

First Trimester Fetal Echocardiography
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The purpose of this presentation is to provide a general overview for the evaluation of the fetal heart at the time of nuchal translucency measurement. The basic fetal cardiac anatomy and anatomic landmarks will be presented, the first trimester markers for potential underlying congenital heart disease will be discussed, the major limitations to evaluating the fetal heart at this point in gestation will be reviewed, and the learning curve associated with implementing fetal echocardiography in the first trimester will be shared. In addition, data will be presented pertaining to the detection rates of congenital heart disease in an unselected low risk Lebanese population, and local experience with the evolution of hypoplastic left heart syndrome, suspected at the time of nuchal translucency measurement, will be discussed as well, stressing the importance of early screening and targeted evaluation for a newly-selected high risk group of patients identified at the time of nuchal translucency measurement.

Future Trends in Prenatal Diagnosis
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With the current tremendous technological advances, in both our sonographic machinery and the recently introduced non-invasive prenatal testing, utilizing cell-free fetal DNA in the maternal circulation, the future of prenatal diagnosis has never been as exciting or as hopeful as it is right now, allowing previously unattainable diagnostic accuracy and reassurance. Nonetheless, with the introduction of any new medical diagnostic modality comes a steep learning curve, and a great need for proper education to both patients and providers, in order to ensure safe and effective implementation, while adhering to our principle: “first do no harm”. As such, the aim of this presentation is to discuss the newest of sonographic diagnostic modalities, and to provide a general overview of non-invasive prenatal diagnosis: what it is, where and how should it be incorporated into our clinical practice, its benefits as well as its limitations.