




Profile of the Newborn and Characteristics of the Newborn

- Newborns may look alike, but each has their own physical attributes and personalities. Some newborns are fat and short while some are long and thin.
- The weight of newborns varies according to their race, genetics, and nutritional factors.



CONT...

- **Weight:-**The average weight of a normal full term newborn is about 2.9 kg with a variation of 2.5-3.9 kg or more. The weight is very variable from country to country .
- The newborn loses 5% to 10% of its birth weight during the first week of life, then regains the birth weight by 10th day and gains weight rapidly afterward.

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- The baby continues to gain weight about 20-30 g/day for next 3 months of age.
 - **Length:-** At birth the average crown heel length of the term infant is 50 cm with the range of 48-53 cm.
 - **Head circumference:-** The head circumference usually varies from 33-37 cm, with the average of 35cm.
 - **The chest circumference** in a mature newborn is 2 cm less than the head circumference.



VITAL STATISTICS

Parameter

- Weight
- Length
- Head circumference
- Chest circumference
- Abdominal circumference

Average

6.5 to 7.5 lbs (2.9 kg -3kg)

50 cm (20 inches)

33 to 35 cm (13 to 13.7 in)

31 to 33 cm or 2cm less
than head circumference

31 to 33 cm




VITAL SIGNS

• Vital Sign	Immediately At Birth	After Birth
• Temperature	36.5 to 37.2 Celsius	
• Pulse	180 beats/minute	120-140 B/M
• Respiration	80 brths/m	30-50b/m
• <u>Blood</u> Pressure	80/46 mmHg	100/50 mmHg (by 10 th day)



ASSESSMENT OF THE NEW BORN

- The period from birth to 28 days of life is called neonatal period and the infant in this period is termed as neonate or newborn baby. The first week of life is known as early neonatal period and the late neonatal period extends from 7th to 28th days of age.
- The healthy newborn infant born at term, between 38 to 42 weeks, cries immediately after birth, establishes independent rhythmic respiration, quickly adapts with the extra uterine environment, having an average birth weight and no congenital anomalies.

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- Assessment of the newborn, as soon as possible after birth are vital responsibility of the nurses working in the hospital or in the community. The assessment should include details history of prenatal and intranatal period and genetic history of family along with head to foot examination and review of maternal investigation.




ABGAR SCORE

- | CRITERIA | 0 | 1 | 2 |
|------------------|-------------|-----------------------------|------------------------|
| Respiration. | Absent | Slow Irregular | GoodCrying |
| Heart Rate. | Absent | Slow(Below 100) | Morethan 100 |
| Muscle tone. | Flaccid | Some flexion of extremities | Active body movements. |
| Reflex response. | No response | Grimace | Cry. |
| Skin colour. | Blue, pale | Body pink extremities blue | Completely pink |
- Total score=10
 - .No depression:7-10
 - .Mild depression:4-6
 - .Severe depression:0-3



PHYSICAL EXAM


- A complete physical exam is an important part of newborn care. The healthcare provider checks each body system is carefully for health and normal function. The provider also looks for any signs of illness or birth defects. Physical exam of a newborn often includes:
- **General appearance.** This looks at physical activity, muscle tone, posture, and level of consciousness.
- **Skin.** This looks at skin color, texture, nails, and any rashes.
- **Head and neck.** This looks at the shape of head, the soft spots (fontanelles) on the baby's skull, and the bones across the upper chest (clavicles).

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- **Face.** This looks at the eyes, ears, nose, and cheeks.
 - **Mouth.** This looks at the roof of the mouth (palate), tongue, and throat.
 - **Lungs.** This looks at the sounds the baby makes when he or she breathes. This also looks at the breathing pattern.
 - **Heart sounds and pulses in the groin (femoral)**
 - **Abdomen.** This looks for any masses or hernias.
 - **Genitals and anus.** This checks that the baby has open passages for urine and stool.
 - **Arms and legs.** This checks the baby's movement and development



CARE OF NEWBORN BABY


- Newborns undergo profound physiologic changes at the moment of birth, as they are released from a warm, snug dark liquid-filled environment that has met all of their basic needs, into a chilly ,unbounded brightly lit gravity based outside world. The immediate care that a child need is :
- Essential care of the normal healthy neonates can be best provided by the mothers under supervision of nursing personnel or basic/primary health care providers.

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- About 80 percent of the newborn babies require minimal care.
 - The normal term babies should be kept with their mothers rather than in separate nursery. Rooming in promotes better emotional bondage, and establishes breastfeeding easily.
 - Nursing care of healthy newborn baby after birth should be provided as immediate care of neonate and daily routine care.



