# NON-STANDARDIZED STRENGTH TRAINING PROGRAMS FOR ALL MILITARY BRANCHES

WHAT WE CAN LEARN FROM THE TACTICAL ATHLETE MODEL

fitness artist

sculpt your masterpiece

fitness artist

sculpt your masterpiece

# TABLE OF CONTENTS

fitness artist
sculpt your masterpiece

# ABSTRACT

The purpose of this white paper is simply to investigate whether mandatory or voluntary tactical training programs can be scaled down in intensity and scope and offered to groups of standard recruits. This approach would seek to combat rising obesity rates in the military and increase engagement and military readiness through physical fitness.

Instead of standard recruits only being required to pass standardized fitness tests, more of an emphasis would be placed on giving service members non-standard training that mirrors the functional fitness of tactical athlete programs.[1] The proposed programs would mimic the functional types of training that tactical athletes and combat ready soldiers undergo, but without the elite intensity.[2]

If at all scalable, the data suggests that functionality and engagement would increase between recruits, and that obesity rates would, in turn, fall. Depending on how scalable or involved the effort to revamp existing training protocols for standard recruits, small teams of personal trainers could arrive onsite and offer real time feedback and responsive programs for recruits who are struggling with fitness...

In summation, we will pose and investigate one set of questions:

**Can typical service members of the military benefit from more rigorous and flexible strength training programs, similar to the types of training that tactical athletes receive but without the elite intensity?**

## Key Components of This White Paper

We will make the case for increased efforts in the military through effective programming. The analysis conducted will broadly look at tactical athletes and non-tactical athletes in the military and cover two important areas when analyzing the central question of this paper: **can standard members of the military tangibly benefit from non-standardized training programs like tactical athletes and combat-ready soldiers receive?**

[1] A 'Standardized Fitness Test' simply means that there are the same fitness standards for a passing grade in fitness evaluations. As an example, think of the semi-annual tests that all Air Force members are required to pass.

[2] This does not mean that all standard military recruits should enroll in a program that is equally intense as Navy Seal BUD/s training. Not by any means. It simply means that standardized fitness programs would be much more flexible and devoted to functionality than basic strength metrics like achieving more pushup repetitions or faster miles.

- **Section #1:** Customization Over Standardization - Targeted Training and Functionality

- **Section #2:** Functional Fitness for Military Readiness, Physical Preparedness, and Well Being

## Methodology

**Literature Review** - Most of the conclusions, extrapolations, and ideas formulated within this white paper are based on research that has already been done. The goal is to compile and curating an accurate and relevant assessment of Tactical Strength Programs in the military as they relate to standard recruits.

**Work Force Strong™ Research** - All analysis and conclusions reached will draw from the compiled literature available, as well as our own testimonials and data in the strength training field/onsite with our own clients. Distinctions should be made that this data has been gathered to explore a focused idea and will not draw any definitive conclusions. This is simply a white paper to expand upon the available research.

## Section 1 -Tactical Athlete Programs: Customization Over Standardization

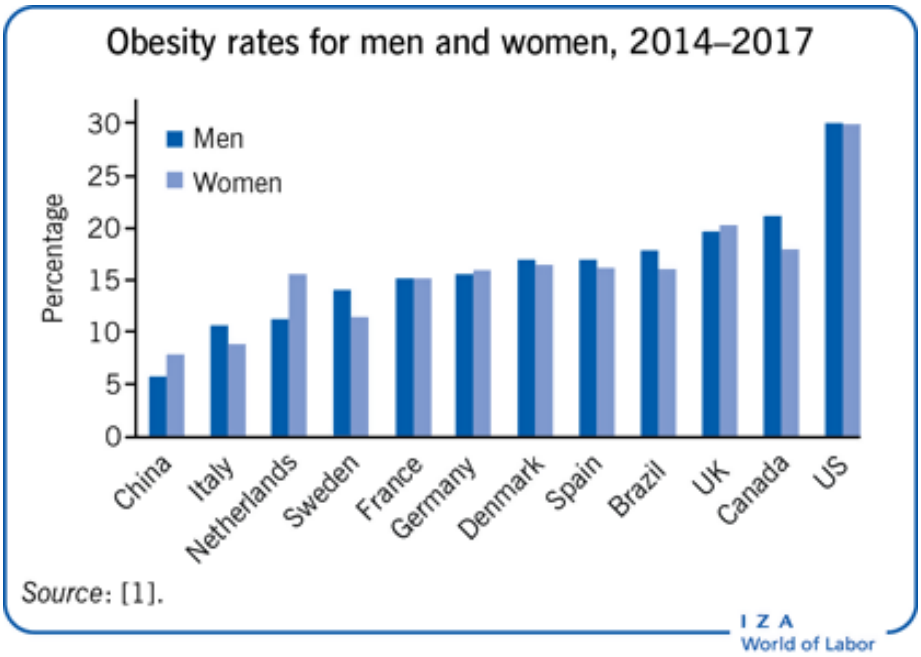
With the number of recruits dwindling because of rising youth obesity rates, as well as a shocking 10% rise in obesity among active duty service members from 1995 - 2008, there is an obvious need for effective training programs for service members.

