

Experimental study terminology

- ▶ essence of an experiment is to set the values of one or more variables and then measure the values of other variables
- ▶ values are set/measured on individual **subjects**
Example: 180 patients with knee issues (osteoarthritis)
- ▶ **explanatory variable** or **factor**: a variable for which values are set
Example: type of knee surgery (with values of lavage, debridement, or placebo)
- ▶ **response variable**: a variable for which values are measured
Example: various measures of pain and knee function
- ▶ want to reduce likelihood that other unmeasured factors play a role
- ▶ best strategy is to randomly assign subjects to each combination of set values for the factors