



RAMA
UNIVERSITY

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FACULTY OF NURSING

LOW BIRTH WEIGHT BABIES

**Nandni Shivhare
Nursing Tutor
Child health nursing**

DEFINITION

- According to WHO-

LBW babies are one whose birth weight is 2500 gm or less irrespective of gestational age.

Causes of LBW

A. Foetal Causes :

- Foetal distress
- Multiple gestation
- Erythroblastosis foetalis
- Placenta praevia
- Abruptio placenta
- Foetal abnormalities

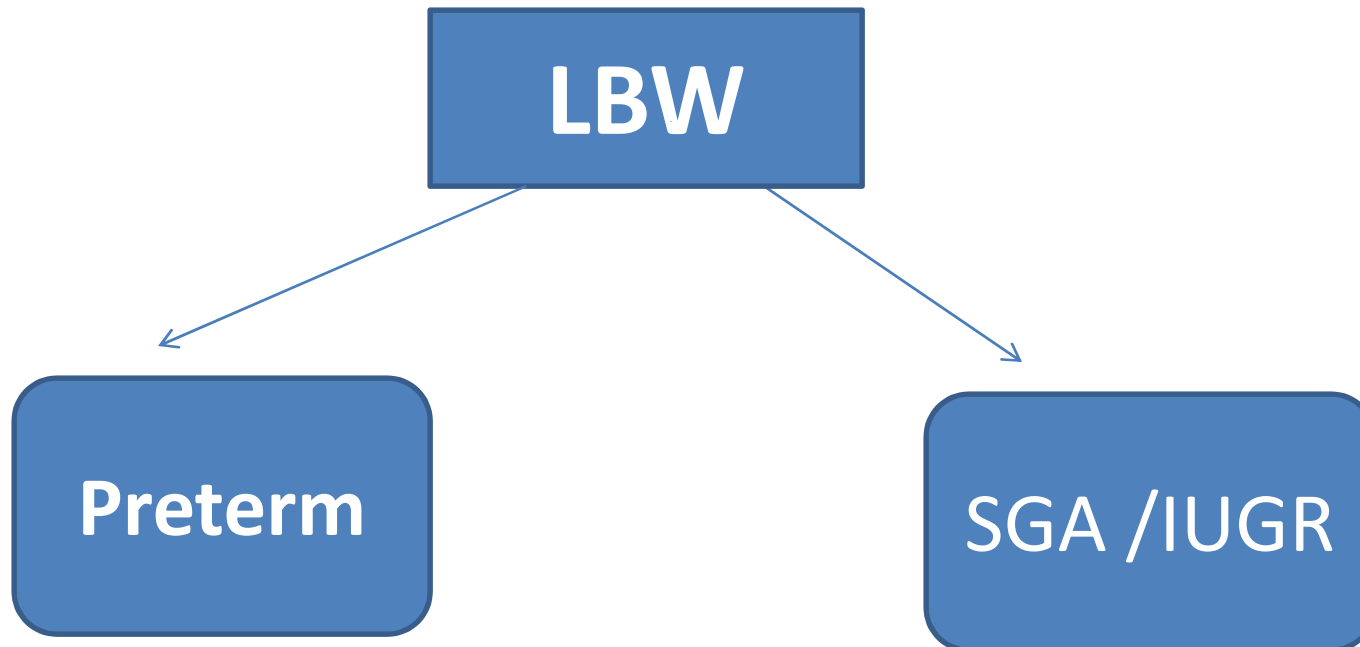
B. Maternal Causes :

- Maternal Malnutrition
- Poverty
- Multiple pregnancy
- Elderly gravida
- Illiteracy
- Chronic medical illness – CHD, CKD
- Infection during pregnancy – UTI, Chorioamnionitis

INCIDENCE-

- In India about 30-35% babies are LBW babies.

CLASSIFICATION-



DEFINITION-

1.Preterm baby:-

a)A baby born before 37 completed weeks of gestation calculating from the first day of LMP is defined as “preterm baby.” –

D.C Dutta

b) A fetus delivered between 20 & 37 weeks of gestation is “preterm baby.”

