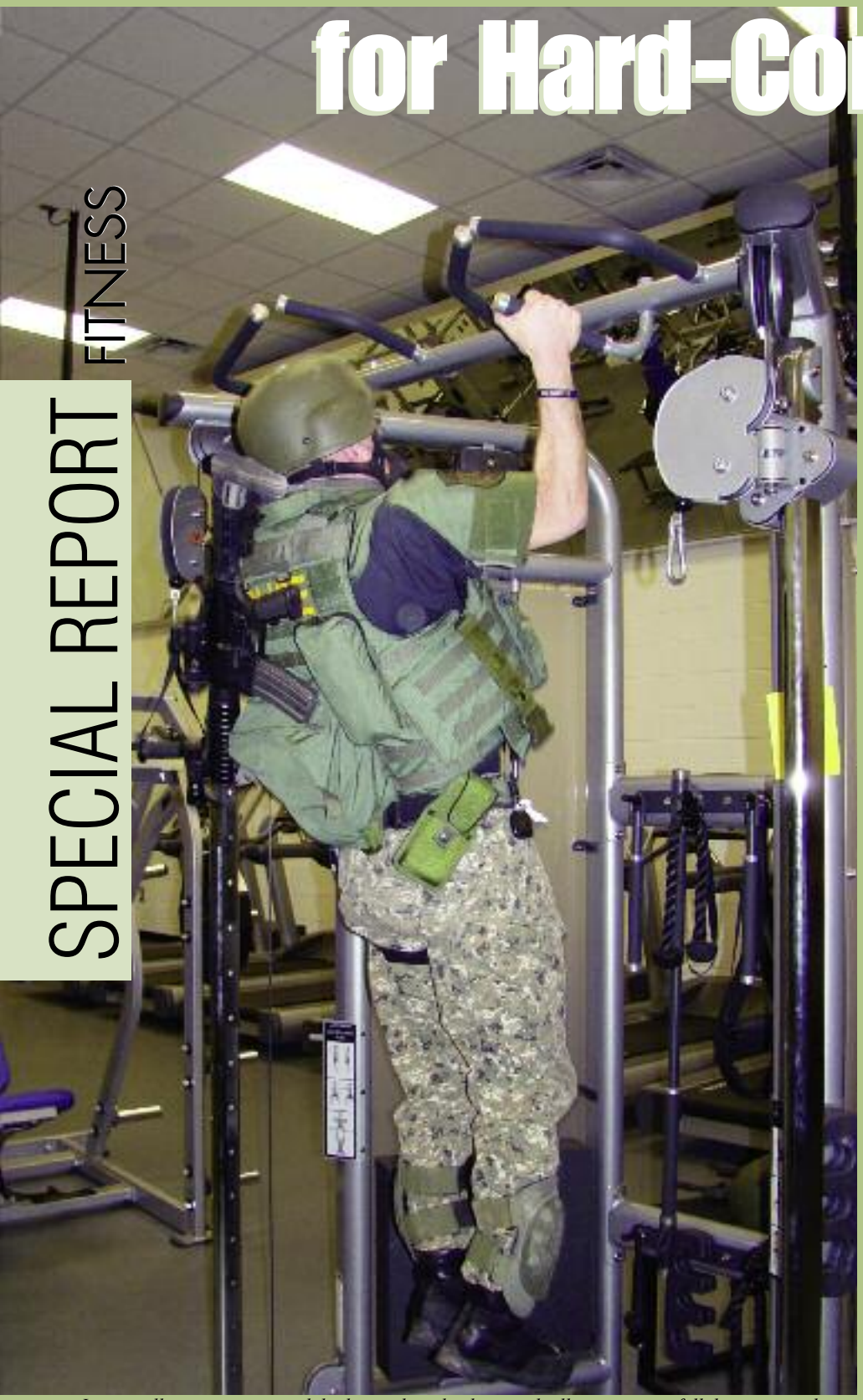
Hard-Core Training for Hard-Core Cops



Initiate all new activities with body weight only, then gradually progress to full duty gear and even more if possible.

By Kathleen Vonk

Attention to those who consider themselves serious, professional "tactical athletes" as termed by the National Strength and Conditioning Association (NSCA). The Tactical Strength and Conditioning (TSAC) program was designed by the NSCA for just those police and military "athletes."

