GE Healthcare

SonoVCAD*heart*, helping standardize fetal heart examinations

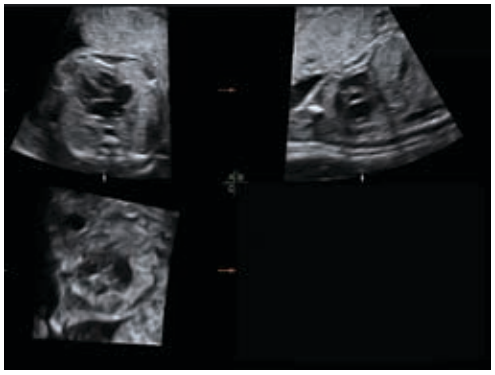
GE Healthcare's dedication to fetal cardiology, coupled with collaboration with leaders in obstetrics, has led to the creation of a proprietary software program, SonoVCAD™*heart* (Sonography-based Volume Computer-Aided Display *heart*). SonoVCAD*heart* automates the display of each of the six relevant views for the fetal heart. This tool helps to standardize image orientation of the fetal heart and complies with the most recent AIUM guidelines.

SonoVCAD*heart* provides views automatically obtained from a single volume acquisition with the simple press of a touch screen button. The software also offers a reference tool to allow you to match your acquisition with standard images of each view. This helps to provide clinicians with less experience in detailed imaging of the fetal heart a dependable guide.

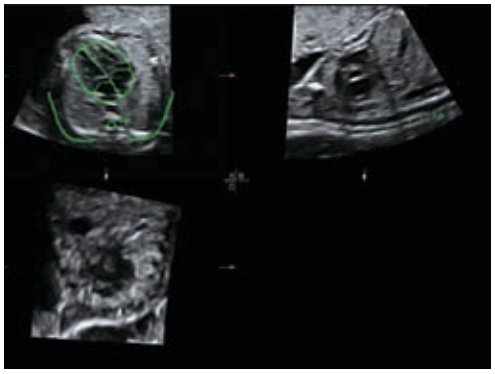
SonoVCAD*heart* helps improve your productivity while enhancing detection through exam efficiency:

- Allows the user to obtain all six views for the fetal heart over 96% of the time, including the left ventricular outflow tract (LVOT), right ventricular outflow tract (RVOT), venous connections, ductal arch and aortic arch, as well as the stomach to confirm cardiac situs[1,2]
- Allows clinicians to detect heart anomalies more frequently, as well as helps to increase confidence when reporting normal exams
- Studies suggest that outflow tracts alone may be twice as efficient in prenatal detection of major congenital heart defects than the four-chamber view alone[3]

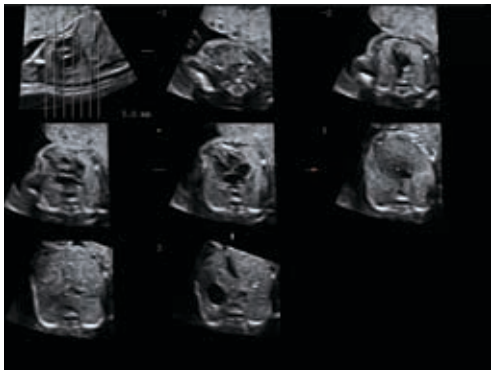
GE Healthcare strives to meet the needs of obstetrics professionals through automation tools such as SonoVCAD*heart*. This is one example of many excellent technologies in our suite of dedicated fetal heart innovations.



