



▶ *Do I really  
need to be on  
this monitor?* ◀

*A guide to fetal monitoring  
for moms-to-be*

Created by Andrea Zins  
University of Minnesota Medical School

## What is fetal cardiotocography (CTG)?

Electronic fetal monitoring during labor uses cardiotocograph (CTG) machines that can monitor the



FHR, maternal heart rate, uterine contractions, and the pressure inside the uterus. The fetal heart rate can be detected either through an ultrasound transducer strapped to the woman's belly or by a small clip placed on baby's scalp.

CTG has been used for over 35 years. The goal of monitoring the baby's heart rate is to assess the baby's well-being and how much oxygen baby is getting during labor.

In 2002, over 85% of mothers had CTG monitoring during their labor.

OB-GYN and family practice doctors use CTG to try to keep mother and baby out of harm's way.

## Is there an advantage?

Use of continuous monitoring has shown to decrease the rates of neonatal seizures. However, it has not shown to affect the rates of cerebral palsy.

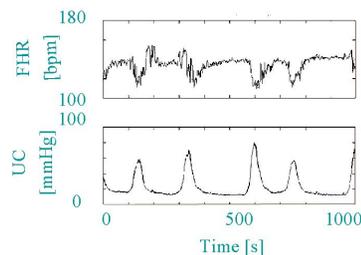
## Is there a disadvantage?

Use of continuous monitoring has shown to increase the rates of caesarean sections and instrumental vaginal birth (that is, delivery with the use of forceps or a vacuum).



Patients are less mobile when on traditional CTG monitors.

Monitoring does not guarantee a delivery without complications and has not shown to change baby's Apgar score.



A cardiotocogram.

## So, what is recommended for me?

The American College of Obstetricians and Gynecologists affirms no benefit of EFM over intermittent auscultation of the fetal heart, but, still recommends its application in certain high-risk pregnancies. Because each individual patient and pregnancy is unique, the decision should be made together with your caregiver, taking into account your obstetric history, medical history, and birth plan.



## Where can I get more information?

The best source of information will be your OB-GYN, family practice doctor, or midwife. They can help you make the decision best for you.



### References:

1. ACOG Practice Bulletin #70: Intrapartum fetal heart rate monitoring. *Obstet Gynecol* 2005; 106(6):1453-60.
2. Alfirevic Z, Devane D, Gyle GM. Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database Syst Rev*. 2006 Jul 19;3:CD006066.
3. <http://www.gm.nl/uploads/img/foto%20CTG%20introduce.jpg>

Title:

Fetal cardiotocography is associated with a decrease in the incidence of neonatal seizures, an increase in operative delivery, and no obvious impact on cerebral palsy and perinatal mortality rates.

Author:

Andrea Zins

Date:

1/8/08

Key words:

Fetal cardiotocography; fetal heart monitoring

Abstract:

A metaanalysis of 12 randomized and quasi-randomized controlled trials of over 37,000 women which acts how effective continuous cardiotocography during labor is. This study compares continuous cardiotocography (with and without fetal blood sampling) with no fetal monitoring, intermittent auscultation, and intermittent cardiotocography. Fetal cardiotocography is associated with a decrease in the incidence of neonatal seizures, an increase in instrumental vaginal births and caesarean section rates, and no obvious impact on cerebral palsy and perinatal mortality rates.

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.