Queensland Health

Newborn Hypoglycaemia

What is newborn hypoglycaemia?
Hypoglycaemia is when blood glucose (sugar) levels are low. A normal blood glucose level for a baby is 2.6mmol/L or above. This level of blood glucose is needed for the body to function properly.

Is hypoglycaemia harmful to your baby?
Normal blood glucose levels are required for healthy brain, muscle and other organ function. Severe or persistent low blood glucose levels can damage your baby's brain. Babies who are known to be at risk of developing low blood glucose will receive prompt testing. Appropriate treatment and close monitoring will reduce the chance of any harm to your baby.

How do you know if your baby has hypoglycaemia?
Your baby may show some visible signs of hypoglycaemia; however this varies with every baby and some babies may have no signs. A baby with low blood glucose levels may show any of the following:
- not feeding well
- a weak or high-pitched cry
- jitteriness or tremors
- skin is cool to touch
- being weak with limp arms and legs
- breathing very fast
- sweating

If your baby has any of the above signs, or is at risk of having low blood glucose, a simple blood test will be recommended to find out your baby’s blood glucose level. This test involves taking a small drop of blood from your baby’s heel. If your baby’s blood glucose level is low your health care provider will discuss treatment options with you.

Are some babies more likely to get hypoglycaemia than others?
Yes, babies are more likely to become hypoglycaemic if their:
- birth weight is less than 2,500 grams
- birth weight is greater than 4,500 grams
- mother has diabetes (type 1, type 2, gestational)
- body is under stress, such as requiring resuscitation immediately after birth or being cold (low body temperature); stress causes a baby’s body to use more glucose

Or they are:
- not feeding well
- born early (before the 37th week of pregnancy)
- too small for the number of weeks they have been in the uterus
- too large for the number of weeks they have been in the uterus
- sick or unwell (e.g. babies who have an infection)
- born with a health problem that is known to cause low blood glucose (e.g. liver disease, birth defects, congenital metabolic diseases)

What can be done to prevent hypoglycaemia?
After birth, newborn babies need to adjust to life outside the uterus. Maintaining a healthy blood glucose level is part of this change. To reduce the risk of your baby becoming hypoglycaemic it is important to:
- keep your baby warm, particularly after birth
- hold your baby in skin to skin contact as soon as possible after birth (this also depends on your baby’s condition)
- feed your baby shortly after birth (within 30-60mins)
- keep you and your baby together (where possible) to encourage early and frequent feeding
- offer feeds at least 3rd hourly (or more frequently) to babies who are at increased risk of becoming hypoglycaemic

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What is the treatment for hypoglycaemia?
Treatment for hypoglycaemia depends on how low your baby’s blood glucose level is and how well your baby is feeding. In some cases, frequent feeding is enough to improve your baby’s blood glucose level. In other cases your baby may be given:
- extra expressed breast milk
- a glucose gel that is placed in your baby’s mouth or
- infant formula with your consent

If the blood glucose level is very low, your baby is unwell or the blood glucose does not improve after feeding, glucose may need to be given directly through a drip into your baby’s vein. In some situations your baby may require specialist care in a special care nursery and/or neonatal intensive care unit. If your hospital cannot provide this specialist care, your baby may be transferred to another hospital.

Testing and monitoring of your baby’s blood glucose levels will continue until your baby is feeding well and the blood glucose results are within a healthy range.

Can you still breastfeed if your baby has hypoglycaemia?
Yes. When your baby has low blood glucose levels it does not mean there is anything wrong with your breast milk. Breastfeeding early and often helps your baby maintain healthy blood glucose levels. If your baby is not feeding well or is unwell, it is very important to express your breast milk frequently. This milk can be given to your baby until your baby is ready to breastfeed.

What causes ongoing hypoglycaemia?
Hypoglycaemia with treatment usually only lasts from a few hours to a few days, however hypoglycaemia that continues beyond this may be caused by conditions that:
- lower the amount of glucose in the blood stream
- prevent or reduce the storage of glucose
- use up glucose stored in the liver (glycogen stores)
- stop or delay the use of glucose by the body

These conditions are usually rare, however if hypoglycaemia continues your health care provider will discuss further investigations and treatment options with you.

If you have comments about this parent information sheet please email guidelines@health.qld.gov.au

Support & Information
13HEALTH (13 432584) is a phone line that provides health information, referral and services to the public.
Child Health Service Provides newborn drop-in services, early feeding and support, child health clinics. Refer to www.childrens.health.qld.gov.au/community-health/child-health-service for your nearest service
Pregnancy, Birth & Baby Helpline 1800 882 436 (free call) offers free, confidential, professional information and counselling for women, their partners and families relating to issues of conception, pregnancy, birthing and postnatal care www.health.gov.au/pregnancyhelpline
Australian Breastfeeding Association 1800 686268 (breastfeeding helpline). Community based self-help group offers information, counselling, and support services, on breastfeeding issues www.breastfeeding.asn.au
Lifeline 13 11 14 Lifeline offers a telephone crisis support service to anyone www.lifeline.org.au

Figure 2. Woman breastfeeding