Like a good book with a beginning, middle, and end, exercise falls into the same template. When exercising, the beginning is the warm-up—getting your body ready for exercising. The middle is the actual exercise, and the end is the cool-down—returning your body to a normal resting state. This fact sheet discusses the purpose and benefits of warming up and cooling down.

Warm-up
The purpose of a warm-up is to warm your body and prepare it for the exercises to come. Usually a warm-up will consist of activities at a slower pace and reduced intensity. The goal of a warm-up is to increase your body temperature, therefore warming up your muscles. Blood flow and flexibility will increase during a warm-up. The warm-up may cause mild sweating, but it shouldn’t leave you tired or fatigued.

During a warm-up, your heart rate and breathing will increase. A warm-up also promotes blood flow to your muscles to provide them with more oxygen and nutrients so they don’t get fatigued. Your muscles also warm up, which increases muscle flexibility and makes exercises easier to complete. By preparing your muscles for exercise, your reaction time is increased and nerve pathways are ready for exercise.

In addition to all the physical benefits of a warm-up, it also prepares you mentally for the upcoming exercises. Warm-ups can consist of a variety of exercises and stretches. Contradictory to many beliefs, solely stretching as a warm-up will not warm you up properly. Instead, a dynamic warm-up (also called dynamic stretching) is more effective. Instead of holding still while stretching (also called static stretching), during a dynamic warm-up you move multiple muscles and joints.

A warm-up should last approximately 5 to 10 minutes. Choose a warm-up that mimics the exercises you will be doing. For example, if you are about to participate in weight lifting exercises, do the same movements without the weights. Some other examples of warm-up exercises are leg bends, leg swings, shoulder/arm circles, jumping jacks, jumping rope, lunges, squats, walking or a slow jog, yoga, torso twists, standing side bends, lateral shuffle, butt kickers, knee bends, and ankle circles.

Advantages of Warming Up
- Decreases your chance of pulling a muscle
- Decreases joint pain
- Decreases your chance of injury
- Can reduce muscle soreness after exercises are complete

Cool-down
Similar to the warm-up, the cool-down, also known as the recovery period, usually consists of exercises at a slower pace and reduced intensity. This allows for your heart rate, breathing, and blood pressure to return to normal at a slower pace. The cool-down aids in your body’s recovery after exercise and allows blood to return to your heart from your muscles. This will reduce the chance of your muscles being sore after exercise.

Completing a cool-down is not only beneficial immediately after the completion of exercises but also helps prepare your body for future workouts. By stretching out those muscles and properly cooling down, you will be more...
prepared to exercise sooner rather than later. If your body does not cool down properly, it will take longer for you to feel up to exercising again. All of the examples of warm-up exercises can also be used as cool-down exercises.

There are several benefits of a cool-down. It reduces the potential for DOMS (delayed onset muscle soreness). It can take 24 to 48 hours for your body to feel sore after exercising. Just because your muscles and joints may not be sore immediately after you’ve completed your exercises doesn’t mean you won’t feel sore later that day or the next day. A cool-down helps your body remove lactic acid, a by-product of vigorous exercise. If you do not cool down, the lactic acid may pool in your muscles, causing increased soreness.

**Benefits of Cooling Down**

- Helps lower your heart rate and breathing gradually
- Helps you avoid fainting or dizziness
- Helps remove lactic acid from your muscles
- Helps prepare your muscles for the next time you exercise