Nutrition and the Developing Brain
Miami Neonatology 2016 – Annual International Conference

Learning Objectives
At the conclusion of this activity, participants should be better able to:

• Examine how the timing of nutrient deficiencies affects brain development
• Recognize early correction of nutritional deficiencies after birth is essential to protect the developing brain

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Case Presentation
A 37-year-old African American woman presents 7 weeks after her last menstrual period, and after a positive home pregnancy test, for a prenatal exam. At her last checkup 1 year ago, her BMI was 26, she was borderline hypertensive (124 systolic/82 diastolic), and prediabetic (fasting glucose 118 mg/dL). She stopped smoking during her first pregnancy, which ended when she delivered a healthy, term, baby 5 years ago.

Discussion Items
Informed by the video content, reflect individually or discuss as a group the following questions related to this case and your clinical practice:

• What nutritional risks would you consider this fetus to be at risk for during the prenatal period? What risks would this infant be at during the post-natal period?
• Do you have a plan for managing obesity in pregnant women?
• Do you have a plan for controlling hypertension or diabetes/prediabetes discovered during pregnancy?
• What criteria do you use to evaluate pregnant women for possible micronutrient deficiencies?
• Do you have a protocol for assessing and correcting nutritional deficiencies that are specific for preterm infants?
• What nutritional supplements do you plan on providing for preterm infants who cannot be breast-fed?
Why Nutrition of the Preterm Matters
Long-Term Consequences of Adverse Early Nutrition and Growth

Suggested Readings and Resources