

## Functional Movement in Action: Introduction to the Turkish Get-Up

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At a recent seminar called "Bridging the Gap: Rehab to Performance Training," I had the privilege of speaking with [Craig Liebenson](#), DC, regarding the changes in chiropractic, the fitness industry and our health care system. Whether we like it or not, personal trainers are treating back pain with corrective exercise and lifestyle coaching, and they are getting results. The fitness industry is doing an excellent job of teaching personal trainers about the role of muscles, joints and the nervous system in painful conditions of the spine, and how to integrate rehabilitation with fitness training. Because of this skill development, clients of personal trainers return to them over and over without insurance reimbursement.

Dr. Perry Nickleston wrote an [excellent article](#) in the April 22, 2011 issue of *DC* ["Russian Kettlebell Swings for Injury Rehab"] regarding kettlebell training and its role in rehabilitation and fitness. One of the trends in many chiropractic practices is the integration or blending of rehabilitation and sports performance training. By teaching patients not only about chiropractic, but also how to move and function well, this integration is becoming a perfect match for the 21st century practice and defines a critical niche in the rapidly changing health care marketplace.

This article is the third in a series on what I describe as the Functional Movement System, which includes the Functional Movement Screen (FMS) and the Selective Functional Movement Assessment (SMFA). This system can help you determine which patient is at risk for injury, which movement patterns or regions are dysfunctional, and what treatment or corrective exercise strategy is needed to address those issues in combination with your chiropractic treatment.

### Dysfunctional Movement Patterns

What does a typical American look like in terms of posture, waistline and ability to function or move well? I think most of us can agree that the typical hunched-forward, rounded-shoulder posture with moderate to severe deconditioning is a significant reason patients enter our clinics. It is not a leap to observe that this de-evolution of sedentary human beings in a rapidly changing and highly stressful modern society is a major contributor to the unsustainable costs in our health care system. As chiropractors, we need to be at the "tip of the sword" when it comes to addressing what is needed to help heal our ailing health care system!

Regarding posture and patterns of movement, Mike Boyle and Gray Cook came up with what is known as the "joint-by-joint" approach that describes how our bodies move, stabilize and function. Essentially, the ankles, hips and thoracic spine need to be predominately mobile, and the knees, lumbar spine and scapulae need to be stable. What contributes to or can cause dysfunction, pain and ultimately injury is the reversal of these patterns.

For example, not enough hip mobility will result in an excess lumbar spine movement compensation. How many of us have treated a lumbar disc disorder or misalignment issues attributable to hip immobility and decreased lumbar stability? Shoulder conditions such as impingement, labrum or rotator-cuff tears are often associated with unstable scapulae and

decreased extension of the thoracic spine, especially in athletes who use repetitive overhead motion. Add rounded shoulders with forward-head lean, and headaches, cervical radiculitis or lumbopelvic pain can occur.

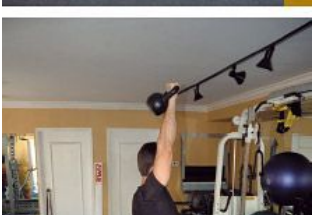
As Gray Cook mentions in his book, *Athletic Body in Balance*, we are walking around like turtles, head sticking out forward and a big shell weighing us down. What happens when we get put on our back and try to get up? It's not a pretty sight.

So, what do we typically do for exercise? How about going to the gym, sitting on a machine and pulling or pushing weights while hunched over with lousy posture. Or, after sitting at a desk for 40-60 hours per week, let's go out and put staggering amounts of rotational force on our lower back and a deconditioned core with a round or two of golf. Sounds fun to me!

Functional Training: Turkish Get-Up Using the Kettlebell

The beauty of the Functional Movement System is that those regions that need mobility or stability can be addressed with a proper assessment and functional/strength training. Another way of seeing this is that you want to place athletic skill and strength on top of a functional base, as opposed to just piling fitness on top of dysfunction. (By the way, the National Football League has discovered this; many teams use the FMS to improve the durability and performance of their players.)

In the early 1800s, the word *calisthenics* was used to describe a form of exercise that used body-weight or a hand-held weight for strength and conditioning. *Calisthenics* actually comes from ancient Greek: *kalos*, which means beautiful, and *sthenos*, which means strength. *Kalos sthenos* means moving well or beautifully and possessing great strength.



