The Protein Review presents

Active Recovery Training

How to use Active Recovery techniques to enhance your current exercise programs.

[disclaimer]

If you have an injury or if for any reason training causes discomfort, then do not perform a recovery session or any other type of exercise that aggravates the injury. Contact a physio or doctor for advice.

© 2010 The Protein Review
IMPORTANCE OF RECOVERY

For you to be at your best for fitness activities, working out or even just for everyday life, it is important that you train and work hard. But it is also important to remember that training hard every day without adequate rest is not good preparation and can lead to over training and injury. Even fit, professional athletes need rest and recovery after matches and training sessions. Ignoring strains, tiredness and stiffness can lead to overtraining and injuries.

Along with planning training sessions you must also plan recovery sessions. You will then reduce the risk of injuries and also reduce the risk of over training and burn out. Professional Coaches provide recovery sessions and guide their athletes throughout these recovery phases. Training on your own, you should also plan for your recovery sessions throughout the week. Record the recovery sessions in your training log.

Recovery sessions are rarely incorporated into sports specific training programs, except in Eastern Block countries. Those guys have been doing this stuff for years. The benefits of structured recovery periods are well documented both in terms of improved performances and decreased injury rates. Coaches and athletes alike need to be more aware of the importance of restoration and regeneration following heavy workloads, and of how to use available options to facilitate recovery.

Training hard for any sport is a pre-requisite for success but training smart will lead to greater success. Making time for recovery sessions whether it be de-loading training, hydrotherapy, massage, relaxation methods or just resting are vital in a program.
TYPES OF RECOVERY METHODS

Long Duration Static Stretching
Stretching would have to be the most effective form of injury prevention and recovery technique. Specifically, stretching will assist in reducing soft tissue and joint injuries.

Relaxation and concentration are so important, and often overlooked, when it comes to stretching. You need to be free of distractions to focus correctly on the stretch. Take yourself inside your body and feel the area you are stretching, become fully aware of the sensations that are happening. This will help with relaxation.

With the goal in mind of lengthening the connective tissue, going too far when you commence the stretch will actually prevent the muscle and tissues from relaxing. The nervous system activates and works against the stretch thinking that it has to protect itself from injury. Just hold the stretch and as you feel the area relaxing, then allow yourself to go a little deeper. I like to hold a stretch for a count of 15 and then go a little deeper for another count of 15. In total, I hold a stretch for a count of 30.

Breathing is the next critical part of stretching. Don’t hold your breath at any stage. Breathe through the nose and focus on a nice deep, steady breath. When you are ready to go a little deeper, on the exhalation, relax the muscle and feel the sensations through the body.

I like to also alternate opposite muscle groups that I am stretching. An example is stretching the thigh muscle and then the hamstring muscle. I may use 10 different stretches with each stretch alternating between thigh and hamstring.
If you are intending to focus on a particular muscle group and you intend to perform a number of repeats of the same stretch, it is important to progress the level of intensity with each repeat of the stretch. Take the progress slow and steady, raising the level of intensity with each repeat of the stretch.

Checklist for stretching:

• **avoid discomfort and pain** – learning to feel your body and the sensations that stretching brings you will be able to recognise the difference between stretching sensations and higher levels of pain.

• **do not compromise correct technique** – it doesn’t matter how deep you get into a position, what matters is how effective the stretch is on the muscles and supporting tissue

• **tighter side first** – if you can feel that one side of the body is tighter than the other, work this side first. Concentrate and relax into the position.

You may spend 30 minutes to 1 hour on stretching, maybe more.

What matters is that you feel refreshed afterwards, not exhausted.
Massage (masseur or foam roller)

The Masseur
Massage sessions can actually be provided in three different phases:

(a) As part of a warm-up phase, some 15-20 minutes before training. This can either relax an overstimulated athlete or arouse an apathetic one.

(b) During training where massage is given help accommodate for high training loads and to increase the athlete’s training potential.

(c) After training where massage is regarded as being at least two or three times more effective for recovery than passive rest.

These treatments facilitate recovery from the effects of fatigue, the reduction of muscle tension and a lowering of stress levels. For the purpose of this report I’m going to only focus on (c).

A general recommendation for restorative massage is 2-6 hours following the completion of training. For an average person the frequency of treatments would not really need to be any more than 1-2 sessions per week. This frequency, of course, needs to be balanced with the type of training undertaken, intensity of the recovery program and the availability/affordability of a masseur.

