

FINDING PERFORMANCE:

THE ART AND SCIENCE OF RECOVERY

PurplePatch Fitness founder Matt Dixon discusses the recovery element in his *Pillars of Performance* training philosophy.

By Matt Dixon, MSc



SAMMY TILLERY

Following Chris Lieto's breakthrough second-place finish at last year's Ford Ironman World Championship, I received a lot of questions about what we changed in his training, or what the magic ingredient was that elevated his performance so far beyond what he had achieved previously. The long answer would take many pages, but I kept finding myself coming back to "He stopped talking about recovery and started actually doing it." While every athlete pursuing optimal performance must put in very hard training, the effectiveness of that training (some would say the secret ingredient) is dependent on how well he or she recovers.

In my last article, I laid out my belief that far too many athletes and coaches rely on high-volume training, with limited focus on other key factors that elevate performance. This approach tends to leave many, even most, athletes arriving at their key events very fit, but tired. I consistently observe dedicated athletes who train extremely hard but do not make noticeable gains due to accumulated fatigue. To counteract the tendency to over-train, I outlined a philosophy with added emphasis on recovery, functional strength and nutrition. These three areas, coupled with swimming, biking and running, make up your six pillars of performance. Thinking of them as pillars or columns supporting your performance should make it easier to accept that they require equal attention.

The focus of this article is on the recovery pillar. Reaping the rewards of recovery starts with understanding how it benefits you (comprehension), choosing to embrace it (commitment), and integrating it into your training (action, or in this case, inaction).

BENEFITS OF RECOVERY. Many of you are nodding your heads, agreeing that recovery



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is important, but are thinking you don't have time in your busy schedule to rest or that you already take one day a week off. Recovery is more than taking an occasional day off and hoping for the best.

The main priority of recovery is not simply to recuperate from your last workout(s), but also to maintain your metabolic health (strong immune system, balanced hormonal profile and free of disease; see sidebar "Metabolic health defined"). With all the internal and external stressors you face in daily life, with the addition of training, your body is facing an ongoing battle to resist and manage stress. Poor metabolic health is equivalent to a shaky foundation. If your training is built on a rickety structure, performance gains will come grudgingly. Worse yet, trying to build (train) on a weakened structure risks a total collapse in the form of injury. Nearly all overuse injuries are directly related to an accumulation of too much work relative to your structural ability.

Remaining healthy and injury free allows for consistency in training. With recovery integrated into your program, you may feel like you are recovering before you really need it, but such a proactive approach allows long-term consistency—the biggest single factor in performance gains.

Now that you have a greater appreciation for the benefits of recovery, you're probably still struggling to justify committing valuable training time to it. It's time for some priority adjustments.

RE-PRIORITIZING RECOVERY. For the vast majority of athletes, lack of recovery is the biggest weakness in their training, and there are many reasons (excuses) for why it is an afterthought for so many. It is already a challenge to build a training plan that address all three disciplines of swimming, biking and running, which often leads to squeezing additional workouts into days or times that would normally be left for rest. This problem is compounded by the dominant culture of "more is better," which

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promotes training as a platform to push beyond our limits to find new levels. Ultimately, this philosophy points to the primary reason athletes avoid real recovery—they are overly confident. I always say that it takes tremendous courage to recover properly. After all, we receive no instant validation of improvements while recovering, we do not get to enjoy the emotional high of completing a great workout, and we always tend to wonder of what our competition is doing while we take time out to rejuvenate.



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METABOLIC HEALTH DEFINED

I consider metabolic health to be the global physical state of homeostasis (balance). Being metabolically healthy is not merely the absence of disease, but having the major functions of your body perform at a good level. There is not a single test that can declare that you are metabolically healthy, although we can build a picture of health with some objective and subjective markers that can add up to showing optimal health. You are metabolically healthy when you show:

- ✓ Absence of disease
- ✓ Balanced hormonal profile
- ✓ Strong immune system

When in this state you should feel vibrant and be in a position to make fitness and health adaptations and improvements. Periods of great metabolic health and vibrancy lead to consistently great performance.

The first, and biggest, step to prioritizing recovery is having a road map and training plan that you believe in—one that incorporates recovery. Without a plan, you are directionless, and without direction you are much more likely to lack the confidence to truly recover from your hard work. With the plan, on your recovery days, you can confidently tell your buddies you are exercising: exercising your strength and willpower to be ready for your next workout and to achieve optimal performance.

INTEGRATING RECOVERY INTO YOUR TRAINING PLANS. Implementing recovery into your plan does not simply mean setting aside a day each week and assuming you are good to go. It permeates your training at several levels.

Recovery day: This is a day that you are not aiming to achieve any cardiovascular fitness gains through hard training. This may be a complete day off exercise, or it might be very low intensity for a short duration. To be truly effective it is optimal to keep daily life stressors low on this day too, so work travel does not really count as recovery!

Recovery workout: This is a single workout that you perform to facilitate recovery from a previous workout, or prep for an upcoming hard workout. The intensity is generally very low and the duration short, although you may include some very short (seven to 10 seconds) surges to stimulate the central nervous system and stay sharp.

