

## Premature Infants And Methods Of Care In Pediatric

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### **Abstract:**

Premature babies are those born before 37 weeks of gestation or with a birth weight of less than 2500 grams. This problem is relevant all over the world and has a serious impact on infant mortality and child health in many countries. According to statistics, millions of premature babies are born worldwide every year, and many of them have problems with survival or development, depending on the care conditions.

### **Keywords :**

Premature baby, care, neonatology, respiratory problems, feeding, complications , immune system, developmental monitoring, home care, treatment methods.

Whether a Baby (Fetus) Was Born Alive and Full-Term , babies born before the gestational age of 38-40 weeks, which is equivalent to 9 calendar and 10 obstetric months, weighing less than 2,500 grams and measuring less than 45 cm in length, are considered premature.

The lower limit of prematurity is set at 1000 grams of weight and 35 cm of neck length . Babies born with measurements below the specified limit are considered premature, and if they survive and are discharged home, they are given a certificate of prematurity. In addition to information about the weight and height of the child, the following objective, that is, external signs of premature babies should also be taken into account.

The degrees of disability are determined based on: Birth weight:

Grade I - from 2500 to 2001 grams,

Grade II - from 2000 to 1501 grams,

Grade III - from 1500 to 1001 grams,

Grade IV - less than 1000 grams.

Depending on the duration of pregnancy:

Grade I - 37-35 weeks,

Grade II - 34-32 weeks,

Grade III - 31-29 weeks,

Stage IV - less than 28 weeks.

Premature babies have poorly developed subcutaneous fat, low skin turgor and elasticity, so their bodies, arms and legs, and especially their faces, are covered with a lot of hair. In premature babies, the skull bones are often fused together, and the small frenulum is open in most children. The earlobes are soft, adherent to the head, and the head is slightly larger than the chest.

The baby's nails have not grown to the tips of the fingers , in girls the labia majora do not cover the genital slit and clitoris, and in boys the testicles have not descended into the scrotum. The umbilical ring is located below the line passing between the scrotum and the pubic symphysis. The more premature the baby is, the lower the umbilical ring is located below the mentioned line. All instruments and equipment used during childbirth should be heated.

premature babies, only rapid separation from the mother and prophylaxis of ophthalmoblenorrhea are performed. All other procedures are performed on a heated table. In cases where the baby is born weighing less than 2000 grams , anthropometric measurements can be postponed.

The following conditions should be considered when caring for premature babies :

- Ensuring a constant room temperature ;
- Continuous supply of hot water;

- level of sanitary and hygienic requirements ;
- Good lighting;
- sufficient supplies and equipment .

Rubber warmers, heated blankets, heated changing tables, electrified warming beds, and incubators are used to maintain a premature baby's body temperature .

Warming procedures for premature babies - if the baby is born weighing less than 1500 grams, it is continued for 5-6 weeks, if the baby is born weighing 1500-2000 grams, it is continued for 2-3 weeks. In order to prevent asphyxia in premature babies, it is recommended to lie with the head elevated and feed, and give oxygen for 10-15 seconds before and after bathing for the first 2-3 weeks. If asphyxia begins , the baby is given humidified oxygen, 5 or 10% glucose solution (with the addition of 10% calcium gluconate solution if necessary) is administered intravenously. Symptomatic treatment measures are carried out under the supervision of a doctor.

It is necessary to be very careful when caring for the umbilical cord and wound of premature babies. In them, the umbilical cord falls off later than in healthy babies, that is, at 2 weeks. The lower the birth weight of the baby , the later the umbilical cord falls off. After the umbilical cord falls off and the wound heals, the baby is definitely bathed.

A premature baby is bathed in the same way as a normal baby. Babies weighing less than 1500 g are bathed 3 weeks after birth, and babies weighing more than 1500 g are bathed 10-15 days after birth . The water temperature during bathing should be 38-39° C, the bathing time should be 4-5 minutes, and the room temperature should be 23-24° C. Premature babies have a unique physical development in the first year of life. Such babies weigh much less than normal babies in one month, but they grow and gain weight faster in the following months than normal babies. The lower the baby is born, the faster it gains weight.

of premature babies is not fully formed, most of their vital functions, including breathing, heart activity, thermoregulation and digestive system development, are not at the final stage of development. In particular, their skin is very thin, the fat layer is almost undeveloped, thermoregulation is weak, and the immune system is not sufficiently active. This makes them very sensitive to external influences and various infections. Therefore, caring for premature babies is an important process that requires a specific approach and special attention.

