



Exercise—whether lifting weights, running, swimming or simply going for a vigorous walk—is the process of applying a physical stress to challenge the physiological functions of the body, but the act of exercising is only part of the process required for making changes in the body. If you want the most from your exercise program, then you must have a specific strategy for what you do after the workout to help ensure that the stimulus has the desired effect.

It's important to note that recovery doesn't just mean just taking time off to rest. Following a high-intensity training day with a low-intensity workout can actually help the body recover more quickly from the hard workout. Here are a few specific recovery strategies:

1. Heat and Cold Treatments

The heat from a sauna or hot tub increases the body's circulation, which removes metabolic waste products such as hydrogen ions, while carrying oxygen and other nutrients necessary to help repair tissue used during the workout. Another less comfortable but extremely effective option is to use cold treatments. Ice baths, ice packs, cooling vests or special chairs with pockets for ice packs are all different options available for applying cold treatment. One benefit of cold treatment is it can help cool down the body's core temperature, which is essential when exercising in hot weather. A second benefit is that it can reduce inflammation and promote healing in tissue that was used during the workout. Applying ice to a sore muscle or joint brings more blood to the area, which brings nutrients and oxygen to help promote healing. Heat or cold, whichever you prefer, can each be used to help promote recovery from a strenuous workout.

2. Post-workout Nutrition

After exercise the body needs to replenish energy with carbohydrates and repair tissue with protein. Having a post-workout snack or drink with a proper ratio of carbohydrates to protein can help meet both needs. The carbohydrates will refuel energy needs as well as increase insulin levels, which helps to promote the post-exercise utilization of protein for muscle repair. Proper nutrition is especially important after high-intensity exercise, which can promote the release of the muscle-building hormones: testosterone (T), human growth hormone (GH) and insulin-like growth factor-1 (IGF-1). Research indicates that having a snack or drink with a 3–4:1 carbohydrate-to-protein ratio within 30 to 45 minutes post-exercise can help you recover from the day's activity and get ready for tomorrow's workout.

3. Flexibility and Tissue Treatment

Many fitness enthusiasts understand that it is important to start a workout with dynamic flexibility exercises and cool down with static stretching. However, optimal recovery for the myofascial network goes beyond simply stretching and should include techniques for improving tissue extensibility using foam rollers, sticks or even massage from a professional therapist. The goal is to apply appropriate pressure to the muscle tissue to improve circulation and reduce the opportunity for inelastic collagen fibers to develop in stress points that can limit tissue extensibility.

4. Sleeping

Your body produces most of the T, GH and IGF-1 needed for tissue repair during the deep REM cycles of sleep. If you are planning a high-intensity workout, it's important to get a full night's sleep to allow your neuroendocrine system to play its role in the recovery process. Too much exercise without proper rest and recovery can lead to injury or illness, both of which could keep you out of the gym for lengthy periods of time.

5. Periodizing Your Workouts

The general idea is that the intensity of a workout program should increase gradually over time and peak with the hardest workouts coming two to three weeks before the start of competition. This form of periodization is called linear because the progression of intensity gradually increases over a period of weeks or months. A second form of periodization, known as non-linear, alternates between higher- and lower-intensity days within the same week.

6. Compression Clothing

The pressure from tight clothing can improve circulation, which helps remove metabolic waste from muscle and promote the flow of oxygenated blood to help tissue repair and rebuild. There you have it—six different techniques that help the body to recover from one workout and prepare for the next one. The common theme is to improve circulation to help remove the waste from a muscle and bring new oxygen and nutrients to support building new tissue. Each of these methods is supported by scientific evidence, but only you can determine which one will be best for you.