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Good news for tennis players: new research for treatment of "tennis elbow"

By [Jessica Yu](#)

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Freshman Whitney Deason has certainly seen her share of tennis injuries. As one of the star players on Stanford's Women's Tennis team, Deason has witnessed a number of injuries ranging in severity from strained muscles to sprained ankles to shoulder problems. And Deason is not a stranger to the ailment known as tendonitis, commonly known as "tennis elbow."

But Deason and other tennis-lovers everywhere may have less to worry about in the future as a new treatment for tendonitis is now undergoing national testing. Allan Mishra, an orthopedic surgeon at the Menlo Clinic, an affiliate of the Stanford Hospital, has developed a way to use the body's own chemistry to heal overuse injuries.

Tendonitis occurs when the muscles that pull the arm backwards become injured through overuse, strain or a direct hit. These muscles become inflamed, causing a severe, burning pain on the outer side of the elbow. The elbow also tends to appear swollen and may feel tender. In severe cases, the muscles may even tear, causing pain during simple motions.

Although tendonitis is most commonly associated with sports such as tennis, racquetball, squash and weight-training, the non-athlete is also at risk for the disorder.

According to Mishra, any repetitive stress on the elbows and wrist is a risk factor for tendonitis. In fact, tendonitis is actually most common in people who spend eight hours a day in front of their computers or planting petunias in their gardens.

In most cases, the pain and tenderness associated with tendonitis subsides with rest and restriction of the stress-inducing activity. Physicians also often recommended stretching and strengthening exercises for the elbow. In addition, anti-inflammatory medication is also recommended if necessary.

Activity restriction, however, may be near to impossible for the college level or professional athlete.

Deason admits that frequent injuries can be an impediment to any training regime, but currently Deason and her teammates, for the most part, practice through the pain of minor muscle strains.

"Often times we continue to train and do what we can without aggravating the current injury," Deason said. "If an injury could possibly be serious and there is enough pain, then we stop practicing, but our training schedule definitely changes depending on the severity of our injuries."

For those who play recreation sports, tendonitis can also be a hindrance.

Freshman Esther Cheng played tennis in high school and said that oftentimes her teammates played through their pain.

"More than once I've seen people ignore the doctor and played against the recommendation," said Cheng.

According to Mishra, those who continue to train through their pain put themselves at risk for more serious injury.

"Tennis elbow is more of a nuisance than a big disaster, but it can impact activity severely," said Mishra. "Repetitive stress can lead to tear of the tendon."

For Deason and her teammates, Mishra's study may prevent many future painful practices.

At the annual meeting of the American Academy of Orthopedic Surgeons in February, Mishra presented findings that treating people suffering from tendonitis with platelet-rich plasma, or PRP, a derivative of blood, can help heal overuse injuries. PRP contains potent growth factors that aid the development and differentiation of blood cells, which can help repair ligaments and tendons. Mishra and his team found that treatment of tennis elbow with PRP decreased the pain felt by patients with the disorder. In eight weeks, patients recorded that their pain had decreased by 60 percent. After six months, patients felt their pain decrease by 81 percent.

A national trial is now in the works to evaluate Mishra's findings. Planned to commence in the late summer or early fall, the double-blind, randomized study will be conducted at several centers across the country. These centers hope to simulate Mishra's results in hopes of finding effective treatment for tendonitis.

If the study is a success, the Food and Drug Administration may approve platelet-rich plasma for the treatment of tendonitis. Until then, tennis players and computer-users alike will have to bear the pain or be cautious about their habits.