Expert clinical assessment of thorax stiffness of infants and children during chest compressions.

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Overview: High-fidelity manikins have been shown to be useful in teaching appropriate cardiopulmonary resuscitation (CPR) techniques. Similarity of manikin chest compression characteristics to real children is desirable. Little data exists on thorax stiffness in infants and children to guide manikin construction. This study was designed to determine a 'consensus clinical-expert assessment' of the pediatric chest stiffness for two specific age groups-infants and 5-year-olds.

Conclusions: Experienced health care providers consistently identified and agreed on the manikin thorax stiffness which they felt best approximated downstroke chest compression stiffness of children and infants. Expert opinion can be used to create manikins with realistic spring stiffness for CPR training. Further study is needed to evaluate whether enhanced manikin biofidelity will improve CPR performance.