

Waist to Hip Ratio

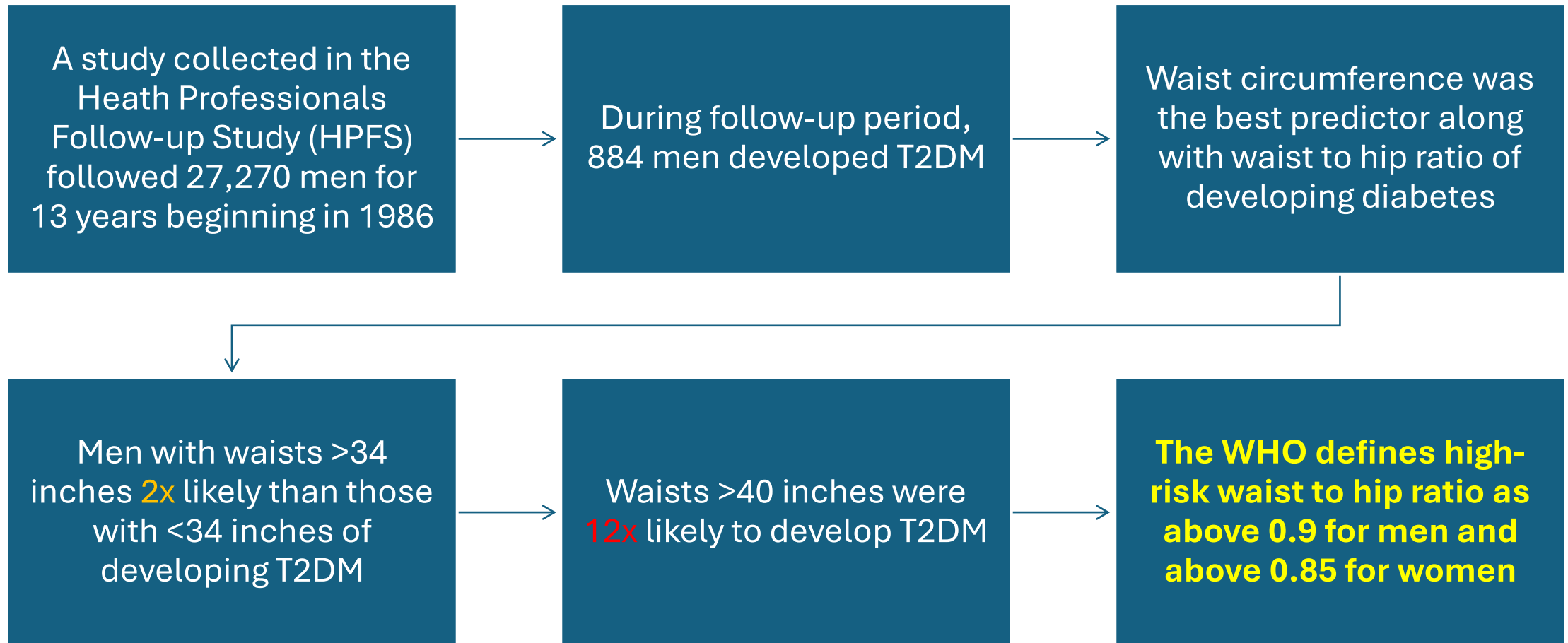
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What is it and why is it important?

Waist circumference / Hip circumference = Ratio

- Indicator of abdominal obesity/visceral (intra-abdominal) fat
 - Visceral fat is directly linked with higher total cholesterol and LDL (bad) cholesterol, lower HDL (good) cholesterol, and insulin resistance. It also releases cytokines which leads to chronic inflammation.
- Better indicator of health/disease risk than BMI
- “For adults who are overweight, having fat at the height of the belly button (waist) **increases** their risks of developing **cardiovascular disease** and **diabetes mellitus** as well as of premature death.”



