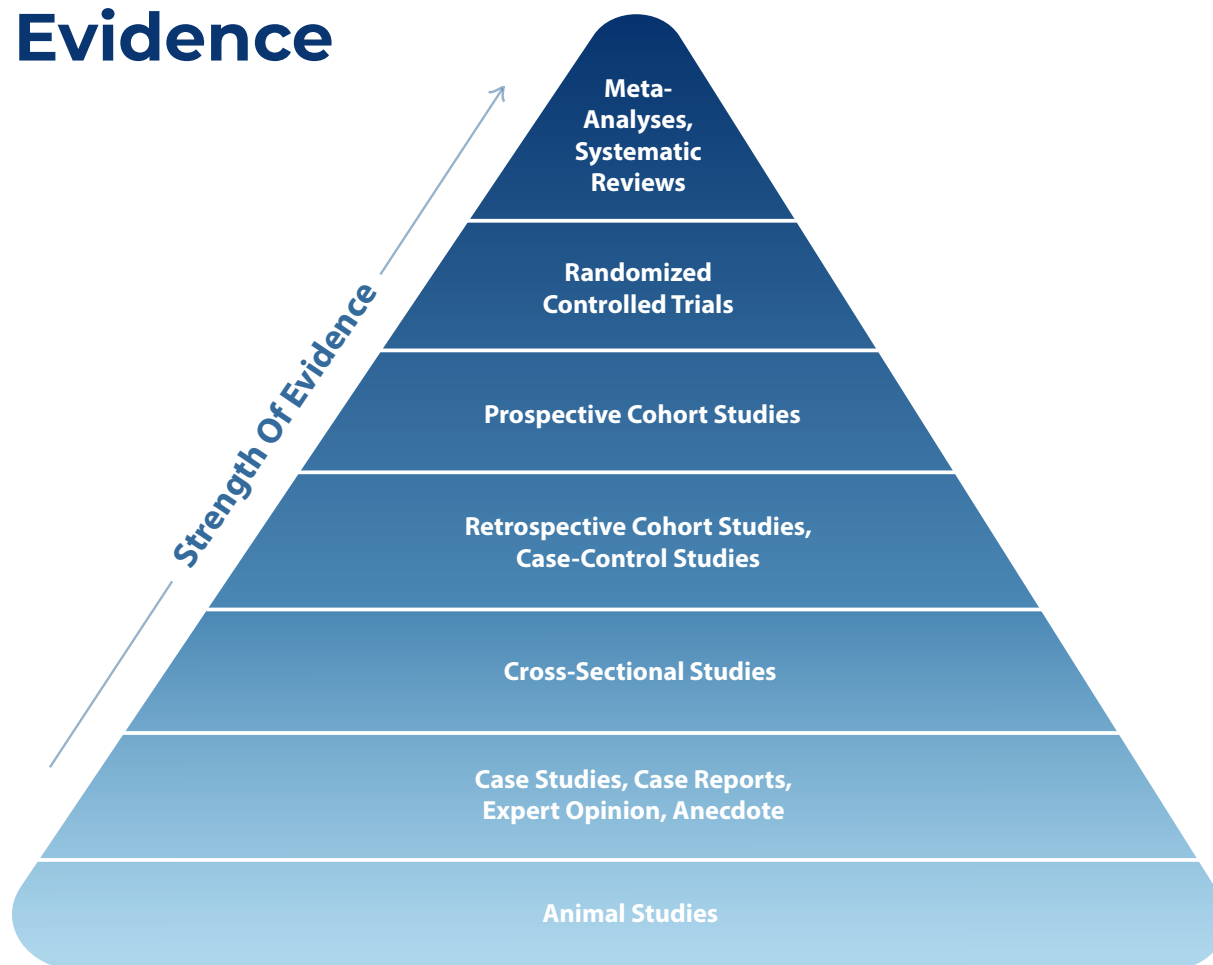


# Hierarchy Of Evidence



Different types and levels of evidence span what is known as the hierarchy of scientific evidence. Researchers consider the hierarchy of evidence when evaluating the body of research to answer a particular question. Thinking about evidence in a hierarchy is one way to rank research based on its strength, and ultimately, how it should be applied and communicated. Animal research, translational studies, anecdote, and expert opinion are considered the lowest level of evidence. Ascending the hierarchy, the next three levels of evidence broadly include observational research, with increasing strength: cross-sectional studies; case-control studies; and cohort studies. Randomized controlled trials (RCTs) rank ahead of observational research on the hierarchy. RCTs comprise a study design that tests an intervention against a control or against the routine intervention/level of care.

RCTs help control for bias in ways observational research could not. Systematic reviews and meta-analyses are situated at the top of the hierarchy. These methods are considered the highest quality research design.

Although research is viewed in an overall hierarchy, it should still be individually evaluated for rigor. Furthermore, when making comparisons across studies (e.g., comparing two research papers covering different studies), consider the patient/population, intervention, comparison, outcome, time frame, and setting/study design. Understanding populations may need observational evidence while randomized evidence is useful for understanding average treatment effects.