premature babies are respiratory failure, heart failure, hypothermia, infections, circulatory disorders and nutritional problems. Such babies often face complications such as respiratory distress syndrome, intestinal necrosis, sepsis, bleeding. Therefore, their daily care and health monitoring should be carried out constantly, under the supervision of specialists .

for premature babies is to ensure that they maintain the right temperature. After birth, the baby loses heat quickly, so it is advisable to keep it in a warm and stable temperature environment, in an incubator or in special places with deep heating. The temperature should be constantly monitored , the baby's body temperature should not drop. Because hypothermia aggravates the baby's condition and can lead to the development of other complications.

The nutrition of these babies is also very important. Usually, premature babies have poorly developed sucking reflexes, sucking and swallowing movements. Therefore, they are often fed through a special tube or parenterally. If the child is able to suck and swallow independently , the best option is to use mother's milk, because mother's milk plays an invaluable role in strengthening the immune system of premature babies and protects against infectious diseases. In addition, through mother's milk, the child receives nutrients, vitamins and enzymes that he lacks.

have immature respiratory systems , so they may need special respiratory support systems, such as oxygen therapy or a ventilator. Oxygen levels, blood pressure, and heart rate need to be monitored regularly. In many cases, babies are given medications, inhalers, and assistive technologies to help them breathe from the first few days.

Infections are a serious problem in premature babies, and to prevent them, it is very important to strictly follow the rules of cleanliness, sterilize all medical equipment, and strictly follow the rules of personal hygiene for the baby's caregivers. Premature babies often get infected quickly because their immune system is not fully formed, bacterial or viral infections develop quickly and their complications are severe. Therefore, babies should be cared for in special isolation rooms, in safe conditions.

for premature babies, it is very important to monitor them in all respects, regularly monitor their vital signs. Each baby experiences problems individually, therefore, it is of paramount importance for medical workers to approach each one individually, correctly assess their condition and take the necessary measures in a timely manner. At the same time, it is necessary to pay attention to the psychological state of both the child and the mother.

For premature babies, it is recommended to maintain the room temperature at around 32-34°C and the relative humidity at 60-70%. The baby's skin is constantly checked, and if changes in skin color and moisture are observed, immediate medical care is provided. Most premature babies develop jaundice, and in such cases, phototherapy is often used. It is important to record daily growth dynamics and analyze weight gain. An important part of the care process is maintaining hygiene. It is necessary to always keep the baby's diaper clean, take care of the skin, and use special hygiene products.

In young children, the weakness of the subcutaneous tissue and thin skin are the “entrance gates” for infections. The washing process requires a special approach, it is necessary to be careful with any exposure. For every neonatologist and nurse to correctly apply their knowledge and skills in practice when working with premature babies, to have the ability to actively observe, notice all changes in time and act effectively. At the same time, the effective use of modern technologies, new medications, diagnostic and treatment methods can also lead to high results.

When premature babies are discharged home, parents are given special instructions. At home, special temperature and humidity conditions, cleanliness, hygiene, feeding regimen, and medical supervision are provided for the child. Even at home, the further development, growth, weight gain, immunity, and the development of various complications of premature babies should be under constant medical supervision. Compliance with the recommendations given by specialists is a key factor in the healthy growth and development of a premature baby. The birth of premature babies and their treatment and care process are leading to a radical improvement in the efficiency of modern neonatal services.

Currently, in many countries, including the Republic of Uzbekistan, maternal and child health protection and provision of specialized medical care to premature babies are one of the priority areas of state policy. The qualifications of specialists in pediatrics, neonatology, nursing and other fields are being improved, standards of care based on modern technologies are being developed and put into practice. Comprehensive measures taken in relation to premature babies contribute to improving the survival rate of children, their healthy and harmonious adulthood. This problem can be effectively solved with the help of the will and attention of medical workers and parents, and the proper organization of control activities.

**Conclusion:** In conclusion, premature babies are one of the most complex areas of modern medicine, requiring attention and care. Strengthening their health and ensuring healthy growth is carried out in a combination of medical skills, technological achievements and human love. For premature babies to reach a healthy adulthood, first of all, stable and effective care, proper nutrition, hygiene and caution are considered the main conditions. This process is complex and responsible, requiring close cooperation between specialists and parents. For the future of a healthy society, each of us must contribute to the health of the younger generation.

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