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NUTRITION

Body Fat Comparisons by Service

One integral component of fitness assessment in all of the Armed Services is body composition, which is a measure of the amount of a person's body fat. The DoD established this requirement, and the method by which it is determined, in 2002 via Instruction Number 1308.3 (modified in part in 2004 by Instruction Number 1308.1). That document also established certain minimum standards for the various service branches, with a certain amount of leeway for the various services as to their acceptable body compositions for various age groups. The table below provides a comparison of the body composition at or above which a service member is considered "overfat." Note: the Air Force uses abdominal circumference, independent of age.

"Overfat" if measure of body fat is…							
Sex	Age	Marine Corps*	Navy*	Army*	Coast Guard*	Air Force**	Public Health Service*
Men	17-20	>18%	>22%	>20%	>23%	≥40"	>26%
Women	17-20	>26%	>33%	>30%	>33%	≥35"	>36%
Men	21-26	>18%	>22%	>22%	>23%	≥40"	>26%
Women	21-26	>26%	>33%	>32%	>33%	≥35"	>36%
Men	27	>19%	>22%	>22%	>23%	≥40"	>26%
Women	27	>27%	>33%	>32%	>33%	≥35"	>36%
Men	28-29	>19%	>22%	>24%	>23%	≥40"	>26%
Women	28-29	>27%	>33%	>34%	>33%	≥35"	>36%
Men	30-39	>19%	>22%	>24%	>25%	≥40"	>26%
Women	30-39	>27%	>33%	>34%	>25%	≥35"	>36%
Men	40-45	>20%	>23%	>26%	>27%	≥40"	>26%
Women	40-45	>28%	>34%	>36%	>37%	≥35"	>36%
Men	46+	>21%	>23%	>26%	>27%	≥40"	>26%
Women	46+	>29%	>34%	>36%	>37%	≥35"	>36%

*DoD body fat percentage is determined:	For men, by circumference measurements of height, neck, and abdomen. For women, by circumference measurements of height, neck, waist, and hips.
Percent body fat =	For men, 86.010 x log10(CV) - 7.041 x log10(height) + 36.76. For women, 163.205 x log10(CV) - 97.684 x log10(height) - 78.387.
Circumference Value (CV) =	For men, the difference between abdomen and neck circumferences. For women, the sum of waist and hip circumferences minus neck circumference.

**Abdominal circumference: In 2010 the Air Force determined that health and fitness were affected more by distribution of fat than percentage, with abdominal fat presenting the greatest health risk. They received DoD approval to determine conditioning by waist circumference rather than overall body fat percentage. This criterion is under review by the DoD and may be allowed as an alternative method to estimate body composition for all services later.

Body Mass Index = Weight (in kg) / height (in meters) squared, i.e., wt/ht^2 **or** 704.5 x weight (in lb) / height (in inches) squared, i.e., $704.5(wt/ht^2)$.