

**Coast Guard Body Composition Desk Guide**  
**COMDT (CG-1331)**  
**(Version 1.5\_30 Sep 2019)**



References: (A) Coast Guard Weight and Body Fat Standards Program Manual, COMDTINST M1020.8 (series)

(B) U. S. Coast Guard Boat Operations and Training (BOAT) Manual Volume I, COMDTINST M16114.32 (series)

(C) COMDT COGARD WASHINGTON DC 250748 SEP 19/ACN 112/19

1. The intent of this guide is to provide information (a one stop shop) addressing the recent changes to the Coast Guard's Weight and Body Fat program. Please note that much of the content published in desk guide derives from ref (A), the Coast Guard Weight and Body Fat Standards Program Manual, COMDTINST M1020.8H.

2. [ACN 112/19](#) announces an update to the Coast Guard Weight and Body Fat (Body Composition) screening process and procedures effective 01 October 2019 through 30 September 2020. The update will implement the trial inclusion of an Abdominal Circumference (AC) measurement and a Physical Fitness Test (PFT).

3. Any military member required to conduct a body composition screening (weigh-in) per ref (A) should use this guide and follow the enclosed screening process to demonstrate compliance with ref (A) in the following order:

- A. Weight Assessment – If the member is within weight standards, the member is compliant. If the member is overweight, go to step 3.B.
- B. **Both** the Body Fat Screening (standard tape method) and Abdominal Circumference (AC) measurement must be completed. As part of the one-year pilot program, both tests must be conducted and recorded. If member passes either measurement, the member is compliant. If member fails both measurements, then refer the member to medical.
- C. Medical will screen member for an abeyance and/or eligibility to perform the Physical Fitness Test in ref (B) Part 4, Chapter 3, Section D, Physical Fitness Standards. If the member is eligible and passes the PFT, the member is compliant. If the member fails the PFT or elects not to participate in the PFT **AND** is not granted a medical abeyance, the member will be placed on weight probation.

4. Screening Process:

- A. Weight (in accordance with ref (A) 2.B.4.b)
  - 1. Weight scales must be “zeroed” prior to each use and the manufacturer’s instructions must be followed. Where there are questions as to the accuracy of a scale, two scales may be used for the purpose of determining accuracy and “zeroing.”
  - 2. Round measurements to the nearest whole number. Examples:  
215.4 is recorded in DA as 215; 215.5 is recorded in DA as 216.
  - 3. The following weight allowances shall be deducted for attire worn during weigh-ins:
    - (a) T-shirt and gym shorts (no footwear): 1 pound;
    - (b) T-shirt and trousers or sweatpants (no footwear): 2 pounds;
    - (c) Tropical uniform or organizational clothing (no footwear): 3 pounds;
    - (d) Operational Dress Uniform (no footwear): 4 pounds;
    - (e) Any other attire (no footwear): no deduction taken.
- B. Height (in accordance with ref (A) 2.B.4.c)

1. When measuring height, instruct members to remove their shoes.
2. Have member stand upright (position of attention) with feet together, flat on the floor.
3. The measurement device must be a height scale, usually found on the back of standard scales, or at a minimum be made of metal or fiberglass.
4. Round measurements to the nearest whole number. Examples: 65.4 is recorded in DA as 65; 65.5 is recorded in DA as 66.
5. Because height does not change appreciably over time, it may not be necessary to re-measure height during every assessment. Commands shall verify height once during a member's tour.

C. Body Fat Standards (in accordance with ref (A) 2.C through 2.F).

1. Body Fat Standards. The percentage of body fat is of concern because individuals who have excessive body fat may have an increased risk of various diseases to include heart disease, cancer, diabetes, and digestive and blood level diseases, which interferes with the performance of duty.
2. General. Coast Guard body fat standards are mandated by reference (a), which states: "All the DoD components shall measure body fat using only the circumference-based method with one set of measurements (males: height, neck circumference, and abdominal circumference at the naval; females: height, neck circumference, waist circumference at the thinnest portion of the abdomen, and hips). This standardization avoids unnecessary confusion and perceptions of unfairness between services. No substitute methods of assessment are permitted."
3. Standards for Separation. All members who exceed both their maximum allowable body fat (MABF) percentage by more than eight percent and exceed their maximum screening weight by more than 35 pounds are subject to separation. Screening weights and MABF percentages are listed in enclosure (1) of ref (A).