1. ESTABLISH RESPIRATION AND MAINTAIN CLEAR AIRWAY

- The most important need for the new born immediately after birth is a clear airway to enable the newborn to breath effectively ,since the placenta has ceased to function as an organ of gas exchange. It is in the maintenance of adequate oxygen supply through effective respiration that the survival of the newborn greatly depends.
- Wipe mouth and nose of secretions after delivery of the head

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- 2. Suction secretions from the mouth and nose, compress bulb syringe before inserting suction mouth first, then the nose insert bulb syringe in one side of the mouth.
 - 3, A crying infant is a breathing infant, stimulate the baby to cry if baby does not cry spontaneously or if the cry is weak. Do not slap the buttocks rather rub the soles of the feet. Stimulate to cry after secretions are removed, The normal infant cry is loud and husky and observe the following abnormal cry:



2.WARMTH:

- Warmth is provided by keeping the baby dry and wrapping the baby with adequate clothing in two layers, ensuring head and extremities are well covered because baby loses heat through evaporation, radiation, conduction and through convection. Baby should be kept by the side of the mother, so that the mother's body temperature can keep the baby warm. Baby can be placed in skin to skin contact with mother to maintain temperature of infant and facilitate breathing . Ambient atmospheric temperature to be kept warm adequately(28 -32 c) and if the temperature falls below 25c then the baby should be kept under incubator to maintain the normal temperature of the baby.



3.SKIN CARE

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- The baby must be cleaned off blood, mucus and meconium by gentle wiping before he/she is presented to the mother. During hospital stay no bath should be given to the infants and dose not reduce the incidence of neonatal infections, No vigorous attempts should be made to remove the vernix caseosa as it provides protection to the delicate skin. Each baby should have own separate clothing and articles for care to prevent cross infection.



4.CARE OF THE UMBILICAL CORD

- The umbilical cord is cut about 2 to 34 cm from the navel with aseptic precautions during delivery and tied with sterile cotton thread or disposable plastic clip. The cord must be inspected afterwards for bleeding which commonly occurs due to shrinkage of cord and loosening of ligature. No dressing should be applied and the cord should be kept open and dry. Normally it falls off after 5 to 10 days but may take longer especially when infected



5. CARE OF THE EYES

- Eyes should be cleaned at birth and once every day using sterile cotton swabs soaked in sterile water or normal saline. Each eye should be cleaned using a separate swab. The eyes should be observed for redness ,sticky discharge or excessive tearing for early detection of problems and prompt management



6.VITAMIN K ADMINISTRATION

- Shortly after birth vitamin K is administered as a single intramuscular dose of 0.5 TO 1 mg to prevent hemorrhagic disease of the newborn also called vitamin K deficiency bleeding. Normally vitamin K is synthesized by the intestinal flora ,however because the infants intestine is sterile at birth and because breast milk contains low level of vit.K the supply is inadequate for at least first 3 to 4 days. The major function of vit,K is to catalyze the synthesis of prothrombin in the liver which is needed for blood clotting.



7. HEPATITIS B VACCINE ADMINISTRATION

- To decrease the incidence of hepatitis B virus in children and its serious consequences, cirrhosis and liver cancer in adulthood the first of three doses of hepatitis B vaccine is recommended soon after birth and before hospital discharge for all newborns.



8.BREAST FEEDING

- The baby should be put to the mother's breast within half an hour of birth or as soon as possible the mother has recovered from the exertion of labor. All babies should invariably receive the colostrums during first three days of life. Mothers should be informed about the importance and technique of breastfeeding. Initially the feeding should be given in short intervals of 1 to 2 hrs and then every 2 hrs. Nurses should assist the mother to feed her baby adequately for the maintenance of hydration and optimum nutrition. Exclusive breastfeeding procedures should be explained to the mother and family members.



9. PROTECTION FROM INFECTION AND INJURY

- The most important practice for preventing cross - infection is thorough hand washing of all the individuals involved in the infants care . other safety measures are practiced ,particularly in terms of proper identification and screening tests are used to detect various disorders.



ROUTINE CARE OF THE NEW BORN

- The newborn baby should be kept with the mother for continuous mothering in hospital or in home in a well-ventilated room .Baby should be handle with gentle approach after proper hand washing. No infected person should take care or touch the baby. Baby should be allow to sleep in supine position which can prevent sudden infant death syndrome. General cleanliness to be maintained and surrounding to be kept clean. Mother should be taught about art of mothering and to provide stimulation of touch and sound the baby.



