TOP 10 WAYS TO PREVENT RUNNING INJURIES

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If your goal is to be the best runner you can be, you have to stay healthy. Successful injury-free running doesn't happen accidentally – it takes careful planning. And with careful planning you should be able to train as hard as you want without injury and without loss of workout time. So here are the Top 10 ways to prevent running injuries (in order of increasing importance).

10. **IMPROVE YOUR FLEXIBILITY (BUT DON'T OVERDO THIS)**: Focus on your calves, hamstrings, low back and front of hip.

9. **MINIMIZE RUNNING ON UNSTABLE TERRAIN**: This leads to over-pronation in flat feet and leads to ankle instability in high-arched feet.

8. **AVOID EXCESSIVE DOWNHILL RUNNING**: Downhill running increases the shock on foot strike up to 7 times body weight.

7. **IDENTIFY YOUR FOOT STRUCTURE**: Perform the "Wet-foot Test" to determine if you have a high-arched foot, a neutral foot, or a flat foot. People with high arches tend to be poor at absorbing shock. People with flat feet are typically 'over-pronators'. This means that their feet and legs roll inward too much.

6. **WEAR THE CORRECT SHOE FOR YOUR FOOT**: Wear a cushioned shoe for a high-arched foot, a stability shoe if you are a slight to moderate over-pronator and a motion-control shoe if you are a severe over-pronator. Shin splints may be helped by arch supports or orthotics, such as SuperFeet.

5. **AVOID RUNNING ON EXCESSIVELY HARD SURFACES**: Running on hard terrain tends to be more injury inducing in people with high-arched feet and in people who are inflexible. Try to do most of your running on grass and dirt (like Hicham El Guerrouj).

4. **DON'T INCREASE YOUR MILEAGE OR SPEED TOO QUICKLY**: In order for your muscles and connective tissue to strengthen and to meet the demands of the increased workload, increase your mileage by no more than 10-15% per week. Regarding speed work, just progress it gradually.

3. **LISTEN TO YOUR BODY**: Don't play slave to your training log. If your legs are sore or your body feels heavy and sluggish take it easy that day or better yet, cross train (stationary bike, bike, swim, etc.). This relative rest may in the big picture prove more beneficial than getting in those 10 miles that you 'needed' that day. Over-fatigue can lead to overtraining which can lead to injury.

2. **PAY ATTENTION TO RECOVERY**: Recovery may mean rest but it is also an active process involving:
    1. A light cool down of 5-10 minutes (to remove waste products).
    2. Re-hydrate with the proper fluids (usually a carbohydrate or sports drink).
    3. Replenish your fuel stores (consume protein to carbohydrate at a 1:4 ratio with 30 minutes upon completion of exercise. Chocolate milk works great for this.).
    4. Light stretching (to promote muscle relaxation).

    Also remember to always follow a hard training day with an easy training day.

1. **STRENGTH TRAIN**: Two major musculoskeletal demands of running are pushing off and landing. Landing can produce very high forces and enormous stresses on the feet and legs. A 150-pound individual running 50 miles a week may subject each leg to 9,000,000 (45 tons) pounds of force in one week. Being able to absorb shock is the primary reason why strength training is so important. Stronger muscles will allow you to absorb shock better. They will also help you to push your body forward better which means you will be a faster runner. Strength training also increases the strength of your bones, tendons, and ligaments to make them less susceptible to trauma. With strength training, focus on high repetitions and less weight, typically performing 3 sets of 15-20 repetitions, 2-3 times a week. Core training and upper body training can enhance your running but this doesn't yield as much of a return as lower extremity strengthening.

    So focus on the following lower extremity exercise to reduce your risk of injury:
    1. Deep squats, progress to a one-legged version.
    2. Walking forward lunges.
    3. Single leg forward hops.

<u>Common Track & Field Injuries</u> – preventative measures – treatment and rehabilitation exercises

Best prevention is to have a base conditioning program before the season starts. Provided free for all athletes.

- Preventative measures athletes should use nightly

  Good stretching after practices – roller massage before and after practice – during your period, stretching should be done carefully as the body releases a hormone that allows tendons & ligaments to be overstretched.

  Ice baths for runners – Ice bag for throwers on shoulder nightly

  Hydration – keep the body lubricated – 80 oz. to 100 oz. per day

  Nutrition to keep muscles fueled and body functioning well

  Well rested – sleep is important

  *Share your schedule with your Coaches, if you are in another sport, overworking can cause injuries.

- Treatment and Rehabilitation Exercises – injuries take time, patience and a commitment to work with the trainer to improve and heal. The trainer cannot wave a magic wand and make an injury go away. You must take the time to talk to the trainer each day for help. The trainer will assume everything is OK if you do not keep checking with him. Communication with the trainer and your coaches are very important steps in rehabilitation. When coaches ask how you are doing, be honest. We cannot adjust workouts unless you are open and direct with us. Our trainer has the final say regarding practice and meet participation.

- Sore, achy muscles
  - Preventative
    - Good stretching after practices – roller massage before and after practice
    - Pre-season conditioning so body is in shape to do required workouts
    - Keep muscles warm – wear tights or sweats of keep heat in body
  - Treatment
    - Stretching – morning & after practice each day
    - Hot soaking bath

- Pulled muscles (not just soreness) Mild pull – 3-5 days Severe pull 1-3 weeks
  - Preventative
    - Good stretching after practices – roller massage before and after practice
    - Pre-season conditioning so body is in shape to do required workouts
    - Keep muscles warm – wear tights or sweats of keep heat in body – faster the workout, the more important it is to keep your muscles warm
    - Stop running – tell Coach when a muscle tightens especially the quad – make Coach listen
  - Treatment
    - Contact with our trainer daily – let him know if it is not improving
    - Stretching – morning & after practice each day
    - Ice – 20 minutes w/ 40 off each hour – 3-4 times per day for 3 days and before & after workouts
      Then after 3 days, talk to trainer to see if you need to start using heat instead of cold.
    - Alternative workouts – Bike – walking – water workout
    - Possibly use thigh sleeve or ace wraps for support and warmth in muscle (Quad or hamstring)
      Use the thigh sleeve during practice and in meets

- Shin splints – lower leg pain – this term involves the muscles in the lower leg.
  - Preventative
    - Good shoes with good arches – Additionally ‘Super Feet’ for arch support work for many athletes
    - Good stretching after practices – roller massage before and after practice
    - Specific stretching to Achilles, gastrocnemius and soleus muscle 3-4 times per day
    - Arch and front of leg massages – towel rolling or marble pickups – ABC’s writing(in classes)
    - Pre-season conditioning so body is in shape to do required workouts
    - Stop running – tell Coach when a muscle tightens – make Coach listen
  - Treatment
    - Specific stretching to Achilles, gastrocnemius and soleus muscle 3-4 times per day
    - Ice massage & Ice 20 minutes w/ 40 off each hour – 3-4 times per day for 3 days then talk to trainer for possibly using heat
    - Alternative workouts – Bike – walking – water workout
    - Contact with our trainer weekly – let them know if it is not improving
    - Possibly use shin supports, Arch tape or shin tape support for support