



The Warm-Up

A warm-up period is the first part of every training session or preparation for competition. The warm-up starts slowly and systematically and gradually involves all muscles and body parts that prepare the athlete for training and competition. In addition to preparing the athlete mentally, warming up also has several physiological benefits.

- Raises body temperature
- Increases metabolic rate
- Increases heart and respiratory rate
- Prepares the muscles and nervous system for exercise

The warm-up is tailored for the activity to follow. Warm-ups consist of active motion leading up to more vigorous motion to elevate heart, respiratory and metabolic rates. The total warm-up period takes at least 25 minutes and immediately precedes the training or competition. A warm-up period will include the following basic sequence and components.

Activity	Purpose	Time (minimum)
Slow aerobic movement	Heat muscles	5 minutes
Stretching	Increase range of movement	5-10 minutes
Event-Specific Drills	Coordination preparation for training/competition	10 minutes

Slow Aerobic Movement

Jogging, non-specific movements (such as “shaking all over”) or other slow aerobic movements may be used that are specific to the ability levels of the swimmers. It is the first exercise of an athlete’s routine. Athletes begin warming the muscles by moving around for three to five minutes. This circulates the blood through all the muscles, thus providing them greater flexibility for stretching. The movement should start out slowly and then gradually increase in speed to its completion; however, the athlete should never reach even 50 percent of his maximum effort by the end of the activity. Remember, the primary objective of this phase of the warm-up is circulating the blood. The example programs for each group: beginner, stroke correction and squad—identify specific activities that may be suitable for this section of the warm-up.

Stretching

Stretching is one of the most critical parts of the warm-up and an athlete’s performance. A more flexible muscle is a stronger and healthier muscle. A stronger and healthier muscle responds better to exercise and activities and helps prevent athlete injury. Please refer to “Stretching” within this section for more in-depth information.

Flexibility is a major element to an athlete’s optimal performance in both training and competing. Flexibility is achieved through stretching, a critical component in warming up. Stretching follows an easy aerobic jog at the start of a training session or competition.

Begin with an easy stretch to the point of tension, and hold this position for 15-30 seconds until the pull lessens. When the tension eases, slowly move further into the stretch (developmental stretching) until tension is again felt. Hold this new position for an additional 15 seconds. Each stretch should be repeated four to five times on each side of the body.



It is also important to continue to breathe while stretching. As you lean into the stretch, exhale. Once the stretching point is reached, keep inhaling and exhaling while holding the stretch. Stretching should be a part of everyone's daily life. Regular, consistent, daily stretching has been demonstrated to have the following effects.

1. Increases the length of the muscle-tendon unit
2. Increases joint range of motion
3. Reduces muscle tension
4. Develops body awareness
5. Promotes increased circulation
6. Makes you feel good

Some athletes, like those with Down syndrome, may have low muscle tone that makes them appear more flexible. Be careful to not allow these athletes to stretch beyond a normal, safe range. Several stretches are dangerous to perform for all athletes and should never be part of a safe stretching program. These unsafe stretches include the following

- Neck Backward Bending
- Trunk Backward Bending
- Spinal Roll