4. Standard Tape Method Measurement Guidelines. The guidelines listed below must be followed when taking **Body Fat** percentage measurements.
  - (a) Spring-Loaded Tension Tapes. For consistency purposes, spring-loaded tension tape measures are required to be used when conducting body fat assessments and the manufacturer's instructions must be followed.
  - (b) Proper Technique of Measurements. All measurements will be taken to skin with the exception of hip measurements. When measuring circumferences, apply the tape so that it makes contact with the skin (with the exception of the hips/buttocks measurement for females, in which case the member has the option to be measured over the member's undergarments/clothes), conforms to the body surface being measured, and does not compress the underlying soft tissues. Make all circumference measurements in the horizontal plane (i.e., parallel to the floor), with the exception of the neck measurement where the tape measure is placed perpendicular to the neck's long axis.
5. Proper Recording of Measurements. Take all circumference measurements three (3) times and record them to the nearest 1/2 inch. If any of the three measurements differs by more than one inch from the other two, take an additional measurement and compute a mathematical average of the three closest measurements to the nearest 1/2 inch and record this value. If three sets are within 1.0 inches of each other, do not average, use the lowest set's total as the circumference value. Refer to Sections 2.E through 2.G. of ref (A) for measurement procedures.
6. Order of Measurements. Each set of measurements will be completed sequentially to minimize errors associated with repetitive measurement readings. For example, when measuring males complete one set of abdomen and neck measurements, and then repeat in the same sequence/order until you have three sets of measurements. When measuring females complete one set of waist, hip, and neck measurements, and then repeat in the same sequence/order until you have three sets of measurements.

7. Body Fat Calculations. Body fat estimation charts are included in enclosure (2) of ref (A). Circumference values (CV) are calculated from the formulas below and compared with the member's height to determine estimated body fat percentage. Round calculated results of the CV down to the nearest half-inch.
  - (a) Male CV = Abdomen – Neck (in inches)
  - (b) Female CV = Waist + Buttocks – Neck (in inches)
  
8. Gender Considerations for Measurements. Same gender body fat measurements will be conducted for all personnel.
  
9. Additional Procedures when Subject to Separation. In cases where a member is subject to separation, visual verification of measurements will be completed by a same gender member of the command cadre to the extent possible. For example, for verification of measurements on females, if the command cadre members are all males, the CO/OIC will designate a female to verify the measurements.
  
10. Neck Measurement Procedure:
  - (a) 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.)
  - (b) Member should look straight ahead during measurement, with shoulders down (not hunched).
  - (c) Care should be taken so as not to involve the shoulder/neck muscles (trapezius) in the measurement.
  - (d) Round neck measurement up to the nearest 1/2 inch (e.g., round 16 1/4 inches to 16 1/2 inches).
  
11. Circumference Value Measurement for Men.
  - (a) 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 member's normal, relaxed exhalation. Member will not hold breath during measurements.
- (b) Round abdominal measurement down to the nearest 1/2 inch. (e.g., round 34 3/4 to 34 1/2).
- (c) Determine the circumference value by subtracting the neck measurement from the abdominal measurement.
- (d) Compare this value against the height measurement in the percent fat estimation chart (enclosure 2 in ref (A)) to determine the estimated body fat percentage. Example: If the circumference value is 24.0 and the height of the member is 62.0, the body fat percentage will be 30.

## 12. Circumference Value Measurement for Women

- (a) Measure the natural waist circumference, against the skin, at the point of minimal abdominal circumference, usually located about halfway between the navel and the lower end of the sternum (breast bone). Be sure that the tape is level and parallel to the floor. The service member's arms must be at the sides. Take measurements at the end of member's normal relaxed exhalation. Member will not hold breath during measurements.
- (b) Round the natural waist measurement down to the nearest 1/2 inch (e.g., round 28 5/8 inches to 28 1/2 inches).
- (c) Measure the hip circumference while facing the member's right side by placing the tape around the hips so that it passes over the greatest protrusion of the gluteal muscles (buttocks) as viewed from the side. Hip/buttocks measurements only, maybe taken to skin or over the clothes. If the member elects to be measured over the clothes one inch will be subtracted from the hip/buttocks measurement only. Make sure the tape is level and parallel

to the floor. Apply sufficient tension to tension-tape to minimize the effect of clothing.

(d) Round the hip/buttocks measurement down to the nearest 1/2 inch.

(e.g., round 44 3/8 inches to 44 inches).

(e) Determine the circumference value by:

- adding the waist and buttocks measurement, and
- subtracting the neck measurement. Example: If the neck measurement is 12 inches and the waist and buttock measurement are 24 and 36 inches respectively, the circumference value will be 48.0 ( $24.0+36.0-12.0=48.0$ ).

(f) Compare this value against the height measurement in the percent fat estimation chart (enclosure 2 in ref (A)), to determine the estimated body fat percentage. Example: If the circumference value is 48.0 and the height of the member is 60.0, the body fat percentage will be 22.

