# Combat Worst-Case Scenario

## An Argument for Strength Training in the Military

by

Maj Ryan Whittemore

*"All the mystery of combat is in the legs and it is to the legs that we should apply ourselves."*

I remember reading this quote by Marshal Maurice de Saxe in the book *The Soldier's Load and The Mobility of a Nation* when I was a young lieutenant in the Army. (S.L.A. Marshall, p.8) For many years I misinterpreted the quote to be an affirmation that the physical training (PT) programming which I saw throughout the Army, based around long slow distance running, was right on track.

It was during my fourth combat deployment that I finally got serious about physical fitness as part of my duties as a soldier. After years of the same old "Army PT", I had recently been introduced to CrossFit. Interest in this method of training led me to do lots of reading about fitness, and I soon discovered there was more to fitness than the Army Physical Fitness Test (APFT). My reading eventually led me to the Starting Strength website as well as the books of strength coach Mark Rippetoe.

As a Field Artillery Officer in the Army, one can never escape the occasional trip to Fort Sill, Oklahoma. Having spent the first five years of my career there, I was well aware that Wichita Falls, Texas was a just a short drive down a very lifeless highway. Prior to one trip, I decided to contact Mr. Rippetoe and ask if I could come down and check out the Wichita Falls Athletic Club (WFAC) facilities. Within just a few minutes he called me, not only to invite me down to the WFAC, but also to discuss the military's physical training challenges.

Upon my arrival at WFAC, Mark Rippetoe and I went immediately into a discussion about why a strength-focused program works best for soldiers. As the conversation went on, Rip asked me a question which at first I thought rather odd. "What is the worst-case scenario for you in combat?" he asked. Rather than speculate, I figured I would simply recount the worst situation I had personally faced in combat.

### GETTING BLOWN UP TAKES STRENGTH

On March 23, 2009 in the Northern Iraqi city of Mosul, five soldiers and two interpreters from my Military Transition Team were finishing up a dismounted patrol in the neighborhood known as Baghdad Garage. We had conducted a short patrol with our Iraqi National Police counterparts through the confusing back alleys of the neighborhood, in preparation for an upcoming clearing operation in the area. As we arrived back at our vehicles I suddenly felt a tremendous blast. The sky

seemed to instantly turn a hazy orange color, and I was knocked to the ground. As I got to my feet and tried to figure out what the hell was going on, I saw that my Iraqi interpreter was on the ground next to the truck. I grabbed him by the body armor and lifted him to his feet. We then sprinted around the truck to link up with another team member. After linking up, we sprinted out to the blast location where two badly wounded Iraqi National Policemen were being treated and prepared for evacuation. I arrived in time to assist in lifting the two casualties into a pickup truck for movement to a local hospital.

The whole ordeal took less than a minute. Much to our surprise, there was no follow-on attack. It took much longer for my brain to process what had happened than it did for my body to act. We soon figured out that it had been a suicide bomber wearing what was later determined to be a vest packed with 25lbs of explosives, who had detonated himself less than 10 meters away from me.

As I recounted the story to Rip, he did an on the spot "needs analysis" of my combat scenario. The following is a combination of the tasks he identified and my analysis/commentary.

Task #1: Absorb a blast. With my equipment on, I estimate I weighed about 245 lbs that day. At 5'11", my bodyweight was about 185 lbs. I had been doing more conditioning than strength training, and had never really done a strength program with the intent of gaining mass. While I was knocked to the ground and suffered a slight ankle sprain in doing so, it is fair to argue that a more massive, stronger body would have absorbed that blast better than a smaller, weaker one. Strength training can put on that necessary mass, as well as enhance the stability of connective tissues and thus improve the ability of a body to absorb blast energy. My much lighter Iraqi interpreter (probably 180 lbs *with* equipment) did not take the blast as well. He was certainly in no hurry to get up off of the ground.

Task #2: Lunge. While slightly disoriented and burdened with 60 pounds of equipment, this movement would be categorized as some combination of a "get-up" and a lunge in order to get off of the ground, and back on my feet where I needed to be. The "get-up" portion required some trunk stability. The typical Army situp does not get you where you need to be. Deadlifts, squats and presses are a much more effective method of building the requisite strength in a soldier's trunk. The lunge portion of the movement was an expression of hip, glute, quad and hamstring strength. Squats are almost universally acknowledged as the best method of building strength in these areas.

