

Hierarchy of Scientific Evidence (Infographic)

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The strength of scientific evidence produced by different types of studies (for instance systematic reviews, meta-analyses, randomised control trials, observational research, animal studies, cell studies and expert opinions) can vary. This infographic will help you understand the advantages and limitations of different types of scientific evidence.

Download the printable PDF version [here](#).

HOW STRONG IS THE SCIENTIFIC EVIDENCE?

Systematic reviews and meta-analyses

gather & summarise all relevant studies on a particular topic - lower chance of bias



systematic reviews



meta-analyses

COMMUNICATION TIPS


this is the strongest available evidence

Randomised Controlled Trials (RCT)

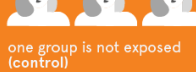


identify population to study e.g. women over 50


split into two random groups and measure effects



one group is exposed to treatment (intervention)




one group is not exposed (control)


these studies can prove causation but keep in mind not to generalise too readily

Observational Research

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




don't forget that correlation does not mean causation, and remember to communicate absolute risk

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

Expert opinions & anecdotes

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




this evidence is too weak to draw conclusions