

**VOLUME SONOGRAPHY: CLINICAL APPLICABILITY OF CURRENT  
AND FUTURE TRENDS IN OBSTETRICS**  
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**Introduction**

Volume sonography (VS) is a world with added depth enabling us to visualize the 3D external surface of structures. Its true value lies in the ability to obtain a volume of the entire fetus in the first trimester, or of a target organ in the fetus at any point in gestation. The volume contains within it all the anatomical planes necessary for off-line analysis of that area, in a multitude of modes, at any time.

**Key Concepts**

There are three main concepts in VS: volume acquisition, display and manipulation.

**Benefits**

The benefit of VS lies beyond the striking portraits of the fetus. Its greatest potential has been in facial and skeletal deformities, CNS anomalies, and with the recent introduction of Abuhamad's automation, there is great promise in enhancing the detection of congenital heart defects. Its value in fetal bonding and in studying fetal behavior is being investigated. In addition, having a library of volumes for educational purposes is of great usefulness and facilitates consultation with world experts.

**Pitfalls**

VS is far from perfect. Much remains to be done to enhance the images in the coronal plane. With the third dimension, an added dimension of artifacts is introduced. The learning curve is steep, requiring time and dedication.

**Conclusion**

VS is only complimentary to 2D ultrasound and by no means replaces it. The gold standard remains a good 2D image from which we can obtain a good 3D image. The time is now to start looking beyond the 'pretty' surface of things and to start exploring this new world with its unlimited potential.