

Placental Function in Maternofetal Exchange and Fetal Oxygenation

Objectives

- Identify the type of placental/fetal exchange mechanisms
- Review factors that affect maternofetal exchange
- Name the types of substances that transverse the placental exchange
- Explain the mechanism of respiratory gas exchange across the placenta
- Describe normal fetal oxygenation
- Outline fetal responses to acute hypoxia

Content Outline

1. Placental Function Maternofetal Exchange
 - A. Nature of the placental exchange barrier
 - B. Types of exchange mechanisms
 - C. Factors affecting maternofetal exchange
 - D. Transferred substances
2. Placental Respiratory Gas Exchange
 - A. Oxygen uptake
 - B. Normal Fetal Oxygenation
 - C. Homeostatic control of fetal oxygenation
3. Responses to Acute Hypoxia

Reading Material Resources

Module WB2208: Placental Function in Maternofetal Exchange and Fetal Oxygenation is based on the resources listed below. A copy of each resource is included with the module.

Chapter 15 Placental Respiratory Gas Exchange and Fetal Oxygenation, *Maternal Fetal Medicine*, Resnik et al., Elsevier, 2019, 210-222

Chapter 8 Placental Function in Maternofetal Exchange, *Fetal Medicine: Basic Science and Clinical Practice*, Pandya, Pranov, Elsevier, 2020, 69-77