

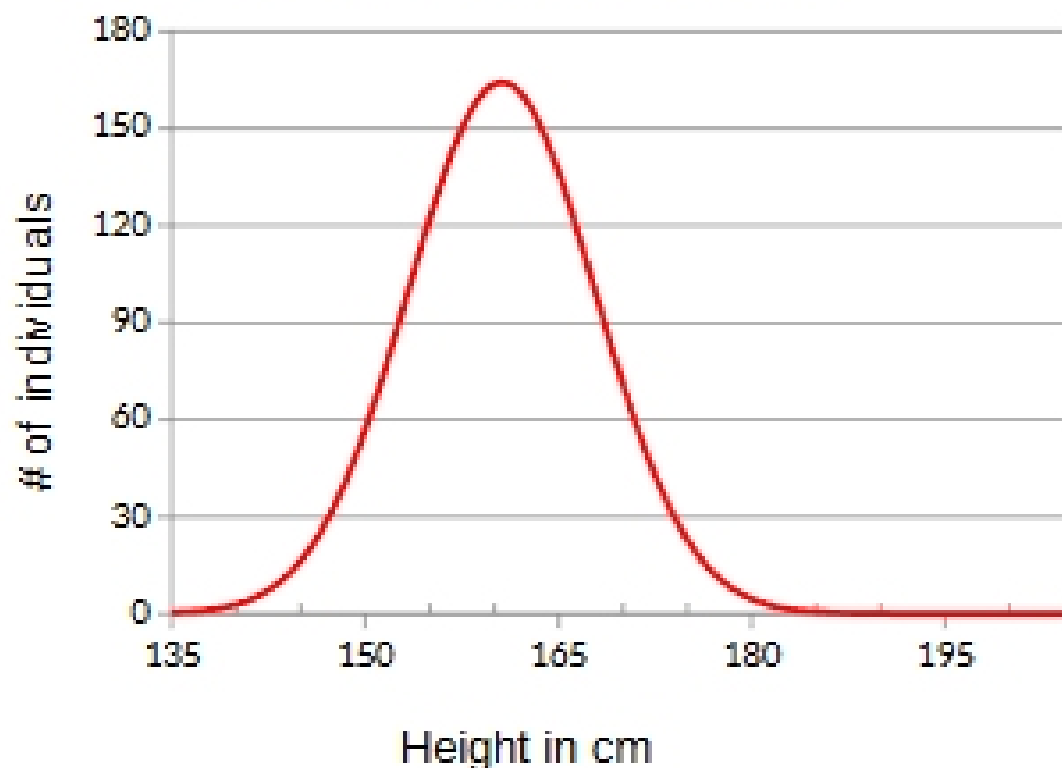


8. Diabetes & the Metabolic Syndrome

- A. Defining the problem & asking 4 questions
- B. $E_{in} \neq E_{out}$: a matter of balance?
- C. Molecular events leading to diabetes
- D. Diabetes: two types

First: some disclaimers

- These lectures will deal with topics with which many in our society are very sensitive
- Whatever you thought you knew: forget
- Approach this topic with an open mind
- Take nothing personally



For ALL human traits:
the difference within a
group is always
GREATER than the
difference between
groups

Height (cm) of 2912 adult men
& 2990 adult women

3423 overlap within 2 S.D.

What is the “Metabolic Syndrome”?

- Diagnostic criteria - ≥ 3 of the following:
 - Blood pressure $\geq 130/85$ mm Hg
 - Fasting blood glucose ≥ 110 mg/dL
 - Elevated fasting plasma triglyceride levels
 - Low plasma HDL-Cholesterol levels
 - **High body mass index, especially central (visceral) obesity**
- Cause: Chronic over nutrition