RECOVERY

The tale of Eric the endurance runner – or why recovery should be an integral part of training

What follows is a hypothetical story about an endurance runner. Its purpose is to illustrate simple and practical recovery techniques all marathoners can use to help maximise the benefits of training and reduce the risks of illness and injury.

Eric wakes up at 7.45am on Tuesday. Before getting out of bed he checks his heart rate: it is 47bpm – his average for the past few months. He records this in his training diary, along with a rating for quality of sleep. On a scale of 1-4 (bad – okay – good – brilliant), Eric rates last night as no more than 'okay' because he had not found it easy to get off to sleep. Eric drinks a big glass of water and eats a banana. He then spends about 20 minutes getting ready and watching the news on TV before heading out on his morning run. Eric runs six miles in 34 minutes – a comfortable pace for him. On his return, he immediately drinks 500ml of sports drink and eats an orange. He then completes a leisurely static stretching routine for legs, hips and back before taking a shower.

In the shower, Eric spends some time massaging his neck and shoulders and applying pressure to the iliotibial band down the outside of his leg, where he often experiences tightness. Finally,he spends 30 seconds hosing cold water onto each leg, holding the water jet quite close to the muscles.

The stretch routine and shower takes about 20 minutes, after which Eric is ready for breakfast. He has a big bowl of cereal with milk, a glass of orange juice and a boiled egg with toast.

Being a student, Eric spends the middle of the day in college.

At lunchtime, he eats in the canteen – vegetable soup with a bread roll, followed by chicken casserole with new potatoes, accompanied by plenty of water. In the mid-afternoon, Eric tops up his energy levels with a wholemeal tuna sandwich and an apple.

A tough session

At 6pm Eric heads down to the running track to meet up with his coach and the rest of his training group. He spends 20 minutes going through a core stability exercise routine and then a set of dynamic flexibility exercises before running easily for 10 minutes to warm up. The evening session involves two sets of 8x300m, with 45 seconds' rest. It is quite a tough session, and Eric feels like he is working hard, even though his times are slightly down on a fortnight before, when he last completed this particular workout.

During and after the workout, Eric drinks 500ml of sports drink and 200ml of mineral water. Then, after going through his static stretching routine, he heads home, snacking on a packet of jelly babies on the way. He prepares an evening meal of rice and lamb curry with some salad, and while the curry is cooking he takes a shower, interspersing three minutes of hot water with 30 seconds of cold three times. During dinner he completes his training diary for the day, rating his morning run as 'good', but the evening interval workout only as 'okay' because of the perceived effort for the times he ran.

When Eric wakes up on Wednesday morning, he measures his heart rate at 58bpm – 11 beats up on the previous day. Again he'd had difficulty getting off to sleep and had awoken during the night, so

he rates his sleep as ‘bad’. For these two reasons, Eric decides to give his morning run a miss, even though it had been scheduled into his weekly plan. Instead, he treats himself to a lie-in before breakfast then heads off for college.

On his return home in the mid-afternoon, Eric performs a few stretches then goes through a relaxation technique, focusing on deep breathing. Once relaxed, he spends some time visualising his best race from the previous year, revisiting all the feelings and images he had experienced before, during and after the event. This exercise puts Eric in a great mood and he decides to venture out for a short, easy run.

While running, Eric focuses on posture and relaxed arm action and afterwards he spends 15 minutes performing dynamic flexibility and sprint drill exercises in the local park. Feeling loose and energised, he jogs home, where he drinks 500ml of sports drink and runs a bath. Blessed as he is with a separate shower, Eric keeps the shower running cold and the bath hot, alternating between the two, with three minutes bath to 30 seconds shower.

With free time to kill, Eric arranges to meet a friend at the cinema later and fixes himself an early dinner of spaghetti bolognese with salad. That night, well relaxed, he sleeps easily (‘good’), and when he wakes on Thursday his heart rate is back down to 49bpm. At peace with the world, he prepares for his morning run.

During the day, Eric eats and drinks well, as he had on the two previous days, and completes his stretches and core stability exercise routines. In the evening, he does very well with his threshold run and is able to rate both this and the morning run as ‘good’.

Friday is Eric’s active rest day. Instead of running, he goes to the local swimming pool, where he completes the following routine:

. one length walk forwards;
. one length walk backwards;
. two lengths backstroke;
. stop and stretch calf muscles in water;
. one length lunge walk;
. one length easy breast stroke;
. stop and stretch hamstrings;
. one length high knee walk;
. one length easy breaststroke;
. stop and stretch quadriceps;
. two lengths front crawl.

During this workout, Eric sips from a water bottle placed by the side of the pool and continues sipping while he sits in the sauna for five minutes afterwards.

On Saturday, Eric awakes from a ‘good’ night’s sleep with a normal heart rate. He completes a tough hills session in the morning and a 30-minute steady run in the evening, rating both as ‘good’.

Eric performs his stretching and contrast temperature showers after both workouts, takes in plenty of fluids (using sports drinks immediately after the runs) and eats balanced meals composed of fresh ingredients.

This sounds like a simple description of an athlete following a training routine – which is actually the whole point of the story. Although Eric appears to be relying on common sense and his own instincts, he has managed to incorporate a variety of sports science principles and modern recovery techniques into his training week, including:

. daily monitoring of resting heart rate, sleep and training quality;
. self-massage;
. contrast temperature showers;
. stretching – both dynamic and static;
. relaxation techniques;
. visualisation techniques;
. social activity;
. rehydration and refuelling immediately after exercise;
. a high carbohydrate intake;
. a variety of proteins, fruit and vegetables;
. planned days of active recovery;
. pool-based active recovery workout;
. sauna.

These techniques are not expensive: indeed, most are free. To make use of them, all you need is a little knowledge and organisation. For example, stocking up on sports drinks and bottles of mineral water is a useful way of ensuring you can always refuel and rehydrate quickly during and after training. Rapid refuelling allows for faster replacement of energy in the muscles, thus speeding recovery, and is also good for the immune system.

Contrast temperature bathing and showering boosts the circulation and stimulates the nerves, also speeding recovery and helping to remove lactic acid. The hydrostatic pressure on the muscles in the pool session is also beneficial, especially if you follow the kind of light workout suggested above.

Crucially, Eric was prepared to be flexible with his training schedule on the morning he discovered his heart rate was high. Some athletes find it difficult to deviate from a planned training programme, but Eric understood that the high heart rate was his body's way of telling him he had not recovered fully from the previous evening's interval session and therefore needed to relax. He also took a proactive approach to promoting his recovery by performing the visualisation technique and the sprint drills session, thus turning an apparent negative into a positive.

While his overall mileage for the week was reduced because of his easy Wednesday, Eric completed all his quality workouts, the intervals, threshold and hills session. Significantly, after the easy day, Eric rated his training as better than before.

The main take-home message of this story is the importance of self-management in promoting high-quality training. All athletes need to train hard or long, or both, to succeed. By following Eric's example and using self-management techniques to speed your recovery between training sessions, you will optimise the benefits of training, leading to improved performance.