

# Implementing Effective Team / Group Warm-Ups

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Warming-up has always been and continues to be an important component of training and competing in all sports. There are obvious reasons why athletes need to warm-up prior to their sport of choice, including performance enhancement, injury prevention and mental preparation. Warm-up can also be an opportunity for development of skills and movement abilities, assuming the coach is closely monitoring the quality of those skills.

Unfortunately, developing an effective warm-up program is not a “one-size fits all” proposition. Different athletes from different sports, abilities, ages and environments need a warm-up that best suits them. Thus, the first order of business is to determine what type of warm-up progression would be most appropriate given the conditions you have to work with.

## **Preparatory Work**

When developing a warm-up plan, it is important to consider the following issues:

### **1. Identify Your Time Constraints**

How much time can you allocate to your warm-up? If you have a field or court booked for 90 minutes and you want to make sure you can fit in a good warm-up, part of the 90 minutes must be used for warm-up. If you do not want to have the warm-up infringe on your valuable practice time, it can be possible to use an end-zone, sideline or smaller room for a preparatory warm-up.

At minimum, 15 to 20 minutes should be allocated for a proper group/team warm-up. Remember also that the warm-up should never be seen as isolated from the actual training session. A well implemented warm-up should seamlessly progress from warm-up to the full intensity of a training session or game. Elite athletes in high intensity sports such as the 100m sprint in track and field may take as long as 90 to 120 minutes for an effective warm-up. This warm-up is drawn out in a manner that slowly brings the athlete to a state of readiness, while not creating unwanted stress and fatigue.

The shorter amount of time you have for warm-up, the more continuous in nature it should be. If you only have 10 minutes to warm-up, you should be moving the whole time and progressing from low intensity to high intensity. If you have significantly more time for warm-up, you can intersperse continuous movement with dynamic stretching sessions. Not only does it help to prepare the athlete for intermittent exercise, it also adds variety to the program.

## 2. Determine Your Group's/Team's Training Capacity

The amount of work you prescribe for warm-up will depend on the fitness levels of your athletes. If your warm-up program does not reflect the capabilities of your athletes, you will likely burn all of their energy in the warm-up phase. Additionally, you run the risk of injuring athletes with a warm-up that they cannot handle.

Remember, an athlete must be in good overall condition to complete an effective warm-up. Athletes must put in enough work to raise their internal body temperature adequately (i.e. they should be sweating), rehearse all the necessary skills and movements required in their sport, and put them in a good frame of mind for competing.

## 3. Evaluate Your Training Environment

Where can I conduct my warm-up? In some cases, you may have a choice, and the ability to choose the best possible warm-up environment. In other cases, you may be stuck with what you deem an 'unacceptable' warm-up facility. Space limitations can be frustrating, but can be worked around. There are different ways to implement a continuous warm-up with limited space.

### a. Shuttle Warm-Up Method

A shuttle warm-up involves doing various drills, movements and runs in a back-and-forth fashion. The distance of the shuttle length can vary between 10m and 40m, but it may depend on how much space you have and the sport you play. For example, a volleyball court is much smaller than a soccer field. Thus, a shuttle warm-up for volleyball can be performed from side-line to side-line (approx 10m), while a shuttle warm-up for a soccer player can be over 20-30m.

Regardless of your sport, you may have space limitations that require that you only perform short shuttles for your warm-up. The drills that you can use in this configuration are discussed later in this paper. **Figure 1** below provides an illustration of the shuttle configuration for various distances.

