These should be total-body movements of large amplitude. The goal is to address fundamental movement skills to improve body awareness and coordination.

Core Work — Incorporate flexion/extension, rotation, and diagonal rotational patterns with this component. This can be done with body weight, medicine balls, weight plates, stretch cords, or body blades. These warm-up exercises are especially important preceding a strength-training session. The goal is to improve awareness and control of the center of the body.

Specific Warm-up — For this one, simply incorporate sport-specific movements at a lower intensity. The goal is specific preparation for the actual workout.

Cooldown — This is a mirror of the warm-up and helps the athlete transition back to normal daily activities. The goal is to accelerate recovery and restore the body back to its pre-workout state in order to prepare for the next training session. Always think of it as a cooldown, not a shutdown.

How Much Time?

The length of the warm-up can range from 15 to 40 minutes, depending on the main emphasis of the workout and the training task that immediately follows the warm-up. For speed, strength, and other workouts that have high technical demands, the warm-up should be long. Warm-up for endurance sessions or workouts of low technical demand can be relatively short. Also consider environmental conditions in the length of the warm-up. A colder day will require more warming up than a hot day.

The second and third warm-ups of the day, if multiple training sessions are planned, do not have to be as long as the first, provided they are not separated by more than six to eight hours. The body remains metabolically active, so each succeeding warm-up after the first can be reduced in length.

Pre-Competition Warm-up

The pre-competition warm-up has some similarities to the pre-practice warm-up, but needs to be longer and even more thorough. Less time is devoted to general warm-up and more time is devoted to specific warm-up. In the early season, plan longer warm-ups, and as the season progresses the warm-up time can be reduced and the content changed to reflect the changing demands of competition. As a general rule, begin the warm-up 60 to 70 minutes before the start of the actual competition.

The pre-competition warm-up can play an important role in controlling competition anxiety and arousal. If the athlete is overanxious and nervous, then the warm-up should include more stretching and calming activities. If the athlete needs to be more “psyched up,” then the warm-up should be more vigorous and active.

Before competition be sure to allow enough time for all particulars, including a period for individual time if it is a team warm-up. Don't forget to factor in athletes' personal needs, such as changing into dry clothing, using the rest room, or putting hair in a braid. Carefully plan back from the start of the competition so that all elements have sufficient time.

The following are sample warm-ups:

Basic Warm-up

Skip 2 x 30 yds
Sidestep 2 x 30 yds
Long & Low Carioca 2 x 30 yds
Carioca 2 x 30 yds
High-Knee Carioca 2 x 30 yds
Backward Run 2 x 30 yds
Straight-Leg Prances 2 x 30 yds

LSA Warm-up

High Skip 2 x 30 yds Lateral Speed & Agility Warm-up
Serpentine Run 2 x 30 yds
Diagonal Plant & Cut 2 x 30 yds
360s 2 x 30 yds
Touches (alternate hands) 2 x 30 yds
Sprint/Backpedal 2 x 30 yds
Backpedal/Sprint 2 x 30 yds Dynamic
Change-of-Direction Warm-up
Skipping: use a reaching arm action (one arm & two arm), then a crossing arm action
Crossover Skip
Crazy Hips
Sidestep: switch direction every two;
also perform at angles
Carioca: switch direction every two;
also perform at angles
Leg Swing Out & Around Hip Mobility

Advanced Warm-up

Karate Squat
Carioca Skip
Side Skip
Side Walking Lunge
Giant Step: forward & back, to the side, crossover
Forward/Back Out & Around
Hurdle Walks: hurdle walkovers and out
& around walkovers
Diagonal Kicks: bent knee, then straight leg
Crossover Bound: straight leg then bent knee
Zig Zag Bound Continuous Warm-up: Combine all components of previous warm-ups and continue for a target time. Usually 10, 15, or 20 minutes.
Use this warm-up on a day when the workout is lower intensity. ◆