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## VARIETY IS THE SPICE OF A FITTER LIFE

The notion that practice makes perfect is slowly becoming an untruth in the athletic world, since focusing too much on one type of movement can take you further away from your goal. Here's how to ensure you're always making improvements

**T**he amount of overuse injuries isn't just firmly on the rise in adult athletes because it's actually increasing at a greater rate in young sportsmen. While we all love to hear about the great success stories of athletes like Stephen Curry, Tiger Woods or Mia Hamm, we don't want to hear about the staggering fact that 70% of all youth athletes drop out of sports by age 13 due to overuse injuries and burn-out.

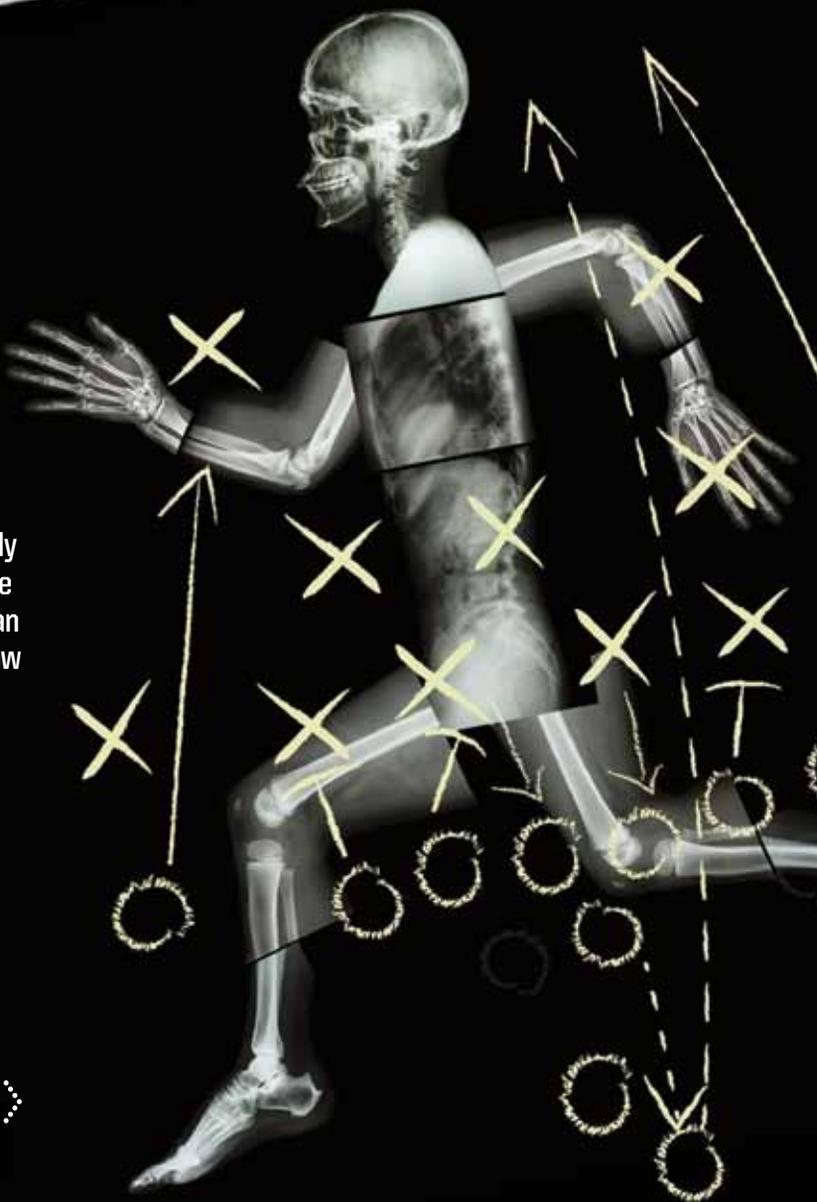
So what keeps these pros playing at their elite level? Well, it's cross-training, which is a method of combining different training strategies to provide better conditioning, injury prevention and active recovery.



**YOUR TRAINER**  
DR EUGENE A. BATELLI



Foot and ankle surgeon specializing in treating high-end athletes, like marathon winners and NFL players. Visit: [metroankle.com](http://metroankle.com)



Performing the same movements in a sport over and over again will likely make you extremely efficient, and is also excellent for competition; however, it will limit your overall fitness level.

These same movements will also predispose you to overuse injuries, like tendonitis (Achilles tendonitis in runners), stress fractures, tennis elbow, swimmer's shoulder, jumper's knee and shin splints. Cross-training allows different body parts and muscle groups to take over and develop while others recover, thus preventing injury.

This is also a great way to continue training while an injured area heals, otherwise known as active recovery.

However, it's not quite as simple as swimming if you're a regular runner.

Here's your complete playbook for understanding why it's so important and how you can use it to improve your game.



