

# **Child Health Care – Neonatal examination**

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*Lecture - 8*

# Learning Objectives

- By the end of this lecture the students will be able to :
- 1- Explain Examination conducted for the Neonates after delivery.
- 2-Identify main measurements done to neonates.
- 3-Describe “at risk infants “.
- 4-Mention late neonatal care.
- 5-Demonstrate low birth weight baby (LBW).
- 6-Review the factors associated with intrauterine growth retardation

# Neonatal examination

## **a-first examination**

- the first examination is made soon after birth, and preferably in the delivery room . the examination is to :
- -to ascertain that the baby has not suffered injuries during the birth process.
- -to detect malformation especially those requiring urgent treatment
- -to assess maturity

## **b-Second examination**

- should be made preferably by pediatrician within 24 hours after birth. It is a detailed systemic examination from the head to the foot & conducted in good light.

# Measuring the baby

## 1-Birth weight:

should be taken preferably within the first hour of life, before significant post -natal weight loss has occurred.

The average birthweight of infant is lower in many developing countries than it is in developed countries, the reason mostly is not of genetic origin but is due largely to maternal malnutrition.

## 2-Length (Hight)

This is not be taken immediately if the baby's condition gives rise to any anxiety. But should be recorded within the first 3 days by “ infanto-meter “.

## 3-Head circumference:

It is taken with a tape measure at the maximum circumferences of the occipital -frontal diameter.

# Identification of “at risk “infants

It is necessary to identify at risk infant to give them intensive care as they contribute to perinatal & infant mortality. The basic criteria to find those babies include:

1-birth weight less than 2.5 kg

2-twins

3-birth order 5 and more

4-Artificial feeding

5-weight below 70% of the expected weight  
(malnutrition)

6-failure to gain weight during 3 successive months

7-children with diarrhea

8-Infants for working mother / & for one parent

## Late neonatal care

- The remaining three weeks of neonatal period carry the common and serious hazards of infection and failure of nutrition. Diarrhea & pneumonia take a high impact on the life in infants exposed to an unsatisfactory environment.

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# Low birth weight (LBW)

Birth weight of an infant is the single most important determinant of its chances of survival , healthy growth and development. There are two main groups of low-birth-weight babies :

- Those born prematurity (short gestation)
- and those with foetal growth retardation.

By international agreement low birth weight has been defined as a birth weight of less than 2.5 kg regardless of gestational age.

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Apart from birth weight babies can also be classified into 3 groups according to gestational age :

- a-Pre-term : babies born before the end of 37 weeks gestation ( less than 259) days.
- b-Term: babies born from 37 completed weeks to less than 42 completed weeks ( 259-293) days of gestation.
- c-Post term: babies born at 42 completed weeks or any time thereafter (294 days and over ) of gestation.



LBW It includes two kinds of infants :

- **a-PRE-TERM BABIES:** these are babies born too early, before 37 weeks of gestation. Their intrauterine growth may be normal .that is their weight, length and development may be within normal limits for the duration of gestation. Given good neonatal care , these babies can catch up growth and by 2-3 years of age will be of normal size and performance.
- **b-SMALL- FOR-DATE (SFD) BABIES:** these may be born at term or pre-term. They weight less than 10<sup>th</sup> percentile for the gestational age. These babies are clearly the result of retarded intrauterine foetal growth.

# The factors associated with intrauterine growth retardation

Are multiple and interrelated to :

- Mother,
- the placenta
- or to the foetus.

The maternal factors include malnutrition, severe anemia, heavy physical work during pregnancy, hypertension, malaria, toxemia, smoking, low economic status, short maternal stature, very young age, high parity, close birth spacing and low educational status...etc.

- The placental causes include placental insufficiency , placental abnormalities. Intrauterine infections, chromosomal abnormality, and multiple gestation.

- SFD babies have a high risk of dying not only during the neonatal period but during their infancy, thus significantly rising the rate of infant and perinatal mortality and contribute greatly to immediate and long-term health problems.
- Most of them become victims of protein - energy malnutrition and infections.
- The percentage of LBW babies is computed:  
$$\frac{\text{Live -born babies with weight less than 2.5 kg}}{\text{Total number of live births}} \times 100$$

*Thank You*



**Thank You**