

Moyo

Fast and Accurate Fetal Heart Rate Monitoring



Impact

Early detection of fetuses at risk can help prevent many of the 2 million early stillbirths and asphyxia deaths, annually.¹

Approach

Field tests² show that it typically takes 40-60 seconds to detect FHR by traditional handheld doppler devices, and a similar amount of time using Pinard stethoscopes.^{3,4}

Moyo was developed to make FHR monitoring easier, faster, and more reliable. It can be used handheld or strapped on to the mother for prolonged monitoring. Moyo has an alarm function and a 30-min histogram.

Results

Field tests² confirm that Moyo reliably detects FHR in under five seconds. A large study supported by a Saving Lives at Birth grant is underway to evaluate the effectiveness, acceptability, reliability and clinical impact of Moyo and the accompanying training program.

1. Ersdal HL, et al. *Neonatology* 2012

2. Laerdal Global Health. Poster presentation at SLAB 2015.

3. ACNM: *Intermittent Auscultation for Intrapartum Fetal Heart Rate Surveillance* 2010.

4. Morrison et al. *Intrapartum fetal heart rate assessment: monitoring by auscultation or electronic means. Am J Obstet Gynecol* 1993



Moyo Features

- 9-crystal sensor enables rapid detection of the fetal heart rate
- Wide detection area (900 cm²)
- Lightweight and portable
- Measures maternal heart rate with dry electrodes on the device
- Displays both maternal and fetal heart rate for comparison
- Visible and audible alarms when fetal heart rate is abnormal

Moyo Specifications

Ultrasound Transducer

- Display range: 50-250 bpm
- No detectable hear rate or a heart rate <50 bpm displays as “-?-”
- Accuracy: short term average +/- 5 bpm in the range of 50-200 bpm

Maternal HR electrodes

- Display range: 30-250 bpm
- No detectable heart rate or heart rate <30 bpm displayed as “-?-”
- Accuracy: short term average +/-5% or +/-5 bpm, whichever is greater, in the range of 50-150 bpm



The sensor can be strapped onto the mother's abdomen for prolonged monitoring. Lightweight and portable, Moyo allows the mother to move around freely.



Normal fetal heart rate



Abnormal fetal heart rate



Prolonged abnormal fetal heart rate, with audible alarm



Moyo can display a histogram of the past 30 minutes of monitoring

Laerdal Global Health is a not-for-profit company dedicated to helping save the lives of mothers and newborns. For more information and to order products visit:

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