

26 MARCH 2019

**From the Army DCS, G1, SHARP Ready and Resilient Directorate, Health Promotion Policy**

1. The purpose of this post is to address common concerns and questions about the Army Body Composition Policy, AR 600-9.
2. AR 600-9, the Army Body Composition Program, was released 28 June 2013 and effective as of 28 July 2013. The policy is currently under revision and is scheduled to be released by the beginning of FY 2020.
3. For questions, please email: [usarmy.pentagon.hqda-dcs-g-1.list.csf-pao@mail.mil](mailto:usarmy.pentagon.hqda-dcs-g-1.list.csf-pao@mail.mil)
4. Topic Areas:

**a. Enrollment in the ABCP.**

In order to avoid any due process concerns, commanders should transition all Soldiers currently enrolled under AR 600-9, the Army Weight Control Program (AWCP), to the requirements of the new AR 600-9, ABCP, effectively immediately. Commanders will ensure that each Soldier enrolled in the AWCP as of 28 July 2013 is now enrolled in the ABCP in accordance with table 3-1, AR 600-9, including flagging actions, command notification, Soldier action plan, nutrition counseling and medical evaluation memo (if applicable).

**b. Annual Scale Calibration.**

The word "calibrated", as used in AR 600-9, Appendix B-2(b), is intended to ensure the personnel weight scales used at the unit level for height and weight measurements have been verified for accuracy. It is not intended to require that unit scales be calibrated by TMDE (Test, Measurement, and Diagnostic Equipment) personnel or biomedical technicians. Commanders are responsible for exercising reasonable due diligence to ensure every scale they are using for height and weight measurements is accurate. Accuracy of scales may be verified by using the tare (zero) function (if available), by following the scale manufacturer's instructions for ensuring accuracy, or by using an object of fixed known weight. The following is an example of just one method for calibrating a scale to meet the intent of annual scale calibration for AR 600-9:

1. Place an object of known, fixed weight on the scale.
2. Compare the reading on the scale to the known weight of the object.

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3. If the scale reading differs from the known weight of the object being weighed and the scale has a calibration feature, adjust the scale until the reading matches the known weight of the object being weighed. Once the reading matches the known weight, the scale is considered to be accurate for the purposes of AR 600-9.

4. If the reading differs from the known weight of the object being weighed and the scale does not have a calibration feature, the scale should not be used to determine Soldier compliance with AR 600-9.

5. Once the accuracy of the scale has been verified, affix a label to the scale with name, date and signature of the individual verifying the accuracy of the scale. The unit commander's signature will serve as the witness.

**c. Equipment.**

- i. Are all versions of the Gulick Tape prohibited, or just the weighted tapes?

The Gulick Tape is prohibited by AR 600-9. The reason is that the material used for the tape stretches over time, as does the tension part, rendering the accuracy of the test unreliable over time. Acceptable tape measures are made of non-stretchable (fiberglass) material.

- ii. Are digital scales permitted/approved?

The approved Army weight scale is 6670-01-097-6167 and is available in FEDLOG.

**d. Weigh-Ins.**

AR 600-9 recommends that weigh-ins and the Physical Fitness testing events be scheduled to best meet the needs of the unit. There is no requirement to conduct them at the same time as there is evidence that this may negatively affect Soldier performance.

**e. Standards for Pregnant Soldiers, or Soldiers Who Miscarried.**

Pregnant and postpartum Soldiers will not be held to standards of fitness and body composition testing until at least six months after pregnancy termination. In accordance with AR 40-501, convalescent leave after a termination of pregnancy (and this includes miscarriage), will be determined on an individual basis by the attending physician.

## f. Body Fat Calculation

Determining the body fat calculation- see below for instructions and samples for women and men.

Equation for women is:

$$\% \text{body fat} = [163.205 \times \text{LOG}_{10} (\text{waist} + \text{hip} - \text{neck})] - [97.684 \times \text{LOG}_{10} (\text{height})] - 78.387$$

Sample Measurements:

Neck: 15 Inches  
Waist: 42 inches  
Hips: 44 Inches  
Height: 64 inches

Solve the equation:

Step 1: Figure out waist + hip – neck = 42+44-15= 71

Step 2: Figure out the LOG<sub>10</sub>(71). When using a calculator, be careful not to use in key (natural log). Instead, enter 71 and press the LOG key. Round this number to two decimal places. LOG<sub>10</sub>(71) = 1.851 stays 1.85

Step 3: Solve [163.205 x 1.85] = 301.929 – round up to 301.93

Step 4: Figure out LOG<sub>10</sub> (64). When using a calculator, be careful not to use in key (natural log). Instead, enter 64 and press the LOG key. Round this number to two decimal places. LOG<sub>10</sub>(64) = 1.806 rounds UP to 1.81

Step 5: Solve [97.684 x 1.81] = 176.806 – round up to 176.81

Step 6: Solve the entire equation:

$$\% \text{ body fat} = [163.205 \times 1.85] - [97.684 \times 1.81] - 73.387$$

$$= 301.93 - 176.81 - 73.387$$

$$= 47\% \text{ (actual number is 46.73\% - round up to the nearest whole number)}$$

Equation for men is:

$$\% \text{body fat} = [86.010 \times \text{LOG}_{10} (\text{waist} - \text{neck})] - [70.041 \times \text{LOG}_{10} (\text{height})] + 36.76$$

Sample Measurements:

Neck = 16 Inches  
Waist: 49 inches

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Height: 69 inches

Solve the Equation:

Step 1: Figure out waist– neck:  $49-16 = 33$

Step 2: Figure out the  $\text{LOG}_{10}(71)$ . When using a calculator, be careful not to use in key (natural log). Instead, enter 33 and press the LOG key. Round this number to two decimal places.  $\text{LOG}_{10}(33) = 1.518$  stays 1.52

Step 3: Solve  $[86.010 \times 1.52] = 130.735$  – round up to 130.74

Step 4: Figure out  $\text{LOG}_{10}(69)$ . When using a calculator, be careful not to use in key (natural log). Instead, enter 64 and press the LOG key. Round this number to two decimal places.  $\text{LOG}_{10}(69) = 1.838$  rounds up to 1.84

Step 5: Solve  $[70.041 \times 1.84] = 128.875$  – round up to 128.88

Step 6: Solve the entire equation:

$$\% \text{body fat} = [86.010 \times 1.52] - [70.041 \times 1.84] + 36.76$$

$$= 130.74 - 128.88 + 36.76$$

$$= 39\% \text{ (actual number is } 38.62\%; \text{ round up to the nearest whole number)}$$