

## **"One Good Turn Deserves Another" by Pete Navarro, BSPT, SCS, CSST**

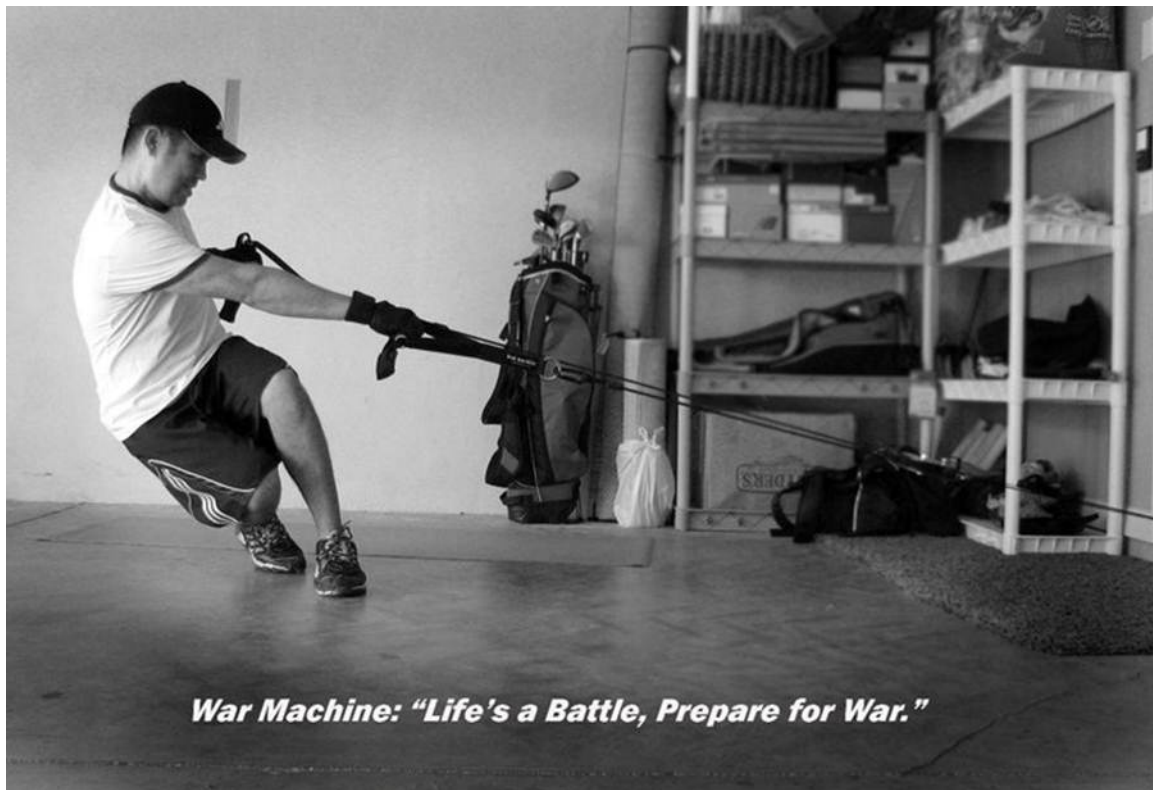
by [Pete Andanar Navarro](#) on Sunday, June 5, 2011 at 5:17pm

As I was on my way home from the continuing education course I attended this weekend I couldn't help but feel a sense of relief (and validation), why? Because, what I have preached for the longest time, people in my field actually have started to accept as the "truth". What is that, you may ask? It's the fact that Rotational Training is the key to success in rehab as well as the training setting. I have always said that "traditional" rehab / training has to progress and change in order for us to compete w/ other professions that tout the word "rehab" (which the instructor said has been "bastardized" to oblivion). By the way, I think that the word "coach" has been also.

Well with that being said, on to rotation. I've always said that this is one of the motions that's key to unlocking much of the body's natural potential when it comes to speed, agility, quickness, strength as well as power generation. Let me state my point: Look at a book or photos of the human anatomy...what do you see? How are the muscles oriented when it comes to their origins and insertions? THEY ARE MOSTLY DIAGONAL TO MIDLINE! Very few muscles in our anatomy are oriented directly "north to south" Which means they are made to accelerate or decelerate into and out of rotation! If you really think about it, 100% of our daily activities involve rotation of some kind...So why are most of you still training solely in the linear planes? (think of a bike, elliptical, treadmill or even machine circuit). Someone of course, asks me: "What about walking or running? that's pretty linear.." Well..not really. During all phases of gait, there's rotary movement from the Talocrural or ankle joint, the tibiofibular or joint between the tibia and fibula, the tibio-femoral or knee joint as well the hip joint in order for your body not to come crashing down into the ground...and that's just on one leg during walking...let alone running!!! During gait, your body has to also rotate in order to keep propulsion going. Where does your left shoulder go when you right leg is moving forward? Yes, it's moving forward as well to bring the rotational component through the spine into the right shoulder, hence you go forward while keeping balance and symmetry. That's why I never understood the act of bench pressing as a gauge for overall upper extremity strength, how many athletic events (aside from powerlifting) do you know that involve lying on your back and pushing something REALLY HEAVY upward? NONE! It's silly! It would make so much more functional sense to test overall strength by being vertical (standing up) and push an object forward because now you have involved the rotational (as well as linear) component of the legs, hips and core to push the object. With that being mentioned, let's look at the Leg Extension Machine, how many things in your day involve sitting down and kicking a weight? Not in my day for sure! The quad muscle is only a knee extensor when the knee is in the open chain position (when the foot is not contacting the ground)..otherwise, it's main job is to slow down or decelerate the knee when the foot contacts the ground as well as to control excessive rotation of the tibia to protect the ligaments of the knee from rupture. So in short, open chain leg extension has NO bearing in function! It would be better to do squats slightly below 90 degrees at the knees and reach for the side of one leg with both hands to involve rotation in a functional movement. I have no idea how most of us here in the United States have lost the ability to move properly. Try observing a baby when it's crawling, see how he rotates his trunk while his hands and knees alternate...how do we lose that when it's a "primitive" movement that's supposed to be inert in humans? But that's neither here or

there. The point is the movement is there..we just forgot how to do it and how important it is.

Like I said, training into rotation can develop or improve human performance whether it's an 22 y/o Olympian or an 85 y/o patient trying to get up off a chair to be able walk. I've found in my practice, that involving a rotary component to an exercise program is what makes the difference in functional outcomes...whatever the pathology may be. Injury prevents the body from moving properly by "dumbing down" the body's natural movement patterns to protect the injured area. From my clinical experience, the reciprocal or rotational movement pattern is the first to go, linear movement stays intact because it's a matter of survival for the human body..you have to be able to move some in order to eat or escape if needed. So, it is essential to know what movement patterns are disengaged then attack it in a manner appropriate to the injury. Engaging the muscles across the body is what function's all about. Think about how many things in your day that involve a rotary movement.....pretty much everything, correct? So it only makes sense to train the body how to move properly, by normalizing motions to all planes (frontal, sagittal, and transverse) in order to increase function. Always remember that the stronger our patterns of movement are, the less you're likely to get injured...whoever you are or whatever you do.



Low Anchor Series: 4) Rotation Side Lunge

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