

Warm-Ups and Cool Downs - The Real MVPs of Physical Activity

Warm-Ups

- **Q:** Why should I warm-up before I exercise?
 - **A:** As an athlete, routine warm-ups provide numerous benefits to you including increasing blood flow and oxygen to your muscles, increasing your heart rate, improving your concentration, and decreasing any performance anxiety you may have, all of which aim to increase your body's readiness to play, decrease your chance of injury, and enhance your overall athletic performance.
- **Q:** How should I warm-up to get those benefits?
 - **A:** Research shows that performing a whole-body, dynamic warm-up comprised of progressive low to moderate intensity movement drills, active movement-based stretches, and low intensity sport-specific movements is best practice. Specifically, dynamic warm-ups have been shown to improve immediate strength, speed, power, endurance, flexibility, and accuracy, as well as decrease overall injury risk by up to 79%.
- **Q:** How long should I warm-up for?
 - **A:** There is no specific time requirement for warm-ups, but a good rule of thumb is 15-20 minutes in order to perform some light cardio exercises (ex: jogging, cycling, etc.) for 5-10 minutes and a variety of sport-specific movements and stretches for another 5-10 minutes.
- **Q:** What are some good warm-up dynamic stretches?
 - **A:** In terms of lower body dynamic stretches, some good ones to consider include high knees, butt kicks, walking lunges, karaoke, frankenstein's, open/close the gate, heel/toe walks, side shuffles, walking hamstring stretches, walking knee to chest, skipping, inchworms, and hip swings. Additionally, some good upper body dynamic stretches include arm circles, self-hugs, push-ups, shoulder rolls, jumping jacks, and no moneys.

Cool Downs

- **Q:** Is a cool down really necessary after a workout?
 - **A:** Yes. In fact, regularly performing a cool down following activity provides you with numerous benefits including allowing your heart rate to slowly return to normal, reducing post-exercise muscle soreness, and even helping remove lactic acid from heavily utilized muscle groups.
- **Q:** What should I do to cool down? And for how long?
 - **A:** Similar to warm-ups, cool downs do not have a specific time requirement, but a good rule of thumb is 15-20 minutes in order to perform some light cardio exercises (ex: jogging, cycling, etc.) for 5-10 minutes and a variety of whole-body static stretches for another 5-10 minutes.
- **Q:** What are some good cool down static stretches?
 - **A:** In terms of lower body static stretches, some good ones to consider include the seated hamstring pike stretch, seated calf stretch, standing one leg quadriceps stretch, supine figure 4 stretch, seated butterfly stretch, standing IT Band stretch, prone hip flexor stretch, and side-lying brettzel stretch. Furthermore, some good upper body static stretches include the cross body posterior capsule stretch, overhead triceps stretch, child's pose stretch, goal post pec stretch, and neck tilt upper trapezius stretch. Keep in mind, when performing a cool down with static stretches, it is best to focus on the muscle groups that you used most during your workout, and to hold each stretch for at least 30 seconds, 2-3 times on each side.

Injury Prevention

- Routine warm-ups and cool downs are essential in preventing injuries. For instance, performing a proper warm-up routine decreases one's risk of tearing an ACL by 50%.
- An example of a good warm-up routine that decreases risk of injury is the FIFA 11+. The FIFA 11+ program is a structured 20-minute warm-up comprised of 3 phases (15 exercises total), designed for any sport athlete 14 years or older. In order to bring about injury prevention results, the program is to be performed daily, or at least two times a week, with an emphasis on proper form and mechanics. In terms of program specifics, the FIFA 11+ program begins with slow running exercises, active stretches, and controlled partner contacts as phase 1, continues with several sets of various level core and leg exercises, balance drills, and plyometric/agility exercises as phase 2, and ends with moderate to high speed running exercises with planting/cutting movements as phase 3.

For a detailed outline of the FIFA 11+ program, go to:

<https://www.motionmn.com/wp-content/uploads/2018/06/FIFA-11-poster.pdf>