

# Choosing a statistical test

Outcome Variable	Exposure Variable	Normal / Parametric	Skew / Non-parametric
Continuous	1 group	One-sample t-test	Sign test / Signed rank test
	2 groups (unpaired)	Two-sample t-test	Mann-Whitney / U-test
	2 groups (paired)	Paired t-test	Wilcoxon signed rank
	3+ groups	One-way ANOVA	Kruskal-Wallis
	Continuous	Pearson Corr / Linear Reg	Spearman Corr / Linear Reg
Categorical	1 group	Chi-square / Exact	
	2 groups (unpaired)	Chi-square / Fisher's exact / Logistic Reg	
	2 groups (paired)	McNemar's test / Kappa statistic	
	3+ groups	Chi-square / Fisher's exact / Logistic Reg	
	Continuous	Logistic Reg / Sensitivity + specificity / ROC	
Survival	2 groups	KM Plot with Log-rank test	
	3+ groups	KM Plot with Log-rank test	
	Continuous	Cox regression	

QUESTIONS.....

- what does "continuous" mean?
- how does Regression / Comparison / Correlation fit into all this?

TIPS

- The parametric tests are more "generically" named vs. non-parametric which have eponyms
- t-test >> u-test (further down alphabet)
- Pearson >> Spearman (further down alphabet)