

[Open Peer Review on Qeios](#)

Power

David F Marks

Potential competing interests: The author(s) declared that no potential competing interests exist.

Power refers to the ability of a study to find a statistically significant effect when a genuine effect exists. The power ($1-\beta$) of a statistical test is the complement of β , the Type II or beta error probability of falsely retaining an incorrect H_0 . Statistical power relies on three parameters: (1) the significance level (i.e., the Type I error probability or α level); (2) the size(s) of the sample(s); and (3) an effect size parameter defining H_1 and thus indicating the degree of deviation from H_0 in the underlying population.