

BACK TO BASICS

HOW TO READ AND CRITICALLY EVALUATE RESEARCH IN AESTHETIC MEDICINE

WHY EVIDENCE MATTERS

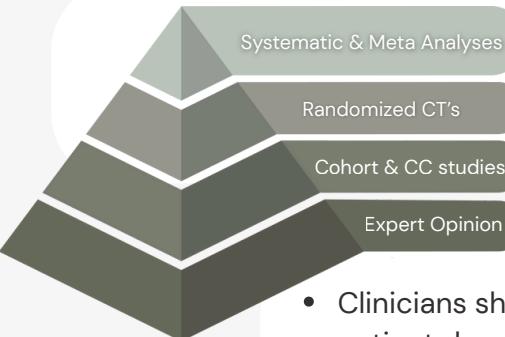
- Trends and hype move fast.
- Evidence-based research ensures **SAFE & EFFECTIVE** patient care and outcomes.



ASK THE RIGHT QUESTION

- Use the **PICO Framework** to critically analyze research papers
 - ie: Adults with moderate acne scarring (**Population**), does microneedling with PRP (**Intervention**) compared to microneedling alone (**Comparison**) lead to greater improvement in scar severity & patient satisfaction (**Outcome**)?

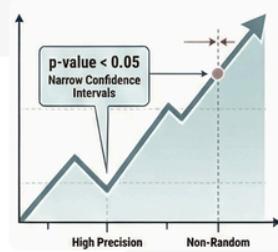
LEVELS OF EVIDENCE



- Hierarchy of studies help determine the strength and reliability of a study.
- Gold standard: randomized, blinded, controlled trials.

SAMPLE SIZE & BIAS CHECK

- Clinicians should consider whether the study participants reflect their actual patient demographic and check funding sources for bias.
- Understanding potential bias allows clinicians to interpret results with appropriate caution.



STATISTICAL SIGNIFICANCE

- The **p-value** shows whether results are likely due to chance or repeatable ($p < 0.05$ = **statistically significant**).
- The **confidence interval (CI)** shows the likely range of the true effect—narrower intervals mean more precise results.

LIMITATIONS & DIRECTIONS

- Establish limitations of the study.
 - Small sample sizes, short follow ups or narrow population study.
- Limitations don't necessarily invalidate the study but highlight opportunities of continued education & research.

RESEARCH TO PRACTICE

- How will the new findings be applied to practice? How does it change your knowledge base and recommendations? Are there any risks/side effects that might outweigh any potential benefits?