#### D. Abdominal Circumference (AC) Measurement.

1. General. The AC is a circumferential measure of abdominal girth at the iliac crest (top of hipbone). This measurement is highly correlated with internal fat and indicative of true disease risk independent of body mass. Increased health risks associated with overfat are not only related to total body fat, but also more closely to fat distribution. Upper body fat, specifically abdominal fat, presents the greatest health risk; it is highly linked to cardiovascular diseases and metabolic disorders such as diabetes. Reducing abdominal girth or circumference is more important than normalizing body weight. Exercise increases muscle mass and can mask reductions in girth, (i.e., with proper exercise body weight may stay the same or even increase, but "belt size" will reduce). Since abdominal fat is an independent risk factor for disease, the evaluation of AC is important to a member's health risk.

**NOTE:** A high risk of current and future disease exists for males with an AC>39 inches and for females with an AC>35.5 inches regardless of age or height. The health risk is moderate for males with an AC>35 inches and for females with an AC>31.5 inches.

2. Measuring the Abdominal Circumference (AC).

(a) The AC measurement will be taken to skin. Two persons, a taper and an observer, will conduct the AC measurement on the member. The gender of the taper, observer, and member will be the same. The taper will take the measurement and the observer will read the taping instructions and ensure that taping is performed correctly. For consistency purposes, spring-loaded tension tape measurers are required to be used when measuring AC, and the manufacturer's instructions must be followed. The instructions must be read to the member at the start of an AC measurement procedure and are found in the Body Composition Screening Desk Guide. A "how to measure" AC video will be released shortly and will be available at <https://dcms.uscg.mil/military/Body-Composition-Program/>.

(b) The member will stand facing forward with their arms to their side similar to the position of attention. The taper will take the measurement from member's right hand side. AC is measured to skin and the member will adjust clothing so it does not fall over their waist during the measurement. The taper will set the end of the tape directly above the hip-bone (iliac crest) and ask the member to hold it in place (if desired, the member may assist in locating the measurement landmark by resting the right hand on the hip, using rearward facing right thumb to locate the iliac crest). The taper will walk around to confirm parallel placement of the tape and then kneel down to measure the AC at the end of the member's normal breath exhalation. The taper will make sure the member does not hold their breath. The taper will repeat the sequence/order measurement three times and record each measurement rounding down to the nearest 1/2 inch. If any of the measurements differ by more than one inch

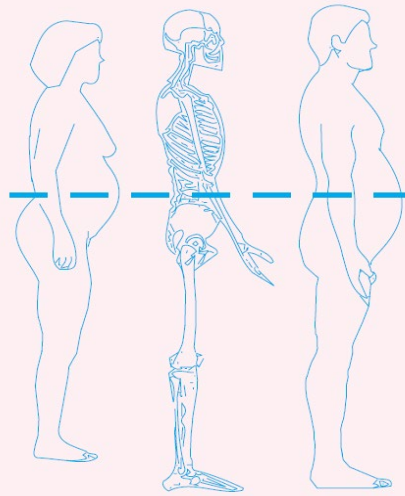


from the other two, an additional measurement will be taken by the taper. The taper will add up the three closest measurements divide by three, and round down to the nearest 1/2 inch. The taper will record this as the AC measurement. Same gender AC measurement will be conducted for all personnel.

3. The AC Standard. The maximum AC is 39.0 inches for males and 35.5 inches for females. Any measurement at or under the maximum circumference will be considered compliant with Body Composition Standards.
  
4. Verbal Instructions. Prior to taking the AC measurement, the taper must read the following instructions to all military members, **“Please stand facing forward with your arms to your side similar to attention position. I will take the measurement from your right hand side on bare skin. You will adjust your clothing so it does not fall over your waist during the measurement. I will set the end of the tape directly above your hip-bone (iliac crest) and ask you to hold it in place. I will walk around you to confirm parallel placement of the tape and then I will kneel down to measure the AC at the end of your normal breath exhalation. Make sure you do not hold your breath. I will take your measurement 3 times. If there is more than 1 inch difference I will take a 4th measurement. I will average the closest 3 measurements and round the result down to the nearest ½ inch and that will be your recorded score.”**

### Waist Circumference Measurement

To measure waist circumference, locate the upper hip bone and the top of the right iliac crest. Place a measuring tape in a horizontal plane around the abdomen at the level of the iliac crest. Before reading the tape measure, ensure that the tape is snug, but does not compress the skin, and is parallel to the floor. The measurement is made at the end of a normal expiration.



Measuring-Tape Position for Waist (Abdominal) Circumference in Adults

- E. General Taping Procedures. All members that exceed their MAW will be required to undergo a Body Fat Assessment and AC taping per ACN 112/19 in paragraphs 5 through 7. In order to encourage members to use safe weight loss practices and balance measurement accuracy and privacy, all tape measurements will be made to skin except hip measurements. Members requiring hip taping have the option to have their hips taped over the uniform of the day, PT gear, or to skin. This optional "over the clothes" method for hip measurements will use the same measurement locations and taping procedures in ref (A) (all other taping locations are to skin). If the "over the clothes" option is chosen when conducting hip taping, one inch will be subtracted from the hip measurement only. The recording of these measurements and the averages noted in para 2.D.3 of ref (A) still apply. All other processes and procedures outlined in ref (A) for the body fat assessment and AC measurement in paragraph 7 of ACN 112/19 remain in effect.