The most recent data suggests that military readiness and national security might be at risk if more of an emphasis isn't placed on maintaining physical health within the military. Additionally, The Department of Defense recently released a study that shows the Navy is the heaviest branch of the military, followed by the Air Force, the Army, and then the Marines.

**How much does obesity cost the Department of Defense annually?**

Try $1.5 billion dollars. As the CDC[3] reports, "obesity is costly.[4]" Additionally, The Organisation for Economic Co-operation and Development (OECD) shows that from 2014-2017 the U.S. was ahead of the pack in average obesity rates. This has continued to the present day.

**The dataset below should, by default, include service members in the military that are stationed in the U.S.**




Source (https://wol.iza.org/articles/obesity-and-labor-market-outcomes/long)

**What can be done about this alarming upward trend for obesity in the military?**

It appears that simply upping the physical requirements for service members can help, but that would strictly be a quantitative over qualitative approach. By raising the physical intensity in a standardized way, that can open the door for injury, especially if a large constituency is already overweight.

---

[3] "Unfit to Serve-Obesity is Impacting National Security Cdc-pdf." https://www.cdc.gov/physicalactivity/downloads/unfit-to-serve.pdf.

[4] Obesity is generally measured by a Body Mass Index of 30 or more

Instead of increasing the number of pushups or reducing required mile times for physical assessments, it makes more sense to offer flexible, non-standard programs. This means a qualitative approach over strictly quantitative. And it could be delivered by smaller teams of personal trainers who appear on-site and train groups.

**These programs could be mandatory depending on the existing strength levels of the service member.** If the service member is facing disciplinary action due to not performing at adequate fitness levels, they might be a candidate for more rigorous training programs tailored to their individual needs.

Training programs should accomplish two broad things:

1. Recruits have the required military readiness to do their job as best as they can, consistently, without substantial job performance decay[5] or injury.

2. Service members are fit, happy (physical well being increases psychological well being), and regularly engaged.

**What type of training program can accomplish this?**

Based on the data available, and by extrapolating already efficient training programs, **Tactical Fitness Training** appears to be a logical way of reducing the harms of obesity and dangerous physical performances in all branches of the military.

When defining what Tactical Training looks like in a typical program, perhaps it's best to get the definition from the Military itself:

**"Tactical Fitness is not about workouts, it's about work. It is not about working out to get good at working out, it is about creating programs that carry over into real life movements like lifts, carries, crawls, runs, rucks, swims, and mobility, even analytical and creative thinking.[6]"**

---

5 "Decay", in this instance, simply refers to a statistical likelihood to regress to a mean that falls below the required performance of a given position.

6 https://www.military.com/military-fitness/general-fitness/whats-the-difference-between-tactical-fitness-and-regular-fitn

This is exactly the type of emphasis on functionality that the proposed, non-standard training programs in this white paper would carry over into existing military fitness protocols.

Even if a recruit gathers intelligence in the Air Force, Navy, or Army - or has a largely sedentary role - there should be programs in place that offer the type of training that **carries over** into the analytical, creative thinking, functional types of training as identified above.

**Military readiness and engagement can be achieved through cost-effective measures that transcend standardized strength tests models. Additionally, developing tactical fitness training means military members who are better at their given roles, less obesity, and overall an increase in well-being across the board.**

## Tactical Athletes: Small Workout Groups for Increased Effectiveness

Yes, the Army has recently revamped their New Army Combat Fitness Test and will require active duty members to pass it starting in 2020. This is a step in the right direction and shows there is an added interest in the military to increase the overall physical standard.

While a step in the right direction, the New Army Combat Fitness Test is still a standardized strength program. This makes sense because of the sheer number of active military members. After all, scalability issues are usually addressed with standardization.