Task #3: Deadlift. Although my interpreter was not dead, he was certainly deadweight. After getting to my feet, I reached down, grabbed his body armor with both hands and pulled him to his feet. Though my mechanics may not have been textbook at the time, this movement was somewhere in the deadlift family – clearly a strength task, and one that few soldiers perform on a regular basis. Regular deadlifting within a soldier's PT program will not only allow the soldier to pick up heavy things when necessary, but will strengthen the overall musculature of the back making the soldier better suited to wear heavy body armor, or a rucksack for hours at a time.

Task #4/5: 10 Meter Sprint. I only knew which direction the blast came from, so I sprinted to the opposite side of the truck to avoid any more blasts, as well as to link up with my teammate.

 

This short burst of activity is more closely associated with strength training than any of the low-intensity jogging I had done for many years, especially in heavy body armor. This task also ties into the previous one. As noted in *Practical Programming for Strength Training 2nd Edition,* and later to me in my continuing conversation with Rip, deadlifting will improve sprint times in a weak novice more rapidly than improved sprint mechanics will.

Task #6: Power Clean. We lifted the Iraqi casualties into the back of a full-sized Ford pickup truck. This movement best correlates with a power clean. Lifting a person up high off of the ground is not an easy thing to do. Though their bodyweight had been drastically reduced by the unfortunate loss of both legs in the attack, it still took a good pull, and some hip extension in order to get the wounded policemen into the back of the truck.

Prior to my conversation with Rip, I had read MAJ Ryan Long's excellent article, *"Why Does the Army Want me Weak?"* which discussed some of the physical requirements of combat. I had also heard the President of the National Strength and Conditioning Assocation (NSCA), Dr. Jay Hoffman, state during the Tactical Strength and Conditioning Course that strength training was far more beneficial than endurance training in preparing a soldier for combat in Afghanistan. While I was well on my way to becoming a firm believer in the barbell, I was not yet fully divorced from the endurance-happy culture of Army physical training. However, as Rip and I discussed my combat worst-case scenario and the associated strength tasks, it finally occurred to me that I now had a better way to convince soldiers that combat is predominately a strength sport, not an endurance sport.

This methodology, of course, cannot account for catastrophic events such as a large vehicle-borne improvised explosive devices, or the sudden impact of a sniper's bullet. Those and other events can kill a soldier immediately and offer no opportunity for the soldier to affect the outcome. I am talking about situations where the soldier is forced to DO something. In almost all cases, that something involves strength.

Upon my return to Fort Carson, I polled some soldiers with the slightly more direct question, "What is the worst thing that ever happened to you in combat?" Although I heard stories ranging from vehicle rollovers to hand-to-hand combat, the outcome of the needs analyses were consistent. At the moment of truth, soldiers face almost exclusively strength tasks.

## CAN WE CONDUCT EFFECTIVE STRENGTH TRAINING IN THE MILITARY?

Further into the conversation with Rip, we discussed strength standards for soldiers. He threw around some numbers, and I countered with my estimate of how woefully unprepared most soldiers currently are to meet those standards. The endurance culture of the Army has made it difficult to find soldiers who can squat their own bodyweight for five reps, deadlift one and a half times their bodyweight for five reps, or press two-thirds of their bodyweight for five reps. I began to ask myself if it is possible to get large numbers of soldiers to achieve this level of strength.

When it comes to strength and conditioning, we here in the 10th Special Forces Group (Airborne) have a leg up on the vast majority of the Army. We have two contracted strength coaches and will soon hire a Director of Human Performance, or head strength coach. Additionally, myself and the Group Physical Therapist are both CSCS and USAW certified. If we get serious about strength training, we can create a culture where strength is favored over endurance, and we can do it relatively quickly.

STARTING STRENGTH

If we took every new arrival to the Group and put him/her on the novice program from *Starting Strength*, within three years we would greatly improve the overall physical fitness level and combat readiness of the entire Group. With five strength coaches to supervise the program, and four well-equipped power racks/ platforms in our gym, here is how I propose to run the program:

Soldiers will be sorted into two groups based on military occupational specialty, age, level of training advancement, body composition, and an assessment by the strength staff. There will be an "A" group who will conduct a 3x weekly program, and a "B" Group who will conduct a 2x weekly program. This strength program would not strictly follow what is laid out in *Starting Strength* – it will not be a true linear progression with multiple resets until a soldier reaches the point where he needs a more complex program to continue strength adaptation. Tudor Bompa talks about a general strength training phase in which "all muscle groups, ligaments, and tendons are developed in anticipation of future heavy loads and specific training." He notes that this phase could take two to four years (*Periodization Training for Sports*, p.58). But soldiers don't get redshirt years like college athletes, so it is impossible to spend that kind of time preparing them for the demands of combat. A properly executed 12-week program of strength training consisting of squats, deadlifts, press, bench press, and chinups has been demonstrated to establish a base of strength and familiarization with strength training that is sufficient for the needs of most soldiers.