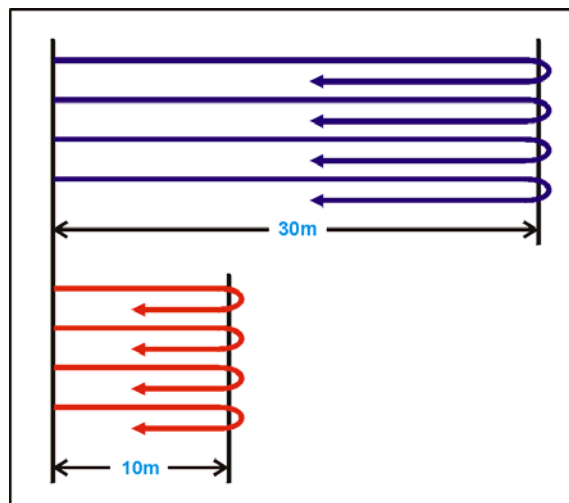


Figure 1: Shuttle configuration warm-up with short and longer distances.

### b. Box or Rectangle Warm-Up Method

The box or rectangle warm-up method involves doing various drills, movements and runs around a specified course, with drills and intensities changing for each 'side' of this configuration. The square or rectangle conforms to many spaces that will be available to you including a portion of a basketball or volleyball court, the end-zone of a football or soccer field, or a small space away from your main practice area. The dimensions of the configuration will depend on the space you have available, as well as the type of sport for which you are preparing (i.e. squash may have 10m sides, while field hockey may have 25m sides). **Figure 2** provides an illustration of this type of configuration.

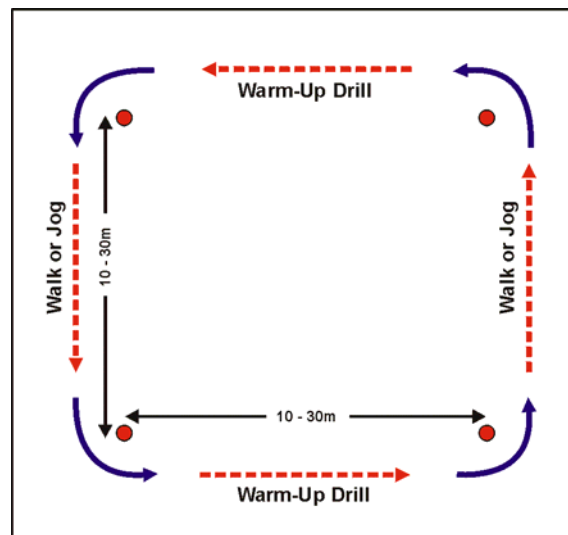


Figure 2: Square configuration warm-up.

## 4. Guidelines for Warm-Up Activities

Now that you have determined your opportunities and constraints for implementing a warm-up, you can identify the specific details of your warm-up. Provided below are some useful guidelines for setting up your group/team warm-up:

### a. Start with General Movement Patterns to Raise Body Temperature

This is as simple as going for a jog. Although many people think this is “low tech” or “old-school” it is one of the easiest methods to achieve this end. Any low intensity activity that creates a circulatory response (i.e. increase in heart rate) will help to physically heat the body. Heating the body primes nerve passages, opens arterial and venous passageways, and enhances the elastic properties of muscle and connective tissue. Other options include skipping, walking or doing repetitive motions on the spot (i.e. jumping jacks).

**b. Incorporate Dynamic Flexibility Work**

Intersperse dynamic flexibility work throughout your warm-up. As your body warms up more and more, you will be able to achieve greater ranges of motion. The dynamic movements you perform should include activities that work through the required ranges of motion for your sport. Dynamic flexibility work implies that you are actively moving through a range of motion in a safe and progressive fashion. Actions such as arms swings, torso rotations and leg swings are all examples of dynamic flexibility movements. When you begin these movements, you should start at a lower intensity/velocity and slowly progress to a higher intensity/velocity.

**c. Progress Toward Higher Intensity Work**

As with the dynamic flexibility work, your entire warm-up progression should be based on the concept of working from low-intensity to high-intensity output. Starting at too high an intensity will shock the system and potentially create unwanted fatigue or injury. However, you do want to slowly build up to full-intensity to prepare you for the demands of your competition environment. The saying, "Practice how you play," also tells us that our warm-up for training should be no different than our warm-up for competition.

