- One possibility could be that we do multiple t-tests – but there's a problem with that.

- With one t-test, at $p < 0.05$ level of significance there is a 5% chance of falsely rejecting our null hypothesis (type I error).

- If we have three conditions, then we have three pairs of means to compare (condition 1 vs condition 2, condition 2 vs condition 3 and condition 1 vs condition 3).

- For each test, there is 0.95 probability of not having a type I error.

- But when we do three tests the probability is 0.95 x 0.95 x 0.95 which equals 0.857.

- So that means there is a 14.3% chance of us falsely rejecting the null hypothesis (1-0.857) x 100 = 14.3