**But what if larger groups were broken down into smaller, manageable groups?** In that case you could customize, get more flexibility, and offer the same sort of effective training as tactical athletes get (minus the hardcore intensity of Tactical Athlete Programs).

# A Classroom Analogy for Fitness Programs

By default, tactical athletes are not the majority of service members. They are a smaller group who get special attention. But suppose that a standard recruits were broken down into smaller groups according to their role and function.

One way to minimize ineffective programming is to make it manageable in size. As an analogy, think of a classroom. The smallest classrooms for grade school children have been statistically proven to be the most effective learning environments for the majority. This is corroborated through the famous Tennessee STAR Project.[7]

As the National Education Association states about the STAR project, the return on investment for reducing class sizes meant that "reducing class sizes from 22 to 15 in grades K–3 results in a $2 return on every $1 spent."[8]

****

A smaller class size means more effort, attention, and individual emphasis can be placed on each unique student. It's not farfetched to assume that a similar logic can be applied to physical training programs.

After all, the law of diminishing returns would dictate a cutoff point to where a class or program gets too large to be feasible or effective. A solution to this is offering smaller programs that are more focused on individuals and that can account for the unique roles and needs of each recruit. Apply this to the military and you have a winning case for moving away from a one-size-fits-all approach for physical fitness evaluations and metrics.

**The average soldier will be less obese and more efficient if targeted through smaller fitness initiatives and strategies. If the obesity rates are to fall, more focus needs to be emphasized on existent fitness protocols (or lack thereof).**

---

7 The Tennessee STAR Project: http://edsource.org/wp-content/uploads/old/STAR.pdf

8 NEA Policy Brief: http://www.nea.org/assets/docs/PB08_ClassSize08.pdf

# Section 2- Functional Fitness for Military Readiness, Physical Preparedness, and Wellbeing

Whereas a regular recruit in the Army (for example) has to graduate from boot camp and pass the occasional APFT strength tests, a tactical athlete requires elite level training. After all, they have the most physically and (often) mentally strenuous roles in the military.

**Let's Define Tactical Athletes**

Types of tactical athletes[7] and their respective tactical fitness programs include:

- Navy Special Warfare Command - Tactical Athlete Program (TAP)
- EXOS - Firefighter, Law Enforcement, Tactical Military
- 75th Ranger Regiment - Ranger Athlete Warrior (RAW)
- United States Army 10th Mountain Division - Tactical Athlete Program[8] (TAP)

This is just to name a few. And in a study by the same journal, The Journal of Strength and Conditioning Research, they show what the typical tactical athlete program attempts to accomplish for the Army Rangers in the study.

A typical workout program consists of exercises that test jump distance, deadlifts, movement skill assessments, strength and conditioning (equally), operator readiness, and overall explosive strength.

****

**When adapted for a standard recruit**, any training that focuses on similar types of training movements can only benefit the overall health and functionality of a soldier. These types of highly dynamic exercises (requiring responsiveness and mental fortitude) can also increase military readiness in any soldier. To define military readiness, here is a great summation from Deputy Under Secretary of Defense for Readiness Louis C. Finch:[9]

---

[9] Military Readiness: https://apps.dtic.mil/dtic/tr/fulltext/u2/a327184.pdf

**The ability of units to be ready on time to carry out their missions, in turn, is a function of having the equipment, supplies, logistics and experienced people with the skills to accomplish assigned tasks. (Finch)**

Additionally, President Trump has already proposed an increase in 2020 National Security funding for Defense purposes as well as Military Readiness. As stated within the proposed budget itself:[10]

**"The Budget provides the resources necessary to continue rebuilding military readiness...The Budget funds continuing efforts to improve Navy and Marine Corps aviation readiness, while prioritizing close combat investments in lethality to provide every advantage to America's tactical warfighters."**

The new funds will not only increase military readiness in tactical warfighters, but also expand to "provide additional training for soldiers to build partner capacity."

This increased capacity for partnership can expand to contracted fitness groups who provide the physical training and injury prevention protocols necessary for increased military readiness in all branches, all squadrons of the military. In short, if the goal is to increase military readiness and raise levels of national security, the military might need to include outside contractors to help strengthen the average service member.

## Targeted Training for Women in Combat Roles

According to the journal, Military Medicine, women are at higher risk of musculoskeletal injuries than men. Factoring in body composition differences, as well as differences in physiological performance, women are not as relatively strong as men at the advent of their 20s, which is generally the most common age for recruits to go through basic training.

