

## Recovery 101—Training Techniques

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*This is the second of a two-part article on basic recovery techniques. Part 1 looked at the nutritional aspect of recovery, while Part 2 will focus on training techniques to speed up recovery.*

*In my last article in the Recovery 101 series I talked about the importance of post-workout nutrition in aiding recovery and allowing you to get the most out of your workouts. However, post-workout nutrition is only half the battle when it comes to being able to recover properly. The other side of the story is the activities that you do after your workout to prepare your body for your next training session.*

Many people still perform static stretches before their workouts, trying to lengthen cold or slightly warmed muscles in a futile attempt to prevent injury and enhance performance. Not only does this activity fail to accomplish the desired goals of the individual, but these same principles are also often not applied at a time when the aforementioned goals can be accomplished, i.e., after a workout. Static stretching, along with Self-Miofascial Release, massages, and contrasting temperature environments, such as hot and cold whirlpools, saunas, steam showers, and snow rooms are all means to rid your body of unwanted byproducts of exercise while preparing you to be able to attack your next workout harder and stronger.

Pre-workout static stretching is not ideal due to the decrease in power output that occurs and the possibility of injury from attempting to increase the length and range of motion of a cold muscle. However, post-workout static stretching is a beneficial recovery technique because it increases blood flow to the working muscles, delivering the much-needed nutrients talked about in *Recovery 101—Nutrition*, as well as helping to remove metabolites from those working muscles. Three alternatives to static stretching that, when applied properly, can be just as affective of a post-workout recovery technique are passive stretching, isometric stretching, and PNF stretching.

Passive stretching is often mixed up and used interchangeably with static stretching. While during static stretching an individual is actively lengthening the muscle and then holding that lengthened position, during passive stretching some external force is stretching the muscle, whether it be a machine, a partner, or the individual themselves pulling on their own elbow or leg to stretch their triceps or hamstring.

Isometric stretching is done by lengthening a muscle until a good stretch is felt and then isometrically contracting the muscle by attempting to concentrically contract it while another person or apparatus resists the contraction with equal force. A very common isometric stretch is the wall stretch for the calves whereby an individual is literally trying to press through the wall with a staggered stance. Because the individual is unable to press through the wall, the gastrocnemius and soleus of the back leg are being isometrically stretched. By forcing the muscle fibers

to isometrically contract while already in a lengthened or stretched position, the muscle spindles are numbed just enough such that when the isometric contraction finishes the muscle can be stretched beyond its previous length.

Proprioceptive Neuromuscular Facilitation (PNF) stretching is a combination of isometric stretching and passive stretching. This technique involves a brief passive stretch of the muscle, followed by a 10 second isometric contraction of the stretched muscle, then a 2 second relaxation of the stretched muscle, and finally a 20 second passive stretch of the muscle. A variation of this routine is to isometrically contract the antagonist muscle for 10 seconds after the 2-second relaxation period of the agonist muscle. The isometric contraction of the antagonist will further lengthen the agonist through reciprocal inhibition. This isometric contraction should be followed by a 20 second relaxation period before performing another 10-second isometric contraction of the passively stretched agonist.

Massages are a great post-workout recover tool in addition to stretching. There are two main types of massages that would be beneficial post-workout: those performed by yourself and those performed by others. One of the best types of massages an athlete can receive is a sports massage. Over the last three decades the popularity of sports massages has really taken off among professional and Olympic athletes. Sports massages are not your average spa-treatment relaxation technique. Quite frankly, they hurt. If done properly, these deep-tissue massages will leave you feeling miserable for a few days after you have it done for the first time. The reason is because the point of sports massages is to improve tissue quality, and to do that you need to remove all of the toxins that have built up in the tissue from past workouts and daily diet. In order to remove these toxins from the tissue the therapist has to really dig in to the athlete's body. This, in itself, is a painful experience, but the end result is absolutely incredible. Once you get through the first few days of mild illness while you body excretes all of the unwanted toxins, you feel remarkably refreshed and energized. While sports massages are an effective post-workout recovery technique, they may be better served to be performed on an off day from training. Self-massages, however, are very beneficial immediately post-workout.

Self-massages, known as Self-Miofascial Release (SMR), are a great pre-static stretching activity after a training session. They can be performed using instruments such as a foam roller, a tennis ball, or The Stick. These exercises are also beneficial as part of your warm-up routine as they promote blood flow to the desired tissues and loosen up tight fascia that can inhibit optimal muscle elasticity and flexibility. Post-workout SMR is great for removing metabolite buildup as well as promoting blood flow to and lengthening short and tight muscles. Three of the most effective places on the body to perform SMR are the gluteus medius, the IT band, and the arch of the foot. Using a tennis ball and/or foam roller to roll out these areas pre- and post-workout will relieve much of the pain felt in the joints of the lower body.

Once I roll out and static stretch after a training session, I like to hop in a cold whirlpool for 10 minutes or so, followed by a steam shower. The 55-degree water in the whirlpool forces my muscles to contract and helps to kind of squeeze out the unwanted byproducts of my last training session. It also ices down my entire lower

body, which does wonders for any aches and pains I may have. Then the steam shower raises my core temperature and gets a lot of blood pumping to my outermost tissue, helping to remove those unwanted byproducts. Saunas provide a similar experience post-workout, promoting blood flow and causing you to sweat out what your body has produced during your workout and doesn't want. Snow rooms are also beginning to make their way onto the stage in many eastern European countries, especially at spas and hotels. Basically, a snow room is exactly what it sounds like, a cold room filled with snow. The temperature of the room varies depending on where you go as some of these rooms are used more as relaxation techniques of the vacationing businessperson while others are used in conjuncture with saunas for various alleged general health benefits. Like sports massages, these extreme temperature environments are beneficial both post-workout and on an off day.

So, if you have been struggling to make gains in the weight room, you feel like you are constantly under-performing on the field of competition, or you are not getting the results you want from the gym, strongly consider looking at what you are doing immediately after and in the hours following your workouts. There may be some little changes you can make in how you use that time that will lead to great improvements in your training. You have to allow your body to rest and recover properly because when you rest is the only time when you actually get big. Remember, the time you spend in the gym only creates an environment for change, but it is what you do outside of the gym that truly allows your body to change.

Get big or die tryin'.

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