

***Antenatal Testing: A Reevaluation***  
**August 27-28, 2007**

**Summary**

Multiple techniques for antepartum assessment of fetal well-being have been developed in attempts to identify fetuses at risk and enable prevention of adverse outcomes such as stillbirth and hypoxic central nervous system injury. However, the evidence base supporting their use and the recommendation of one modality over another is limited. To review the current state of the art in antenatal fetal assessment and identify areas for further research, a workshop was convened at NICHD on August 27-28, 2007. Along with co-sponsors the NIH Office of Rare Diseases, the American College of Obstetricians and Gynecologists, and the American Academy of Pediatrics, the Pregnancy and Perinatology Branch, NICHD, invited 20 expert researchers and clinicians to summarize and present the latest evidence regarding a spectrum of issues in antenatal testing:

- The epidemiology of antepartum stillbirth and neurological injury
- Normal fetal physiology and fetal responses to intrauterine insults
- The technology and utility of existing and emerging fetal assessment methods
- Maternal and fetal indications for antenatal testing
- Costs and benefits of antenatal testing

The goals of the workshop included describing indications and testing methodologies that are backed by sufficient evidence, and identifying those conditions and methods for which gaps in knowledge and evidence still exist.

Panelists and invited guests had multiple opportunities to discuss the summary presentations, raise questions, and exchange information. Following the formal presentations, the participants divided into three smaller groups, for more in-depth discussion and to collectively summarize existing evidence and recommend areas where further research is needed. Prominent issues that arose from these discussions included the persistent limitations in the evidence for or against specific testing modalities, uncertainty about the appropriate gestational age at which testing should be initiated, the need for randomized trials of assessment techniques and protocols, and the difficulties in identifying all patients who might benefit from testing.

Output from the meeting will include an executive summary of the workshop's findings and recommendations, to be submitted for publication. Additionally, a 2008 special issue of *Seminars in Perinatology* will be devoted to coverage of the workshop, and will include papers from all presentations and topics discussed during the workshop. It is expected that awareness of gaps in the body of evidence for antenatal testing will be heightened with these publications, and that research in the field will be stimulated.