

The Right Way to Warm Up

One of our main goals and responsibilities in AYSO is to provide a SAFE environment for our kids. Although injuries occur in sport, no parent wants their child to get hurt. As coaches, the safety of the players and preventing injuries should be of utmost concern and one of our primary responsibilities.

PREVENT, DO NOT TREAT INJURIES

Proper warm-up is essential in preventing injuries. Coaches must understand the correct way to warm-up.

Doctor James Peek, from the University of Michigan Sports Medicine Department, put injury prevention in perspective when he said, "90 percent of all youth injuries could be **avoided** if coaches learned the art of warming-up their teams."

Unless the body is fully prepared for competition and participation at both practice and game time, muscle injuries such as strains are more likely to result.

Younger players (10 and under) need little warm-up. They are on the go from the time they get up to the time they go to bed. What is important is that they should still warm-up because it creates good habits.

As children grow older it is imperative that they warm-up. Far too often this portion of practice and pre-game preparations is overlooked. Proper warm-up is a must.

WARM-UP

The American Council on Exercise, in *Warm up to Work Out*, states that proper warm-up prepares the body for higher intensity action. When you start to exercise, your heart rate and heart output begin to increase. Blood flow and breathing increase to help get more oxygen to the muscles. Blood temperature rises allowing oxygen to be released more quickly in turn raising the temperature of the muscles, hence the term warm-up.

Proper warm-up will help **prevent injury** to the muscles by improving muscle elasticity. It improves muscle control, joint range of motion, and muscle output, therefore **improving muscle performance**.

Additionally, proper warm-up helps mentally to prepare players by having them focus on the activity at hand.

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HOW TO WARM-UP PROPERLY

Proper warm-up is GRADUAL and consists of two phases. The first phase is **LIGHT AEROBIC EXERCISE** such as juggling. Gradually the intensity should increase but still be at a low to moderate level that produces light perspiration and an increase in body temperature. There should be neither fatigue nor profuse sweating.

Body movements that are used during games but done at a low intensity or slow pace can be used during this first phase. Dribbling, push pass, ball control or other skills done at a relaxed pace can be used as well as body movements without the ball. No shooting, long lofted passing, sprinting, or strenuous, “all out” type activities.

The second phase is **STRETCHING** to loosen the muscles and improve muscle elasticity. This is done after the light exercise part is complete. Stretching should be relaxed and not forceful.

There are two types of stretches that must be accomplished during the warm-up: static stretching and dynamic stretching.

Static stretching is designed to slowly stretch and loosen the various muscle groups. The word “static” implies that the stretching exercise be performed without vigorous movement. The stretch should be “held” for 15 seconds for younger players and 20-30 seconds for older players. Special emphasis should be placed on thigh muscles, hamstrings, groins, calves and abdominal muscles.

The secret to a good stretch depends greatly on the ability of the player to **relax** during and after each stretch.

Players need to focus on their stretching. The coach should not allow talking or “horsing around” during the static portion of the warm-up. Have all players keep their eyes closed. Positive “talking through” will help maximize the benefits of this portion of the warm-up. Allow players to “shake it off” between stretches.

NO JUMPING JACKS, SIT-UPS, DEEP KNEE BENDS, OR LEG LIFTS.

NO EXERCISES ARE DONE DURING THE STATIC PORTION OF THE WARM-UP. THIS IS THE TIME TO STRETCH THE MUSCLES.

According to an article by Helen M. Timmerrnans and Malissa Martin, both of the University of South Carolina, in the *Journal of Physical Education, Recreation and Dance*, several “traditional” exercises and stretches are potentially quite dangerous.

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They are

UNACCEPTABLE: “The Plough” (lying on your back, extending your legs over your head so your toes touch the floor). This stretches already elongated muscles and ligaments, and may lead to neck and back injuries.

ACCEPTABLE: sitting on the floor with one leg extended; stretch the opposite leg over and across the extended leg.

UNACCEPTABLE: “Hurdler’s stretch.” This places the knee in an unnatural position; it may also cause groin strain.

