

The Secret to Understanding Army Regulation 600-9

In the past several months I have seen a rise in Soldiers and Noncommissioned Officers (NCO) failing to meet height and weight standards when they report to professional development schools. In one particular case, ten NCOs reported to Drill Sergeant School at Fort Jackson not in compliance with AR 600-9 weight table body fat allowance. One of the ten NCOs was 6% over their allowed body fat. In another case, twelve Soldiers reporting to a Warrior Leader Course failed to meet the AR 600-9 weight allowance, and then subsequently failed to meet body fat allowances. One of the twelve Soldiers was more than 10% over their body fat allowance. I believe these two Soldiers in these two different courses were the gross exception and reflect a total failure by unit leaders to enforce Army standards. The vast majority of Soldiers who report to school not meeting Army weight standards are usually between 1% and 2% over their authorized body fat.

After speaking with many First Sergeants and Sergeants Major on the subject of enforcing the standards of AR 600-9, many leaders have imposed or planned to impose artificial barriers to prevent their Soldiers from attending school if they were; as an example, within 2% of their maximum body fat. But is this the intent of the regulation to impose barriers to "protect the Soldier" or "not embarrass the unit" when a Soldier fails to meet "the standard" when they report to school? In the course of the following discussion I want to discuss a way to enforce AR 600-9 to the letter without artificial barriers, and at the same time maintain high standards that prevent Soldiers from failing or embarrassing the unit when they report to school.

To frame the discussion, let us begin with a review of the task and purpose of AR 600-9. The primary objective of the Army Weight Control Program (AWCP) is to ensure that all personnel: *(1) Are able to meet the physical demands of their duties under combat conditions. (2) Present a trim military appearance at all times.*¹ Commanders are responsible for evaluating Soldiers within their commands IAW the standards prescribed in AR 600-9. Each individual Soldier is responsible for meeting the standards outlined in AR 600-9. While the Army's weight control program is a Commander's program, there is also an inherent responsibility for every individual to maintain their weight IAW AR 600-9. AR 600-9 identifies a 5% zone below the screening

table weight ceiling as a personal fitness goal for every individual Soldier. *Soldiers will be coached to select their personal weight goals within or below the 5 percent zone and to strive to maintain that weight through adjustment of life style and fitness routines.*² As an example, a Soldier who is authorized a maximum of 22% body fat should select a goal that is within or below 17% and 22% body fat. When the Soldier exceeds their personal goal; as an example, a goal of 18%, unit leaders will encourage the Soldier to seek the assistance of a designated unit fitness trainer or training NCO for advice in proper exercise and diet.

The Army has four age groups with an allowable body fat for each male and female category. The age groups include: 17-20, male 20%, female 30%; 21-27, male 22%, female 32%; 28-39, male 24%, female 34%; 40 and older, male 26%, female 36%. *Commanders and supervisors will monitor all members of their command to ensure that they maintain proper weight, body composition, and personal appearance. Identification and counseling of overweight personnel are required.*³ Weight evaluations for all Soldiers will take place at a minimum during the conduct of the Army Physical Fitness Test (APFT) every 6 months. Leaders will conduct weight evaluations either prior to or after administration of the APFT. ***However, all personnel (all age groups) are encouraged to achieve the more stringent Department of Defense goal, which is 18 percent body fat for males and 26 percent body fat for females.***⁴ So how do we enforce policy and still maintain high standards?

In the paragraphs that follow I will share with you what I learned over 5.5 years as a 1SG. In my final 1SG position as a Deputy Commandant at an NCO Academy, my duties included performing the third and final body fat assessment for Soldiers who exceeded their allowable screening weight. Those Soldiers who exceeded their allowable body fat were subsequently denied enrollment into their respective professional military education (PME) course. In every case where a Soldier exceeded their body fat allowance, the body fat worksheet completed by their unit in the commander's packet reflected a body fat percentage well within the standard. Some may argue the Soldier gained 2% to 3% body fat prior to reporting to school. I believe the problem is in the subjectivity of understanding and interpreting the regulation.