Maybe you're not on the SWAT team, a police cyclist or a K9 officer, but simply put, you just like to "get after it" when it comes to physical training or competitive hobbies. Perhaps you drag race, parachute, mountain bike or road race, compete in water sports, or anything else that draws those same adrenaline junkies that the SWAT team does. Whatever the case, this is for those who strive to go above and beyond that of the average Jane or Joe.

It is for the solid human machine that jumps out of an assault vehicle wearing a Kevlar helmet and a Level IIIA tac vest, carrying a Halligan tool and rifle. It is for those who run with a lead and are pulled by a powerful K9 on uneven terrain, who lift that 75-pound dog over a fence and continue on with the track. It is for those who sprint to a domestic in progress on a bicycle in extreme heat, powered only by the rock solid, lactic acid-filled quads and hams.

It's for those who love to push

With the extra equipment that special response teams employ, it makes sense to train with added weight.

themselves beyond that of a "normal" citizen and for those who will someday save—or necessarily take—someone's life because they were able to achieve and maintain a superior level of functional fitness and foster a powerful, winning mindset.

Functional, specific, hard-core training will be addressed to improve performance, strength, power, and mental toughness in those who dare venture into this arena. This next statement is serious: It is assumed that before attempting these suggested drills, a solid cardiovascular, strength, and power base has already been built.

Just like other extreme programs such as Crossfit, P90X, "Kettlebell Challenge" and 300s are not for beginners, "extreme" training if not implemented prudently can be hazardous to those who are of mediocre fitness levels or just starting out. And although we use the word "extreme" because of its popularity, this really shouldn't even be termed "extreme" at all because it is assumed that the body has gradually and appropriately been prepared for such activity under proper and professional supervision.

In addition to some practical functional training exercises that will apply directly to the specialty positions mentioned above, the differences between "Olympic lifts," "power lifting," training for power, and weightlifting will be clarified. This is mentioned because there are common misnomers that exist about these very different types of training. Proper rest and recovery, appropriate protein and carbohydrate intake, and the question of whether to include legal performance-enhancing supplements in an elite fitness program will be addressed.

The Terms Defined

"Weightlifting" is an actual sport in which athletes attempt to lift as much weight as possible in the snatch, and clean and jerk (exercises). Just lifting weights is termed "resistance training" and is what comes to mind when you hear the word "weightlifting." "Olympic lifting" is the term that should be reserved for athletes who are competing in the exercises mentioned above at the Olympics.

"Olympic lifting" is commonly but incorrectly generalized to those who are doing those exercises but not competing in the Olympics. "Powerlifting" is a sport in which the most possible weight is lifted in the squat, deadlift, and bench press, and because of the sheer weight moved, these exercises are usually done at relatively slow speeds. Powerlifters require maximal force production at slow velocities.

The term "powerlifting" is misleading because "power" involves an element of time: Power = Work / Time. To obtain optimal power you must obtain maximal work in the least amount of time. Very light loads move very quickly but do not require much work (Force x Distance), so resistance that is too light,

such as a chest pass with a 1-pound medicine ball, will not achieve maximum "power."

Team competition during a simple T-drill can add camaraderie and fun to intense training.

The weighted balance board exercise is used for ankle strength and proprioceptive balance gains.

Conversely, extremely heavy loads are very difficult to move quickly, so the "time" element of the equation reduces power. As a result of simple physics, developing power in the human body is a finely tuned balance between the amount of weight moved and the speed of that movement.

Training for Power

For those who wish to maximally improve power, such as the tactical or bicycle officer, both the force and velocity components must be trained. Just as you wouldn't train on a bicycle to improve your running speed, the more specific the movements to that which will be done in the field (the more functional), the better the transfer to improved performance.

An example of power specificity would be a police cyclist doing interval sprints on a bicycle with a 1:1 work-to-rest ratio. Another would be a K9 officer performing a clean with a weight similar or slightly greater than the dog to simulate lifting the dog over a fence.

Heart Rate Monitors

Appropriate intensity is a must if specific goals are to be reached. Using a heart rate monitor is a great way to achieve your intensity goals at a glance. Models such as the Polar RS800cx are no longer referred to as "heart rate monitors" but are now called training computers because they do much more than just display heart rate and calories burned.

