

Running Safely:

Recommendations for Runners

Running is an excellent form of aerobic exercise, but runners can develop a variety of aches and pains. Here are some tips on prevention, early recognition, and treatment.

CAUSES OF PAIN & INJURIES

Repetitive Motion

Improper training methods, such as the following, cause 50-60% of problems:

- Neglecting warm-up or stretching exercises which allow gradual adjustment of muscles.
- An overly intense workout. Excessive sprinting may precipitate a muscle strain or Tendonitis.
- Too rapid a build-up of distance, or too much mileage and not enough rest.
- Rapid change of training routine and/or environment, such as suddenly switching to running hills, hard surfaces, or indoor tracks with tight curves.

Anatomic Factors

- Abnormal alignment of a lower extremity can cause chronic stress. If pain is persistent, it should be evaluated at UHS.
- Muscle tightness, which can be prevented with proper stretching exercises before running. Excessive muscle tightness can cause inflammation of tendons due to stress overload.

PREVENTING INJURIES

Proper Equipment: Use running shoes with cushioned soles and good fit -- not canvas deck shoes, sandals, bare feet, etc. Check for wear as shoes wear first on the outer edge, which can then cause excessive strain of muscles and ligaments.

Stretching: Stretching exercises are done before and after each run. Stretching is important for the prevention of injuries during running, for the sprinter as well as the long distance runner. Muscle tightness can cause muscle strain and may also lead to Tendonitis in joggers and long-distance runners. Stretches should be held to the count of 10. Otherwise, quick and bouncing exercises may strain muscles with sudden bursts of repetitive movement.

TRAINING

In general, untrained runners can start running 10 minutes per day, increasing every few days by 3-minute increments. Most trained runners can start at 15 minutes per day and increase by 5-minute increments every few days.

- If pain occurs, reduce the duration and intensity of exercise to below pain level. If you "push" yourself, the injury will get worse.
- Hard surfaces are ok only if you have no pain and have proper shoes; otherwise soft, flat surfaces are preferable.
- When running on tracks with tight curves, alternate direction to avoid excessive strain on one lower extremity.
- Excessive mileage can cause/aggravate injuries. Run below the pain level and gradually increase activity, especially after an injury.
- If you are having pain with running, or if an injury has developed into a chronic problem, consider alternate exercises which provide an aerobic workout, such as

bicycling, swimming, or cross-country skiing. Exercise is most beneficial when adapted to your individual physical and psychological needs.

INJURIES

Low Back Pain is often due to tight hamstring or weak abdominals, too much mileage, or too rapid a build-up of distance. Reduce mileage to below pain level with gradual build-up, stretching exercises for hamstrings, and strengthening exercises for the back.

Hip Pain/Knee Pain is difficult to evaluate without a complete history and examination. You should be evaluated at UHS if it is a persistent problem. You may need to modify your training schedule and add strengthening exercises for lower extremity muscles. Be careful when running on hills or stairs.

Thigh Muscle Strain is usually caused by muscle tightness and added stress of running. The key to prevention is stretching, strengthening, and gradual build-up of the muscle. Aim for equal strength in both legs and adequate strength in hamstrings and quadriceps.

RUNNING WITHOUT PAIN

Prevent injuries with adequate warm-up exercises, a sensible training schedule, and proper equipment. If an injury does occur, apply ice packs immediately in 20-minute intervals to reduce swelling and inflammation. Allow adequate rest after an injury and run only below pain level.

"When in doubt, check it out!" If you are having recurring pain, have an injury that is not improving, or have other questions or concerns make an appointment with your primary care provider at UHS for an evaluation.

EXERCISES

Hamstrings: (Tendons/muscle at back of leg)

- First, check for tightness. Lie on back, straighten knee, and try to raise leg to a right angle (90⁰). If you cannot, the hamstrings are too tight and need stretching.
- The Exercise: Standing with knees straight and legs together, lean forward reaching for your toes, counting to 10. Do not bounce.

Quadriceps: (Large muscle at front and sides of thigh)

- In a standing position, put foot back on table and bend back with bent knee.
- Hold to count of 10 and continue stretching to point where you feel slight pain. (Otherwise, the muscle is not really being stretched).

Groin Area:

- Stand up and spread the legs (as in a jumping jack position).
- Keeping one leg straight and the other leg bent to the side while supporting most of your body weight, stretch to the left for count of 10.

Heel Cord: (Stretching lower leg muscles and Achilles tendon)

- With one heel flat on ground, straighten knee.
- Lean forward as far as possible with that heel remaining flat and knee straight. The other leg can bend forward.

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- Lean forward as far as possible with that heel remaining flat and knee bent. The other leg can be bent forward.

Straight Leg Raising: (no weights)

- Lie on your back with your leg out straight. (Straight leg raises can also be performed in a sitting position.)
- Lift your heel (with knee straight) slowly off bed to about 45 degrees and hold for 5 seconds.
- Slowly lower leg to the bed, keeping knee straight. Relax.
- Repeat 10 times. Perform this routine 3 times daily.

Progressive Resistance Exercises: (with weights)

Begin with 1 pound weight, performing the exercise 10 times, 3 times daily. Progressively increase the weight by about 2 to 5 pounds as you feel comfortable, to achieve a goal determined by a doctor.

- After a few days, when you are able to perform the straight leg raise without pain, begin lifting weights in the same manner.
- Suspend the weight from your ankle using a handbag or any pouch with a strap, or use weight boots.
- Lift the weight up to 45 degrees and hold for a count of 5 seconds. (Knee must be straight.)
- Then lower the leg and relax.

SCHEDULING AN APPOINTMENT

Call 275-2662 to schedule an appointment at the University Health Service (UHS). UHS offers a full range of services. All visits to UHS are confidential.