Rotator cuff tears are a problem for athletes — but also for plenty of ordinary people, especially as they age

The specialist: Dr. Evan Flatow, orthopedic surgeon, on shoulder injuries

An orthopedic surgeon for 22 years, Flatow runs Mount Sinai's Department of Orthopedics and is the president of the American Shoulder and Elbow Surgeons. In addition, "The heavy professional organization." "Born and bred on the upper West Side," Flatow has lived in that neighborhood for his whole life.

The big story:

Most people associate torn rotator cuffs with athletes like Mets pitcher Pedro Martinez, who battled back after surgery in 2006. But rotator cuff injuries are actually a serious public health concern, with most of them striking everyday people as they age.

Who's at risk:

The rotator cuff is a group of muscles and tendons that moves and stabilizes the shoulder. "It's called a cuff because the tendons surround the ball of your shoulder like the cuff on your pants surrounds the ankle," explains Flatow, "and it's called a rotator because it rotates the arm." The shoulder muscles are attached to the bone by four tendons, any of which can be the site of a rotator cuff tear.

Most people are surprised to hear how common the injury is. "Up to 25% of the population over the age of 60 will have a rotator cuff tear," Flatow says. "Many, many, otherwise healthy Americans are prevented from enjoying their retirement because of them.

The risk of rotator cuff injury increases significantly with age, especially in people over 40 at higher risk and people over the age of 70 at very high risk. Unfortunately, many don't pay attention to their symptoms until it's too late. "People assume it's just normal to have aches and pains," says Flatow, "and people often confuse it with arthritis."

You might also associate rotator cuff tears with sudden injuries, but in many cases they are the result of trivial events and the wear and tear that occurs as the cuff degenerates over time. Often, people never figure out exactly when the tear occurred.

"In many cases, the tendons are so weakened with age there was rotator cuff damage you didn't know about," says Flatow, "and you trip on the stairs and catch your weight one day. You pay little attention to it, but you could have torn the rotator cuff."

Rotator cuff damage can happen quickly or build slowly. In some cases, patients have a year or two of aches before they get a tear; in others, the whole damage happens in a few weeks. Says Flatow: "It's like if tomatoes are eating your house — when is it going to fall down? Who knows?"

Traditional treatment:

The first step is diagnosis, which can usually be done through a simple physical examination. In recent years, doctors have used MRIs to follow up on the preliminary diagnosis. "MRI scans can show the exact size of the tear and whether the muscles are still healthy," says Flatow. Twenty years ago, the treatment was to have an open operation to repair the tendon. The modern treatment has evolved to arthroscopic surgery," says Flatow, "where we poke through the skin and reattach the muscle to the bone."

A tiny camera is inserted into the body, and the surgeon guides his tools by watching a video screen. The surgery matches the tendon to the bone where it has pulled off, to reconnect the muscle. Two major advantages of arthroscopic surgery are that it's done under local anesthesia and requires only keyhole incisions.

Research breakthroughs:

Flatow sees research advancing on two areas: surgical technique and genetics. On the surgical front, doctors seek to improve mechanical repair and find the best techniques and methods. "For example, we've learned to repair the tendon more accurately with two rows of sutures," says Flatow, "so it's quilted down to the bone instead of attached on one point." This method creates a larger surface for healing.

In the laboratory, scientists are pushing to discover which genes are activated by tendon damage. "We're looking for a new growth factor that we can use to get repairs to go better," says Flatow.

Questions for your doctor:

Most people don't realize upper arm weakness or pain with a potential shoulder injury, but you should bring it up with your doctor.

What you can do:

Get in shape and work out properly. "Safe exercise practices and warming up before exercise is key," says Flatow. He advises working with a trainer or physical therapist to develop a smart fitness plan.

Don't ignore warning signs. "Get any shoulder pain or weakness evaluated," says Flatow; watch for symptoms in the upper arm, too. If you wait too long, the muscles around the tear will atrophy and you won't be able to get back to your old level of activity.

Be smart about lifting things. "When you have your arm extended like you're pointing at the horizon, you're putting a heavy strain on the rotator cuff," explains Flatow. Instead, lift with your arm close to your body.

Be careful about heavy lifting, like removing air conditioners, putting a window or putting luggage up on an overhead rack.

Get informed. Flatow recommends two Web sites that are crammed with data. For general orthopedic topics, including a big section on the shoulder, try the National Orthopaedic Academy's Web site (orthoinfo.ahrms.org). And the American Shoulder and Elbow Surgeons' site (www.asae-ase.org) has a great search engine for finding specialists.

And don't feel shy about asking, "Do you think this could be a rotator cuff tear?"

Once you're diagnosed, you need to think about the next steps. Flatow advises patients to seek out the best care and talk "Is this an MRI?" and "Can you refer me to an orthopedic shoulder surgeon?"