They can download to a computer, print graphs and are easily programmed for entire training routine to ensure proper intensity levels, duration, work-to-rest ratios, and recovery. They are equipped with GPS technology, can determine altitude, figure cycling power output, route mapping, and more. They can help control stress levels through biofeedback whether during reality-based training (RBT) or on duty.

Using recovery heart rate, these specialized training computers can be used in functional competitions, such as a timed obstacle / firearms course in full gear. Using time and shot placement as the marker, competitors drive through the obstacle course, shoot six rounds, then the heart rate must recover to 100 bpm or less—then and only then—are the last shots allowed to be fired.

A time penalty should be assessed for shots missed because accuracy is important when unleashing with a .223 Rem round. Those whose heart rates recover faster (more fit) will have the least amount of time and will win, provided all shots are in.

SWAT

With all of the equipment that special response teams

Before attempting these drills, a solid cardiovascular, strength, and power base has to already have been built.

employ, it makes sense to train with added weight. Use any combination of the tac vest, rifle, ammo, shield, helmet, SL6 or other less-lethal option, battering ram, fire extinguisher, bolt cutters, Halligan tool, self-contained breathing apparatus, hydration system, or miscellaneous tool pack…well, you get the point.

A tactical team member can easily weigh 50 or 60 pounds heavier with the added gear, which could cause muscles, tendons and ligaments to be injured if the prior physical training didn't include additional weight.

On top of this, temperature extremes in various climates, rain, snow, fog, and desert sun can add discomfort and danger in the form of heat-related sickness and death. Care should be taken to properly hydrate and replace electrolytes during training, as well as in real-world incidents.

Here are some examples of applicable exercises that can help a tactical team member physiologically and mentally prepare for duty. Remember, it is assumed that a solid base has already been built before implementing a more functional training program with added weight. Even so, initiate all new activities with body weight only, then gradually progress to full duty gear and more if possible.

The "basic" exercises include 1) hill training both up and down (short distances), which can also be achieved on treadmills using the incline option, 2) short sprints with full tactical gear with proper rest period in between (1:8), 3) add over and under obstacles to the course, 4) torso rotational training, Russian Twist, 3-D Dumbbell Matrix, multi-directional wood chops and 5) pull-ups, including assisted, free weight, and with added resistance for fast and furious improvements, i.e., pull yourself up and over that backyard fence in full tactical gear with no problem.

The "functional" exercises begin with quickness drills. Get up, get down, get up as quickly as possible. Incorporating team competition to a simple T-drill and using various starting positions such as single- and double-knee kneeling, seated, prone and supine, can add camaraderie and fun to intense training.

Then, agility ball or tennis ball supine toss: Throw the ball directly above the body and into the air high enough to get up and catch it before it hits the ground. Team competition can bring forth remarkable results and effort. There are obvious differences with the agility ball versus the tennis ball because of the unpredictability of the bounce.

The stairway ups and downs work for simple, weighted activity with additional work through elevation change and for agility, hand-eye-foot coordination skill development and improvement. Again, team competition can even make it fun. Start by wearing a variable weight belt made specifically for physical activity while on the stair-climber, and progress from there.

Multi-directional lunges—forward, lateral, and transverse—are also included. Among other things, these apply to the field action of dropping to a knee, taking a cover position, getting up again and moving to the next position to repeat.

Suggested Drills and Training

One-legged training

Use much less weight and perform exercises while standing on one leg. Include the squat, snatch, clean and jerk, deadlift, and standing reach. It even includes upper body resistance training such as military press, shoulder raises, and bicep curls while standing on one leg. This will not only improve balance, but it will help when you have to "make yourself small" then get up quickly and repeat, as these motions are almost always done from one foot. Even pushing off to walk is done with one foot, as is getting up from a kneeling position and jumping up to climb over a barrier.

Agility Ladder Drills

Perform footwork drills in the form of hops; diagonal movements; side-to-side; backwards; single-leg; double-leg; alternating; etc. Other drills include hopscotch, straight on foot speed work, and the "Icky Shuffle." Plyos are for power and metabolic demands (see previous article on Functional Training for LE).

