

References: BMI: The Badly Misused Index

American Council on Exercise. (n.d.). *Body fat percentage classification*. American Council on Exercise. Retrieved July 16, 2026, from <https://www.acefitness.org>

- *At one point, a BMI-defined "obese" group included men whose BF% ranged from "athletic" to "obese".*

Aronne, L. J. (2024, July 3). *Obesity and the new science of weight loss*. ZOE. <https://zoe.com/learn/obesity-with-dr-louis-j-aronne>

- inadequate measure of your body fat percentage
- Current recommendations are to interpret BMI
- Keys himself agreed that that BMI is not the best indicator of body fat mass

Centers for Disease Control and Prevention. (2025). *About adult BMI*. U.S. Department of Health and Human Services. Retrieved July 16, 2026, from <https://www.cdc.gov/bmi/about/index.html>

- BMI is cheap, quick and reasonably useful
- Physiological measures
- Keys himself agreed that that BMI is not the best indicator of body fat mass

Nuttall, F. Q. (2015). Body mass index: Obesity, BMI, and health: A critical review. *Nutrition Today*, 50(3), 117–128. <https://doi.org/10.1097/NT.0000000000000092>

- Current recommendations are to interpret BMI
- The populations were not properly representative of different ethnicities and backgrounds
- Keys himself agreed that that BMI is not the best indicator of body fat mass
- where you carry it matters
- *At one point, a BMI-defined "obese" group included men whose BF% ranged from "athletic" to "obese".*
- In 1993 the World Health Organization (WHO)
- Prior to this, it seems they were a bit stricter than the National Institutes of Health (NIH) in their BMI criterion for "overweight"
- Western European populations have become taller and heavier over the centuries.
- That explains much of its extraordinary staying power.
- if BMI is to continue being used as a predictor of individual health risk

Pray, R., & Riskin, S. (2023). The history and faults of the body mass index and where to look next: A literature review. *Cureus*, 15(11), e48230. <https://doi.org/10.7759/cureus.48230>

- inadequate measure of your body fat percentage
- evolved from a population research tool
- waist circumference, waist-to-hip ratio, waist-to-height ratio, hip circumference
- assessing an individual's metabolic health

- the Quetelet Index
- Then in 1950s
- In 1972
- 2 statisticians and a physiologist
- The populations were not properly representative of different ethnicities and backgrounds
- Keys himself agreed that that BMI is not the best indicator of body fat mass
- important metabolic health variables
- We are happily led to believe that the same "normal" BMI
- carry excess visceral fat and therefore have an elevated metabolic risk
- It can also shape how people see themselves

OECD (2025), Health at a Glance 2025: OECD Indicators, OECD Publishing, Paris,
<https://doi.org/10.1787/8f9e3f98-en>

- around 54–60% of adults in OECD countries

Rubino, F., Cummings, D. E., Eckel, R. H., Cohen, R. V., Wilding, J. P. H., Brown, W. A., Stanford, F. C., Batterham, R. L., Farooqi, I. S., Farpour-Lambert, N. J., le Roux, C. W., Sattar, N., Baur, L. A., Morrison, K. M., Misra, A., Kadowaki, T., Tham, K. W., Sumithran, P., Garvey, W. T., ... Mingrone, G. (2025). Definition and diagnostic criteria of clinical obesity. *The Lancet Diabetes & Endocrinology*, 13(3), 221–262.
[https://doi.org/10.1016/S2213-8587\(24\)00316-4](https://doi.org/10.1016/S2213-8587(24)00316-4)

- BMI is cheap, quick and reasonably useful
- Current recommendations are to interpret BMI
- performance metrics
- BMI can simultaneously overestimate and underestimate body fat
- In a remarkable study of more than 40 000 people
- That explains much of its extraordinary staying power.

Wu, Y., Li, D., & Vermund, S. H. (2024). Advantages and limitations of the body mass index (BMI) to assess adult obesity. *International Journal of Environmental Research and Public Health*, 21(6), 757.
<https://doi.org/10.3390/ijerph21060757>

- a statistical tool to screen for the macro-nutritional status
- inadequate measure of your body fat percentage
- BMI is cheap, quick and reasonably useful
- Researchers can compare
- performance metrics
- assessing an individual's metabolic health
- Keys himself agreed that that BMI is not the best indicator of body fat mass
- muscle pushes them into the "overweight" category
- the health industry
- carry excess visceral fat and therefore have an elevated metabolic risk
- yet the lean, unfit lady is at a higher risk of all-cause mortality than her fitter counterpart

- In a remarkable study of more than 40 000 people
- Prior to this, it seems they were a bit stricter than the National Institutes of Health (NIH) in their BMI criterion for “overweight”
- Western European populations have become taller and heavier over the centuries.
- That explains much of its extraordinary staying power.
- In 2015 a similar revision happened for Indian adults