In determining the circumference sites on the male and female body, health experts selected these areas because they represent the areas on the body where the least amount and the

most amount of body fat is retained. For both the male and female bodies, the neck area retains the least amount of fat while the waist area on the male body, and waist and hips on the female body store the most amount of body fat. AR 600-9 cautions the measurement techniques can give erroneous results if proper precautions are not followed. *The individual taking the measurements must have a thorough understanding of the appropriate body landmarks and measurement techniques.*⁵ AR 600-9 directs commanders to require designated personnel to receive hands-on training and read the instructions regarding technique and location. Having worked with many so called experts in the past that have ranged from health care professionals at the installation hospital to master fitness trainers, I have found the best and most reliable experts are the senior NCOs at your local NCO Academy. If you are looking for an expert to learn "what right looks like," seek out the 1SG or senior training NCO at the NCO Academy to learn and be the expert for your organization.

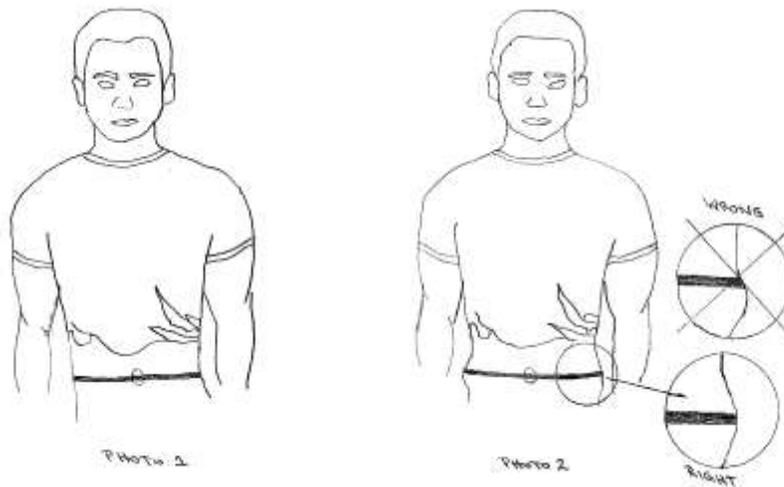
When taking and recording body fat measurements, one Soldier will place the tape around the circumference site and determine the measurement while a second Soldier will assure proper placement, tension and record the measurement. The individual taking the measurement will be of the same sex as the Soldier being measured while the assisting Soldier can be male or female. In mixed gender units I always kept male and female Soldiers separate with two male Soldiers measuring males and two female Soldiers measuring females. Both Soldiers work as a team with the Soldier determining the measurement working from the front or side depending on the circumference site, and the assistant ensuring proper tension and placement in the back or opposite side. AR 600-9 allows for the Soldier doing the measurement to position themselves in the back while the second Soldier checking placement and tension would be in the front of the measured Soldier. I recommend the measurement be taken from the front and side based on the discussion that follows.

All circumference measurements will be taken three times and recorded to the nearest $\frac{1}{2}$ inch with each sequential measurement within $\frac{1}{2}$ inch of the next or previous measurement. Measurements will be completed as part of a set sequentially, for males measure the abdomen and record the measurement followed by measuring the neck and recording the measurement. For male Soldiers repeat this sequence three times ensuring all measurements are within $\frac{1}{2}$ inch of each other. For female Soldiers, the sequence of neck, waist and hips sequentially

repeated three times; again all measurements in each of the three areas must be within $\frac{1}{2}$ inch of each other.

Everything discussed to this point is straight forward and outlined in detail in AR 600-9. Now let us discuss some of the techniques of the trade to ensure your Soldiers always meet the standard. Knowing where the male and female bodies store or do not store body fat as discussed above is the start point for the following discussion techniques. For the following example we will use the male body. For the male body, the body fat content worksheet (DA Form 5500) begins with measuring the abdomen. *Measure abdominal circumference against the skin at the navel (belly button), level and parallel to the floor. Arms are at the sides. Record the measurement at the end of Soldier's normal, relaxed exhalation. Round abdominal measurement down to the nearest $\frac{1}{2}$ inch and record (for example, round $34\frac{3}{4}$ to $34\frac{1}{2}$).*⁶ The key to taking these measurements is the constant monitoring of soft tissue compression. *The tape will be applied so that it makes contact with the skin and conforms to the body surface being measured. **It will not compress the underlying soft tissues.** Note, however, that in the hip circumference (female measurement) more firm pressure is needed to compress gym shorts. All measurements are made in the horizontal plane (parallel to the floor).*⁷

