T-Test

What is T-Test?

A T-Test is a statistic that check if tow means (average) are reliably different from each other

Why not just look at the means?

Looking the means may show a difference, but we can't be sure if that is a reliable difference

Is this difference reliable?

Descriptive Statistics

These are stats, such as a mean, that describe data you have, but can't be generalized beyond that.

Inferential Statistics

These are stats, such as T-Tests, that allow us to make inferences about the population beyond our data.
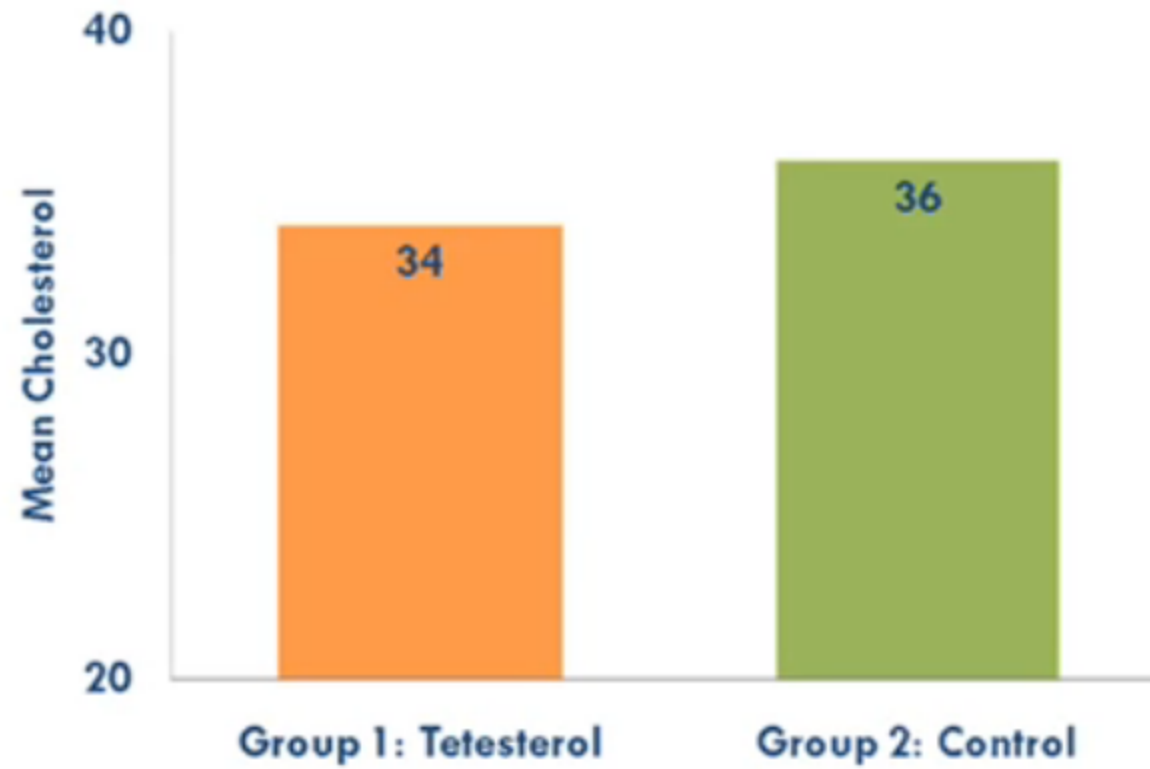
EXAMPLE

Is this difference reliable?

T-Test

$$t = \frac{\text{variance between groups}}{\text{variance within groups}}$$

A big T-value = different groups
A small T-value = similar groups

T-Test