

Minimalist MARATHON Program:

By Steve Manning

PART 4: RECOVERY PHASE

Most marathon training programs take you up to race day and then leave you to fend for yourselves during one of the most vital training phases. Recovery from the marathon is vital because what you do can have long term consequences for your health and future fitness.

You do not run marathons for your health. During a marathon you push your body beyond your limits causing massive muscle and connective tissue destruction. If left untreated the physiological effects can lead to injury, illness and even mental depression. This can affect your normal life activities as well as your running ability.

On the upside, improvements in fitness come from overloading your body and then recovering adequately. There are not too many things you can do more challenging than a marathon. Because of this the marathon represents a great opportunity to improve your fitness. The key to achieving this improvement is recovering properly. Your training after the marathon will facilitate your gaining the fitness benefits from having completed such a hard long run.

The main difficulty in creating a recovery program is knowing how much to do and how soon to do it. This is complicated by the varied amount of damage that is inflicted for different runners and different races and conditions. It takes less time to recover from a fast marathon where you finished strong than a slow marathon where you hit the wall and had to stagger into the finish. Hot weather conditions or hills will increase recovery time. What you do just after you finish can decrease your recovery time. The recovery training program should be flexible and managed based on how you feel both physically and mentally.

THE 3 PILLARS OF TRAINING THEORY.

An easy way to understand training theory is to examine it based on three major components of Intensity, Quantity and Frequency. Regardless of what phase you are in, or what theories you believe, all training is founded upon these three components. It is how the intensity, quantity and frequency vary during each phase that describes what you are doing to try to achieve progression, periodisation and success.

During recovery training intensity and quantity will initially be very low and gradually increase as your body gets stronger. If you try to run hard or long too soon you can delay full recovery indefinitely. Because you only improve while recovering from hard efforts you will also lose any benefits you could have gained from running the marathon if you start hard training again too soon. Training should be very easy and slow and you should not do any runs of beyond an hour for about three weeks.

Frequency is the only thing that should be maintained during the recovery phase. Normal intense training and racing damages some muscle fibres. The scope of destruction after a marathon includes the macrostructure of the muscles and connective tissue. If you run at least every second day you will break the muscles down a little bit each time. This will allow the macrostructure of the muscle to be rebuilt in the right way.

There is research to show that the cellular microstructure will not recover any quicker if you do no running in the first week or if you run every second day. But the advantage of easy running is that the muscles will have less scar tissue that can lead to injury further down the track.

HOW LONG WILL IT TAKE?

An old theory for recovery used to recommend that you give yourself one day of recovery for every mile of the race. For a marathon of 26.2 miles this would be about four weeks of recovery before you try to train properly again or run another race. Except for having to convert from kilometres this theory is simple and easy to understand. However it is also dangerous to lump everyone and every experience into one simple calculation. How long it takes to recover depends on the difficulty of your race experience and what you have done to try to recover.

Sleep and stress also have an influence on recovery time. Your job situation or family commitments can increase after a marathon. They have been on hold while doing the marathon training and now that you have finished the stress of these commitments come back stronger than ever.

Rather than think of an arbitrary number to calculate how long it takes to recover you should listen to your body. Train easy and avoid building up mileage until you get that zip back in your stride.

It is easy to tell that you are not recovered because even easy runs are a struggle. You are sore after running and can not maintain any speed for very long. I usually wait until one day I have a run in which I am able to push the pace along. Even at this stage you must give yourself extra days to recover from hard efforts but it will not take too long to start to feel normal again.

IMMEDIATE RECOVERY

What you do after you finish a race can have a drastic effect on your recovery time. The most important factor of this immediate recovery involves re-hydration and nutrition. While you might think that drinking in the last few kilometres is not necessary to improve your performance in that particular race, it will have an affect on your recovery.

During a marathon you can sweat out nearly ten percent of your body weight. This is significant for your performance but also affects the amount of destruction that occurs. Fluid helps to transport resources used to rebuild damaged muscle to where it is needed. It is also important to remove heat from the location of the damage to release it from the skin.