Photo 1 is shown as per AR 600-9 below. In reality however, closer attention to the abdominal measurement shows this measurement is not as easy as the picture leads one to believe. While AR 600-9 requires the measurement to be taken at the navel, ensuring the tape encompasses the "love handles," "rolls of fat," or "Dunlop disease" on the sides of the body is key to establishing high standards at the unit level. The intent of the waist circumference site on the male body is to measure the largest amount of body fat. Photo 2 below ensures the widest circumference of the waist is measured while keeping the tape over the navel and parallel to the floor, meeting the Army regulation and maintaining a high standard. A small $\frac{1}{2}$ inch difference in waist circumference can result in a Soldier meeting or not meeting the body fat standard by a significant amount depending on the waist size of the Soldier.



The same analogy applies to the neck measurement where the male body stores the least amount of fat. *Measure the neck circumference at a point just below the larynx (Adam's apple) and perpendicular to the long axis of the neck. Do not place the tape measure over the Adam's apple. Soldier will look straight ahead during measurement, with shoulders down (not hunched). The tape will be as close to horizontal as anatomically feasible (the tape line in the front of the neck will be at the same height as the tape line in the back of the neck). Care will be taken so as not to involve the shoulder/neck muscles (trapezius) in the measurement. Round neck measurement up to the nearest $\frac{1}{2}$ inch and record (for example, round $16\frac{1}{4}$ inches to $16\frac{1}{2}$ inches).⁸ As a tip, begin the neck measurement by having the Soldier swallow to visually see and feel the larynx rise and drop to its normal position. When measuring the neck, look for the smallest measurement where the tape is fully in the notch below the larynx as in photo 3, and as outlined by the regulation as close to horizontal as anatomically feasible. Some Soldiers have a larynx that is below the horizontal line of the shoulders and requires the tape to slant slightly upward towards the back of the neck, hence the term anatomically feasible. In your unit, look for the smallest measurement at the neck to calculate with the largest measurement from the waist to determine the Soldiers total body fat.*

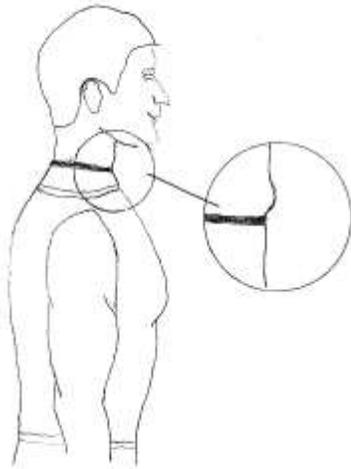


PHOTO 3

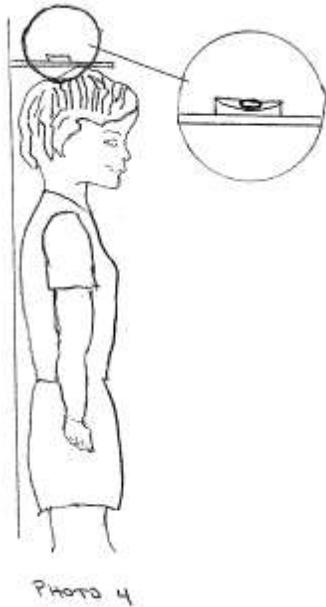
The body fat content worksheet for female Soldiers begins with the neck measurement. The measurement of the neck is the same as the male Soldier above. Begin the measurement by having the Soldier swallow to identify the larynx and final placement once it has dropped to its final resting position. Bottom line is to obtain the smallest measurement from the neck measurement.