### STAYING ON THE PITCH

There are two types of injuries that plague athletes: acute and overuse. Acute injuries are thanks to a single traumatic event like breaking your ankle or rupturing your Achilles tendon. Overuse injuries are subtler, occur over time and are often difficult to diagnose, which makes it tough because they are by far more common in sports.

Exercise causes good stress on your body, which makes you stronger thanks to remodeling. Stress causes microtrauma, which stimulates bleeding, but, when the stress gets too intense, it can cause excessive microtrauma, which the remodeling process can't keep up with, and an overuse injury or tendonitis can occur.

Overuse injuries usually don't produce significant inflammation, thanks to their slow progression, and this makes healing difficult. Tissue samples from tendons have shown that, technically, degradation of the tendon occurs and inflammatory cells are absent in the affected area. This means non-steroidal anti-inflammatory drugs

(NSAIDs) really aren't necessary except for their painkilling effect. It's also a known fact that NSAIDs actually delay fracture healing, so using them excessively will slow your healing down. Ice is actually a better form of treatment because it relieves the pain and causes a reflex increase in blood flow to the area. Conversely, heat is also a great way to increase blood flow to an area, so try alternating between these two approaches on an injury that keeps flaring up.



### WHY YOU GET SIDELINED

The most common cause of overuse injuries is training errors, like a rapid increase in the intensity,

duration and frequency of your sport.

Athletes often return to an activity after an injury or break from their sport and push themselves too hard too quickly to achieve the level of activity they were at previously.

To prevent this, follow the 10% rule where you don't increase the intensity of your workout by more than 10% per week so it gives your body a chance to recover from the stress. This is where coaches and trainers play such an important role in reducing overuse injuries by keeping proper training schedules that log workloads.

Another risk is poor equipment, like worn-out running shoes or running for long distances in basketball sneakers. Your

equipment, whether sneakers, weights or the surface your exercising on, needs to be in proper working order to avoid injury. You also need the proper equipment for the activity you're going to participate in.

Some people are just prone to overuse injuries because of their body makeup. Muscle imbalances, lack of strength and poor flexibility will stress joints, predisposing them to injury. Body alignment issues, like flat feet, bowlegs, knock-knees and unequal limb lengths, impact overuse injuries as well, so it's important to get checked by a sports physician if you experience any of these issues.

Finally, old injuries, or injuries that haven't been properly treated, can cause overuse issues in other parts of your body that are trying to compensate for the weakness. So does treatment of these overuse injuries require stopping all activity? Not necessarily, because that's the advantage of regular cross-training. Employing active recovery techniques (a benefit of cross-training) will assist in getting you back to pre-injury condition.

You should always consult your sports physician if you experience an injury before taking it upon yourself to drastically change your workout routine.



### HOW TO AVOID OVERUSE

Year-round competition and single-sport specialization set the stage for overuse injuries. The increased emphasis on competitive success is causing sportsmen of all levels to push their bodies well beyond their natural limits, leading to tissue failure.

While it's okay to specialize after adolescence, you still need to provide your body with adequate rest. Traditionally, sports were season-based, allowing participants 2-3 months to heal, but that's not always the case nowadays. Therefore, adding cross-training to your schedule decreases this constant repetitive load.

If you must play one type of sport every day, a good technique is to vary the intensity of it between heavy and light days. On your light-intensity days, employ a cross-training exercise to keep your fitness levels up. Bottom line is: don't be a one-trick pony because, like clockwork, every 6-8 weeks before the New York City Marathon I see 3-4 metatarsal stress fractures, a few tibial stress fractures and countless shin splints in my office.

Plus, every spring I see tons of Achilles tendonitis, plantar fasciitis and apophysitis (growing pains in kids). The common denominator here is training too hard and too quickly without enough variation.

**COACHES AND TRAINERS PLAY SUCH AN IMPORTANT ROLE IN REDUCING OVERUSE INJURIES BY KEEPING PROPER TRAINING SCHEDULES THAT LOG WORKLOADS**