If you are going to see a masseur you don't necessarily need to have a whole body massage each time you attend. Sometimes a localised treatment may be necessary, depending on your body’s needs at the time. For males especially, that have not been stretching much, I would recommend a strong focus on the shoulder and chest region. This will assist in opening up these areas and help with your flexibility as well.
**The Foam Roller**

For those who don't know, the foam roller is made of high-density foam so it's really firm and can take full bodyweight. Use of the foam roller causes relaxation in the muscle and helps breakdown soft tissue adhesions and even scar tissue.

*I love the foam roller.*

This technique really goes hand in hand with stretching. Traditional stretching causes increases in muscle length while the foam roller work will also assist in relaxation of the muscle and breakdown of the connective tissue covering the muscle, thus allowing it to lengthen even further.

The general technique is to find a tender spot and keep the roller on this point. As the tenderness slowly diminishes you can allow more of your bodyweight to bear down on the spot. This can be really uncomfortable at first, you may need to just roll over the area first until you get used to the sensations. Eventually you will and then you can start to really concentrate on pressure points and reap some great benefits.

Foam rollers offer a really inexpensive and convenient way of accessing massage benefits in the privacy of your own home.

There are a lot of psychological and physiological benefits to be gained from massage. As well as relieving the tension in muscles massage can also relieve a lot of mental stress. The squeezing, stroking, compressive and pushing components of massage facilitate the drainage the blood and lymph systems.

© 2010 The Protein Review
Massaging of soft tissues also causes slight stretching effects thus maintaining elasticity and regaining mobility where tissues have adhered within themselves or to adjacent tissues. This mobilizing effect is enhanced by improved blood supply which causes increased warmth of the body part. Massage is an effective technique for assisting flexibility, but it should not replace stretching schedules.

**Accupressure**

In the Eastern Bloc and Asian nations, accupressure and acupuncture complement massage as a recovery method. Accupressure and acupuncture are concerned with balancing energy fields via specific points located all over the body. Stimulation of specific points are claimed to influence oxygen uptake, respiration, the immune system and various other biochemical activities.
**Light Cardio Activity**

Light cardio allows the joints of the body to stay warm and lubricated. It can also help burn body fat. They type of activity is pretty much your choice but common ones are stationary bicycle, riding a real bike or just walking. The latter two are the least expensive and most appealing because you don't have to join a gym to perform them.

If you are recovering from a specific injury, the stationary bicycle may be a better choice as you can control the loading. Riding outside you will encounter hills, wind resistance and other factors that may not be optimal for injury recovery. Riding indoors helps you concentrate on working the injured area and is more convenient if you have to stop for other treatments.

Whichever one you choose 20 minutes should be enough for recovery benefits. Include 5 minutes warm-up and warm-down, giving you a 30 minute activity.

A lot of people reel in horror at the mention of cardio work. Too many have been influenced by bodybuilding literature that suggest all your body’s muscle will somehow melt away if you stand on a treadmill. This is just rubbish. 30 minutes of light cardio work will not burn away all your muscle. It will, in fact, enhance the muscle building effect allowing your body to grow stronger and fitter.

If your goal is fat loss you can still stick to the 30 minute time and use interval training instead of light cardio. The stationary bike is excellent for this and again, your body’s muscle will not disappear overnight.
There has been some excellent research come out recently regarding interval training from researchers at the University of New South Wales and the Garvan Institute. They studied a group of overweight women, putting them through a 20 minute cycling regime in which they sprinted on a stationary bike for 8 seconds followed by 12 seconds of cycling lightly. The women performed the workout three times a week for 15 weeks.

The result of the study was that they lost three times more weight than other women who exercised at a continuous, regular pace for 40 minutes. One of the scientists, Professor Steve Boutcher, believes the regime would also be applicable to swimming, walking, running and rowing.

So don't be afraid of cardio activity. It is a great recovery tool that goes hand in hand with all the other techniques mentioned here.
Hydrotherapy

Hydrotherapy is an interesting technique for both passive and active recovery. The water provides buoyancy, reducing the impact from any movements performed. Immersing the body in cool water directly after exercise allows for efficient heat transfer and reduces the effect of any swelling or bruising that may have occurred from exercise.

The basic recovery technique used in the pool is to just walk around the edges of the pool at a slow to comfortable pace. Up to 5 laps is probably sufficient. If the pool has a deep end you really don't want to go any deeper than chest height. After that, some gentle movement through the water and then just sitting and relaxing will be enough.

Directly after a workout, 10-15 minutes of hydrotherapy work would be all that is required. If you are performing this the day after, it is up to you how long you want to spend in the water. It's all about relaxation, don't try to perform anything too strenuous.

