

Well-rounded fitness – part 1

By Louis Hayes

Through the nature of sporting events, athletes' movement patterns and required physical fitness qualities are highly predictable. Competitive sporting athletes possess abilities in fitness areas that are specific to the tasks within that sport. Obviously certain physical elements are more critical than others. For example, a volleyball player needs skills such as vertical jumping and lateral speed much more than aerobic capacity. Conversely, a long distance runner ought to have an elite level of aerobic conditioning, but not necessarily strength or an explosive jumping ability. It would be ignorant to ask athletes in antagonistically different sporting arenas to partake in the SAME training or conditioning model. This

brings up a valid point of the need for specificity of training for sport; train and practice those skills most predictable during the game or event.

Can the same predictability be said of police operations? Yes and no. While certain tasks are frequent, regular, and routine, there exists a virtually endless list of potential tasks that could be asked of a police officer. The short answer is that police officers must be able to perform a wide spectrum of physical tasks, drawing from a broad and general foundation of fitness.

The physical demands of defensive tactics and arrest and control require a broad based general adaptation. This is not the domain of the specialist. Survival will be awarded on average

to those men and women who've secured the most generalized physical capacity. They will, by necessity, be strong, fast, quick reacting, accurate, and flexible. This broad adaptation is well developed, by design, within the CrossFit arena. Time domain matching of task or sport to training is the first step to effective, legitimate strength and conditioning. Looking at police work, ask yourself, where would an application of a twenty minute max effort be? Is it likely that an officer would wrestle with a suspect for twenty minutes? An officer is about as likely to be struck by lightning as to be engaged in a twenty-minute fight. FBI stats show clearly that it just doesn't happen. Might an officer give chase on



Photos courtesy of FIAT SWAT Taskforce

The MALTZ Challenge is hosted by the DEA Chicago every March.



Photos courtesy of FIAT SWAT Taskforce

The rowing machine has a cultish following within CrossFit.

foot for twenty minutes? “Perhaps” is the answer but this too remains unlikely and in any case one viable option in this scenario clearly includes letting the bad guy get away, that is, the situation is less likely to be life threatening to the officer than shorter, more intense, and more threatening encounters. It is the short encounters, those lasting from a few seconds to a few minutes, where an officer will affect most of his arrests and where police officers’ lives are tragically lost.¹

resistance is categorized as moderate to strong. The duration of the struggle is 30 to 120 seconds, with only 25% lasting more than two minutes.² These fights are generally described more in terms of “wrestling” or “grappling,” and less with “boxing” or “punching.” Tactics of wrestling and grappling require muscles to be engaged (contracted or flexed) for extended durations, much more so than during stand-up boxing-style fights. Short, intense struggles are anaerobic events.

Physical Task Examples

In policing, there are certain physical tasks one can predict: Take running for example. During the course of a police officer’s career, it is expected s/he will be required to run. But for how far? And at what speed? Police officers will profess the average foot pursuit after a criminal to be less than a few city blocks, most far shorter than that. This can hardly be called anything other than sprinting. Now add in the element of weaving around and over obstacles such as cars, landscaping, fences, and buildings. Sprinting and hurdling are anaerobic events.

Another example is fighting. Physical struggles with arrestees are typically short in duration, yet high in intensity. According to research, in over 75% of incidents, the amount of



Operator cleaning a kettlebell from the ground to shoulder height, soon to complete a press overhead.



Officer doing a dumbbell swing during an outdoor workout.

A police officer's training program must adequately address more than these two predictable events of the foot chase and the physical fight. The scope of policing, as well as the disastrous results of failure, demands a type of fitness broader than any competitive sporting contest.

Need for Broad Fitness

Training must address the cardiovascular components of aerobic (longer, slower, farther) and anaerobic (quicker, faster, shorter). It must also address strength building (resistance work and weight lifting) and explosive movements (jumping, throwing). "Specific metabolic conditioning, strength training, and plyometrics are effective methods of training the sport athlete, as well as the tactical athlete."³ Traditional training programs often neglect anaerobic conditioning and plyometric explosiveness, some of the categories that police officers need most!

Another shortcoming of traditional weightlifting programs is the focus on isolated movements. Some of these isolating exercises involve only one body joint, at one angle in a single plane. "When breeching a door, carrying a hose, or engaging in combatives, the muscles of the body do not function in isolation. In order to perform these movements the entire musculoskeletal system must work together to effectively produce forces (concentric contractions), stabilize, and reduce forces (eccentric contractions) during training and in operational situations."⁴ A real world task might call for a heavy object to be picked off the ground,

and raised overhead. This is a movement that is almost never practiced with a traditional approach. "The tactical athlete should make an effort to select exercises that require multi-joint movements as they will typically be biomechanically similar to operational activities."⁴ One must first identify some of these "operational activities" before moving on.

Primary Movements

Everett Aaberg makes some helpful points. "The human body is an extremely sophisticated machine with a very large number of components that combine to produce an infinite variety of postures and movements."⁵ However he goes on to breakdown this endless list into seven primary patterns of movement:

- Pushing
- Pulling
- Squatting
- Gait (lunging, walking)
- Trunk flexion (bending)
- Trunk extension (straightening)
- Trunk rotation (twisting)

All other complex movements are composed of the above building blocks. For example, deadlifting an object off the floor can include trunk flexion (on the way down), trunk extension (on the way up), and squatting. If the object is raised overhead: the movement is a pull up to shoulder height, and a push while going overhead.

Creating balance

It is common for programs to create physical imbalances after ignoring primary movement patterns.



Operator weaving a kettlebell between his legs during walking lunges.



The standing overhead press requires more core stabilization than the seated counterpart.

For example, many participants do endless situps (trunk flexion) but do not balance those out with back extensions (trunk extension). Pushing musculature, such as that trained with pushups or presses, requires exercises that target the antagonistic pulling musculature (such as rows or pullups).

I have assembled a list of principles and concepts for a well-rounded physical fitness program:

- Performance-based
- Focus on anaerobics within various metabolic pathways
- In all primary movement patterns
- Include strength, power, and stamina drills

- Practiced at maximums of ranges of motion
- Contain variety of workout formats
- Conditions the mind and emotions
- Sufficiently simple to learn
- Fit into a busy lifestyle
- Cost-effective
- Not equipment-centric

I will address each of these concepts and principles in Part Two. Some of them are straight-forward. Others require some discussion, and even some debate.

Analyze the list of principles and concepts above. If your current fitness program is not meeting some of those first few points, you likely do not have a well-rounded approach to physical readiness.

Summary

While not every physical act that a police officer will be called to perform can be identified, there are some trends. These trends tell us how to, and to some extent “how not to” condition our bodies. The statistics of foot pursuits and physical fights give us information about how intense and how long these “typical” events last. With that, training time must shift from aerobic to anaerobic realms. A program must also practice movements in the seven primary patterns of: squatting, lunging, pulling, pushing, and the three trunk motions of flexion, rotation, and extension. A broad, non-specialized, and generalized physical preparedness is the future of tactical fitness. ✪

Notes:

- ¹ Greg Glassman, *Police Training*, CrossFit Journal, March 2003.
- ² FitForce, *Health and Fitness Programming*, 2005.
- ³ Suzie Snyder, *Introduction to Tactical Strength and Conditioning*, NSCA TSAC Report, Oct 2007.
- ⁴ Jay Dawes, *Basic Training Concepts for Improved Operational Fitness*, NSCA TSAC Report, Jan 2008.
- ⁵ Everett Aaberg, *Muscle Mechanics*, Human Kinetics Publishers, 1998.

About the author

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