One of the best exercises that personifies *kalos sthenos* by integrating mobility, stability, symmetry (left, right, front, back), coordination, balance and yes, beautiful strength, is the "Turkish Get Up" (TGU) using the Russian kettlebell. Russian kettlebell training has become popular in today's fitness, performance and rehabilitation world. It is an important tool for rehabilitation or strength and performance training because it reinforces movement where movement is needed; stability where stability is needed; strength, coordination, symmetry and especially proper posture.

There are seven distinct parts to the TGU. [See photo collage of all seven steps.] Starting from the ground is *Step 1: Roll to Press*. (Photo shows only the press). One of the most important parts of the exercise is gripping the kettlebell. A straight or neutral wrist holding the offset weight is used as well as "crushing" or squeezing the grip very hard. This crushing of the grip leads to a progression of hand, arm, shoulder and chest muscle activation that will provide greater strength and stability throughout the movement.

*Step 2: Press to Elbow*. Roll under the kettlebell to the elbow. Force generation is required to overcome the inertia of being flat on your back. The shoulder is "packed" or retracted down and medially toward the hips.

*Step 3: Elbow to Post*. This is a continuation from the elbow to the hand and requires continual gripping, packing of the shoulder, extension of the T-spine, and mobility of the hips. Can you see how each step is starting to reinforce the joint-by-joint approach while moving in a coordinated, multi-joint pattern?

*Step 4: Post to High Pelvis*. This illuminates the ability to extend the hips upward and forward, creating a space to bring the leg back next to the hand. Talk about taking bridging to a different level!

*Step 5: High Pelvis to Bend (aka, High Pelvis to Knee)*. This step requires coordination with strength. Notice the mobility of the hips, extension of the thoracic spine, and stability and position of the scapulae and lumbar spine.

*Step 6: Knee to Half-Kneeling*. Keep the shoulders packed down toward the hips (ears are poison to the shoulders!); wrist and hand vertical, T-spine elongated and relaxed. Drive straight up to half-kneeling.

*Step 7: Half-Kneeling to Stand*. Continue with step 6 instructions for shoulders, hands, arms and spine; then drive from the back foot to standing.

After these seven steps are completed from the ground to standing, reverse the order all the way back to the ground. Then switch and perform the TGU in its entirety on the other side of the body.

This is one of the most important exercises in rehabilitation and sports performance training. It is an important tool for the doctor who wants to integrate corrective exercise into their practice. The TGU reinforces the functional movement patterns - including stability, coordination, symmetry, balance and strength - that allow us to thrive in how we work and in recreation. It is also an ideal exercise to restore function after an injury or augment sport and performance training, has a low financial cost for equipment and doesn't require much office space.

The description and pictures serve above only as an introduction to the TGU. Only perform or prescribe this exercise after you have been instructed by an "RKC" (Russian Kettlebell Certified) instructor and/or become an RKC, and you / your patients have a minimum score of 14 or more

with no asymmetries on the Functional Movement Screen. Without proper instruction and a proper movement assessment, there is a real risk of injury. This exercise should be performed by fit individuals. It also needs to be learned without weight first; add appropriate weight based on the patient's age, fitness and functional level.

### *Resources*

- Cheng M, Cook G, Jones B. *Kettlebells From the Ground Up: The Kalos Sthenos* (manual and DVDs).
  - Mike Boyle (keynote speaker). The "Joint-by-Joint" Approach. Notes from the April 2011 American Chiropractic Board of Sports Physicians Sport Symposium.
  - Cook G, et al. *Movement: Functional Movement Systems*. Bryant - On Target Publications, 2010.
  - Liebenson C (editor). *Rehabilitation of the Spine: A Practitioner's Manual, 2nd Edition*. Lippincott Williams & Wilkins, 2006.
  - Pliskey P, Kiesel K. The Selective Functional Movement Assessment Workbook, Advanced Clinical Integration.
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This is the third installment in a series on the Functional Movement System. "Introduction to the Functional Movement Screen" appeared in the [Dec. 2, 2010 issue](#); "The Selective Functional Movement Assessment" ran in the [Jan. 29, 2011 issue](#).

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