FlexibilityTraining

Do flexibility training after your workout for reduced chance of injury (see previous article "To Stretch or Not to Stretch"). Participate in reactive, fast, power sports such as racquetball, volleyball, kickboxing, martial arts sparring, and others. If a woman is comfortable with her skill level, she should play with the guys for improved performance, response time, and power. Once per month, perform your workout in a gas mask for inoculation and adaptation effects. "911 Challenge" (workout) by Thinner Blue Line.

Each exercise and program must be personalized appropriately. Just as in real life, in a group larger than two, not everyone can do the same number of push-ups, sit-ups, or run at the same pace. In order to achieve proper progression, the programs must be similarly challenging for each person, which usually takes different physiological requirements.

Proper Rest, Recovery, and Nutrition Intake

When milliseconds matter, an operator must have all of his physical and mental capabilities. First and foremost, higher intensity training if implemented properly and incrementally should not cause much discomfort in the form of delayed onset muscle soreness (DOMS). Training that causes vomiting and prolonged DOMS is improper and not employed gradually enough over time.

In extreme cases, a condition called rhabdomyolysis, or "Rhabdo," can occurr. Rhabdo, caused by extreme overexertion, is a potentially fatal condition caused when muscle fibers break down into the bloodstream so severely that they clog the kidneys, making them unable to process urine properly.

As stated best by Matthew Domyancic, MS, "Although it may have been fun when we were playing youth sports and perceived to be a 'good practice,' workouts that make you puke and have muscle and joint soreness for days…are not good indicators of a properly designed workout. This is especially true for law enforcement officers or fire personnel with the unpredictable schedules that go with the territory.

"We are always 'in season' in public service and cannot plan periods off for recovery. When lives could depend on being able to perform physically and mentally, demanding skills under extreme life-and-death conditions, shortly after a workout or in the days following, people need to be ready to rock.

"Police, fire, and military personnel need to do performance-based workouts to increase on-the-job skills. However, they need to train smart and keep their nervous systems fresh and not overtrain their muscles so performance and reaction time do not suffer while operational on the job."

In order for the body to adapt to the demands placed upon it, appropriate nutrition post-workout is absolutely required. Adequate sleep, as well as appropriate water, electrolyte, carbohydrate, protein and fat intake, are essential. Whole food proteins such as lean meats, fish, egg whites, and milk are excellent options. Generally, the less processed foods or the closer to nature, the better. Those foods are rich in most amino acids and micronutrients and are effective at creating the calorie surplus needed for rebuilding the damaged muscles after a tough workout. Plus, they take longer to process, resulting in a lengthier feeling of being full.

If protein supplementation in the form of shakes, powder or bars is necessary, those that contain milk are better choices. A blend of whey and casein, which are both derived from milk, is considered the best option, as both slow- and fast-acting proteins are included. Milk also has the necessary carbohydrates to replenish the glycogen stores within the muscle. Whatever the choice, the sooner it is ingested after a workout, the more effective it will be.

Finally, just as a NASCAR team wouldn't accept spending $10,000 on reducing the weight of a racecar by 6 pounds only to have the driver show up 8 pounds heavier, performing in these specialty positions requires the ability to manage body weight—and then some. Carrying that 20-pound weight plate around the waist in the form of body fat hinders performance.

The next time you're in the weight room, add a weight plate to your body and perform as many pull ups as you can, then drop the plate and continue. That's the difference that

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somatic muffin top makes, so get rid of it to improve speed and power, and to avoid injury later on.

Performance-Enhancing Supplements

Should I or shouldn't I? My personal answer will always be the same, and some will disagree. "Just say no" to supplements unless they are food. This is a multi-million dollar industry driven by profit. Companies don't have to prove they do what they claim, they are not regulated by the FDA, and they don't have to prove that they are safe. In this profession, the risk will never outweigh the benefits.

Studies have shown supplements tainted with illegal substances such as steroids and testosterone, which an officer simply cannot afford to have in the system when his blood is drawn post-shooting (it is coming). Some studies have also shown supplements to contain less or none of the active ingredient advertised, and even animal feces was found in almost 25% of nutritional supplements in samples collected by the International Olympic Committee (IOC).

Get out and get after it! Do it properly and research everything for yourself. If you don't have the time or desire to do this, find someone who does. It's a way of life that you have chosen, so get out there and get some! Train hard, train smart, and rest easy for maximal performance.

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