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DATA ANALYSIS

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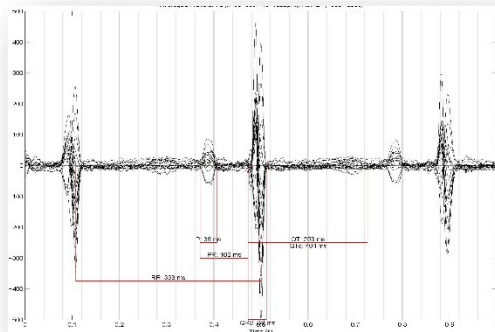
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Shared Medical Technologies

202 W. Newton St., Rice Lake, WI 54868

Sharedmedtech.com



fMCG Recording – Normal Rhythm

RELATED PUBLICATIONS

1. Donofrio MT, Cuneo BF, Strasburger JF et al. Fetal Diagnosis and Treatment: A Scientific Statement of the American Heart Association 2014; 129:2183-2242 (available online) circ.ahajournals.org/content/129/21/2183
2. Wacker-Gussmann, A., Strasburger, J.F., Cuneo, B.F., Wakai, R.T., Diagnosis and Treatment of Fetal Arrhythmia, Amer J Perinatol 2014; 31(07): 617-628.
3. Strasburger JF, Wakai RT. Fetal Cardiac Arrhythmia Detection and In Utero Therapy. Nat Rev Cardiol 2010; 7(5):277-90.

You may find updates on this NIH study (R01HL143485) at:

clinicaltrials.gov - #NCT03775954

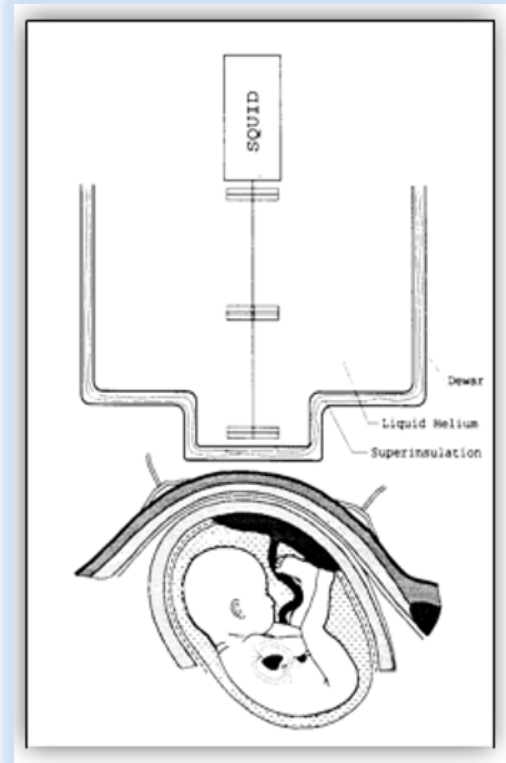
SUPPORTED BY NIH GRANTS



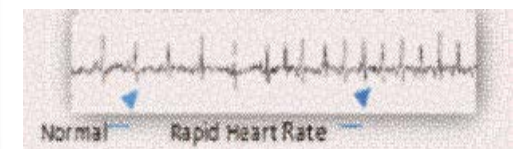
MOBILE FETAL MAGNETOCARDIOGRAPHY

fMCG

An NIH funded study dedicated to learning More about abnormal heart rhythm patterns in The fetus: R01HL143485



Magnetic Recording of Fetal Heart Activity
fMCG (example)



WHAT IS fMCG?

Fetal Magnetocardiography (**fMCG**) utilizes a SQUID (Super Conducting Quantum Interference Device) housed within a magnetically shielded room to define fetal heart conduction (the pattern of electrical cardiac impulses). It is FDA-approved for recording cardiac signals at all ages, including in the fetus.

***fMCG** is a safe and non-invasive method that records the magnetic signals produced naturally by the fetal heart allowing us to monitor fetal heart rhythm and conduction during pregnancy. Unlike an MRI, **fMCG** does not produce ultrasound or magnetic energies.

* **fMCG** offers important information in addition to ultrasound and better quality recordings than fetal Electrocardiography (ECG). This allows for assessment of fetal cardiac conduction including cardiac intervals (P wave, QRS and QT) signal characteristics and rhythm patterns.

DO I QUALIFY?

If you are currently pregnant between 20 and 27 weeks gestation and have:

- A history of a prior pregnancy resulting in a stillbirth after 20 weeks gestation (5months)
- Twin-Twin Transfusion Syndrome or Monochorionic twins
- Fetal heart defect
- Fetal abdominal wall birth defect
- Fetal hydrops

WHAT WILL MY PARTICIPATION INVOLVE?

- Your testing will take place at the Mobile **fMCG** Unit located at the CHW Delafield Clinic:
3195 Hillside Dr, Delafield, WI 53018
chw.org/location-directory/locations/Delafield-clinic
- You will change into a hospital gown and lie on the exam table.
- An ultrasound machine will be used to determine the position of the fetus's heart (this is not an obstetrical ultrasound; therefore, the gender of the fetus cannot be determined).
- The **fMCG** device will be positioned as shown in the photo and will rest lightly on your stomach.



- Recordings will be conducted in 10-minute time frames with the entire procedure taking 1 to 3 hours. You may take breaks as needed.
- You will have 2 recording sessions before you deliver and your baby will have 1 EKG performed within the first 2 weeks of life.



Mobile fMCG Unit

WILL I BENEFIT IF I PARTICIPATE?

We cannot guarantee that study participation will benefit you or your fetus, however **fMCG** has the potential to improve diagnosis and guide treatment in some fetuses with abnormal heart rhythms. Participation may also benefit pregnant women in the future by helping us learn more about normal and abnormal heart rhythm in association with diagnosis linked to stillbirth.

WHO SHOULD NOT PARTICIPATE?

- If your physician determines travel to the lab would complicate the pregnancy.
- You must be at least 18 years to participate.

For more information:

chw.org/medical-care/herma-heart