Volume of the fetal heart



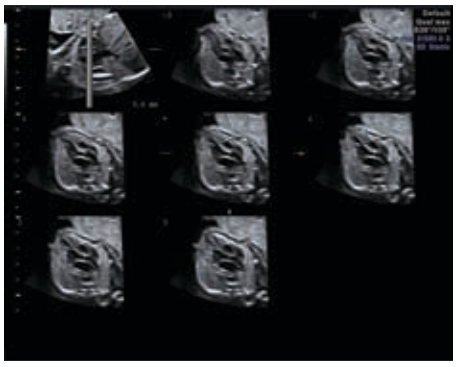
Graphic overlay used for alignment of the volume in preparation for application of SonoVCAD*heart*



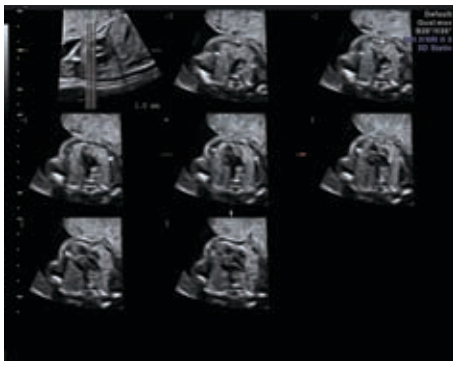
Starting plane of SonoVCAD*heart* showing the four chamber view in a tomographic display

SonoVCAD*heart*, bringing automation to new levels.

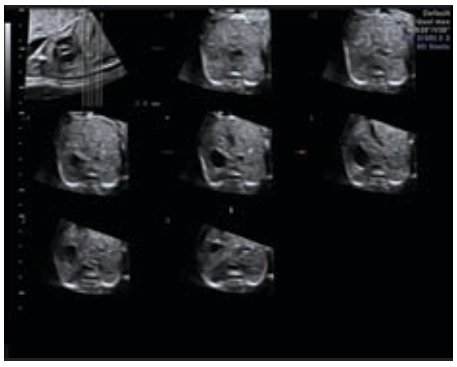
Automatically obtain all six views for the fetal heart from a single volume.



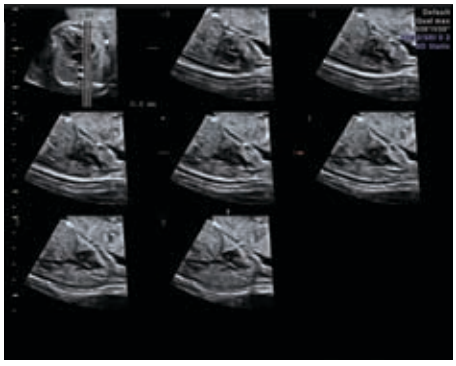
Cardiac 1 LVOT



Cardiac 2 RVOT

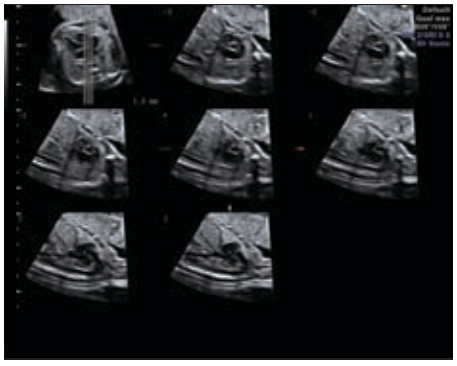


Cardiac 3 Stomach



Cardiac 4 Venous Connections

Cardiac 5 Ductal Arch



Cardiac 6 Aortic Arch

References

1. Reichartseder F, Falkensammer P. SonoVCAD-Sonography-based Volume Computer Aided Display An automated approach to visualize standard views of the fetal heart. *Whitepaper © GE Healthcare 2006.*
2. Stoeckl, Ch. SonoVCAD*heart* –Sonography-based Volume Computer Aided Display An automated approach to visualize standard views of the fetal heart. New findings, new visualization planes – Update 2009 *Whitepaper © GE Healthcare 2009.*
3. Sklansky, MD, Mark S., Darren P. Berman, MD, Jay D. Pruetz, MD, and Ruey-Kang R. Chang, MD. "Prenatal Screening for Major Congenital Heart Disease." *Journal of Ultrasound in Medicine* 28.7 (2009): 889-899.

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imagination at work

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