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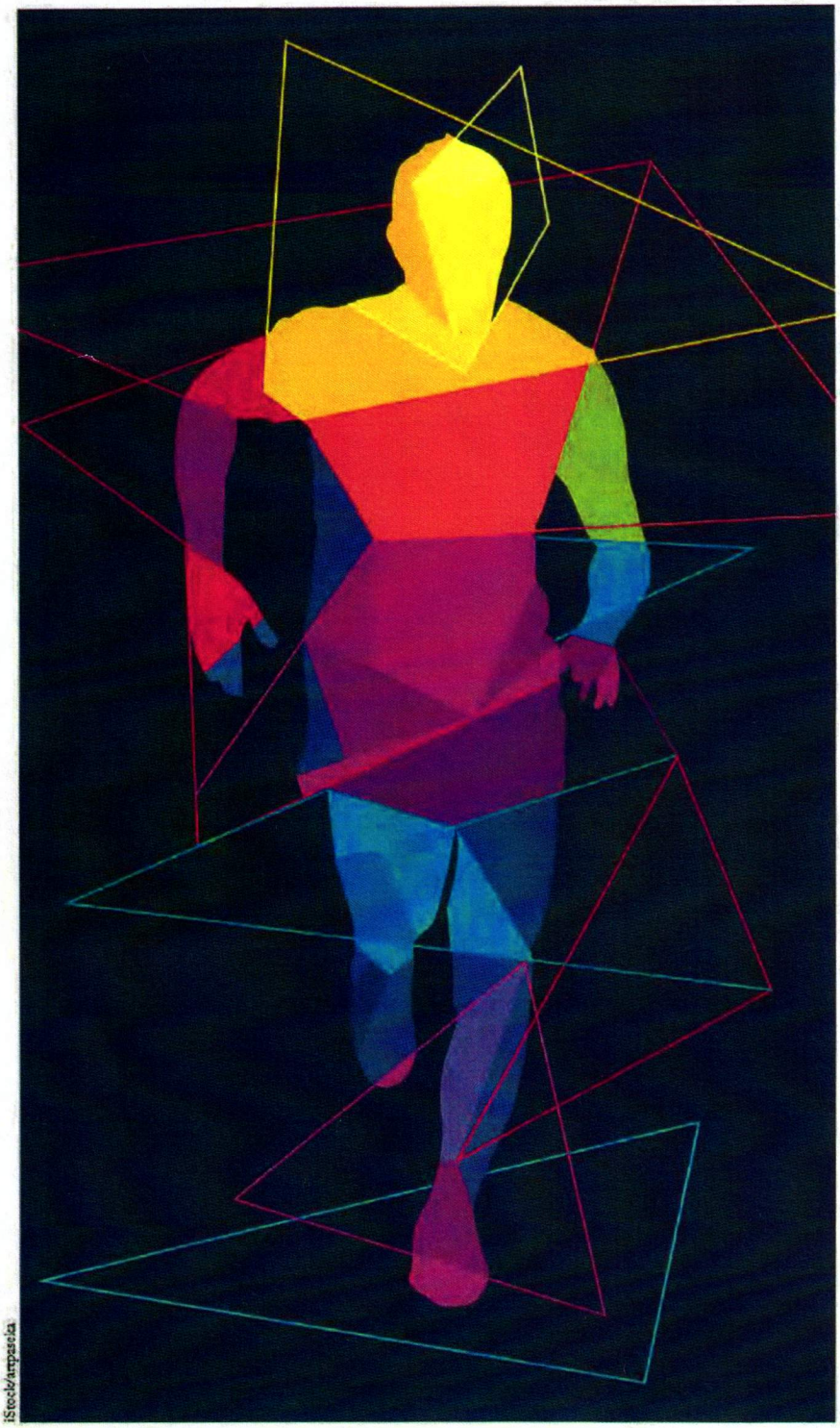
Holistic Health and Fitness: A Better Way to Readiness

By Maj. Gen. Anthony C. Funkhouser



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Although the Army is a complex organization with myriad mission objectives, success or failure of the core mission of deterring, denying and defeating the enemy continues to be defined by the actions of individual soldiers, including their physical readiness for soldiering.

That's not a new concept. But only in the past decade has fitness and health science received serious attention. Taking advantage of knowledge about fitness, diet, sleep, health, and social and emotional resiliency, today's Army can increase optimal performance by developing a holistic health and fitness program to educate, train and develop soldiers not just in initial training but for the rest of their lives.

