

Exercise Warning Signs



- Abnormal heart action: irregular pulse, rapid or fluttering heart rate, sudden burst of heart beats, or sudden decrease of pulse rate during exercise.
- Heavy pumping or strongly felt palpitations in the throat or chest (beyond normal exercise feeling)
- Dull pain, ache, or heavy pressure in the middle of the chest before, during, or after exercise
- Abnormal shortness of breath associated with chest pain
- Sudden pain or numbness in any part of the body (especially in the left arm)
- Pain or heart burn in region of the upper abdomen
- Extreme dizziness, sudden loss of coordination, cold sweat or loss of consciousness
- Temporary loss of speech or vision



The Two Classes of Sports Injury

- Extrinsic

- Training parameters, equipment and environment



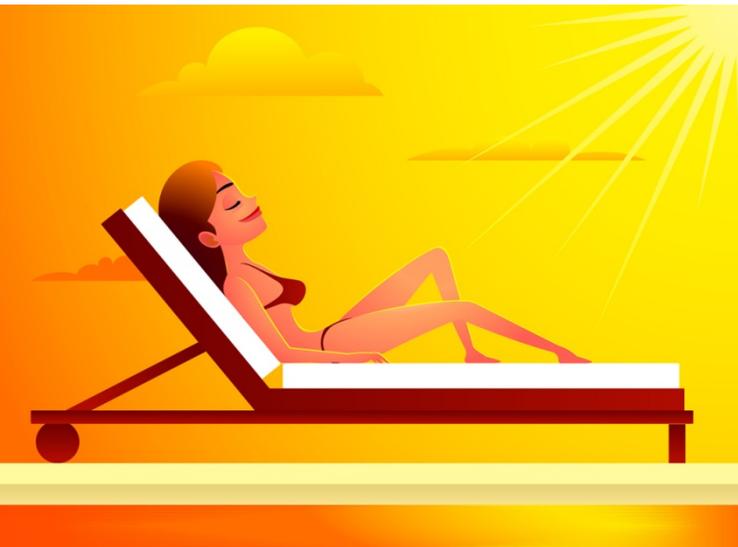
- Intrinsic

- Fitness level, body fat, anatomy, prior injury, age, smoking status, muscle strength, flexibility (extremes)



To Reduce Injury

- Build up fitness goals gradually
- Make cross training part of schedule
- Allow body to rest after challenging workouts (min 48 resistance, 24 hours intense aerobic)



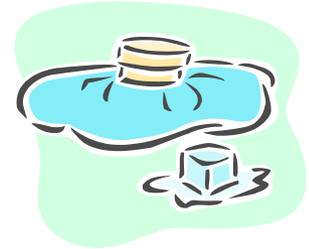
Recognizing Overtraining

- Excess fatigue when running - even on the “easy” days
- Poor workout performance – may be first CV signs too
- Dreading your runs
- Disturbance in sleep patterns
- Feeling sleepy during the day
- Loss of appetite
- Upset Stomach
- Weight Loss
- Irritable
- Increased Respiratory Infections
- Stiffness, soreness, tenderness in muscles or joints that
up



General Treatment for Sports Injury

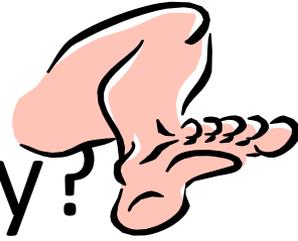
PRICE/RICE Principle



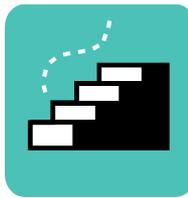
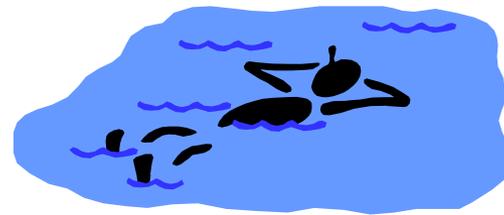
- **P**rotect: protect area if needed from further injury
- **R**est: Chose an alternate form of exercise for 1 to 2 weeks or until the pain stops
- **I**ce: Apply for 20 minutes 2 to 3 times a day
- **C**ompression: Snugly wrap area with an ace bandage
- **E**levate: Whenever possible, elevate area above the level of your heart, or onto a chair while at work



How To keep Fit With An Injury?



- If your knee hurts try: stationary bike, cross-trainer, rowing machine or swimming.
- If your shins hurt try: stationary bike, stair-climbing machine, cross-trainer, or rowing machine. Injury most likely caused by doing too much too soon.
- If your back hurts try: the recumbent bike or cross trainer or swimming
- If your ankle hurts try: stationary bike with seat slightly lower and heel on pedal versus ball of foot, rowing machine, cross-trainer or swimming.
- Good Running Program and Injury Link: <http://www.runnersworld.com>



Hydration

- Drink ad libitum during exercise (**but don't force it, you want to avoid hyponatremia/water intoxication which can be deadly**). Aim for about 6-8 oz at 15 minute intervals
 - Start rehydrating early in endurance events as thirst does not develop until 1-2 % body weight has been dehydrated
 - Arrange running routes to accommodate water stops
 - Check body weight and replace with two cups for every pound weight loss after the event but also eat and even push salty food as I will mention later
 - Before, during and after long runs - carbohydrate and electrolyte replenishment is important (only intervention as of yet to decrease incidence on URTI's after hard training programs). Protein intake after runs also important
- Pleasant taste/colder temperature enhance drinking



Simple Ideas to Deal with Heat Illness



- **Treatment** – in mild cases (headache, cramping, pale, dizzy) move out of sun to a cooler well ventilated area, gentle massage and stretches if cramping, push fluids, have subject remain calm and refer to physician if condition does not abate
- **In extreme heat illness** (labored breathing, loss of consciousness, no sweating, dry very hot skin) – Call ER or transport to ER as quickly as possible and even cool subject as rapidly as possible (hose, ice packs) etc on the way