Muscles and the liver are completely depleted of glycogen at the end of a marathon. This source of energy is more effective at rebuilding muscles so you must replace glycogen as soon as possible after you finish. The best way to do this is by drinking a sports drink or soft drink within the first few minutes of finishing. This helps to re-hydrate at the same time as replacing some glycogen. In fact if you drink just water it will not stay in your system as well as if you drink something with some sugar and salt in it.

Within the first ten minutes you should begin to eat some carbohydrate rich solid foods. Fruit is easy to get down and has high levels of fluid as well as important vitamins to help you recover. After the first half-hour you have missed your opportunity to replace water and glycogen optimally.

Even after a marathon there is the need for a warmdown routine. The goal of this warmdown is to maintain flexibility as your body heat returns to normal. Going for an easy jog is just silly, but gentle stretching for the first half-hour will achieve a good warmdown. If you just stop and lie down after you finish you will get very stiff and feel much worse in the next few days than was necessary.

Another effective strategy to recover is elevation of your legs in the first few hours. This will help clear damaged tissue and reduce inflammation. You must do this while maintaining your warmdown routine and replacing fluids and glycogen. Immersing your legs in cool water in the first few hours will also reduce inflammation. What is probably required is alternating a cool water bath with elevating your legs, all at the same time as drinking and eating the carbohydrates.

Massage is often available at the end of races. Because of the major cellular destruction that has occurred mechanical manipulation of this damaged tissue will just cause greater damage. You should avoid any massage until the initial inflammation has subsided. This can take a few days. After the inflammation has gone down then massage can be very beneficial to proper recovery.

PHYSICAL RECOVERY

Physical recovery is about returning your body to the functional state it was in before the marathon. It can be helped by good nutrition and vitamin supplementation by anti-oxidants like C and E. Gentle running should be followed by a stretching routine to regain flexibility.

There are a number of important stages of physical recovery. Stage 1 is Intramuscular and intercellular recovery. This involves the inflammatory response. Often people feel sorer a day or two after a marathon and this is because the swelling (edema) continues for up to 72 hours. The swelling itself is what causes pressure on the pain receptors. Any vigorous activity during this time beyond stretching or a gentle walk will increase the inflammation and recovery time.

Stage 2 involves healing the muscle damage and replacing damaged tissue with scar tissue. This scar tissue compromises the functioning of the muscle so full function will not occur until it is broken down and removed. Trying to train hard during this phase can cause injury as the scar tissue is more susceptible to tearing. Gentle running and massage will facilitate the scar tissue breakdown. This stage should not last more than a week and is complete when you can run without any pain.

During Stage 3 you work to regain your running form and flexibility. Gentle speedwork helps to increase range of motion and regain strength. The pace of repetitions should be no faster than half marathon race pace. Frequency of speedwork should be only once every three or four days. It must be run at a steady but comfortable pace with fewer repetitions. Varied distances and terrains are beneficial and you should not try to time your efforts. At the end of this phase some drills or formwork will help get your coordination back. This phase can take three to four weeks or longer to complete.

Stage 4 is focused on returning to some intense training. This includes some shorter races. When you can run hard again without losing concentration you are ready for the final stage.

Stage 5 is building quantity back into the program. Once you are feeling strong with that zip back in your stride then you are ready to build the training back up in anticipation of the next goal race or marathon. If you return too soon you run the risk of putting yourself in a big hole where your performances will be suppressed for a long time.

MENTAL RECOVERY

Mental recovery is much more difficult to achieve than physical recovery. Whether you have had a good or bad race you can still experience post marathon blues. This comes about because the focus of your life the last few months is now gone and you can be at a loss as to what you should be doing and what is important to you. There are a few good strategies to overcome the blues.

Re-experience the simple joy of running. Train at new venues and over new terrain. The focus pre-marathon has been on performance. Post-race you should go back and seek out the reason why running itself is such a relaxing and enjoyable thing to do.

Cross training with cycling, swimming or even a team or skill sport can direct your thoughts towards learning new things and improving at something new. When you first start off a new sport improvement comes easy. This can give your confidence a boost and refocus your mind on achievement again.