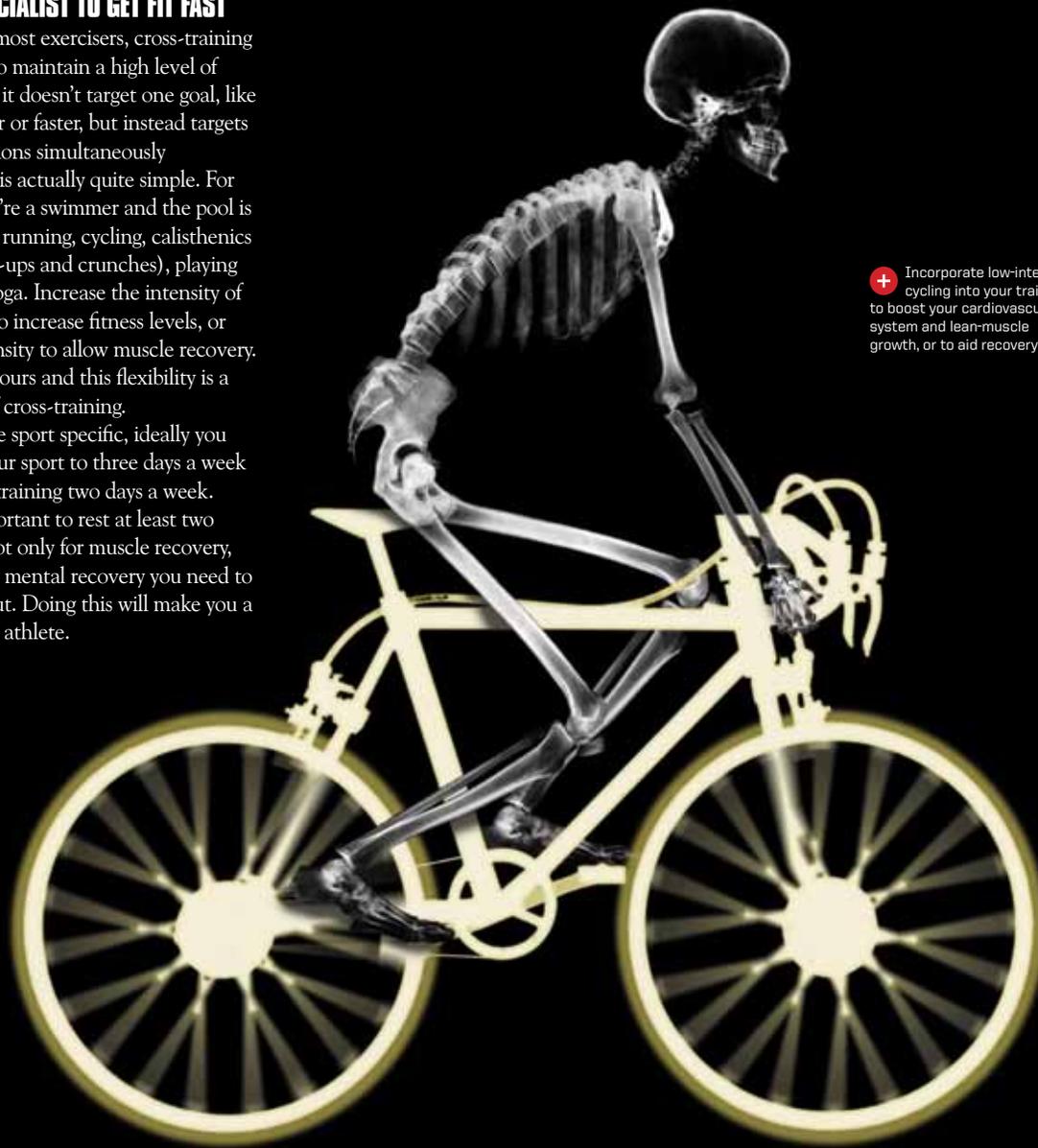
## BECOME A CROSS-TRAINING SPECIALIST TO GET FIT FAST

For most exercisers, cross-training is a great way to maintain a high level of fitness because it doesn't target one goal, like getting stronger or faster, but instead targets all your aspirations simultaneously.

The concept is actually quite simple. For example, if you're a swimmer and the pool is closed then try running, cycling, calisthenics (push-ups, pull-ups and crunches), playing basketball or yoga. Increase the intensity of your workout to increase fitness levels, or lessen the intensity to allow muscle recovery. The choice is yours and this flexibility is a huge benefit of cross-training.

If you must be sport specific, ideally you should limit your sport to three days a week and add cross-training two days a week.

Also, it's important to rest at least two days a week, not only for muscle recovery, but also for the mental recovery you need to prevent burnout. Doing this will make you a more complete athlete.



**+** Incorporate low-intensity cycling into your training to boost your cardiovascular system and lean-muscle growth, or to aid recovery



## MIX AND MATCH FOR ACCELERATED GAINS

A well-rounded cross-training program should include a combination of the following key exercise choices for year-round athletic success.

### STRENGTH TRAINING

- Free weights
- Machines
- Calisthenics
- Resistance bands

### SPEED, AGILITY AND BALANCE EXERCISES

- Flexibility (yoga, stretching)
- Plyometrics, sprinting, circuit training

### CARDIOVASCULAR (AEROBIC)

- Running
- Swimming
- Cycling
- Rowing
- Stair climber/elliptical trainer
- Jumping rope
- Boxing
- Basketball
- Court sports, like racquetball or tennis

With cross-training, you can do one of these a day or add multiple forms of exercise to suit your needs and prevent boredom and stress-related injuries.

One of the best exercise program structures incorporates 20 minutes of cardiovascular exercise with 30 minutes of strength training, followed by 20 minutes of flexibility work. Follow this and you will see improvements in your fitness level, increased flexibility and reduction of body fat.

The moral of the story is this: variety is the spice of life in exercise as well. Change it up, keep it fun and reduce your stress. ●