- F. If a member exceeds the maximum allowable weight, body fat assessment, and AC measurement, the member will be given a medical pre-screening questionnaire to determine eligibility for a medical abeyance. If the member does not qualify for a medical abeyance, the member will be deemed medically fit to take the PFT. The only authorized PFT is the boat crew fitness test specified in ref (B) at Part 4, Chapter 3, Section D, Physical Fitness Standards. If the member is medically fit to take the test, they will be considered compliant if they pass the PFT. Members who decline to take the PFT or fail to complete the screening questionnaire will be considered to have failed the PFT. When a member's command received clearance or non-clearance for the member to take the PFT, the command will also notify the servicing P&A/Admin office. A member's pass or non-pass on the PFT will also be immediately reported to the servicing P&A/Admin office. **Note for P&A/Admin Offices:** If the member is given a pre-screening form and you have not received a status update after 30 days you should inquire with the member and command.
- G. PFT Guidance. Unit commands will conduct the PFT for members who exceed the MAW, body fat assessment, and AC measurement and are cleared by an Independent Health Services Technician (IDHS) or a medical officer to take the PFT. The PFT for active duty personnel should be administered within five business days after the member has been cleared. Units will use the Fitness Assessment Protocols and Procedures Guide, in conjunction with ref (B), to conduct the PFT. If the member elects the 12-minute swim as an alternative to the 1.5 mile run, commands will assist the member in locating an appropriate swimming pool. Local commands will be responsible for any pool fees that are incurred. The guide and the applicable sections of ref (B) can be found at: <https://dcms.uscg.mil/military/Body-Composition-Program/>. PFT scores will be recorded in Training Management Tool (TMT). Commands will notify their local admin on a member's passed or failed PFT for compliance. Any unit that conducts a PFT for compliance will submit a brief report to CG-11 on the time and resources used to conduct the PFT. The report format can be found on the Body Composition Pilot Program website.
- H. Probation Determination. Weight probation will begin when a member has exceeded their MAW, failed to comply with both taping measurements and:

- a. A medical officer determines that the member is not cleared to take the PFT, and they do not qualify for a medical abeyance, or;
  - b. The member declines to take the PFT after being cleared by medical to take the PFT, or;
  - c. The member fails the PFT.
- I. Probation Duration. Probation calculations remain unchanged. Per ref (A), MAW and Body Fat percentage will be used to determine probation periods. Commands will continue to use the probation duration calculations located in ref (A). AC measurement will not be used to calculate probation periods.
- J. Reservists. If the member exceeds maximum allowable weight and all taping measurements, the member will complete a medical screening form prior to the conclusion of the drill period in which their screening was conducted. If a follow-on medical appointment is needed, a Readiness Management Period will be allotted to conduct the medical follow-up. Commands of reservists will provide advanced dates for the PFT to allow members to adjust their schedule as needed. If member cannot meet those dates due to other commitments they can request an alternate date. PFT will be conducted on the approved date, provided the member is cleared to perform the PFT. Reservists who are not cleared to take the PFT, decline to take it, or fail it, and are not granted an exemption or abeyance, will follow the process outlined in 4.C.4. of ref (A).
- K. Exemption to Body Composition Screening standards. Service members are exempt from complying with weight and body fat standards during pregnancy and, therefore, are not required to participate in weigh-ins. The member's previous weight data will be entered into Direct Access and the member will be considered compliant. Service members on maternity convalescent leave and primary or secondary caregiver leave authorized in the Military Assignments and Authorized Absences, COMDTINST M1000.8(series) are not required to break their leave to participate in required Body Composition Screenings detailed in Chapter 2 of ref (A). Those members that are not exempt from a weight and body fat screening must participate in the missed weigh-ins within 30 days of their return to duty status.

- L. Accessions. During the Pilot Program, Coast Guard Recruiting Command, the Leadership Development Center, and Training Center Cape May will use MAW and Body Fat Assessment only to determine weight compliance for their accessions' training and recruiting. The PFT is not an authorized path to compliance in the accessions process.
- M. Method of Recording Weigh-in Data in Direct Access. All body composition data entries must follow the procedures in ALCGPSC 113/19. Additional guidance is available at:  
<https://www.dcms.uscg.mil/Portals/10/CG-1/PPC/GUIDES/GP/SelfService/Command/WeighInData.pdf>