

My Journey to the Kettlebell

Professor Stuart McGill

The kettlebell is special to me! The journey to the KB as a training tool has linked me to several important events in my life. And it was part of the beginning of my friendship with Pavel (Pavel Tsatsouline – the man who introduced Kettlebells from behind the iron curtain to the rest of the world).

My meeting of Pavel is a funny story unto itself. I had heard about kettlebells and about this “Mad Russian” about 12 years ago. At a NSCA meeting I saw a couple of KB and strength demonstrations and then I was on to deliver my keynote talk about back strength. Coming down from the podium after my talk there was the usual scrum of delegates wanting to have discussion. Pavel was among them. The group sought thoughts on strength techniques and then Pavel asked “What did I think of this?” – he asked a delegate to lay on the floor, instructing him to wrap the arms around the knees. Pavel picked the man off the floor. The gaggle of delegates thought he was nuts to attempt such a dangerous lift. They were surprised when I said “that was a perfect lift - you applied several principles to achieve high performance while sparing your joints”. That was the start of a terrific friendship.

Over the years Pavel has taught me KB techniques and some principles from the Russian strength culture, many of which are novel in North America. Some of these have led to experiments where we were able to better understand the mechanisms and benefits to the techniques. For example we conducted an investigation of kettlebell mechanics that documented joint loading and the neuromuscular challenge, confirming the unique blend of stability/mobility and pulse power production, published in the Journal of Strength and Conditioning Research.

As a back injury specialist we design exercise progressions that begin with corrective and therapeutic exercise. Then the remaining sequence follows in 4 stages: stability/mobility, endurance, strength and power. Kettlebells can figure into every stage for the appropriate patient/client and situation.

Nearly all people who develop painful back conditions have movement flaws. Perhaps the most common is to move the spine when it is under load. Repeated compression of the spine while it is bending almost guarantees eventual disc bulges. The spine can withstand high loads if it is postured close to its neutral curvature. The “corrected movement pattern” requires “hip hinging” to bend and lift. It would be typical to start with the “short-stop squat” movement pattern and evolve the progressions to a KB swing. This is furthered with the stability/ mobility stage where the emphasis becomes core stiffening to create a fixed point. This allows the hips to express their athleticism. Dan John’s goblet squat using a KB is a wonderful tool to enhance hip mobility and squat form.

The endurance progression begins with our “Big 3” exercises to ensure 3D core stability which will eventually progress to various KB exercises with the appropriate intervals, and intensity.

Strength exercises are designed according to the goals of the client but almost always have a KB component. Consider carrying exercises. We discovered that the weakest link in the strength profile of

many athletes is the lateral core strength. This is required to hold the pelvis up or indeed lock the pelvis to the core which is needed to run and cut quickly and skilfully, or exert strength while moving on their legs (In other words nearly every athlete who stands on their legs and moves). Upon foot plant the spine and pelvis want to collapse to the floor on the swing leg side. A lateral core strength creates stiffness so muscular explosive contraction around the hip propels the body without energy losses that rob performance. We train this strength beginning with the suitcase carry. Then the progression uses a kettlebell racked on the backside of the forearm with the fist at the chin. Then a “bottoms-up” kettlebell carry requires more focus on a stiffened core so that the lift position and bottom-up is not lost.

Power generation can be functionally enhanced with pulsing techniques during the swing and snatch. Bruce Lee used these precise techniques over 30 years ago as the foundation for what became known as the “1 inch punch”. Once again Pavel showed them to me.

Kettlebell work is not for everyone during recovery from injury. However, when used appropriately it is a unique and irreplaceable training tool.

All of these techniques are demonstrated in the DVD “The Ultimate back: Enhancing Performance” available from www.backfitpro.com . Pavel is one of the stars demonstrating his herculean strength.