

# Orthopaedic Observations

*A Matter of Medicine...*

*TM Pending*

## Locking, Buckling and Giving Way

By Alan M. Reznik, M.D., MBA



“Standing still, I turned to get something off a shelf behind me, and bam, my knee just went.” “Everytime I get up from a squatting position, my knee won’t straighten.” “Going down stairs, my knee gives out. I just don’t trust it.” Frequently, statements like these are the first clue that a patient has an unstable knee. So *why* does this happen, and *what* should be done?

The knee is the joint connecting the femur, the “thigh” bone, to the tibia, the “shin” bone. In the knee joint, the end of the thigh bone is rounded and the top of the shin is relatively flat. The two together are very much like a rolling pin sitting on a narrow table. Given even a small push, the rolling pin will fall off. That’s why the knee’s cartilage and ligaments are so important. They hold the two together and still allow the knee to bend and straighten smoothly. Without the ligaments and the cartilage we wouldn’t be able to run, jump, twist, turn, squat or pivot; and it’s when they are injured or not working properly we have problems.

The examples above are stories of locking, the knee gets stuck in one position and won’t move, buckling. The knee is made unstable by a twist or a turn, and giving way. The force of a routine activity causes the knee to stop supporting the body’s weight.

Locking, can be caused by a piece of torn cartilage (the meniscus) stuck between the bones. Until it’s pushed back into place the knee remains locked and often difficult to straighten. This can be both painful and disabling. If an examination is positive for signs of injury to the cartilage a tear may be the reason for the problem. A

Magnetic Resonance Image, MRI, or a diagnostic arthroscopy, looking into the knee with a fiber optic telescope can show the cartilage tear so the problem can be treated properly.

Giving way, can be caused by a cartilage tear or a ligament problem. Here’s where the physician’s examination of the knee is key. Telling the difference can be difficult. This is especially true, if the knee is swollen or if it is painful, both common findings in a recent injury. Fortunately, there are specific clinical tests, parts of a good routine knee exam, to help us find the cause. Sometimes special instruments like the KT-1000 (a very sensitive knee testing device that allows us to measure small movements between the femur and the tibia) can help us decide if one of the major ligaments like the ACL (anterior cruciate ligament) or PCL (posterior cruciate ligament) is damaged.

Buckling, can be caused by cartilage problems, ligament injury or knee cap problems. The knee cap is part of the quads mechanism. This muscle and tendon unit allows us to kick, jump, and squat. It also prevents us from falling when going down hill or down stairs. The body can sense when the knee cap is going to hurt and frequently causes the quads mechanism to release or give (hence the term give-way) to protect itself and you from the pain.

Once your doctor makes the diagnosis, the treatment for these problems varies. They can include simple exercises, physical therapy, bracing, and arthroscopy (*fiber optic, outpatient surgery*.) The early correction of these mechanical problems can lead to a speedy recovery greatly reducing the risk of recurrence, future injury, long term problems, and early degenerative arthritis.

*(Dr. Reznik’s biography on back side of page...)*

*A Westinghouse Science Talent Search Honoree, Dr. Reznik received his Bachelors of Science from Columbia University's School of Engineering. At Columbia, he participated in Sudden Infant Death Syndrome research. He then attended Yale Medical School and after graduation from Yale, Dr. Reznik returned to New York City for his Orthopaedic Residency at the Mount Sinai Medical Center. He was selected for a Fellowship at Oxford in Orthopaedics under Professor Robert Duthie, the Head of the Nuffield Orthopaedics Center. At Nuffield, he met Dale Daniel, M.D. a world renowned expert on knee ligament reconstruction and the Director of the San Diego Sports Medicine Fellowship. After completing Dr. Daniel's Fellowship in advanced Shoulder and Knee Arthroscopy, Dr. Reznik returned to the New Haven area to enter private practice Orthopaedics and teach Orthopaedic Surgery at the Yale School of Medicine.*

*Board Certified in Orthopaedics since 1991, in 2001 he became a member of the Arthroscopy Association of North America. Dr. Reznik was a founding member of the Yale-New Haven Hospital's Orthopaedic Trauma team and was awarded the Yale Resident Teaching Award. He also served on the game organizing committee for the 1995 World Special Olympics, where he helped care for special athletes from over 105 countries. During his residency, he was court doctor for the US open in Forest Hills, NY and, in 1999, he was appointed the team physician for the New Haven Knights professional hockey team.*

*Dr. Reznik donates his time to many charitable activities. More recently, after Hurricanes Katrina and Rita, he served as the surgeon on a medical relief team to New Orleans. At that time, Dr. Reznik treated patients and helped set up a clinic that cared for hundreds of victims of those two storms. Currently, he serves as volunteer member and committee chair of a local school board and, in January of 2008, Dr. Reznik joined a medical/humanitarian mission to Cuba.*

*Dr. Reznik consults on surgical improvements for arthroscopic surgery. He has several patents pending. One of his inventions was licensed by Johnson and Johnson and available nationally in 2007. Another was produced by Innovative Medical Products, and shown for the first time at the 2008 American Academy of Orthopedic Surgeons (AAOS) annual meeting.*

*In 2000, 2004, 2005, 2006 and again in 2007, Dr. Reznik was selected by Connecticut Magazine as one of the "Top Docs" in the state by nurses, physicians from other specialties and his peers. He was also named one of "America's Top Physicians" for 2004, 2005 and 2006 by the Consumer's Research Council of America. Currently, he is the managing partner of The Orthopaedic Group, LLC. He especially enjoys caring for recreational, competitive and professional athletes of all ages.*