10 2020 National Security Fact Sheet: https://www.whitehouse.gov/wp-content/uploads/2019/03/-FY20-Fact-Sheet_National-Security_FINAL.pdf

The **Military Medicine** study found a positive correlation between including more females in **combat-oriented, tactical training programs** and a reduction in injury occurrence utilizing a 12 week Marine Corps training program and similar metrics. This type of tactical training focus for women accomplishes the following things:

- More developed musculature, which leads to "greater work output" and less repetitions performed.[10] A big reason for musculoskeletal injuries is repetitive motions that wreak havoc on knee joints and lower spinal vertebrae.
- Reduced risk of stress fractures, which are higher among women (5-15%). This is due to often lower Bone Mineral Densities (BMD), which contribute to less bone health. More emphasis on individual women to get adequate nutritional intake and physical training leads to readier women in the military.
- Increased cardio, load carriage, and lifting tasks.

Karen Kelly, et al. conclude that although there are physiological differences between the sexes, targeted training can reduce the disparity between sexes. Women are a huge, irreplaceable asset in the military. And the number of women recruits are only increasing, so taking into account the differences in body composition between sexes is crucial for a military-ready, healthy, and strong national security system.[11]

****

Another encouraging facet of this subject is that the Air Force is putting a gender neutral fitness program into place soon. The added benefit of focusing on a gender-neutral test is that weight loss metrics will be updated to include more accurate measurements like body composition and central adiposity tests that measure the amount of fat in the lower stomach.

The key concept here is that training will focus on functionality and will focus on bridging the gap between differences in physiology between sexes for a better program.

---

11 Pew Research Group-Women in the Military Growing:
https://www.pewresearch.org/wp-content/uploads/sites/3/2011/12/women-in-the-military.pdf

Will this work? It definitely could, but at the very least a shift towards more flexible training protocols is happening. And that is encouraging.


Source: (Spartan Newsroom)

In summation, the overall proposed idea in this white paper supports stronger, healthier women by redefining the emphasis placed on standard strength training programs to target not only standard male and female recruits, but to also increase emphasis on women who are to serve in combat roles.

As more and more women join and serve combat roles, training will need to rise in relation. This can only be done through the flexible styles of small-er-group, functional fitness training.

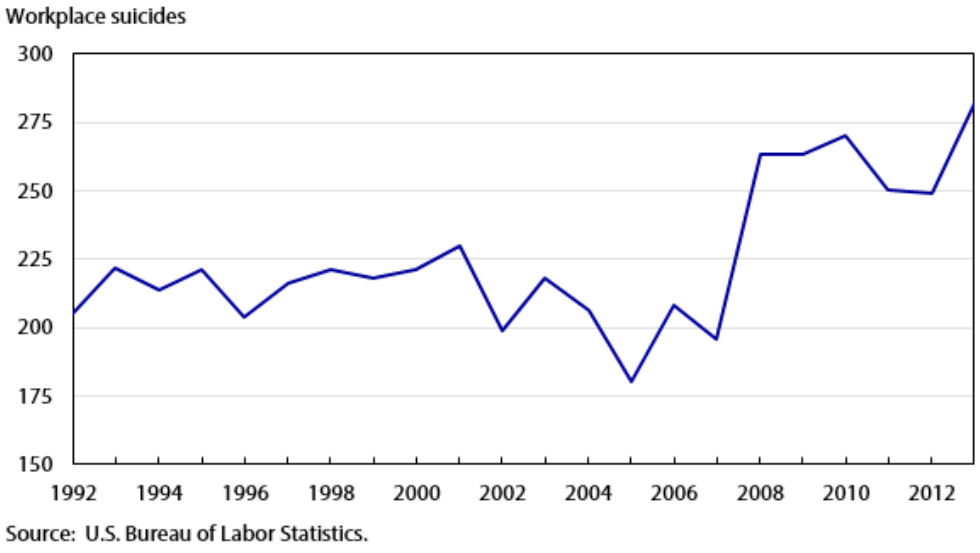
# Exercise Programs to Counteract Sedentary Jobs and Suicide Rates

This is where the biggest concentration of service members can benefit from programs that are similar in structure to the types of training that tactical athletes receive. Especially with the number of intelligence service members and cybersecurity roles increasing, more and more members have jobs that require frequent periods of inactivity. This can be extremely detrimental to the overall health of any service member if adequate training is not provided.

According to a study by Frontiers in Public Health, sedentary behavior has only increased in the U.S. since 1960. They found that onsite training programs, although limited in scope, can offer benefits for inactive and active participants in just a few weeks.

