



METRIFIT FACT SHEET: RECOVERY



Getting your body in the best condition possible to perform when it matters most is the ultimate aim of every athlete. There are many factors involved in achieving this goal, including following the correct training regime, but one of the essential components of any program is rest and recovery. This is an area that is hugely important to an athlete as optimal rest and recovery allows the body to maximise the benefit of the next training session.

Proper rest and recovery are seen as essential ingredients of an athlete's short and long term plans as it enables their body to repair and strengthen itself between sessions and as a result ensures the athlete is fully prepared both physically and mentally for the next challenge. Building recovery time into any training program is essential to allow the athlete's body to adapt to their program, replenish their energy stores and repair any damaged tissues and to avoid the symptoms of over-training.

WHAT IS TRAINING/COMPETITION RECOVERY?

What is recovery?

Recovery can be defined as the time required for the body to repair damage inflicted on it through training or competition. In [‘The importance of rest and recovery for athletes’](#) Kris Swartzendruber, highlights what happens during recovery

“The body is allowed to adapt to the stress associated with exercise, replenishes muscle glycogen (energy stores) and provides time for the body tissue to repair”

Immediate or short-term recovery occurs within hours after an exercise session or event. Long-term recovery refers to recovery periods that are built into a seasonal training schedule. While rest is a simple concept to understand – it simply comprises the time not training and sleep – recovery is a much more complicated process and involves a number of factors that help maximize the repair of your body.

Overall, incorporating recovery time into any training program is important because this is the time that the body adapts to the stress of exercise and the real training effect takes place. If your body is not allowed ample time to recover then the negative effects of over-training may become obvious. Be aware of possible symptoms that can include staleness, depression, decreased sports performance, and increased risk of injury. This factsheet outlines key components of rest and recovery as well as some commonly used recovery techniques. The real value of the approaches have been debated by many experts and research is still in its infancy in this area. Shona Halson, Head of Recovery at the Australian Institute of Sport has the following advice.

“As recovery research is a relatively new area for scientists, many of the current recommendations are general guidelines only. It is important that athletes experiment with a variety of strategies and approaches to identify the recovery options that work best for each individual. However, it is known that optimal recovery from training and competition may provide numerous benefits for athlete performance. Recovery strategies such as hydrotherapy, low intensity active recovery, massage, compression garments, stretching or various combinations of these methods may have merit as recovery-enhancing strategies. Importance should also be placed on optimal post-exercise nutrition and adequate sleep to maximise recovery and reduce fatigue from exercise”



Jeff Kuhlman in '[7 Essential Elements of Rest and Recovery](#)' provides a good overview of steps that can be taken to boost recovery:-

SLEEP

Sleep is the most important time to recover. Adequate levels of sleep help to provide mental health, hormonal balance, and muscular recovery.

HYDRATION

Drinking adequate amounts of water is critical to health, energy, recovery, and performance. Athletes tend to be very attentive to hydration levels close to and during competitions, but keeping that awareness during training and recovery times can make just as large an impact.

NUTRITION

Everything you eat has the ability to help heal your body, or to poison it. Balanced meals in moderation are proven to be effective to remain healthy and increase performance

POSTURE

Americans on average spend more time sitting than any other country in the world, and as a general trend have bad posture. This is not a restful position; sitting or standing with bad posture is harmful. It can lead to back or neck pain, specifically for those with desk jobs.

STRETCHING

You need enough flexibility to move well and remain pain free. Include dynamic stretching in your warm-ups while saving static stretching for after your workouts.

SELF-MYOFASCIAL RELEASE

This is the scientific term for an athlete who gives themselves a self-massage to release muscle tightness or trigger points – commonly done using a foam roller.

HEAT, ICE AND COMPRESSION

Use these techniques for recovering from injuries or a very stressful training or match/competition.

The areas of sleep, hydration and nutrition are regarded as the most important but there are some other techniques that can be implemented to boost recovery.

ACTIVE RECOVERY

An active recovery generally consists of aerobic exercise which can be performed using different modes such as cycling, jogging, aqua jogging or swimming. Active recovery is often thought to be better for recovery than passive recovery due to enhanced blood flow to the exercised area and clearance of lactate and other metabolic waste products via increased oxygen delivery.

MASSAGE

The objective of massage is to help muscles relax and relieve tension in the body with a combination of hand strokes and oils. The sports massage is now an accepted component to training and competition regime.

STRETCHING

Stretching is one of the most used recovery strategies but there have been mixed reports in research regarding its benefits.

COMPRESSION GARMENTS

Compression garments typically focus on the lower limbs or the upper body. It is believed that the compressive properties of these garments can enhance performance and aid recovery following strenuous training and competition.

HYDROTHERAPY

When an athlete gets into an ice bath for five to 10 minutes, the icy cold water causes their blood vessels to tighten and drains the blood out of their legs. After 10 minutes their legs feel cold and numb. So when an athlete gets out of the bath, their legs fill up with 'new' blood. The changes in blood flow and temperature may have an effect on inflammation, muscle soreness and perceived fatigue especially in relation to endurance exercise. Cold, hot and contrast water temperatures are also commonly used.



REFERENCES

[7 Essential Elements of Rest and Recovery](#) | Jeff Kuhlman
[Why Athletes Need Rest and Recovery After Exercise](#) | Elizabeth Quinn
[The importance of rest and recovery for athletes](#) | Kris Swartzendruber
[Recovery in Training: The Essential Ingredient](#) | Jonathan N. Mike, M.S. Len Kravitz, Ph.D
[SSE #120 Recovery techniques for athletes](#) | Shona Halson
[What is really known about Post-Exercise Recovery Methods](#) | Natalie Badowski Wu

[A look at recovery techniques for the athlete](#)
[An athlete's guide to inflammation](#)
[Athlete Recovery Part 1: Keep on Rolling](#)
[Ice Baths: Do they actually work?](#)
[Can sleep improve your athletic performance](#)