When you do run you should do it without your watch. No times equals no stress to try to achieve a certain level of performance. Speedwork should be over new distances, venues and terrains. Fartlek on a trail allows you to get in a good workout without worrying about whether you were running far enough or hard enough. If you can not measure your performance you will not agonise over how you have gone.

The marathon has demanded a number of sacrifices to complete the training. This might be early nights or missed family time on the weekends or indulging your desire for exotic domestic beer mixed with chocolate. Return to a normal life for awhile. Go to the movies late at night. Go out to dinner and order all the fatty tasty things that are bad for you. A few moments of indulgence will not hurt you and will help your mind recover from the strain of marathon training mode.

The most important way to get over a major goal race or marathon is to refocus on your next goal. After a few weeks of enjoying running and life it will be time to decide on your next major goal and work out your plan to attack it. Once you have done this, the marathon will be in your past and you will be over the post marathon blues phase.

RESPONSIVE RECOVERY

No matter how well you have planned your recovery program things may not work out the way you wanted. You might be taking longer to get over the pain of the marathon or picked up a niggling injury from the race. This will force you to rethink what you should do. Blindly sticking to your plan will lead to poor recovery, overtraining and probable injury or illness.

A responsive recovery program will have the capability of changing based on how you are coping with the recovery. It will have contingencies built in so you can change sessions around and increase your recovery time if needed.

Intensity is not fixed at a certain level but responds to how you are feeling without any major failure of the program.

By responding to how the recovery is going you can optimise the benefits you have gained from running a marathon.

RECOVERY FROM ULTRAS

While ultramarathons take much more mental strength to complete it takes less time to recover from them because of the slower pace. Again a lot of it depends on your race experience but generally you will not be pushing the pace at any time during an ultramarathon. This means less time at your limits and less muscle destruction. You are eating and drinking more consistently during an ultramarathon simply to survive. This will also help you recover from the race.

RETURN TO RACING

You know you are recovered from a marathon when you are able to race well again. But what do you do if you want to run two marathons within a few weeks or months of each other?

In the eighties two marathoners made it a habit of running frequent and fast marathons. Kjell Erik Stahl and Doug Kurtis both used to run over twenty marathons a year and averaged well under 2:20. Stahl included a third place at the world championships during his streak of marathons. Doug Kurtis had a high-powered job with an American telecommunications company and had limited training time available during the week. Both runners used the marathons as their long runs. In between the marathons they did little training in order to facilitate recovery.

The key to frequent marathons is to train sensibly between them. Do not think that you have to get in some good quality training in between. It is more important that you recover properly from the first marathon and are rested for the second one. There is no better training for a marathon than running another marathon. A marathon race exactly simulates what will be required for running a marathon. As long as you recover properly you will gain the benefits from the first marathon and will be able to run even better at the next one.

FIRST-TIME MARATHONER

Phase 4: Recovery

Week	TYPE	Tues	Thurs	Saturday	Sunday
1	RECOVERY	Walk 20 minutes	Easy 5km	Walk	Easy 5km + strides
2	RECOVERY	6 x 500M easy, 3min rec	Easy 10km	Easy 5km	10km neg splits
3	RECOVERY	3 x 1km easy, 1km rec	Easy 10km	Easy 5km	Easy 15km

EXPERIENCED MARATHONER

Phase 4: Recovery

Week	TYPE	Tues	Thurs	Saturday	Sunday
1	RECOVERY	Walk 20 minutes	Easy 5km	Easy 8km	Easy 5km + strides
2	RECOVERY	8 x 500M easy, 3min rec	Easy 10km	Easy 5km	10km neg splits
3	RECOVERY	4 x 1km easy, 1km rec	Easy 10km	Easy 5km	Easy 15km

Steve Manning writes the footman column for Runners World. He is aiming for his 20th marathon next year and has a personal best of 2:33. For a copy of the training schedule or other articles go to the Intraining website at www.intraining.com.au. Or email footman@intraining.com.au