



## **How strong is the scientific evidence?**

Last Updated : 06 September 2023

Have you ever wondered how strong the scientific evidence is behind the latest dietary trends and health claims? This infographic dives into common study designs (systematic reviews, meta-analyses, randomised controlled trials, observational research, including prospective cohort studies, case-control studies, cross-sectional studies, animal studies, cell studies, and anecdotes and case studies) used by nutrition researchers to explore the links between nutrition and health and will help you understand the advantages and limitations of each design to help you distinguish between reliable and less robust findings.

# HOW STRONG IS THE SCIENTIFIC EVIDENCE?



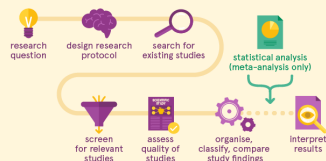
## The levels of evidence in nutrition research

Nutrition researchers use various study designs to explore the links between nutrition and health. However, **not all types of research can be used to draw equally firm conclusions**. Understanding the different designs and their potential flaws and limitations is important for distinguishing between reliable and less robust findings.



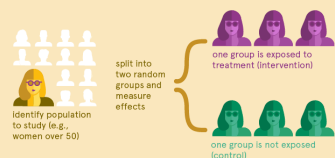
## Systematic reviews and meta-analyses

Gather and summarise all relevant studies on a particular topic and reduce risk of bias.



This is the most solid type of evidence.

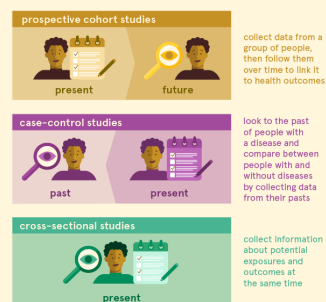
## Randomised Controlled Trials (RCT)



These studies can prove causation but keep in mind not to generalise too readily. They often run for short time periods and only study specific population groups.

## Observational Research

Scientists use these studies to identify correlations and develop hypotheses for further testing.



These studies can identify correlations but not causation. When many large, high-quality observational studies support the same conclusions, the evidence is stronger.

## Animal & cell studies

Effects in humans and animals are not always the same.

Isolated cells in the laboratory behave differently than cells in the body.



Always keep in mind the limitations of cell and animal research.

## Anecdotes & case studies

A single person's experience or opinion does not provide an objective picture.



This evidence is too weak to draw conclusions.