


How to

PREVENT OVERTRAINING

& avoid losing lean muscle tissue

A woman with blonde hair in two braids is shown from the waist up, performing a bicep curl with a barbell. She is wearing a white and black striped tank top and black wrist wraps. The background is a clear blue sky.

It's actually a fine line between peak-training and over-training. In our keen efforts to achieve optimal fitness or build that lean, muscular physique, our diligent training can sometimes create more harm than good. Here's why...

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WHAT ARE THE SYMPTOMS OF OVER-TRAINING?

- Tiredness, bordering on apathy
- Chronic fatigue
- Insomnia
- Injuries that do not heal
- Loss of lean muscle tissue
- Frequent colds and infections, due to a lowered immune system
- Biochemical depression
- Craving stimulants caffeine and sugars
- Having a tough time getting started in the morning
- Muscle cramps, due to mineral deficiencies
- Feeling 'brain-dead'.

Too many high-intensity workouts can push us into the over-training zone, particularly if our body is already challenged and stressed due to other areas in our life.

“ There is a common misconception that stress is bad for us, but the truth is, in some instances it can be quite enjoyable, even addictive. ”

How can we prevent overtraining?

There is a common misconception that stress is bad for us, but the truth is, in some instances it can be quite enjoyable, even addictive. For example, a cup of coffee with sugar is actually a biochemical stress; driving a car in traffic is a stress; work, family, relationships and bungee-jumping are also common sources of stress that we might face in our daily lives. In order for our mind/body system to function effectively, it actually needs some type of stress to get it going.

Stress stimulates our adrenal glands (those responsible for the fight/flight responses) to release very powerful hormones called 'adrenaline' and 'cortisol' to help our body deal with the incoming stress. These hormones are so powerful that they affect not only our whole physiology, but our moods, energy levels, behaviour and general wellbeing.

Overtraining will add stress on top of stress

If we are already challenged with the amount of stress in our life – whether work-related, study, exams, promotion, relationships or finances – our reptilian/limbic parts of the brain are activated by the stress hormones which, in turn, activate our survival programs to help us deal with it.

As we've mentioned, the primitive brain does not respond to the commands from the rational thinking brain; instead, the limbic/reptilian survival centres take their instructions from the adrenaline pumping through our system. And since our reptilian brain controls muscles and movement but is incapable of rational thinking, it is also unable to distinguish the difference between running away from a lion, running away from an executive boss, a

Rest and recover!

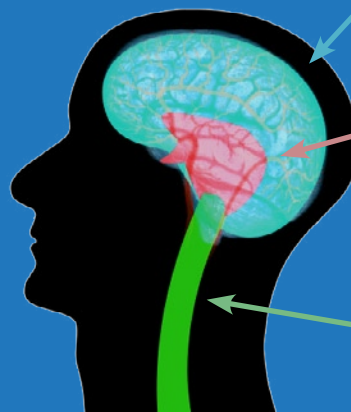
Allowing your body to recover is as important as the training itself. It is during that rest period, when the physical adaptations (as a result of your training) will take place.



WHAT DOES STRESS HAVE TO DO WITH OUR TRAINING?

According to neurologist Professor Paul MacLean, our human brain is actually a 'triune' brain that is comprised of three distinct sections.

According to Professor MacLean's research, the interaction between the three parts of our brain are as follows: the cerebral cortex has no influence or control on the primitive brain, but the primitive parts (limbic and reptilian) hijack the thinking brain during times of stress. This explains why people often become irrational, forgetful, spacey or highly emotional when under stress.



CEREBRAL CORTEX:

is the logical, rational thinking part of the brain. The place where our ego/identity resides, and the part of our brain that feels safe when it is in control of situations.

LIMBIC BRAIN:

is concerned with our emotions and instincts, as well as digestion, elimination, fight/flight response and sexual behaviour. This emotional system responds according to what is 'agreeable' or 'disagreeable' to us. This is the level where we are consciously and unconsciously avoiding pain and seeking pleasure.

REPTILIAN BRAIN:

controls muscles, balance and autonomic functions such as breathing and heartbeat. This part of the brain remains active, even during deep sleep.

Diagram resource from http://www.ezls.fb12.uni-siegen.de/mkroedel/paul_maclean.html

deadline, or running on a treadmill; all it knows is that it is running for survival.

This explains how too many high-intensity workouts can push us into the overtraining zone, particularly if our body is already challenged and stressed due to other areas in our life.

Over-training ties into the fact that hormones work in pairs. When adrenaline is released in response to stress, the even more powerful hormone, cortisol, is also released into our bloodstream. Excess cortisol stimulates glucose production and simultaneously catabolises (breaks down) lean muscle tissue for energy. This is obviously not a good

outcome for anyone on a fat loss program or for someone trying to build lean muscle tissue.

Putting it all into action

Having health and fitness goals is helpful, as long as the goals are not so rigid that they override our inner instincts or our biorhythms, to push us into over-training mode.

Our bodies do not speak the language of verbs and nouns like we do; instead, communication occurs through symptoms. For example, low energy levels, aches and pains are our body's way of telling us to ease off, rest and recuperate.

It is a fine line between optimal training and overtraining, and only your body knows where that line is. Be sure to listen when it's trying to tell you you've overstepped the mark and need to back off. After all, when it comes to over-training, pain has no gain **FF**

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