ACCEPTABLE: Sit on the floor with one leg extended; bend the opposite leg in toward the extended leg.

UNACCEPTABLE: Sit-ups with legs straight. This increases stress on the lower back.

ACCEPTABLE: Sit-ups with bent knees (females should bend their knees, with knees slightly apart).

UNACCEPTABLE: Sit-ups with hands behind the neck. This puts excessive pressure on the cervical spine.

ACCEPTABLE: Sit-ups with hands on the chest.

UNACCEPTABLE: Double leg lift. This promotes hypertension of the lower back.

ACCEPTABLE: Lie on your back, alternate bringing your bent knee toward your chest.

UNACCEPTABLE: Deep knee bends (past 90 degrees). This may harm the knee by stretching ligaments, particularly if you have anterior cruciate or cartilage problems.

ACCEPTABLE: Squat with your back flat against the wall.

UNACCEPTABLE: Standing toe touch. This may overstress the muscles and ligaments of the lumbar region, and may compress the sciatic nerve.

ACCEPTABLE: While sitting, stretch forward to reach your toes or ankles.

UNACCEPTABLE: Shin and quadriceps stretch (lifting leg backwards to buttocks while standing without support). This may hyper-flex the knee, and stress cartilage or stretch ligaments.

ACCEPTABLE: Do this using opposite hands and feet, while supporting yourself against a wall.

UNACCEPTABLE: Neck circling while sitting. This can pinch arteries and nerves at the base of the skull.

ACCEPTABLE: Do moderately, while supporting the neck with your hands.

UNACCEPTABLE: Ballistic ballet bar stretches (lifting your knee high on a bar, while stretching forward). This can lead to sciatica.

ACCEPTABLE: While standing, support your leg on a low table; bend forward at the waist, and lean your head toward your ankle.

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Dynamic stretching (sometimes referred to as Ballistic stretching): allows for a more rigorous stretching of muscle groups. Emphasis here should be placed on demanding, agility-oriented exercises with vigorous movement such as jumping, forward and backward sprints, stop and go, directional changes in a circle, high stepping in place, etc. Dynamic stretching exercises should have soccer specific movements and a ball should be used whenever possible.

Try this Warm-up:

Jog (not run) two laps and then stretch major muscles (no bouncing). Do the following in a 20 yard grid (smaller for under 10). All are completed only when the players have gone 20 yards up and 20 yards back.

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|--------------------|------------------------------|------------------------------------|
| 1) 2 x 40s lightly | 2) side steps | 3) butt kicks |
| 4) skip | 5) keriokeys | 6) run, hop, skip |
| 7) run backwards | 8) accelerations | 9) side steps/go |
| 10) up-up | 11) hops (both, left, right) | 12) sprint-turn/back pedal |
| 13) Wind mills | 14) long strides | 15) back pedal-turn/sprint |
| 16) cherry pick | 17) high knee | 18) keriokeys/go left, right, both |
| 19) full speed | | |

Now partner off your team. Each team of two will do 10 of each of the following (put stronger players with less skilled players so that the stronger players can work on the technique of the lesser skilled player).

- 2 touch 10 yard stationary push passes, right/left foot
- 2 touch with movement
- 1 touch 5-yard push passes stationary
- 1 touch push passes with movement
- Inside of the foot volleys, left and right foot
- Instep volleys, left and right foot
- Chest traps
- Chest to volleys, instep and inside of foot, left and right foot
- 5 headers

Add movement

Take-overs

- 10 yard push passes go to back of same line two touch
- 10 yard push passes go to back of other line two touch
- 10 yard one touch pass go to back of same line
- 10 yard one touch pass go to back of other line

References

- American Council on Exercise, *Warm up to Work Out*, Fit Facts, www.acefitness.org/fitfacts, April, 2002
- Flegel, Melinda J., *Sport First Aid*, 1997
- Timmerrnans, Helen M., and Martin, Malissa, *ton Ten Potentially Dangerous Exercises*, Journal of Physical Education, Recreation and Dance, August, 1987