

# Newborn Assessment and Nursing Care



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## **Note to instructors:**

This module provides an overview of the physiologic adaptation of the fetus to extrauterine life, nursing assessment of the newborn during this crucial time, and care unique to the newborn during the first few days of life. As you prepare this presentation, please incorporate information regarding your facility's policies or procedures for newborn assessment and care.

Additional teaching adjuncts such as anatomic charts, models and equipment relevant to the content presented, and guided clinical experience will be useful to reinforce the information presented in this module. These adjuncts should ideally include demonstration of the use of specialized equipment such as resuscitation equipment, radiant warmers, breast pumps and photo therapy equipment used in your facility.

Additional teaching methodologies such as simulation, demonstration and return demonstration in the clinical setting should be used as appropriate to validate achievement of knowledge and skills. For example, the presentation of physical assessment of the newborn didactic content provided in this module should be accompanied by guided clinical demonstration and return demonstration of newborn physical assessment skills.

Neonatal resuscitation principles and skills are not presented in detail in the module. Neonatal resuscitation should be presented as a separate learning experience according to your facility's policies and program guidelines.

Breastfeeding support content is presented in this module and in Module IV, Post Partum Assessment and Nursing Care. If you are presenting these modules as a series, you may forgo the breastfeeding slides.

## Objectives

- Describe physiologic changes that occur during the transition from fetal to neonatal life
- Describe the process of immediate newborn assessment & stabilization
- Identify interventions to prevent hypothermia
- Identify potential newborn risk factors and management to reduce risk or treat conditions
- Describe normal newborn behavioral states
- Describe routine care and assessment of the low risk newborn

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The objectives for this presentation are to:

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## Neonatal Transition Period



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The newborn's transition from intrauterine to extrauterine life is marked by a series of rapid and complex physiologic changes. Your assessment of these changes begins in the delivery room and continues through the infant's hospital stay. We will be discussing delivery room assessment and stabilization in a few minutes but first, it's important to understand the nature of newborn physiologic transitions.

While in the mother's uterus, the placenta serves as the fetal lungs; and is responsible for oxygen and carbon dioxide exchange. During pregnancy, the fetal heart is structured such that oxygenated blood from the placental blood vessels is diverted away from the fetal lungs, through the right side of the heart and into the fetal body (Askin, 2001).

During the birth process, fluid is squeezed from the fetal lungs. As the chest emerges, most healthy newborns will take their first breaths spontaneously. The onset of respiration stimulates a series of cardiopulmonary changes as the infant makes the transition from fetal to neonatal circulation (Askin, 2001) as we'll examine in these next few slides.

## Initial Newborn Assessment

- Stimulate & dry infant
- Assess ABCs
- Encourage skin-to-skin contact
- Assign APGAR scores
- Give eye prophylaxis & vitamin K
- Keep newborn, mother, & partner together whenever possible



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**As soon as the infant is born, she should be dried and stimulated. Airway, breathing and circulation are also assessed at the time of delivery.** Keeping the principles of preventing heat loss in mind, you'll **remove wet linens and place a cap on the newborn's head.** **As long as the mother and infant are in stable condition, skin-to-skin contact should be facilitated,** as we discussed earlier. **Apgar scores are assigned and other vital signs are assessed** based on the infant's condition and how long she'll remain in the birthing room with the mother. When there are no complications, mother and infant (and the primary support person) should remain together as long as possible (AAP & AHA, 2000; Askin, 2001; AWHONN, 2001).

**Eye prophylaxis** with single-use doses of sterile ophthalmic ointment containing 1% tetracycline or 0.5% erythromycin is usually done within the first hour after birth, but may be delayed until after the first breastfeeding. This medication is given to all neonates to prevent gonococcal ophthalmia neonatorum. As you administer the ointment, take care to ensure that the agent reaches all parts of the conjunctival sac and that it is not rinsed away with saline or distilled water. Excess solution can be wiped away after at least one minute (AAP & ACOG, 2002)

**Vitamin K** is given to prevent Vitamin K-dependant hemorrhagic disease of the newborn. A single dose of natural vitamin K1 oxide should be administered parenterally within the first hour after birth ( AAP & ACOG, 2002).

**Note to instructors:** Proceed to the next slide for more detailed information about Apgar scoring

## Nursing Care

- Check eye patches frequently
- Check positioning of equipment
- Record irradiance of bulbs in use
- Monitor temperature, skin integrity, intake and output



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The focus of your nursing care during phototherapy is to ensure that therapy is being given according to orders, and to help prevent side effects and complications. The infant's **eye patches should be checked frequently** to ensure that they provide retinal protection, are not causing corneal abrasion and do not cover the infant's nose. **The phototherapy equipment should be positioned properly and the irradiance of the bulbs in use should be documented. The infant's temperature, skin condition and integrity and intake and output should be monitored** to assess for signs of skin breakdown and dehydration (AWHONN, 2003).

**Note to instructors:** Please review your facility policy or procedures related to nursing care of infants receiving phototherapy.