These findings are especially supportive for combating mental health issues brought upon by an overall lower sense of wellbeing for employees. More specifically, depression and suicide are high and have been high since 2013.[12]

**Figure 1. Number of workplace suicides, 1992–2013**




Source: U.S. Bureau of Labor Statistics.

12 "Suicide in the workplace : Monthly Labor Review: U.S. Bureau ...." https://www.bls.gov/opub/mlr/2016/article/suicide-in-the-workplace.htm.

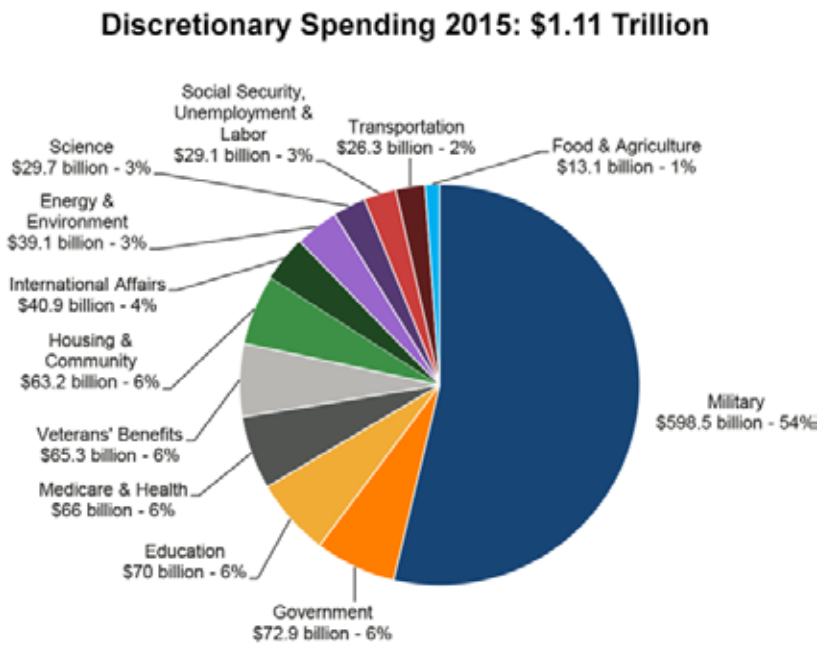
When applying the alarming rise in suicide rates, so too the military has had a suicide epidemic among service members. The Military Times states that the suicide rate has rise by 6% every year for five years now.

There are many educational programs and initiatives to prevent suicide in the military that are highly commendable. Knowing that regular exercise can help lessen overall suicide risk as well, it is definitely worth strengthening efforts for overall exercise program efficiency in the military.

## Conclusion: A Course of Action for Non-Standard Program Implementation

When it comes to reducing obesity rates and increasing the overall health and strength of the military, it pays to invest in fitness programs. National Priorities shows that in 2015, $598.5 billion was spent on the Military. To echo the data from the aforementioned CDC graphic, $1.5 Billion dollars are spent on obesity every year.

You can bet that if $1.5 billion was devoted to sending in human performance professionals, there would be an extremely high return on value.




(Source: National Priorities)

In fact, the Rand Corporation, when analyzing respective ROIs from work-place wellness programs in major organizations, found that the most effective for short term returns were in disease management programs; but, in a similar camp, long-term strategies like lifestyle management could also increase ROI after a few years of implementation.[13]

With lifestyle management programs in mind, the CDC spends a considerable amount of resources on educating veterans and recruits on the dangers of excessive alcohol consumption, improper nutrition, and obesity. Training programs offered by contracted trainers fall within this same category and can make a huge difference for keeping our troops healthy.

## Mandatory or Voluntary Implementation of These Programs?

When addressing the question of whether or not to make these training programs mandatory, that is up to each particular branch of the military. DARREN P. BEMIS, MAJOR USAF, says in his paper, "THE AIR FORCE FIT NESS PROGRAM AND THE CHALLENGE OF CREATING A MORE FIT FORCE," that fitness should be aligned with the overall military mission.[14]

This means mandatory fitness would not be a drill sergeant experience or boot camp type venture, but would be a part of the overall mission for mili tary readiness and improved health throughout. This will take a large scale effort, but it is needed.

At the very least, experimental phases can be adopted by various depart ments or branches of the military. This does not have to be a wide scale adoption, right away, but can start small with commanders and squad lead ers who are in charge of a select group of service members. Then it can move into outside contractors when more training protocols are in order. The results should only reflect a growth in revenue as well as increased national security through fitter, more able service members from the ground up.

