

Are you resting enough?

You don't get fitter without recovering properly from your training — but how do you work out how much R&R you actually need? *Lynn Clay* investigates

With most of Great Britain's population being told on a regular basis to do more,

in contrast many regular cyclists should perhaps be asking if they are, in fact, doing too much. Reaching peak fitness takes regular training and dedication, but ensuring that you are not doing too much too soon on the bike is as much a part of successful cycling as getting on the bike in the first place. Managing your training load to avoid over-reaching and overtraining is an important step to cycling success, with several key markers keeping you on track.

What is over-reaching and overtraining?

If you ride and train regularly you will have experienced the fatigue that can follow a long ride or week of hard sessions. This is an expected part of trying to improve your fitness.

Training adaptations and progress are achieved through a process of overloading your body, challenging it beyond its current limits. Over-reaching is a normal consequence of this — it is a state of fatigue that can be managed with a few days of extra rest.

Overtraining, in contrast, is where there is unplanned excessive load and inadequate rest. This might be where you've upped mileage by too much on a whim, or just gone out too hard on some planned easy rides, or perhaps work or other external stressors have added to your total stress load, leaving your body less able to cope with training. A U-turn in progress is one of the first signs of over-reaching and a sign that you need to take some extra rest and watch out for symptoms of overtraining.

For your training progress to be maximised you need to catch over-reaching before the U-turn as overtraining produces a long-term decrement in performance, an impaired ability to train and often

medical complications such as an impaired immune system.

It's estimated that 10 to 20 per cent of regular exercisers experience the symptoms of overtraining or staleness at some point in their training.

The good news is, a well-tailored training plan and monitoring of some of the physiological cues that indicate an increase in stress are an effective strategy for avoiding overtraining and making continual progress... if you can keep track of those cues!

Periodise your training

Proper periodisation of training contributes to preventing overtraining syndrome. This requires a training programme to be well balanced so that there is progressive load followed by a period of reduced load to allow the body to adapt. You will see this in many programmes as three building weeks followed by a fourth lower-mileage week. Training without this simple framework is likely to leave you not only suffering from fatigue and at risk of overtraining symptoms but unable to reap

SIGNS OF OVER TRAINING

Increased incidence of infection

SIGNS OF OVER TRAINING

Poor performance during training

SIGNS OF OVER TRAINING

Reduced appetite and mood disturbance



the performance rewards of your hard training. In extremely intense periods you may shorten the build period to two weeks and take the third as reduced recovery.

Follow hard days with easy days

Simply training too intensely a few days in a row can increase your risk of overtraining so it is sensible to follow each hard training day with an easy day to help the body recover, replenish fuel stores and rebalance the immune system. The hard/easy system provides variety, relaxation and focus. Cyclists learn to

focus their energy on the hard days and to look forward to and relax on their easy days. This ability to focus and control energy is one of the most valuable attributes cyclists have when they race. The variety inherent in the hard/easy system will also keep you from getting bored with your training.

Take a break

Apart from following a build and recover pattern in your training you should also plan in times of the year when you take a complete break from training. A mid-season break of one week is a good idea, with two weeks or more off the bike and perhaps

sampling other activities in the off-season. This will give your body and mind time to recuperate and get ready for another period of training. You don't have to be completely inactive in these periods but just take some time off the bike.

Recover from your main event

If you've built up all year for a particular event, or perhaps tackled something spectacular like La Marmotte sportive, your body will need a good rest in the period afterwards. Taking a week off at times like this can see you cycling much more strongly long-term compared to getting straight back into your training. Exhaustive events deplete the body's glycogen stores, leaving it in its most vulnerable state. Low glycogen stores will leave your immune system vulnerable and it is well documented that infection rate increases during this time. Resting and refuelling your stores is the best idea in these periods.

Feed your body adequately

Failing to meet your body's carbohydrate or protein needs can leave your immune system vulnerable and compromise your recovery. Good nutrition, therefore, is fundamentally important to any training programme. Matching your calorie needs to energy expenditure and upping both carbohydrate and protein during intense training periods will keep you on track, as will refuelling in the immediate period after training.

SIGNS OF OVER TRAINING

Persistent muscle soreness

SIGNS OF OVER TRAINING

Loss of interest in sustaining training load



Refuel post-ride to safeguard immunity



Take it easy if overtraining threatens

SIGNS OF OVER TRAINING

Difficulty fully recovering from training

KNOW YOUR LIMITS

Tracking physiological markers of stress

Even an excellent training plan can lead you off track sometimes as the body fails to adapt during periods of stress. This is where tracking physiological markers of stress can help you make a decision as to whether to train or not. Here are some of the common markers.

