

# Treatment of the newborn after birth

**Birth of a living child** is its complete expulsion or removal from the mother's body, regardless of the length of pregnancy - if the fetus breathes after birth or shows other signs of life such as heart activity, cord pulsation, or undisputed skeletal muscle movement, whether or not the cord has been severed or the placenta attached. <sup>[1]</sup>

Newborns must be treated immediately after birth so that, for example, they do not catch a cold.

## The first treatment of a newborn

Physiological newborns are cared for by a pediatric nurse or a midwife. Pathological and premature newborns are treated by a pediatric nurse and a doctor (neonatologist or pediatrician).

### Severing the umbilical cord

For newborns who do not require resuscitation, delayed cord clamping is recommended, i.e. severing the umbilical cord at least one minute after birth or after the umbilical cord has been palpated. <sup>[2]</sup>

### Heat loss prevention

If the newborn does not require resuscitation, i.e. that he has normal muscle tone, breathes, cries and is full-term, just dry him, place him on his mother's chest (*skin-to-skin*) and cover him with a dry blanket. If the newborn requires stabilization or resuscitation, we need to place him on a warming bed, dry him, remove wet diapers, open his airway, and stimulate him. <sup>[2]</sup>

### Assessment of heart action and breathing

30 s after birth, cardiac and respiratory actions are assessed. In case of bradycardia (heart rate < 100/min), apnea or gasping, artificial pulmonary ventilation is started (further see cardiopulmonary resuscitation of a newborn); <sup>[2]</sup>

### Evaluation of Apgar score

At 1, 5 and 10 minutes after birth, the Apgar score is assessed. This scale assesses respiration, heart rate, skin color, tone, and reaction to irritation (0-10 points).

MediaWiki:Medical Calculator/Apgar



Severing the umbilical cord



Heart and breathing assessment

### The definitive ligation of the umbilical cord

According to workplace customs, the umbilical cord is tied either with a clamp or a rubber band.

### Weighing, length measurement and TT

In the breech position, the length of the newborn is measured later. We have to wait for the flexed position of the lower limbs to relax.

### Newborn identification

In order to prevent newborns from being confused, we must be able to identify them using at least two systems according to the practices of the maternity hospital. These are, for example, an identification bracelet, a number on the chest and a number on the hand.

### Newborn clothes

We swaddle the newborn so he doesn't get cold, and we put a cap on him, because he loses the most heat over his head.

### Eye drops

Prevention of gonococcal conjunctivitis in newborns is O-Septonex gtt drip. into eyes. Technically, this is called credification.

#### Vitamin K administration

Vitamin K is administered immediately after birth i.m. or p.o. Intramuscular vitamin K only needs to be given once, while per os must be given once a week for 12 weeks. This prevents bleeding due to vitamin K deficiency, which can be unexpected and occurs mostly in completely healthy-appearing newborns and infants. <sup>[3]</sup>

#### Breastfeeding support

In order to correctly start lactation immediately after birth, it is important that the mother is adequately instructed. The child must be in close contact with the mother in time and not disturbed by anything. Each child adapts differently quickly and the mother must react correctly to his desire to suck. A newborn baby begins to suck effectively after about an hour of life.

#### Introduction of documentation

We must not forget that the newborn is actually a newly arrived person, and therefore we must start keeping him in our patient registry by establishing documentation. <sup>[4]</sup>

#### Umbilical cord blood examination

Shortly after the birth, blood is taken from the umbilical stump left on the placenta. Blood is sent to:

- **Serological examination** to rule out syphilis (using TPHA and RRR). This is done routinely and mandatory for all newborns,
- **ABR examination** in case of suspected perinatal asphyxia,
- **Blood group examination** of the child and Coombs test when there is a risk of incompatibility.

## Care of neonates at risk of GBS infection

In GBS-positive or unexamined mothers (*Streptococcus agalactiae* in the vagina), in whom intrapartum chemoprophylaxis was not sufficient (Penicillin G i.v. every 4 hours until delivery) and risk factors are not present, increased observation of the newborn is recommended after for a period of 48 hours (monitoring of heart rate, breathing, temperature at intervals of no longer than 3 hours).

In addition, if any of the risk factors are present (febrile of the mother during childbirth, premature outflow of amniotic fluid longer than 18 hours, gestational week 35 or less, previous child with GBS infection, GBS bacteremia during pregnancy), increased observation is recommended newborns for 48 hours, examination (KO + diff., CRP, blood culture within 12 hours after birth) and therapy for clinical or laboratory signs of infection.

No measures are necessary for cesarean delivery if there was no breach of the amniotic membranes and the outflow of amniotic fluid before the cesarean section and labor did not begin. <sup>[5]</sup>

 For more information see *Infection caused by Streptococcus agalactiae*.

## Care of newborns at risk of hypoglycemia

Newborns at increased risk of hypoglycemia include:

- immature newborns including *late-preterm* (35 to 37 bw),
- hypotrophic newborns,
- hypertrophic newborns,
- newborn of diabetic mother,
- newborns exposed to perinatal asphyxia

Preventive measures include early initiation of nutrition (breastfeeding) and glycemic monitoring. <sup>[6]</sup>

## Notes

### TB vaccination

- since November 2010, vaccination against tuberculosis is not mandatory, it is exclusively intended for children exposed to an increased risk of tuberculosis.

### Hormonal response

- in some full-term infants, we can observe hormonal phenomena due to the influence of maternal estrogens, progesterone and prolactin;

- mammary gland reaction (Halban's reaction) – temporary swelling of the gland, sometimes with secretion;
- or there may be mucous discharge from the vagina of girls (possibly even bleeding);
- both conditions resolve without treatment.

## Skull Ossification

- a healthy full-term baby has an open large fontanel, the seams are not fused;
- large fontanelle closes by 12-18 months of life;
- small (if it was opened) closes within 2-4 months.<sup>[7]</sup>

## Odkazy

### Související články

- Kardiopulmonální resuscitace novorozence
- Charakteristika novorozeneckého období

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Kategorie:Pediatric Kategorie:Neonatology Kategorie:Obstetrics