There are several reasons why I'd use a program similar to the *Starting Strength* novice program. First of all, it is super-simple, and it's linear. Most soldiers who have done their own random programming for several years really have no idea how strong they are, or are not. They have never followed a linear progression with consistent increases in weight to cause the necessary adaptation to get stronger. Once they do, they will accomplish several things simultaneously. They will get stronger, there is no doubt. While my experience is limited, I have yet to see anyone fail to get stronger using the novice program from *Starting Strength*. Secondly, their progress will build confidence in the strength staff. This is an important aspect, especially in the special operations community, where trust is earned only through outstanding performance. Soldiers will see that the strength coaches really do know what they are talking about when it comes to building strength, so it's reasonable to expect good results in following future programming as it applies to conditioning, body composition improvement, or specific preparation for upcoming missions. Lastly, the program's simplicity allows the time for emphasis on proper technique throughout. This focus on technique will carry over to any future programming, and reduce the number of physical training injuries in the long run.

In our new Human Optimization Facility (formerly known as "the gym"), we have four well-equipped power racks and platforms. Strength training could be conducted in four groups of three lifters, with two strength coaches each supervising two racks. Running four sessions per day, let's say 0600, 1130, 1500, and 1630, with the "A" and "B" Group concept, 96 soldiers would be involved in strength training for the 12 week period. With four sessions throughout the year, approximately 400 soldiers can make significant strength gains in each calendar year. After just a couple of years of implementation, it would be reasonable to think that every soldier in the Group could meet the strength standards previously mentioned for the squat, deadlift and press.

Conducting the program as outlined above would still ensure that there would be plenty of time for the rest of the soldiers in the Group (to include the *Starting Strength* "graduates") to conduct their normal PT as prescribed by the strength coaches. After building an inital strength base in the

12 week program, soldiers will be put on a program specific to their needs. They will begin this program much stronger than before, less susceptible to injury, with improved technique, and more comfortable/confident in the weight room/Human Optimization Facility. *Practical Programming for Strength Training* notes that strength declines much more slowly than $VO_2$max (p.75). As MAJ Long's article also recommends, establishing a strength base first will give you the ability to tailor your conditioning to your needs at the time. Whether preparing for the APFT at home station or high-altitude operations in Afghanistan, strong soldiers will have an advantage over weak soldiers in conducting a conditioning program designed to increase endurance.

Not all units have the luxury of having their own gym and strength coaches. The good news is that the big Army tends to follow the good ideas of the special operations forces community, it just takes time. In the meantime, units should be given priority to use what facilities are available on-post to conduct strength training. While the use of these facilities by dependants is a nice benefit of military life, their use for increasing the combat readiness of soldiers is far more important. Units should identify qualified personnel to implement the training, and they can begin making strides of their own toward having a stronger, more combat-capable force.

FINAL WORD

*"All the mystery of combat is in the legs and it is to the legs that we should apply ourselves."*

I now believe that Marshal Maurice de Saxe was talking about squatting and deadlifting. He may not have known it, but he was. Strong legs and hips are the result of a good strength training program. We must now apply ourselves to building them in our soldiers. Having now conducted a linear progression strength training program myself, I know I am better prepared to meet the challenges of combat today than I was 2 years ago.

While the hazards of combat are ever present, and ever changing, the key tasks which increase the survivability of our soldiers on the battlefield will remain undeniably strength-oriented. When you ask yourself the question, "What is the worst thing that ever happened to me in combat?", I am confident you will find this to be the case. And prescribing strength training early in a soldier's career will give him/her a persistent, useful physical capacity which will enhance future combat performance.

**Major Ryan Whittemore** is the Fire Support Officer for the 10th Special Forces Group (Airborne) at Fort Carson, Colorado. He has a B.S. in Health Science from Lock Haven University and a M.A. in Military Operational Arts from the Air Force Command and General Staff College. He is a Certified Strength and Conditioning Specialist (NSCA), Certified Sports Performance Coach (USAW) and Tactical Athlete Facilitator (NSCA). He is a 16 year veteran of the US Army and has served two tours in Operation Iraqi Freedom, and two tours in Operation Enduring Freedom.

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