The proposed Holistic Health and Fitness program would be a combination of doctrine and specific techniques. It would directly address the Army's Warfighting Challenges to improve the performance of soldiers, leaders and teams by developing physical supremacy, cognitive dominance and emotional resilience.

Soldier physical training must align with the duties we expect them to perform. The combination of warrior tasks and battle drills (WTBD) along with the high physical demand tasks (HPDT) of each MOS provides the task-specific foundation. Training WTBD allows each soldier the skills to shoot, move, communicate and survive on the battlefield. These tasks were developed from combat lessons learned, experts in the field, and analysis of training course requirements. WTBD are taught at Basic Combat Training and Advanced Individual Training and are approved by the Army chief of staff.

HPDT are the most physically arduous tasks required in an MOS. These are trained on and assessed at the proponent schools. The standards and tasks that are tested for HPDT are developed and ap-

Pvt. Jessica Lautpiercus demonstrates how to handle artillery shells during a study of fitness standards.

Fort Sill [Okla.] Tribune/Cindy McIntyre

proved by the branch commandants. The HPDT are published in Department of the Army Pamphlet 611-21. In order to optimize physical readiness, we can develop a comprehensive physical readiness system that focuses on the individual soldier and aligns with the unit's mission. This system will ensure soldiers are capable of executing WTBD and HPDT. Only by optimizing soldier readiness can we ensure the readiness of the force.

Initial Military Training requires a high level of strength, speed and endurance. Latest estimates indicate that only about 30 percent of 18- to 21-year-olds in the U.S. qualify for the armed services. One of the larger disqualification factors is obesity, which is directly linked to fitness levels. We must tailor our efforts to address soldiers who must train beyond their current physical capacity to meet the minimum performance standards. Physical overexertion often results in musculoskeletal injuries and contributes to trainees' low morale and lack of resilience in this highly stressful environment. Severe injuries often lead to unplanned attrition of qualified soldiers.

Three-Phased Approach

Although some recruits possess high levels of physical fitness, many must be trained on how best to increase their fitness. We present a three-phased approach for a new Army Physical Readiness Training system:

The first phase starts in the Future Soldier Program for the active Army and Army Reserve and the Recruit Sustainment Program for the National Guard. Recruits are administered the Occupational Physical Assessment Test (OPAT) and participate in their respective physical fitness programs until they ship to Initial Entry Training. The OPAT is a baseline measure of a recruit's physical fitness potential to successfully begin training.

A large number of musculoskeletal injuries in Initial Entry Training are linked to poor fitness levels prior to training. Our research also shows that much of Initial Entry Training attrition is due to lack of motivation and/or injuries, which may have roots in low physical fitness levels. Being underfit leads to overstress and failure in training events with associated low morale. The findings of the OPAT validation study demonstrated that higher entry-level fitness, as measured by the OPAT, results in reduced attrition.

Not all recruits will meet the desired OPAT standard on their first attempt, but the standards are achievable for all applicants after a relatively short period of adaptive physical training, prior to shipping. Training for the OPAT helps to improve the trainees' initial level of fitness, thereby increasing the likelihood they will complete training and successfully engage the warrior tasks and battle drills and high physical demand tasks while reducing injuries and increasing morale and resilience.

The second phase is building a better training model through better programming—a well-designed, scientific, sequenced and scheduled fitness program; and better surveillance—how we measure, track, monitor and assess performance. The level of strength and conditioning knowledge required to perform mission-based needs analysis, comprehensive component assess-

ment, and development of a sequenced and scheduled strength and conditioning program does not exist in most units. "Periodization" is an organized approach to training that involves progressive cycling of various aspects of a training program during a specific period of time to improve performance. Current unbalanced component training with an overemphasis on endurance activities has led to high rates of overuse injuries, ultimately resulting in a reduction in combat readiness.

