



# SPORTS TRAINING TIPS: RUNNING

U W H E A L T H S P O R T S M E D I C I N E

## RUNNING INJURIES

Each year, 25 to 50 percent of recreational runners sustain an injury that causes a change in their training. Running-related injuries almost exclusively involve the lower extremity. Injury from running can result from a runner's physical make-up, such as decreased strength, flexibility or joint range of motion. Running-related mechanical faults or training errors can also cause injury. Mechanical faults may include over-striding or improper deceleration. Training errors may include inappropriate mileage, intensity, frequency or progression. The age of the runner's running shoes may contribute to injury rate, more so than arch height, cushioning or style.

Common running injuries include kneecap pain (patellofemoral stress syndrome), outer knee pain (iliotibial stress syndrome), heel pain (plantar fasciitis), meniscal injury, shin splints (tibial stress syndrome) and others.

### How can running injuries be prevented?

The human body adapts well to new demands as long as the applied load is not greater than the body's ability to adapt. Overuse injuries occur from an overload of the body's anatomical structures (bones, tendons, muscles). Every new stimulus needs to be integrated gradually (i.e., volume, intensity, hills, surfaces, shoes).

The following guidelines may help reduce the chance of running-related injuries. These guidelines include:

- No more than a 10 percent increase in mileage per week
- No more than a 3 percent increase in pace per week
- Consider walk-run intervals  
*(see sample beginning program on back page)*
- Work up to 30 minutes of continuous jogging before adding any speed work or hills
- Consider a step rate of 170–180  
(85–90 contacts per foot per minute)
- Vary the surface, but progress your training on the surface on which you plan to compete
- Consider cross-training activity  
(ie: biking, swimming, elliptical) as an adjunct to your program
- Select a shoe that is comfortable to wear
- Use an appropriate dynamic warm-up program
- Implement an appropriate strengthening program



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## How are running injuries treated?

The treatment required will vary based on the injury and athlete. The staff at UW Health Sports Medicine Center use a comprehensive approach to treatment in order to maximize efficiency of care following injury. Care starts with a physical evaluation by a sports medicine physician, physical therapist or athletic trainer. Additional diagnostic tests are also ordered if needed.

A video analysis of running mechanics may also be performed to assess for a running mechanical fault. Following the evaluation, most athletes are trained in a specialized rehabilitation program that may include strengthening exercises, flexibility exercises, modifications to running form, and manual physical therapy treatments. Individualized treatment plans are developed to get people back to running as soon as possible following injury.



### BEGINNING WALK-RUN INTERVAL PROGRAM (perform 3 times per week)

Week 1	4 min walk, 1 min run x 4 (20 min total)
Week 2	3 min walk, 2 min run x 4 (20 min total)
Week 3	2 min walk, 3 min run x 4 (20 min total)
Week 4	2 min walk, 3 min run x 5 (25 min total)
Week 5	1 min walk, 4 min run x 5 (25 min total)
Week 6	1 min walk, 4 min run x 6 (30 min total)
Week 7	30 min continuous running

## References

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