

(LIFT AND LIVE)
FITNESS



SIMPLY RECOVERED

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Your recovery starts the minute you put the weight down and let your heart rate return back to normal levels. The body begins inflaming taxed soft tissue (to protect it for more use) and assessing cellular damage. The body will start to heal clear out remaining toxins produced from exercise and heal cellular damage across the next 24-96 hours. The better recovered your body is, the better prepared it is for whatever life throws at you next - whether it's the next workout or a different one of life's challenges!

Understanding the Two Types of Soreness

Although you likely will NOT experience soreness like you did when you first started workout out (stairs have never been so painful!), soreness is a natural response to challenging different systems in the body. Generally soreness can be categorized into two different types. These can be experience either together (have fun with that!) or separately. Listening to the type of soreness your body experiences can be a helpful guide in tailoring your training to meet your goals.

1. Toxicity Soreness

When toxins are released from the muscle and in the blood stream, you will feel an achiness that maximizes around 24 hours. *This type of soreness is common from intense myofascial release stretching or massage and high intensity cardiovascular training* where the body just cannot circulate the blood efficiently enough to metabolize the toxins out of the body. The soreness will relieve - almost immediately - when blood flow is increased to the affected area! Magic!

2. Cellular Damage Soreness

When muscle tissue is loaded beyond current capacity, the soft tissue suffers micro tears. As these micro tears heal, the body rebuilds the tissue stronger. However, when this cellular damage has been done, it results in delayed onset muscle soreness that typically peaks around 48 hours post workout. (Fun fact: A slow onset of soreness suggests a slower metabolic rate. Whereas a faster onset CAN suggest a faster metabolic rate, it could also suggest the body was experiencing toxicity rather than cellular damage.)

3 Dimensions of Recovery

Recovery is all about improving circulation to the sore areas by following two steps:

1. Decreasing inflammation to allow blood to flow
2. Increasing quality of blood to bring nutrients to heal
3. Hydrating to allow blood to flow and carry away waste efficiently

How To Recover like a Pro

Cool Down with Stretching or Rolling.

The goal here is to increase circulation to allow the body to clear toxins out of the muscles (an unavoidable part of moderate to high intensity exercise) and allow delivery of the nutrients the body needs to heal cellular damage.

Stretching, foam rolling, and trigger point rolling with a ball are excellent at preventing soreness, releasing tension in muscles, and maximizing blood flow. Plan at least 10-15% of your workout time to cool down.

Get in Post Workout Nutrition.

The body needs carbohydrates and protein to recovery from moderate to high intensity exercise. Plan to eat or drink at least half the calories you just burned within 30-60 minutes post workout. Your body will put the water and nutrition right to work.

For higher intensity training over 85% max HR or within 10% of failure, use something with a 4:1 protein: carbs ratio (G6 Replenish). Typically women will need 200-400 calories per hour and men will need at least 300-600 calories per hour.

For moderate intensity training at about 70-85 max HR or within 10-20% of failure, use something with a 2:1 protein: carbohydrate ratio (yogurt or kefir with fruit). Typically women will need 100-300 calories per hour and men will need 150-450 calories per hour.

Pro tip - Eat your post workout *during* your cool down as your body is still moving. Research suggests that nutrient uptake into the muscle is higher when the muscle tissue is light to moderately active, compared to at rest.

Drink Fluids

The most important part of recovery is good circulation. Blood is over 90% water. You should be aiming to drink half of your body weight in ounces of water PER DAY PLUS an additional 16-20 ounces of water per hour of exercise. If you're falling short, do your best to make it up - or else risk a longer recovery period and - worse - cramps or spasm if muscle tightness and electrolyte imbalance is present in your body somewhere.

Ice or Ibuprophen

Ice is very effective at reducing inflammation. Sit in an ice bath (full body or on the affected area) for 6-8 minutes (or as long as you can stand it!). Topical ice packs can be applied for up to 20 minutes at a time (with a cloth barrier between the ice and the skin to prevent burns.) If ice is not available, you can consider Ibuprophen to medically reduce inflammation.

Stay Active.

If a muscle is *really* sore, avoiding using that muscle will prolong the soreness. Although heavy lifting is not recommended on a muscle that is already damaged, light exercise will stimulate blood flow, which removes toxins and promotes healing in the muscles.

1. Choose an exercise that uses the sore muscles (perhaps the exercise you did that made it sore!).
2. Modify the exercise such that you would be able to get 25-35 reps using the full range of motion without rest. For example, if you leg pressed 200 lbs for 12 reps, doing a 75-100 pound leg press would be recommended.
3. Take the muscle through the *full range of motion* with control - no bouncing - for 60 seconds. This is not going to be comfortable for the first several reps. By the time you get to the end of the minute, you may already feel significantly better!
4. Repeat 1-5 times, as it feels good....well, you know what I mean!

Heat! Take a Hot Shower or Epsom Salt Bath

You are probably picking up on a theme here - a hot bath or shower will help increase blood flow, and adding Epsom salt to your experience will allow the body to re-establish electrolyte balance. Remember 7th grade chemistry lab? This is simple osmosis as your body will take nutrients from the high salt and magnesium concentration of the water or steam in through the skin that are at low concentration in the body. You don't have to understand it - you just have to do it - and enjoy it!

If a bath or shower is not in the cards at the moment, a topical heating pad will do the trick. Hold it onto the affected area for up to 20 minutes at a time.

Sleeeeeeep!

The higher the intensity level of your workout, the more important getting a solid 8-10 hours of sleep that night will be to your body's recovery process. Try to fast for 3 hours before laying down for bed to minimize digestion and allow your body to focus all of its efforts on healing and recovery!

Visit a Massage Therapist or Chiropractor.

Massage and Chiropractic treatment work on the muscular and skeletal systems respectively to correct alignment and restore ideal muscle tension and - you guessed it - circulation! The blood flows better when muscles are relaxed and joints are properly aligned. If we were all built perfectly and moved with perfect stability and form the entire workout, these types of care wouldn't be necessary - BUT we're not and we don't! The more diligent you are with the other recovery techniques, the less frequently you'll want to visit a massage therapist or chiropractor. Generally monthly to quarterly visits are recommended.

For more help with recovering from exercise or injury, contact a professional trainer at www.LIFTandLIVEfitness.com