U.S. Army/David Kamm

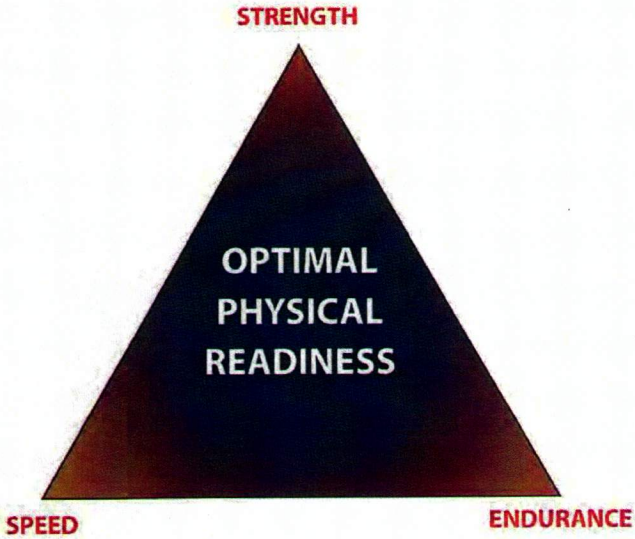
198th Infantry Brigade soldiers perform casualty evacuation, a high physical demand task, as part of the Occupational Physical Performance Test research study at Fort Benning, Ga.

Problematic Move

In the 1980s, the Army transitioned from a task-specific functional assessment of soldier fitness to a health-related, three-event Army Physical Fitness Test. This test focuses solely on bodyweight muscular and aerobic endurance events in an effort to minimize resources and ease implementation. As an unintended consequence, Army commanders moved from a task-specific to a test-specific training system. This has impacted fitness and readiness.

So why is this problematic? Tudor Bompa, an internationally recognized periodization specialist, relates functional performance to three areas of fitness: strength, endurance and speed. Depending on the desired objective, athletes train in specific areas to optimize performance.

We took 32 HPDT soldiers and placed them in proximal locations around the "Bompa Triangle" relative to the strength-speed-endurance demands. Examples of HPDT are drag a casualty to safety, prepare a fighting position, and move under fire. It became evident that many soldier tasks align predominantly with the strength domain, which is problematic since the Army Physical Fitness Test primarily measures endurance. We must use this information to move the training system back to a balanced task-based model, adding more training in the speed and strength domains.

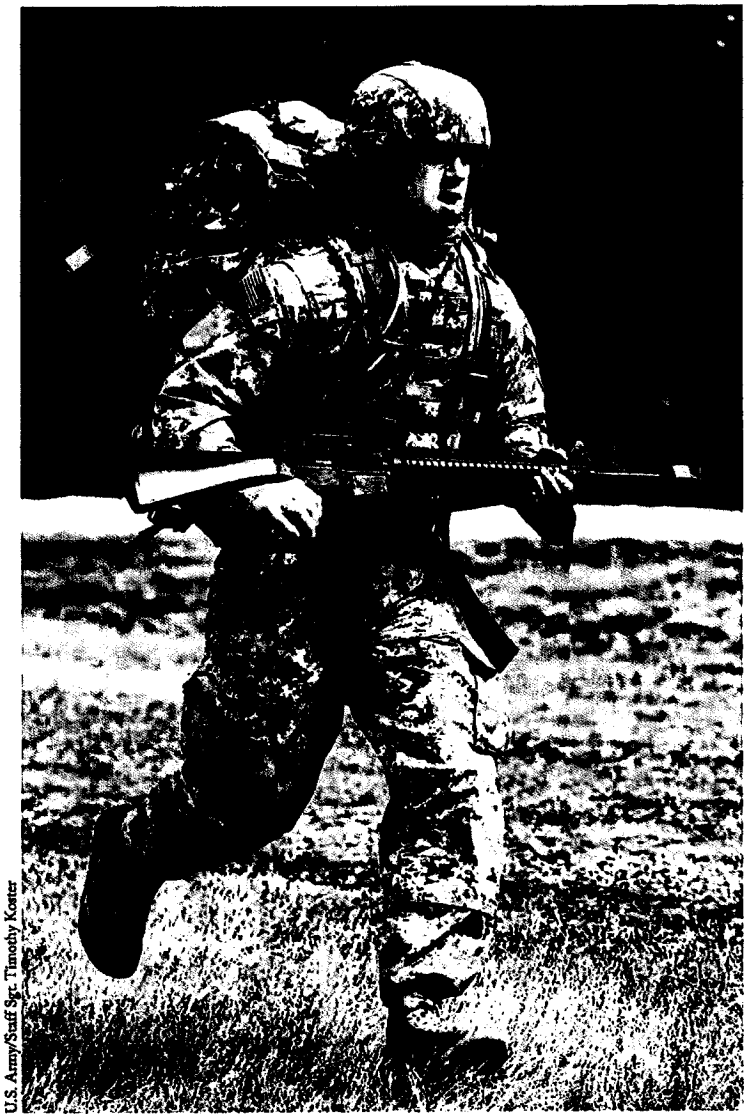


The Bompa Triangle shows the relationship of speed, strength and endurance for top physical performance.

