American Heart Association Recommendation Classification and Levels of Evidence

Level of Evidence	**Definitions**
Level 1	Randomized clinical trials or meta-analyses of multiple clinical trials with substantial treatment effects
Level 2	Randomized clinical trials with smaller or less significant treatment effects
Level 3	Prospective, controlled, non-randomized, cohort studies
Level 4	Historic, non-randomized, cohort or case-control studies
Level 5	Case series: patients compiled in serial fashion, lacking a control group
Level 6	Animal studies or mechanical model studies
Level 7	Extrapolations from existing data collected for other purposes, theoretical analyses
Level 8	Rational conjecture (common sense); common practices accepted before evidence-based guidelines

CLASS	CLINICAL DEFINITION	REQUIRED LEVEL OF EVIDENCE
Class I *Definitely recommended*. Definitive, **excellent** evidence provides support.	• Always acceptable, safe • Definitely useful • Proven in both efficacy & effectiveness • Must be used in the intended manner for proper clinical indications.	• One or more Level 1 studies are present (with rare exceptions) • Study results consistently positive and compelling
Class II: *Acceptable and useful*	• Safe, acceptable • Clinically useful • Not yet confirmed definitively	• Most evidence is positive • Level 1 studies are absent, or inconsistent, or lack power • No evidence of harm
• ***Class IIa:*** *Acceptable and useful* **Good** evidence provides support	• Safe, acceptable • Clinically useful • Considered treatments of choice	• Generally higher levels of evidence • Results are consistently positive
• ***Class IIb:*** *Acceptable and useful* **Fair** evidence provides support	• Safe, acceptable • Clinically useful • Considered optional or alternative treatments	• Generally lower or intermediate levels of evidence • Generally, but not consistently, positive results
Class III: *Not acceptable, not useful, may be harmful*	• Unacceptable • Not useful clinically • May be harmful.	• No positive high level data • Some studies suggest or confirm harm.
Indeterminate	• Research just getting started. • Continuing area of research • No recommendations until further research	• Minimal evidence is available • Higher studies in progress • Results inconsistent, contradictory • Results not compelling