

## Weekend Doctor

By Dr. THOMAS F. VAIL

Research at the University of Melbourne has found that women's menstrual cycles can increase their risk of injuries, but those who take contraceptive pills are more likely to be protected.

Injuries of the foot and ankle are significantly heightened at the beginning and middle of a women's cycle.

At the beginning, there is reduced muscle tone and coordination due to lower estrogen levels. On day 14 of the cycle, estrogen levels are at their peak and this increases the elasticity of the Achilles tendon and the risk of injury.

The most common Achilles tendon injuries are Achilles tendinosis, or tendonitis, and Achilles tendon rupture.

Achilles tendon ruptures, also known as tears, can be full ruptures or partial ruptures.

Achilles tendinosis, which is also known as Achilles tendinopathy, is soreness and stiffness that comes on gradually and continues to worsen until treated. It is a common injury among middle- and long-distance runners.

The severity of Achilles tendinosis can be broken down into four grades which can be measured in terms of how the Achilles tendon feels during exercise, the amount of stiffness and creaking, and the Achilles tendon's soreness to the touch.

The four grades are:

- No pain during exercise, but there is some discomfort in the morning when first getting out of bed. The stiffness and creaking go away after a few minutes and are fine the rest of the day. Lightly pinching the Achilles tendon with the forefinger and thumb in the morning or after exercise will probably indicate soreness.

- Pain during exercise or running, but performance is not affected. The stiffness and creaking appear when first getting out of bed and disappear shortly afterward. Lightly pinching the Achilles tendon with the forefinger and thumb in the morning or after exercise will indicate soreness.

- Pain during exercise or running that is detrimental to performance. The stiffness and creaking appear when first getting out of bed and may continue for some time and reappear at other points during the day. Lightly pinching the Achilles tendon with the forefinger and thumb in the morning or after exercise will indicate soreness.

- Pain is too great to exercise or run. The stiffness and creaking appear when first getting out of bed and may continue for most of the day. Lightly pinching the Achilles tendon with the forefinger and thumb at almost any time of day will indicate soreness.

The researchers at the University of Melbourne, however, have found that women who take contraceptive pills have lower injury rates because the pill reduces the level of circulating estrogen.

Elite female athletes may consider taking the contraceptive pill or hormone replacement therapy to reduce the risk of injury.

Research has shown women become more prone to injury when they train at an elite level. This is because they over-train and under-eat. This causes their estrogen levels to fluctuate more than usual.

In light of this evidence, women who exercise regularly and intensely should take extra precaution during their menstrual cycle by wearing shoes that support their feet and ankles. Women athletes who train daily should see their podiatrist if they have any Achilles tendon problems.



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