The Physical Readiness Training system must address five components in the developmental process: Develop better assessments of a soldier's physical readiness; design a periodized training program that addresses muscular strength and endurance, power, aerobic capacity and anaerobic capacity; teach soldiers how to integrate physical work capacity into functional tasks; leverage current knowledge of exercise science; and incorporate performance nutrition and healthful living.

The third phase is modernization of the training infrastructure. Training infrastructure is foremost governance but also includes personnel, facilities and equipment, programs and leadership education.

- Governance: How well we measure, track, monitor and assess.
- Personnel: Soldiers need certified strength and conditioning specialists at the unit level. They need on-site therapists to care for and prevent musculoskeletal injuries. They need counselors for sleep, nutrition, resilience and behavioral health.
- Facilities and equipment: Soldiers need an optimized training environment dedicated to strength and conditioning training, with less emphasis on recreation. Our soldiers have a worldwide mission, and they deserve world-class facilities.
- Programs: Programs should be well-designed, scientific, periodized and regimented so soldiers can focus on their readiness and ability to perform.
- Leadership education: We must invest in training soldiers to perform their roles. Our leaders must be competent, well-educated, and essential to program success.



U.S. Army/Staff Sgt. Timothy Koster

A soldier with the 302nd Maneuver Enhancement Brigade competes in the 10-kilometer ruck march event of a Best Warrior competition.

The U.S. Army Training and Doctrine Command has spent years studying the underlying physiological constructs of combat. We have simplified the complex relationship into the functional areas of combat readiness: muscular strength and endurance, aerobic endurance, explosive power and speed/agility. Muscular strength focuses on the tasks to lift, carry and drag heavy loads. Muscular endurance is for working for long periods of time. Aerobic endurance is for moving long distances. Explosive power is for generating and applying force. Speed/agility is the requirement to move quickly over, under, around and through obstacles.

Of these five functional areas, muscular strength, explosive power and aerobic capacity were most predictive of a soldier's ability to execute HPDT. Our training and testing must emphasize those areas as a primary goal.

The U.S. Army Center for Initial Military Training is the lead for Holistic Health and Fitness, or H2F. The center's plan will address changes as an integrated system of systems. We are looking at how we can gain efficiencies in existing programs such as the Performance Triad (sleep, nutrition and activity), Master Resilience Training, Master Fitness Training and forward care (athletic trainer) by combining efforts to produce synergistic effects.

We may need to restructure the personnel who conduct, plan and supervise physical readiness training. A review may conclude that we need to increase fitness personnel down to the company level, with certain individuals being designated master fitness instructors with similar levels of expertise and responsibilities as combat arms' master gunners. This could lead to an additional skill identifier and primary duty for some soldiers and perhaps a future career field.

Manual Rewrite Underway

We will formalize H2F with doctrinal products. We have undertaken a comprehensive rewrite of Field Manual 7-22 Army Physical Readiness Training, to include a proposed title change—Field Manual 7-22 Holistic Health and Fitness. This final publication can be expected in the next 12 to 18 months. Simultaneously, we are looking to improve the training governance by adding a new metric of physical readiness: the Combat Readiness Test.

This test is a fundamental move to align our assessment of combat fitness to basic soldier tasks. For the near term, the current Army Physical Fitness Test will remain as a test of health-related fitness for the Army while the proposed Combat Readiness Test will focus on a soldier's physical ability to perform the warrior task and battle drills expected of all soldiers, and the high physical demand tasks of their MOS duties. Depending on how the Combat Readiness Test aligns with the administration of the Army Physical Fitness Test, look for a test that measures the five principal fitness components. The exact events are under review, but we expect a five- to seven-event test lasting about 90 minutes, about the same amount of time as the current Army Physical Fitness Test takes.

Finally, we must look at the contributions of individual readiness to unit readiness. We cannot afford to have 10 to 20 percent of our soldiers nondeployable and expect to meet the country's global commitments and security needs.

A soldier's individual fitness is integral to this end state. If one part fails, it has an impact on the entire system and mission success is degraded. The Army can, and will, adapt to any circumstance to move forward and accomplish the mission but without the contributions of the parts to the whole, we are less ready, less capable and less prepared.

It is an exciting time to be in the Army. We have more information and science available on holistic health and fitness than ever before. The Army plans to take advantage of this information and improve our overall readiness. ★

Michael S. McGurk and Whitfield East contributed to this article.

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