The second measurement for a female Soldier is the waist. *Measure the natural waist circumference, against the skin, at the point of minimal abdominal circumference. The waist circumference is taken at the narrowest point of the abdomen, usually about halfway between the navel and the end of the sternum (breast bone). When this site is not easily observed, take several measurements at probable sites and record the smallest value. The Soldier's arms must be at the sides. Take measurements at the end of the Soldier's normal relaxed exhalation. Tape measurements of the waist will be made directly against the skin. Round the natural waist measurement down to the nearest $\frac{1}{2}$ inch and record (for example, round $28\frac{3}{4}$ to $28\frac{1}{2}$ inches).*⁹ AR 600-9 recommends taking several test measurements at the perceived midway point to identify the smallest circumference site for each individual Soldier.

The third measurement for a female Soldier is the hips. *The Soldier taking the measurement will view the person being measured from the side. Place the tape around the hips to that it passes over the greatest protrusion of the gluteal muscles (buttocks) keeping the tape in a horizontal plane (parallel to*

the floor). Check front to back and side to side to be sure the tape is level to the floor on all sides before the measurements are recorded. Because the Soldier will be wearing gym shorts, the tape can be drawn snugly to minimize the influence of the shorts on the size of the measurement. Round the hip measurement down to the nearest $\frac{1}{2}$ inch and record (for example, round $44\frac{3}{4}$ inches to 44 inches).¹⁰ The bottom line of this measurement is to capture all the fat stores in the circumference measurement. I always caution pulling the tape too tightly to account for the bulk of the Army physical fitness training shorts. This is a measurement where the experience of measuring hundreds of female Soldiers makes a difference in knowing how tight to pull on the tape before recording the reading.

Associated with determining body fat percentages, the height of the individual is a critical factor in these calculations. The height will be measured with the Soldier in stocking feet (without shoes) and standard PT uniform (gym shorts and T-shirt), standing on a flat surface with the head held horizontal, looking directly forward with the line of vision horizontal, and the chin parallel to the floor. The body will be straight but not rigid, similar to the position of attention. Unlike the screening table weight this measurement will be recorded to the nearest $\frac{1}{2}$ inch in order to gather a more accurate description of the Soldier's physical characteristics.¹¹ Most units have an area marked on the wall where the Soldier will stand on a hard surface floor as directed above. Where units make a mistake is using a ruler placed across the top of the head of the measured Soldier, and subjectively eyeballing level to determine the height marked on the wall. I recommend using a small level placed on top of the ruler to ensure the ruler is level to the ground, as it spans the head of the measured Soldier and the measurement marked on the wall. A subjective guess of the height that differs by $\frac{1}{4}$ inch or more can make a significant difference in the accuracy of the body fat determination.



For company, troop and battery commanders, and their 1SGs who are looking to grow the subject matter expertise within their organizations, I recommend recruiting the help of a senior NCO expert from the NCO academy to assist with their next scheduled weigh-in. Start with a train the trainer event for those NCOs you want to train and certify so they conduct the weigh-in to the letter of AR 600-9 incorporating the discussion points in this article. For all of your assigned Soldiers, not just those Soldiers who exceed the Army's screening table weight and must be taped, give them all a through counseling to establish a body fat goal ideally 5% below their authorized maximum. Further help your Soldiers with getting the physical and nutritional counseling they need to help them achieve their goals safely, while developing a fit for life approach to their future.

Kenneth O. Preston
Sergeant Major of the Army

References:

1. AR 600-9; page 1, paragraph 1-5 Objectives
2. AR 600-9; page 2, paragraph 2-13 Individuals
3. AR 600-9; page 3, paragraph 3-1 a. Policy
4. AR 600-9; page 4, paragraph 3-1 c. Policy
5. AR 600-9; page 15, Appendix B, paragraph B-1 b. Introduction

6. AR 600-9; page 39, Appendix B, paragraph B-4 Circumference sites and landmarks for males
7. AR 600-9; page 15, Appendix B, paragraph B-1 c. Introduction
8. AR 600-9; page 39, Appendix B, paragraph B-4 Circumference sites and landmarks for males
9. AR 600-9; page 39, Appendix B, paragraph B-5 Circumference sites and landmarks for females
10. AR 600-9; page 39, Appendix B, paragraph B-5 Circumference sites and landmarks for females
11. AR 600-9; page 15, Appendix B, paragraph B-2 Height and weight measurements