Examples

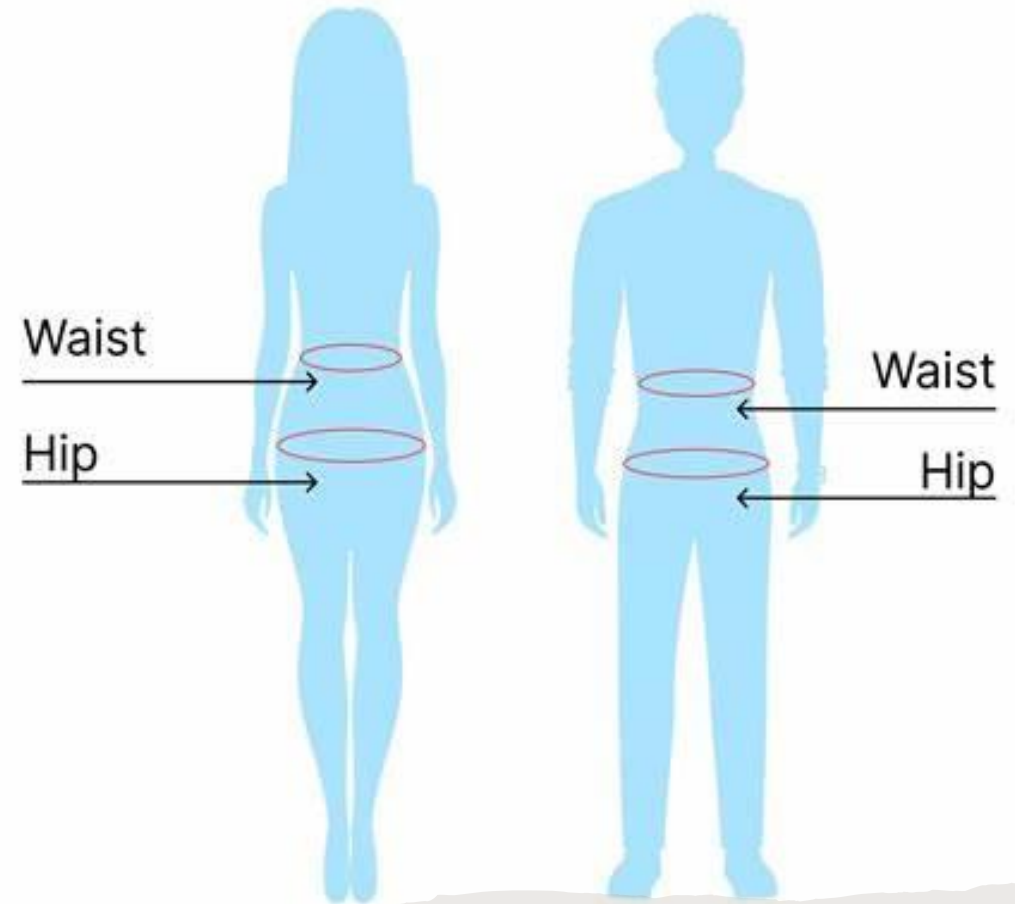
- Ratio = Waist / Hip
 - 96cm waist / 101 cm hips = 0.95
 - 82cm waist / 102 cm hips = 0.80
 - 78 cm waist / 100 cm hips = 0.78

The WHO defines high-risk waist to hip ratio as above 0.9 for men and above 0.85 for women



