

CLINICAL "SNIPPETS"

Neonatal CPR: Room at the top-A mathematical study of optimal chest compression frequency versus body size.

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Overview: To explore in detail the expected magnitude of systemic perfusion pressure during standard CPR as a function of compression frequency for different sized people from neonate to adult.

Conclusions: Fundamental geometry and physics suggest that the most effective chest compression frequency in CPR depends upon body size and weight. In neonates there is room for improvement at the top of the compression frequency scale at rates $>120/\text{min}$. In adults there may be benefit from lower compression frequencies near $60/\text{min}$.