

Margaret H. Rollins School of Nursing
N201- Special Populations
Ticket to Enter – High Risk Newborn: Thermoregulation

1. Why is the preterm infant at risk for hypothermia?
 - A. Amount of brown fat greater than at term
 - B. Decreased amount of subcutaneous fat**
 - C. Less skin surface exposed
 - D. Position of flexion
2. Where is brown fat commonly located? Select all that apply.
 - A. Bilateral axillary areas
 - B. Buttocks and abdomen
 - C. Near large intestines
 - D. Near kidneys and adrenals**
3. What is a complication of brown fat metabolism?
 - A. Hyperglycemia
 - B. Hyperthermia
 - C. Hypoxia**
 - D. Metabolic alkalosis
4. What is a consequence of hypothermia in the high risk infant?
 - A. Decreased respiratory rate**
 - B. Increased surfactant production
 - C. Pulmonary vasodilation
 - D. Weight loss or failure to gain weight
5. Define Neutral Thermal Environment (NTE).

Neutral Thermal Environment is defined as the maintenance of the infant's temperature based on a stable metabolic state that calls for minimal oxygen and energy expenditure. The NTE is best achieved when infants can maintain a core temperature at rest between 36.5°C and 37.5°C.

Match the following strategies to the mechanism of heat loss (conduction, convection, evaporation, or radiation) that each intervention addresses.

6. Open incubator /isolette porthole and doors only when necessary **-Convection**
7. Avoid placement of infant bed near windows, doors, or walls **-Radiation**
8. Place cloth on infant scale before weighing the newborn **-Conduction**
9. Warm inspired oxygen when administering to the neonate **-Conduction**
10. Always dry infant immediately after bathing **-Evaporation**