**d. Incorporate More Dynamic Flexibility Work**

As you move from lower intensity work to higher intensity work, your dynamic flexibility work can increase in intensity as well. When your body temperature is higher and your muscles are firing more efficiently more specific flexibility work can be performed.

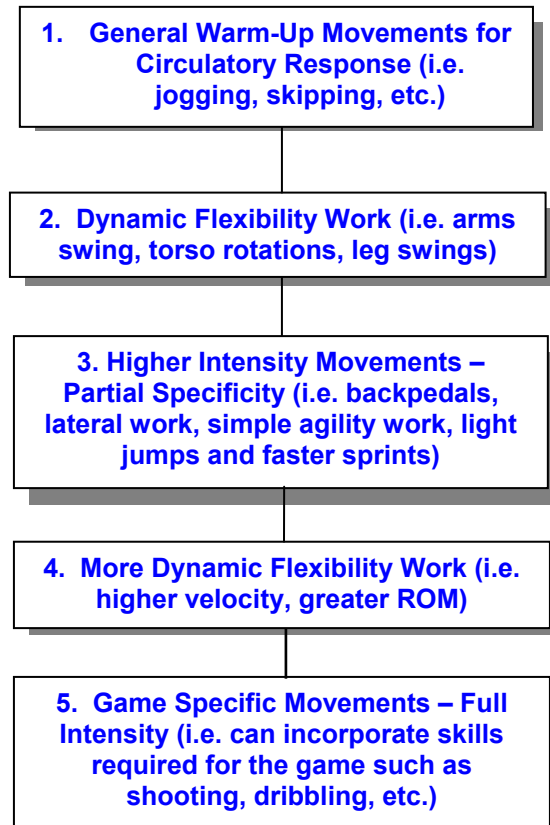
**e. Finish with Game Specific Movement Patterns**

If the beginning of the warm-up started with general movement patterns performed at a lower intensity (i.e. jogging in a straight line), the latter part of your warm-up will include more sport specific movements. For example, at the end of their warm-up, volleyball players may include more jumping movements similar to blocking or hitting. Soccer players will incorporate more lateral movement and backpedaling, finishing in a shot or a pass play. Basketball players will finish their warm-up with more one-on-one type movement patterns such as jab steps, lateral slides, jumping and pivoting.

**f. Incorporate Limited Static Stretching Where Required**

In some cases, static stretching may be required to assist with joint mobility or simply a tight muscle group. This can be implemented on an individual basis, and can be done with simply isolated static stretches or more advanced partner stretching such as PNF (Proprioceptive Neuromuscular Facilitation) stretches. Too much static stretching, however, can dull the reflexes and result in less force production.

## 5. General Structure of the Warm-Up Plan



## 6. Sample Warm-Up Exercises

Provided below are just a few of the types of drills and exercises that can be performed in a group/team warm-up (listed in increasing intensity and complexity):

- Jogging forwards
- Jogging backwards
- Skipping forwards
- Skipping backwards
- Running high heels (butt kicks)
- Running high knees
- Skipping forwards with forward arm rotations
- Skipping forwards with backward arm rotations
- Skipping backwards with forward arm rotations
- Skipping backwards with backward arm rotations
- Lateral shuffles – tall stance
- Lateral shuffles – low stance
- Lateral shuffles alternating directions (3 shuffles one way, pivot, three shuffles facing other way)
- Carioca steps (lateral running crossing over front and back)
- Carioca steps with periodic rotations to change direction
- Carioca steps with large bounding steps

- Carioca steps with small, quick steps
- Rolling lunges
- Backwards rolling lunges
- Power skips
- Single leg hops
- Alternate leg bounds
- Power skips
- Two leg hops
- Squat jumps
- Tuck jumps
- Sprints from falling start
- Sprints from lateral start
- Sprints from push-up start
- Multiple push-ups into a start
- Running high-knees into a sprint
- Multiple side-shuffles turning into a sprint
- Backpedal into a sprint
- Multiple hops into a sprint
- Multiple bounds into a sprint
- Multiple shuttle sprints (back and forth)