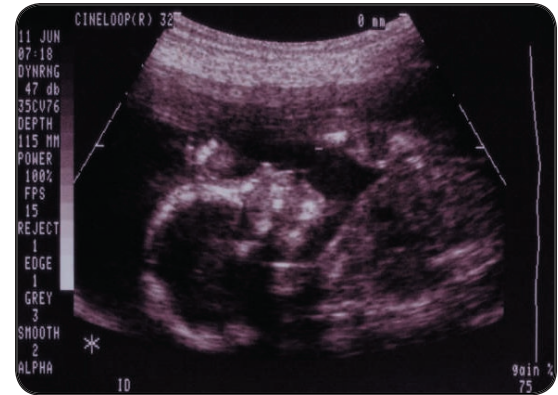


3D-4D Ultrasound The Medical Story

by Larry Norfleet, MD
Obstetrician and Gynecologist, Colorado Springs Health Partners, PC
Contributor: Lynne Jones, CSHP Marketing & PR

New technologies become available for medical care and diagnosis at a pace that rivals the upgrades for your PC. The latest and (questionably) greatest are touted as the only way to get the best of ... anything. 3D and 4D Ultrasound for obstetrics patients is no exception.

2D ultrasound has been used in the field of obstetric medicine for over thirty years. The images provide medical experts with knowledge about the fetus including: age, rate of growth, position, movement, breathing, heart rate and some birth defects. It can also provide information about the placement of the placenta, amount of amniotic fluid in the uterus and the number of fetuses present. These findings tell the physician and parent(s) much about what to expect throughout a woman's pregnancy. As a bonus to the medical findings, parents are able to get a glimpse of the fetus, its movement, and possibly the gender.



Traditional ultrasound.

Recently entering the realm of women's health is 3D-4D ultrasound, the new technology. Exciting medical professionals and patients alike, it offers increased detail in its images of the fetus. 3D-4D has NOT been shown to detect any more abnormalities than the usual 2D mode. If there is an abnormality found, 3D will sometimes give better detail of the problem and help in developing a plan of management.

The controversy around the new technology is this: Should we be marketing a medical diagnostic tool in a retail setting for non-medical reasons of determining gender or having better pictures for our scrapbooks? The Food and Drug Administration (FDA), American Institute of Ultrasound Medicine and the American College of Obstetrics and Gynecology all say "NO." Companies promoting "elective" ultrasounds and some medical professionals say "YES," that they provide a desired service and that the risks after 30+ years of using ultrasound are minimal.

Potential risks of the elective use of ultrasound in a mall setting and outside of your physician's direction include:

- Potential false reassurance for women
- Unknown long term effects of repeated ultrasound readings on the fetus. There are currently two studies suggesting a slightly higher incidence of left-handedness with increased number of ultrasounds. This may or may not be born out with further studies and is this an actual problem?
- Lack of quality control in settings outside a physician's office
- Educational and professional background of technicians is not consistent
- Staff detecting a defect without proper professional resources to address parent(s)
- Higher than recommended levels of intensity of ultrasound may be administered
- Ultrasound is a form of energy and can cause jarring vibrations & a rise in temperature

continued next page

The FDA states in its formal opinion that “Ultrasound is a form of energy and it must be respected,” and that it should be used for medical reasons only. Although there is some discord in the medical community about the non-medical use of the 3D & 4D ultrasound, most agree that use of the tool outside the medical setting is not responsible. At this time, 2D ultrasound remains the most accurate means of obtaining a complete survey of the fetus. Further evidence is needed to determine the effectiveness and risk of using 3D-4D ultrasound as a routine diagnostic tool.

The bottom line is that fetuses and women are open to various risks throughout the pregnancy term, with or without technology. Why add another potential risk just for one of most likely many keepsake photos?

For more information, please contact your obstetrician, or visit www.acog.org, www.fda.gov or www.aium.com.



Larry Norfleet, MD
Obstetrician and
Gynecologist

CSHP Southwest
branch

2610 Tenderfoot Hill St.

538-5726



CSHP • Physicians you *trust*, care you can count on.

This article is provided for general information only, and is NOT a substitute for the medical care and advice of your physician. Copyright 2008. Colorado Springs Health Partners, P.C.