MANIFESTATION-

Anatomical:-

- a) The weight is 2500 gms or less & length is usually less than 44 cm.
- b) Head & abdomen are relatively large, skull bones are soft with wide sutures & post fontanel.
- c) Head circumference is disproportionately exceeds that of chest.
- d) Pinnae of ear are soft & flat.
- e) Eyes are kept closed.
- f) Skin is red shiny D/T lack of subcutaneous fat &

- g) Plantar creases are not visible.
- h) Testicles are undescended , labia minora are exposed because labia majora in contact.
- i) Nails are not grown right upto the finger tips.

FUNCTIONALLY-

- a) CNS:-** Lethargic & inactivity, poor cough reflex.
- b) CVS:-** About 1/3rd of babies have PDA.
- c) RS:-** RDS, pulmonary aspiration & atelactesis are common.
- d) GI:-** Difficulties in feeding D/T poor sucking, small capacity of stomach. Hepatic immaturity leads to hyperbilirubinaemia which may be aggravated by delayed feeding, dehydration & hypoxia.

e) Thermoregulation :-

Temperature regulating centre is immature, heat loss is excessive. Hence preterm infant develop hypothermia.

f) US:- D/T renal immaturity preterm infant develop elevation of BUL, BUN, acidosis & dehydration.

g) Infection:- low levels of IgG antibodies preterm babies are prone t infection.

PRINCIPLES OF MANAGEMENT

1. To maintain body temperature
2. Respiratory support
3. Prevention of infection
4. To maintain nutrition
5. Adequate nursing care

COMPLICATION-

1. Asphyxia
2. Cerebral hemorrhage
3. Fetal shock
4. Heart failure
5. Edema
6. Infection
7. Jaundice
8. Anemia
9. Retrolental fibroplasia

SMALL FOR GESTATIONAL AGE-

Definition:-

Babies with a birth weight of less than 10th percentile for their gestational age. They are also termed as small for gestational age (SGA)

CAUSES-

- **Maternal**

- short stature mother
- primi or grand multipara
- teenage pregnancy
- low Pre-Pregnant weight
- maternal illness- anemia, heart disease, malaria
- complications of pregnancy – PIH
- smoking alcoholism or drug abuse by mother

Placental factors:-

- ❖ disorders of placental implantation
- ❖ Abruptio placenta
- ❖ single umbilical artery
- ❖ structural & functional abnormalities of placenta
umbilical cord.

Fetal Factors:-

- ❖ first born babies are generally smaller
- ❖ twin or multiple pregnancy
- ❖ intrauterine infections
- ❖ genetic or chromosomal aberrations

Environment factors :-

- ❖ poor socioeconomic status
- ❖ nutritional habits
- ❖ cultural practices

CLINICAL FEATURES-

- **Asphyxia**
- **Respiratory difficulties**
- **Persistent foetal circulation**
- **Hypoglycemia**
- **Hypothermia**
- **Polycythemia**
- **Congenital malformation**
- **Immune status**

DIAGNOSIS-

Maternal Diagnosis-

- Teenaged pregnancy
- Elderly primigravida
- Post history of abortion/IUD
- Maternal complication with reduced uteroplacental flow
- Foetal HR monitoring
- Maternal alpha foetoprotien
- USG

Foetal Diagnosis-

- Reduced BW
- Soft tissue wasting; diminished skin, fold thickness, decreased breast tissue
- Widened skull sutures, large fontanelles
- Relatively large size of head
- “ Old men” look face
- Gestational age estimation

MANAGEMENT

1. During Pregnancy-

- No specific treatment to improve placental function
- ✓ Avoid smoking and alcohol
- ✓ 300 calories extra/day
- ✓ Adequate rest in left lateral position
- ✓ Treatment of complication
- ✓ Foetal anomalies to be rule out
- Identification of high risk factors monitoring

2. During delivery-

- Specialized care to avoid asphyxia & aspiration
- LSCS is required

3. Care of baby after birth-

- Neonatologist should be available
- NICU is required
- Determine the etiology

4. Intensive care protocols-

- Prevent & treat hypoglycemia
- Dextrose screening test

5. Feeding-

- Early feeding within 2-4 hours with 5-10 ml of 1 % of glucose
- Repeat at 2 hourly interval
- If possible use expressed breast milk/ humanised milk for 48 hours in small amount every hours

THANK YOU