OBSERVATION

- The baby should be thoroughly observed twice daily for early detection of any abnormality. Temperature, pulse/heart rate respiration, feeding behaviors ,stool, urine and sleeping pattern should be assessed .Mouth, eyes cord and skin should be looked for any infection. Daily routine observation is essential to detect the presence of danger signs for early interventions.



WEIGHT RECORDING

- The average daily weight in healthy term babies is about 30-g/day in the first month of life. It is about 20g/day in the second month and 10g/day afterwards during the first year of life. Most infants double their birth weight by 4 to 5 months. But in the first week of life there is physiological loss of body weight due to removal of vernix, mucus, blood passing of meconium and reduction of extracellular blood volume. With breast feeding majority of the babies regain the weight within the 7 to 10 days.




FOLLOW UP AND ADVICE


- Each infant should be followed up at least once every month for first three months and subsequently 3 months intervals till one year of age. Follow up is necessary for assessment of growth and development early detection and management of health problems. Health advice should be given during hospital stay and at the time of discharge regarding exclusive breast feeding, warmth, hygienic measures and immunization. Danger signs related to childhood illnesses should be explained to the mother and family members. Preventive measures against various child health problems like ARI, and Diarrhea should be informed.

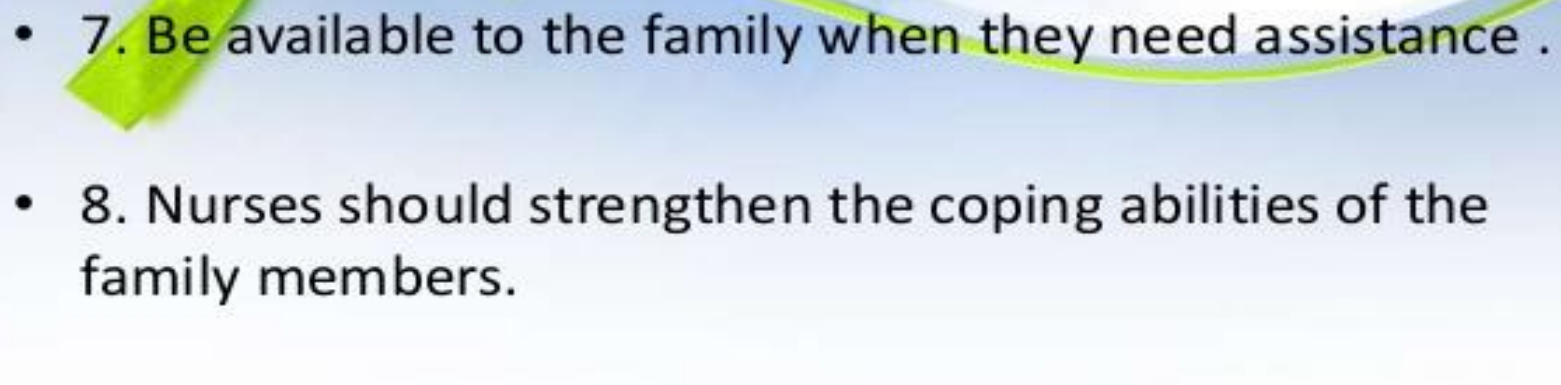


CARE TO THE FAMILY

- Illness and hospitalization are often critical events that a child is faced and the stress of it can effect all the family members, maternal stress and anxiety can also affect the child in two ways, transferring stress to the child and interfering with the mothers ability of childcare, Many aspects of the parents life will change during hospital stay, including their natural needs, social and economic issues which can cause stress and anxiety for the parents.

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- Feeling of stress and anxiety are often associated with the lack of information on disease and medical procedures, unfamiliarity with the hospital rules and regulations , unfriendly staff and being afraid of asking questions .It is the nurses responsibility to provide care to the family during their hospital stay by:
 - 1.Aware the family about the hospital policies, staff pattern.

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- 2. Allow the parents in taking care of their child, this promotes the bonding process.
 - 3. Give positive feedback to the parents when they need the assistance of the nurses.
 - 4. Assess the family situation regularly.
 - 5. Nurses should provide supportive environment.
 - 6. Provide support in decision making.

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- 7. Be available to the family when they need assistance .
 - 8. Nurses should strengthen the coping abilities of the family members.
 - 9. what ever the information they need the nurse should be available to provide about the Childs health.
 - 10. Help the family to be involved in various organizations which provide financial assistance to the child during their course of treatment, so that financial support will be provided.

Thank You!