Important Considerations

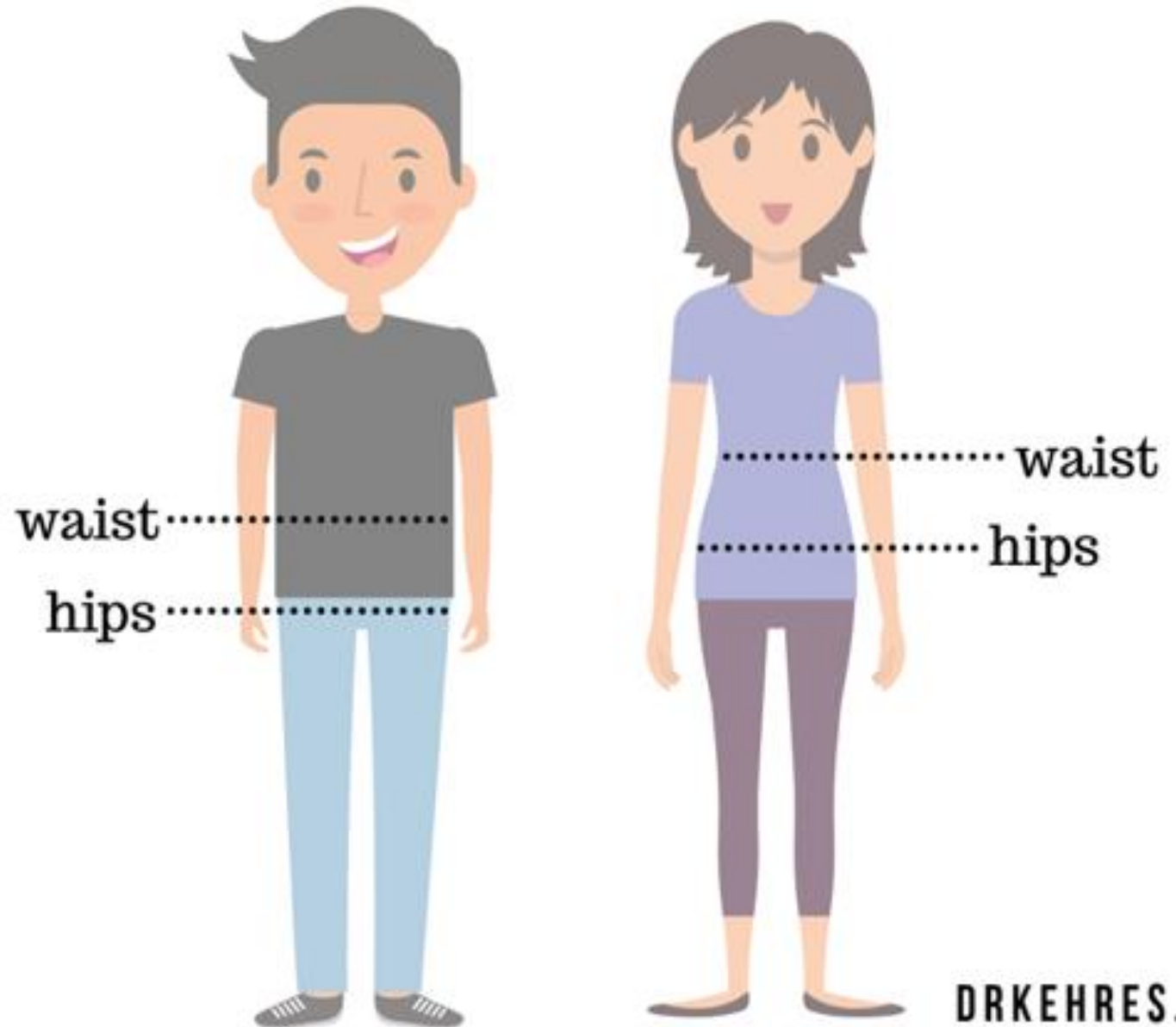
- Have the patient stand up straight and exhale
- Waist measurement is the smallest part of abdomen (just above belly button)
- Hip measurement is the widest part across buttocks
- Sensitivity (use of privacy screens)
- Always use the same measurement per waist/hip (aka don't measure one in inches and one in centimeters)
- Don't pull the tape measure tight but don't have too loose



Demonstration

Tools)

- Measuring tape
- Pencil
- Paper
- Privacy screen
- Calculator



References

- 1) Haufs MG, Zöllner YF. Waist-Hip Ratio More Appropriate Than Body Mass Index. *Dtsch Arztebl Int.* 2020;117(39):659. doi:10.3238/arztebl.2020.0659a
- 2) Abdominal Fat and What to do About It. *Harvard Medical School.* <https://www.health.harvard.edu/staying-healthy/abdominal-fat-and-what-to-do-about-it>
- 3) Fitch AK, Bays HE. Obesity definition, diagnosis, bias, standard operating procedures (SOPs), and telehealth: an Obesity Medicine Association (OMA) Clinical Practice Statement (CPS) 2022. *Obes Pillars.* 2022;1:100004.
- 4) Bays HE, Fitch A, Christensen S, Burrridge K, Tondt J. Anti-obesity medications and investigational agents: an Obesity Medicine Association (OMA) Clinical Practice Statement (CPS) 2022. *Obes Pillars.* 2022;2:100018