

## Case Control Study

A case-control study is an observational study in which two groups with different outcomes are compared on a basis of a causal attribute or event. In a medical setting, patients with a disease can be compared to an otherwise similar patient without disease to look for factors contributing to disease.



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### Observational

#### Observatory

Case-control studies are observational and draws inferences from factors which are not controlled by the researcher.

### Retrospective

#### Retro-person looking back in time

Case-control studies are retrospective, and look back at causative factors leading to a patient with disease now.

### Compares those with disease to those without

#### Person with Case weighed against person with Controller

Patients with a disease (the case) are compared to otherwise similar patients without disease (the control).

### (Asks) "What happened?"

#### Confused researcher asks "What happened?"

By looking at inciting factors or causal attributes from the past, the researcher is asking, "What happened?," leading to this disease.

### Measurement

### Odds Ratio

#### Person with Case has higher Odds than person with Controller

From a case-control study, researchers are able to calculate an odds ratio. It tells us how strongly the presence or absence of a property (green toxin exposure) is associated with another property (turning green).