

Train Hard ! Play Hard !! Rest Hard !

There is no doubt that to improve fitness, skills and reach high levels of performance a degree of hard training is required to push the body to and sometimes beyond what you think are its current limits.



However, the body needs time to adapt to the training and physiological loads being placed on it.

A general principle worth following is that of: **TRAIN HARD ... PLAY HARD ... REST HARD.**

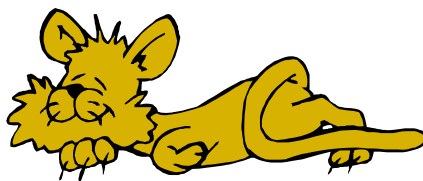
In other words, the harder you push your body, the more time and effort YOU need to spend helping it to rest and rebuild.

This area of sports physiology is called **RECOVERY**.

RECOVERY looks at ways of actively helping the body to recover from the stress of hard exercise and how to maximise the body's ability to adapt to training and competition loads.

RECOVERY can be summed up by the word **R.E.S.T.**

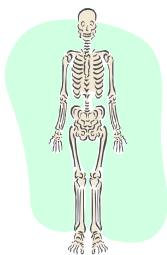
- R - Rest:** Get plenty of physical and mental rest between training efforts.
- E - Eat:** Eat plenty of healthy food, regularly.
- S - Sleep:** Get plenty of good sleep every night.
- T - Treatment:** Treat your body to such recovery modalities as massage, spa, sauna, physiotherapy, etc.



Why bother to Recover?



With training, your cardio vascular system becomes better equipped to handle the stresses placed on you're your heart becomes stronger allowing more blood to be pumped with each beat, reducing your pulse rate and your blood pressure. This increased blood flow moves blood more efficiently around your body delivering oxygen, glucose and needed minerals to your muscles while collecting carbon dioxide and wastes to be excreted.



With proper training, bones, tendons and ligaments get a little stronger over time and are more capable of supporting the body through the constant impact and jarring of being involved in competitive gymnastics. Remember, that a strength or gym session at school has to be factored into your overall recovery program. If you do a hard session during physical education at school then you must do a light one that night at training - possibly using the time to work on another apparatus or just for body tension.



When the body is required to do the same over and over in exactly the same manner then the brain (cerebellum) improves its ability to instruct the muscles. Skills and techniques will improve and you will find it easier to performing tasks like jumping, twisting, spinning, running and rolling that require co-ordination, timing, balance and speed.



Given time, say 48 to 72 hours, the body adapts to the stimulus, but often training sessions are scheduled only 24 hours apart (or even less) giving the body very little time to recover. YOU can help your body to adapt by **ACTIVELY** helping it to **RECOVER!!**

What can you do to help your body rest and recover?

1. **Monitor your body for signs of overtraining.** Simple things such as regularly checking your body weight, your moods (being irritable and/or always tired) and your resting heart rate, can give you some indication of the state of overtraining.

Physiological Indicator	Training State	Overtraining State
Body Weight	Stable weight, maybe slight loss in body fat.	Loss in weight, generally kgs in days or over a week.
Mood	Stable or slightly elevated - ' I FEEL GREAT '	Low mood, feel tired, irritable, sleepless.
Resting Heart Rate	Lowers: due to increase in stroke volume and more efficiency of cardio vascular system.	Increases: Body never able to rest, working hard even when sleeping and 'resting'.

2. Time your eating to maximise the effects on recovery.

Current thinking on eating timing suggests that it is **VITAL** to eat and drink *as soon as possible* after exercise to help the body replenish its energy and mineral stores for later exercise activities. Foods generally recommended for this purpose should be high GI, fruits, fruit puree or fruit snack packs, sports drinks and plenty of water deal. The key to this process is the ease of absorption, quickly delivering glucose, salts and minerals to your muscles, so simple foods are ideal. Of course, as soon as possible, follow up this rapid replenishment process with a well balanced meal containing low GI carbohydrates, protein and vegetables. Your daily fat intake should make up no more than 20% of your total food intake. You should try to use vegetable-based oils, such as extra virgin oil, to make up at least $\frac{1}{2}$ of that intake and keep saturated fats to the minimum. **AT ALL TIMES, KEEP REHYDRATING AGGRESSIVELY!!** Drink water before, during and after all training sessions.

3. QUALITY sleep every night is very important.

When travelling take ear plugs and eye masks to ensure that **NOTHING** interferes with your sleep. The appropriate amount of sleep will vary from person to person but **YOU** must aim to get at least an undisturbed eight (8) hours every night.

