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Australia offers better outcomes for newborn cardio-respiratory health

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Respiratory issues are common in preterm babies

Researchers at Monash University in Australia have developed new software which delivers advanced sound quality of heart and lung monitoring for preterm and full term babies, and can be used by parents at home.

The software, used in conjunction with digital stethoscopes, delivers state-of-the-art screening and monitoring capability and more accurate diagnosis of respiratory issues in our most vulnerable babies and children.

It can be used in hospitals or at home and offers better diagnosis and real-time monitoring for babies. This is also of particular value in low to middle-income countries where health resources may be limited. The software will be trialled in conjunction with new digital stethoscope hardware at the Monash Children's Hospital. It is expected to be available internationally from mid-year.

According to UNICEF, the neonatal period is the most vulnerable time for a baby's survival with 1.7% of live births resulting in mortality. Stethoscope-recorded chest sounds contain important cardiac and respiratory information that informs clinicians on the health status of newborn babies. This crucial information can enable timely assessment for signs of serious health risks, potentially improving neonatal survival and reducing long-term morbidity risks.

However, low quality chest sounds due to noise from the external environment, other internal body sounds, or the device itself, can hinder the use of conventional or digital stethoscopes and complicate monitoring and diagnosis, or worse - can lead to misdiagnosis.