Recovery blocks: These are multiple days in a row of lower volume and intensity work-

outs to allow healing and full adaptation. They last 3 to 7 days, and are normally needed every 10 to 16 days of training. The traditional approach of three weeks of hard training followed by one full week of recovery does not provide enough recovery and often leads to the last week of hard training being lower quality and filled with risk of accumulated fatigue and injury.

Recovery phases: At least two or three times per year you need an extended respite from hard training, consisting of 10 to 21 days to allow the body to heal, rejuvenate and recover. The typical off-season is an important part, but it is worth building one or two phases into the mid-part of your season as well. Most of my athletes have two or three "seasons" (at least emotionally), and if only I could align them, I might get a break, too!

Types of daily recovery: Outside of building in specific training recovery workouts and blocks, there are daily habits that will maximize your chances of bouncing back from tough workouts and staying healthy.

→ **Sleep:** This is the single most important component of staying healthy and injury free, in terms of quantity, quality and consistency. There is simply nothing more productive than consistently good sleep.

→ **Rest from activity:** Limited or no activity is pure recovery and promotes healing. Plain and simple.


→ **Nutrition:** Proper amount, quality and timing of nutrition are imperative. Most triathletes under-consume relative to the energy

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COMPETITION RECOVERY

While the focus of this article is recovery in training, recovery from races is also critical. Avoid making the mistake of inadequately recovering from a race before jumping back into training:

Rest in: The recovery needed from a race is often determined by how tired you are going in. Make sure you are fresh going into the race and you will recover more quickly on the other side.

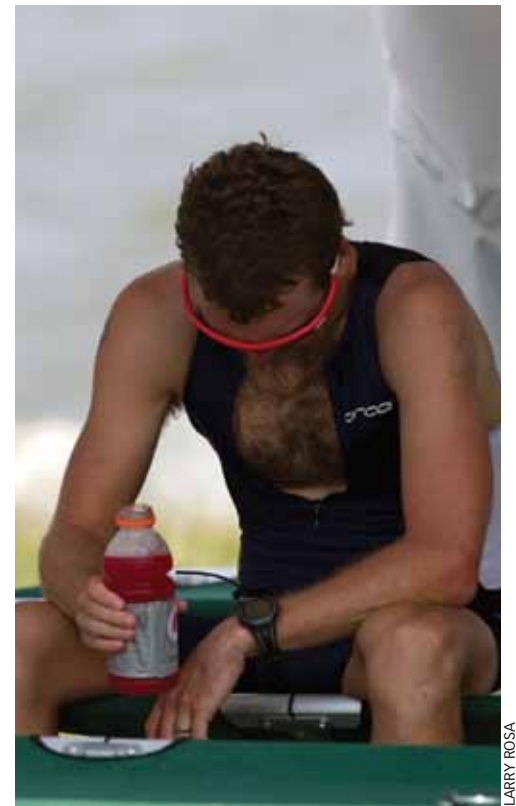
Rest following: The biggest mistake is to begin training before you are fully recovered. While muscular soreness might go away in a few days, you are not metabolically recovered. An Ironman takes many days to truly recover (14 to 28 days), and a 70.3 distance event still requires seven to 14 days to adequately recover.

Keep eating: As you recover from a race, and the training volume drops, the tendency is to reduce calories. Maintaining caloric intake, composed of plenty of oils, proteins and vegetables, will aid the recovery process.

Keep active: Some activity is generally beneficial, but limit the metabolically stressful "high volume" training. For the first three to five days post race your exercise sessions should be no more than 45 minutes. If you have the luxury, there is nothing wrong with doing two to three short and easy sessions per day, but if you are time-limited then avoid longer sessions.

Avoid load bearing: Cycling and swimming are much preferred choices for activity immediately after the race. You can maintain load-bearing activity by including walks or very easy runs with long walk breaks.

demands of training, and many lack sufficient nutrients (vegetables and fruit), fat and protein for proper recovery and health maintenance. Read the nutrition-oriented articles in this magazine or even work with a nutritionist, but make sure you support this pillar, too.



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→ **Fueling:** While it is obviously related to your nutrition, fueling has a different goal. Fueling refers to the calories that you take in during and immediately following training. The primary focus during this time is carbohydrate intake, with some protein, and it is critical to replenish glycogen stores, limit additional metabolic stress and facilitate muscle rejuvenation.

→ **Miscellaneous:** There are several other factors that help in the recovery process but are secondary to the top four. They include compression gear, massage and warm/cold treatment. While they can certainly aid recovery, they are nearly meaningless without the support of the primary four.

SUMMARY. It takes a bold athlete to truly make recovery a priority in training, especially in the current culture and methodology attached to many training programs. Recovery is highlighted as key, but so often relegated as an afterthought. Within the triathlon community, we are held in the highest regard for our ability to suffer and train harder than anyone else, but seldom do we pay the same respect to the smart athlete who is not only willing to push limits in training and racing, but also support those efforts with integrated recovery.

Programming recovery into your plan is not laziness; it's smart. Anyone can train hard; the best know how to recover. **A**