4. REGULAR massage is also important.

If the cost or opportunity for massage makes it difficult to schedule regularly, learn simple self-massage techniques or, better still, have a member of your family or your team learn basic massage skills to help you.

5. Try Spas, Sauna, and Showers - collectively called HYDROTHERAPY.

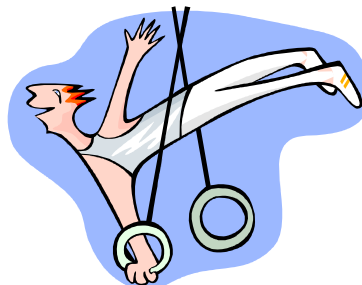
Warm water is relaxing for both the mind and the body. The warmth helps blood flow to increase to and through the muscles. This makes more oxygen, glucose and minerals available to help in recovery and, if needed, repair. This makes hydrotherapy an ideal recovery option.

6. The most important recovery tip is: TO BE PATIENT!!

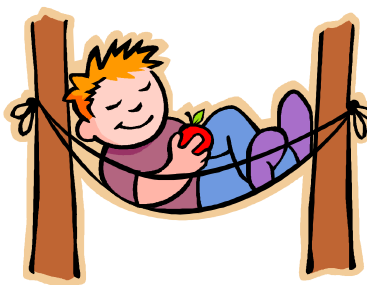
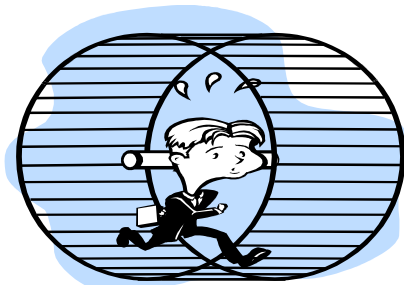
We have all seen them. We've seen the new recruit, keen to improve at the sport as quickly as possible, trying to catch up to others who have been doing it for years, so they do too much, too quickly. We've seen the experienced athlete pushing themselves too hard over weeks and months without allowing themselves to recover and rest, particularly as that once a year competition gets closer. We've seen the athlete making a come-back, pushing themselves to the limit by training at pre-retirement loads.

Whatever the reason, athletes need to be patient and take time to allow their bodies to recover.

Keep training, keep RECOVERING, extend your limits and reach your goals!!!



Overtraining



Overtraining is perhaps the gymnast's greatest enemy. There is a very fine line between training hard and smart enough to improve and training TOO hard.

While there are no hard and fast rules, it is safe to say that 'the harder you train. The HARDER you must rest and recover, that is, the more training - the more resting.

How do you know when your body has had enough?

ANSWER: SELF-MONITORING!

Self-monitoring is all about watching your body for signs of fatigue and breakdown BEFORE it becomes a real problem. By keeping an eye on body weight, resting heart rate, performance, sleep and mood, you can monitor yourself for the signs and symptoms of overtraining and go a long way to reducing injury and illness.

The SELF-MONITORING SHEET, developed by leading recovery expert, Angela Calder, is a simple and effective tool for the process of self-monitoring.

Just a few minutes every day will help you stay fit, healthy and in shape for those long hard training and strength sessions.

RECORD EACH DAY

Body Weight

- Record each morning before eating and after going to the toilet
- Body weight is NOT a measure of fat storage, so
- Do not worry about SMALL fluctuations in weight, BUT
- Unexplained weight loss may indicate overtraining.

Resting Heart Rate

- Record Resting Heart Rate upon waking and before getting out of bed.
- Recommended scale:
 - +/- 2 to 3 bpm above normal – OK to train
 - + 5 bpm above normal – light training only
 - +10 bpm above normal – no training

AVOID OVERTRAINING PROBLEMS

Sleep Patterns

- Record quality of sleep each night
- Minimum of 8 – 10 hours recommended
- Regulate daily biorhythms by:
 - Going to bed and getting up at the same times each day
 - Keep to the same wake-up time even if you have a late night

Attitude to Training

- Record your feelings about training
- Feeling tired after training is NORMAL – BUT continuous fatigue (several days) = **poor recovery**
- If regularly tired, take a day off or try another lighter activity

Self-monitoring Sheet

Body Weight Variation	3.0																				12	Resting Heart Rate bpm	
	2.5																						10
	2.0																						8
	1.5																						6
	1.0																						4
	0.5																						2
	0.0																						0
	0.5																						2
	1.0																						4
	1.5																						6
	2.0																						8
	2.5																						10
	3.0																						12
	Days																						
		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31						
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
Sleep	Excellent																				Excellent	Attitude to Training	
	Good																						Good
	Average																						Average
	Poor																						Poor