



Research question	Parametric	Nonparametric
Difference between two independent groups, e.g. male vs female blood pressure?	Independent t-test	Mann-Whitney test
Difference between two related groups, e.g. change in blood pressure?	Dependent t-test	Wilcoxon signed-rank test
Difference between several (3 >) unrelated groups?	One-way ANOVA	Kruskal-Wallis test
Relationship between two continuous variables, e.g. time spent studying vs mark obtained?	Pearson correlation	Spearman correlation
Predict one variable from another?	Multiple linear regression analysis	
Association between two categorical variables?	Pearson's chi-square test of independence	

Steps in inferential statistics:

1. Decide on appropriate statistical technique based on research question
2. Check assumptions:
 - a. If assumptions hold -> parametric test
 - b. If assumptions do not hold -> nonparametric test
3. Perform statistical test
4. Compare probability (p) value against significance level (α)
5. Reject ($p < \alpha$) or do not reject ($p > \alpha$) null hypothesis (H_0)
6. Interpret output and answer research question