Heart rate

The most universally used marker for physiological stress in the sports world is heart rate. Indeed, many athletes track their resting heart rate to help them decide how hard to train or whether to take a day of rest, and this could be a useful tool for all cyclists. An increase of resting heart rate of more than 10 beats per minute is generally the marker used to indicate a day off is required. One of the problems however, with using this as a lone marker is that a

stressful day at work, an argument or even a strong cup of coffee can lift heart rate. Taking your pulse first thing in the morning can remove some of this error but what's the point of that if you want to train in the evening? You may not be sufficiently recovered from last night's session in the morning but may be totally ready to train again come the evening. Despite these shortcomings, knowing your resting heart rate and keeping an eye on this can help you make a decision regarding training or resting but is more useful when combined with other markers.

Body weight and hydration status

Although some of you may put your hands up in celebration when seeing a weight loss on the scales, a sudden loss of weight which seems unexplained can be a sign that the body is struggling to

SIGNS OF OVER TRAINING

Elevated pulse and altered sleep patterns

repair itself and recover. A drop in body mass can also indicate poor hydration status which will negatively affect performance, health and recovery, so daily monitoring of weight and ideally hydration status (if you have body fat scales) can help you to stay on track with your training and avoid over-reaching. If you don't have body fat scales, simply monitoring the colour of your urine can help you keep on top of hydration. If your urine is getting darker, you need to hydrate more until you achieve a light straw colour.

Sleep

Failing to get enough sleep can have a huge impact on your ability to maintain your training load, but often individuals go full steam ahead into a session simply because the training programme tells them to. Monitoring how many hours of sleep you achieve

can help you have a reality check on whether a hard session is a good call or whether it's a better idea to do a light session or take a day off. If you're struggling to sleep although the opportunity is there, this could be a sign that your body is overstressed from training and you need to build in more recovery too, so tracking both quantity and quality of sleep is wise.

Mood

Simply recording whether your mood is good, better than normal or worse than normal can also give you an indication of how your body is handling training stress. If your mood seems to be worsening over time and you're suffering from general apathy, mood swings, feelings of depression or anxiety these can be signs of fatigue, illness or over-reaching and are commonly associated with periods of underperformance.

Performance during training

Rating your performance can provide some guidance to your body's reaction to training stress and help you identify a U-turn in performance as soon as it happens. The problem with this marker is that it is harder to measure as training sessions vary in type and intensity and measuring this marker alone does not allow you to catch over-training before it happens.

Restwise

These are just five of the 10 most common markers of overtraining, so you can see it's quite complicated trying to track all these and combine the results to make a decision on whether to clip in your cleats. A new piece of software called 'Restwise' (see panel) could take the work out of making these decisions and lead us into a healthy and successful 2011.

HIGH-TECH SOLUTION

Recovery software

A team of scientists, coaches and engineers from the US including Matthew Weatherley-White, who coached champion mountain biker Rebecca Rusch to her many successes, have taken all of the science surrounding the main markers of overtraining and combined them in an easy-to-use piece of software called Restwise. Set up to take the guesswork out of whether to rest or train, this valuable tool will simply tell you whether to train or not after input of a series of information each day.

How does it work?

Each day you input 12 pieces of information into the software. The measurements encompass markers relative to all of the variables identified by scientists to reflect a compromised training state. Including resting heart rate, weight, measurements of sleep quality and quantity, energy levels, appetite, illness and injury status, the software combines this data to provide you with a score. This score is accompanied with a message which ranges from telling you that you are 100 per cent recovered and ready for all training sessions to recommending you proceed with caution, take a day off or even take a few days off. Drawing a graph to reflect your combined score you can see how it is made up.

Pros and cons

This software can act as a really good guide, helping you train optimally without going too far. Daily monitoring is easy to do and quick to record. The hard bit is actually taking the day off when the software indicates you should! The clever addition of a pulse oximeter to this package allows you to track oxygen saturation too, which can give you an indication of the amount of oxygen being transported in the blood. If this measurement dips then this is indicative of a compromised state and this can even help to identify and prevent exercise-induced anaemia.

For most recreational cyclists, tracking resting heart rate will serve as an ample indicator of your recovery state. For those, however, looking to train more regularly and tread the fine line between optimum training adaptation and overtraining, Restwise's more sophisticated guide can help them use more advanced tools without having to have a PhD to interpret the results. Not only will the Restwise software help them to make the important decision of when to rest, but it will also keep them on top of hydration, nutrition and aware of the importance of sleep.

For more information visit www.restwise.com.

