



Injury Prevention for the novice recreational endurance athlete

Recreational endurance athletes commonly will incur an “over use injury”. I would suggest a better name of this type of injury would be “repetitive use injury”. Repetitive use injuries can occur with very little use if the individual is “under trained”. Historically over use injuries occurred in high level athletes who were subjecting themselves to extreme amount of exercise. Now there are many novice recreational endurance athletes who can experience over use type injures in response to relatively small to moderate amounts of use or training especially if the novice athlete has a relatively poor fitness level.

In order to prevent a repetitive use injury a little bite of self analysis is very helpful. Consider the following questions in order to better design your individual training program. Am I more likely to “under train” or am I more likely to “over train”? If you are more likely to do too much, recognize this potential error and develop strategies to prevent it from occurring. If you are following an organized training plan make a commitment to stick to the plan and do not sneak in extra miles or workouts. Identify someone you can trust as an advisor or confidant and listen to them if they suggest that you are training too much, and suggest that you back off, trust their advice.

If you are more likely to under train strategies need to be developed to address this short coming. Join a training group and make a commitment to reach all of the minimal goals of the training program and plan on occasionally doing more than the minimum. Inconsistent training missing sessions makes it difficult to reach the appropriate fitness training threshold needed to achieve the goal, and increase the risk of injury.

Is your personality very competitive? Do you perceive yourself as having a high pain threshold? Have you experienced repetitive use injuries in the past? Did you wear corrective shoes or braces on feet/legs as a young child? Have you suffered previous traumatic injuries in the past (fracture, sprain/strain, dislocation), surgery? Is your foot size different from the right foot to the left? Are you legs different length? Have you been accused of having curvature of the spine? If you answered yes to any of these questions your risk of developing a repetitive use injury is increased. Answers to these questions can help determine if endurance athletic events are a wise thing for you to undertake.

Abnormal skeletal alignment has been implicated in predicting injury. There are some studies which have shown a relationship between structural measures and injury; whereas other studies have shown no relationship between structural measures and injury. The relationship between skeletal alignment and injury can be complex and does not always apply to different runner in the same way. What might cause an injury in one runner can have no influence on another making it very difficult for scientist to identify a causal relationship. For example, studies have demonstrated that excessive pronation contributes to injury and another study showed that prolonged pronation had a protective effect relative to injury. An in-depth orthopedic examination by a qualified healthcare professional can help sort out potential structural abnormalities which can be addressed with remedial strengthening exercise, braces, or equipment modifications.

In addition to determining what is a safe amount of training it is important to ask am I doing it in the correct manner. As the saying goes "train smarter not harder". Is my swimming stroke ideal, is my running form ideal, and is my biking technique appropriate. The effects of minor faults such as over striding become magnified when mileage increases. The manner in which we perform repetitive use activities is important. If you have doubt about whether the manner in which you perform the activity is optimal or not seek feedback from someone who knows.

Research regarding running injuries has shown that a strong predictor of the development of running injury is the numbers of consecutive days run not the total mileage run. This data suggest that if you are running 40 miles per week, 5 days per week, and running 8 miles per day it could be less of a risk of injury if you ran 40 miles per week, 4 days per week at 10 miles per run. Another option would be to run 40 miles per week one day run 19 miles and run 7 miles for each of the remaining 3 days per week. On the non run days it is a good day to "cross train".

One thing that is not important when it comes to preventing injury is "stretching". This is a myth that continues. Research has shown the runners and military recruits who perform regular stretching exercise are more likely to develop repetitive use injury compared to runners and recruits who do not do stretching exercise. Research has show that runners who are stiffer are more efficient and faster than runners who are more flexible.

A majority of endurance recreational athletes will incur a repetitive use injury at some point. Mistakes will happen. The difference between a novice and a veteran is the veteran most likely has experience from previous mistakes; where as the novice is relatively innocent. Whether you are a novice or veteran mistakes happen, and mistakes are opportunities to learn how to avoid injury in the future. Keeping a journal enhances our ability to learn from mistakes. Be sure to record data in your journal with enough detail and over a long enough period of time so that patterns can be developed and analyzed in the future. Have others look at the data a different perspective can be helpful. Of course it is best to avoid mistakes and preferably injury can be prevented. Prevention requires an individualized approach and a plan, to prevent injury. Individual plan should be based on self assessment of previous experiences as well as your own strengths and weakness.

- Self assessment
- Listen to advisors
- Be consistent
- Minimize consecutive days
- Cross Train
- Learn from mistakes