---

13 RAND Corporation Workplace Wellness Study:
https://www.rand.org/content/dam/rand/pubs/research_briefs/RB9700/RB9744/RAND_RB9744.pdf

14 "THE AIR FORCE FITNESS PROGRAM AND THE CHALLENGE OF CREATING A MORE FIT FORCE"
https://apps.dtic.mil/dtic/tr/fulltext/u2/a562881.pdf

With a program proposed like the one in this white paper, there will be recruits with much more medical attention on a personal basis, more well ness and military readiness, as well as healthier recruits.
Overall this will save the military a lot of money and will improve the overall strength of the world's strongest institution.

It does not matter if it's on a voluntary or mandatory basis, the results should speak for themselves.

## References

1. LWW Journals - Beginning with A, journals.lww.com/nsca-scj/_layouts/15/oaks.journals/ImageView.aspx?k=nsca-scj:2015:08000:00002&i=T1-2&year=2015&issue=08000&article=00002&type=Fulltext.
2. "APFT Standards for 2019 - Updated Army PT Standards 2019." USArmyBasic, usarmybasic.com/army-physical-fitness/apft-standards.
3. Captain, Lauren. "Women of War: Percentage of Women in Each Military Branch." Spartan Newsroom, 14 Dec. 2016, news.jrn.msu.edu/2016/12/women-of-war-percentage-of-women-in-each-military-branch/
4. "Defining Adult Overweight and Obesity." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 11 Apr. 2017, www.cdc.gov-/obesity/adult/defining.html.
5. "Exercise Reduces Suicide Attempts by 23 Percent among Bullied Teens." ScienceDaily, ScienceDaily, 21 Sept. 2015, www.sciencedaily.com/releases/2015/09/150921095433.htm.
6. Garland, Chad. "The Navy Has Fattest Members of the Military - but Obesity Rates Are up across All Services." Stars and Stripes, www.stripes.com/news/the-navy-has-fattest-members-of-the-military-but-obesity-rates-are-up-across-all-services-1.597064.
7. Losey, Stephen. "Gender-Neutral Fitness Test for All? Air Force Considering Running-Based Formula." Air Force Times, Air Force Times, 22 Mar. 2019, www.airforcetimes.com/news/your-air-force/2019/03/19/gender-neutral-fitness-test-for-all-air-force-considering-running-based-formula/.
8. "Military Spending in the United States." National Priorities Project, www.nationalpriorities.org/campaigns/military-spending-united-states/
9. Myers, Meghann. "Active Duty Suicides Are on the Rise, as the Pentagon Works on New Messaging and Strategy." Military Times, Military Times, 27 Sept. 2019, www.militarytimes.com/news/your-military/2019/09/26/active-duty-suicides-are-on-the-rise-as-the-pentagon-works-on-new-messaging-and-strategy/.

10. Myers, Meghann. “America's Obesity Is Threatening National Security, According to This Study.” Army Times, Army Times, 15 Oct. 2018, www.armytimes.com/news/your-army/2018/10/10/americas-obesity-is-threatening-national-security-according-to-this-study/.
11. “The New Army Combat Fitness Test.” Go to Military OneSource, www.militaryonesource.mil/military-life-cycle/new-to-the-military/getting-settled/the-army-combat-fitness-test.
12. Nindl, et al. “Operational Physical Performance and Fitness in Military Women: Physiological, Musculoskeletal Injury, and Optimized Physical Training Considerations for Successfully Integrating Women Into Combat-Centric Military Occupations.” OUP Academic, Oxford University Press, 1 Jan. 2016, academic.oup.com/milmed/article/181/suppl_1/50/4209407.
13. “Obesity Update.” OECD, www.oecd.org/health/obesity-update.htm.
14. Reyes-Guzman, Carolyn M, et al. “Overweight and Obesity Trends among Active Duty Military Personnel: a 13-Year Perspective.” American Journal of Preventive Medicine, U.S. National Library of Medicine, Feb. 2015, www.ncbi.nlm.nih.gov/pubmed/25442226.
15. Smith, Stew. “What's the Difference Between Tactical Fitness and Regular Fitness?” Military.com, www.military.com/military-fitness/general-fitness/whats-the-difference-between-tactical-fitness-and-regular-fitn.
16. "Effect of Work-Related Sedentary Time on Overall ... - NCBI." 1 Oct. 2018, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6174317/..