If you are wanting to use a spa for hydrotherapy you will be just sitting and relaxing. Use the water jets for a massage effect and again, 10-15 minutes directly after exercise or for the day after, whatever feels good. Pool sessions are a great means of allowing you to recover from training and injury. Training is not only physically tiring but also psychologically draining.

Water recovery training is an excellent method of restoration not only physically but also mentally. When an athlete is tired and muscle sore, the mention of a pool session immediately brings about positive and relaxed thoughts.
Meditation/Relaxation
Relaxation techniques really can assist in reducing muscular tension as well as providing stress relief and other psychological benefits. Overtraining will lead to fatigue, anxiety and sleeplessness, so relaxation techniques will aid you in the relief from any localised tension as well as just falling asleep.

The best relaxation strategies that I recommend are progressive muscle relaxation techniques and controlled breathing.

- **progressive muscle relaxation** – involves the practice of tensing and relaxing individual muscle groups until the whole body has been covered. Once you have moved over the whole body and are completely relaxed, you can then just stay in that state with your eyes closed, enjoying the almost floating-like sensations throughout the body.

- **controlled breathing** – performed with deep controlled breaths, this exercise increases oxygen supply in the blood stream, which reaches all muscles and organs throughout the entire body. The deep, diaphragmatic breaths also increase focus in the mind, providing a technique that can be applied to any situation where you need to concentrate to perform.
Other meditation methods can involve using a mantra or sound which is a repeated rhythmic pattern. Allow your thoughts to flow passively with this style, don’t try to interfere with the thoughts and just relax into a deep meditative state. It’s the act of not fighting the thoughts that will allow you to relax into a deeper state.

It’s best to experiment with relaxation techniques until you find what is comfortable for yourself. The emotional and physical benefits are enormous and really will provide you with a healthy state of being.

Sleep
One of the most essential ingredients to recovery is often the most overlooked. Along with a balanced diet and adequate exercise, 7-8 hours a night of quality sleep is essential for recovery from any form of physical activity.

Sleep is one of the basic needs of the body. It restores energy supplies, boosts hormone levels and recharges the immune system. Many professional athletes are recommended to get 9-10 hours per night and even include a short nap during the day. You just can’t afford to neglect this requirement. Getting into a regular pattern of sleep is the best way to manage recovery. Going to bed and rising at the same time every day will optimise this process.

Having trouble going to sleep, restless sleep throughout the night and waking up exhausted are all signs of nervous system fatigue. To remedy this, refer to the relaxation/meditation page.

Too many times people focus their attention on workout routines, fad diets and supplements as a remedy for recovery problems. Don’t overlook the power of sleep. It is one of the basic needs of the body and can provide the most powerful solutions for recovery from exercise and injury.
**Conclusions**

Unfortunately it's rare to find recovery sessions included into training programs of any type. The benefits of structured recovery periods are enormous in terms of improved performances and decreased injury rates. People need to be more aware of the importance of recovery training following heavy workloads, and of how to use appropriate methods to facilitate recovery.

Unfortunately the effects of overtraining can negate months of hard work and detract from your full potential. Overtraining will lead to staleness, burnout and injury. The inclusion of recovery sessions will reduce overtraining problems, injuries and will also increase performance.

I'm sure you have already seen how these methods all work hand in hand together. You don't need to do everything listed here to enjoy the benefits of recovery training. If you are not a member of a gym or health club and don't have access to a pool you don't need to worry about the pool work. Forget about water restrictions and enjoy a good shower.

A typical recovery session for me would be as follows:

**Gym Session**

Light stretching – whole body  
Light cardio activity  
Long duration stretching  
Shower or pool

**Afternoon**

Foam roller  
Relaxation

**Night**

Wind down for bed – read a book  
Aim for 7 hours sleep minimum
The number of recovery sessions per week will depend on what you are doing. I workout 4 times a week and have 2 recovery days and then 1 day of full rest.

**Example Program**

Sunday - full rest  
Monday - workout  
Tuesday - workout  
Wednesday – recovery training  
Thursday - workout  
Friday - workout  
Saturday – recovery training

References

Trapp, E.G. & Boutcher, S.H. Fat loss following 15 weeks of high intensity, intermittent cycle ergometer training. *University of New South Wales*, Sydney, Australia

Calder, A. Restoration and Regeneration as Essential Components Within Training Programs. [www.swimmingcoach.org](http://www.swimmingcoach.org)


© 2010 The Protein Review