Hypoglycaemia in a newborn baby

What does ‘hypoglycaemia’ mean?
Hypoglycaemia means the glucose (or sugar) level in your baby’s blood is lower than normal.

What is newborn hypoglycaemia?
The blood glucose level (BGL) for a newborn baby should be above 2.5 mmol/L. However, in the first couple of hours after birth it may drop lower than this as your baby adapts to life after birth. If this happens once just before a feed and your baby is well, this can be normal.

By the time your baby is 48 hours old the BGL is expected to be 3.3 mmol/L or more.

Does hypoglycaemia harm your baby?
Normal levels of glucose in the blood are needed for the body to work properly and for healthy functioning of the brain, muscles and other organs.

If your baby’s blood glucose level is low for a long time, drops low often or is very low at any time, it may harm the way your baby’s brain develops and grows.

However, hypoglycaemia can usually be easily found and managed.

What can be done to prevent your baby getting hypoglycaemia?
You can reduce the risk of your baby becoming hypoglycaemic by:

- Keeping your baby warm
- Holding your baby skin-to-skin (this may depend on your baby’s overall condition)
- Feeding your baby within the first hour after they are born if they are well enough
- Keeping your baby with you (where possible) to encourage early and frequent feeding
- Offering a feed at least every 3 hours if they are at risk of becoming hypoglycaemic
- Watching for signs of hypoglycaemia

What causes babies to get hypoglycaemia?
Your baby is more likely to become hypoglycaemic if their:

- Birth weight is less than 2.5 kg
- Birth weight is more than 4.5 kg
- Mother had diabetes during pregnancy
- Body is under stress, for example, they needed help to start breathing at birth (resuscitation) or have a low body temperature

Or they are:

- Not feeding well
- Born early (before the 37th week of pregnancy)
- Smaller or larger than would be expected for the number of weeks of pregnancy at birth
- Sick or unwell, for example, have an infection
- Born with a condition known to cause hypoglycaemia, for example, liver disease

How do we know if your baby has hypoglycaemia?
Any risk to your baby can be lowered by testing your baby’s blood glucose level and watching for signs of hypoglycaemia.

Some babies show signs of a low blood glucose level such as:

- Not feeding well
- Weak or high-pitched cry
- Jitters or tremors
- Cool skin to touch
- Floppy arms and legs
- Fast breathing
- Sweating

A blood test that measures your baby’s glucose level may be the first sign that the level is low. The test is done by taking a small sample of blood from your baby’s heel.

Your baby will be comforted if you cuddle them when this test is done. If your baby is well, they may be able to breastfeed or have a small amount of sucrose given to reduce pain during the blood test. Skin-to-skin contact, swaddling and being there when the blood is being taken all help to reduce the pain.
What is the treatment for hypoglycaemia?

Treatment for hypoglycaemia depends on how low your baby’s blood glucose level is, how well they are feeding and if they have any other health concerns (such as breathing problems).

Sometimes, frequent feeding is enough to improve your baby's blood glucose level.

Glucose gel placed in your baby’s mouth before a breastfeed may be enough to improve the blood glucose level. Sometimes, extra expressed breast milk or infant formula (with your consent) may be given via a tube into your baby’s stomach. This can be safer and easier for your baby than glucose via an IV, and it may help your baby’s blood glucose level return to normal more quickly.

If the blood glucose level is very low, your baby is unwell or there is no improvement after feeding, an intravenous (IV) line is needed to give the glucose. Sometimes medication is needed to treat the hypoglycaemia.

Your baby may go to the special care nursery or intensive care unit. If your hospital can’t provide this specialist care, they may need to be transferred to another hospital.

Your baby’s blood glucose level will be checked until your baby is feeding well and the blood glucose level stays within a normal range.

Can you breast feed if your baby has hypoglycaemia?

Yes, breastfeeding your baby early and often, will help keep the blood glucose level in a normal range. If your baby is not feeding well or is sick, you can express your breastmilk. This milk can be given to your baby until they are able to breastfeed.

What causes ongoing hypoglycaemia?

When hypoglycaemia is treated it usually only lasts from a few hours to a couple of days. If the hypoglycaemia lasts longer than this it may be caused by conditions that:

- Lower the amount of glucose in the bloodstream
- Stop the glucose being stored in the body
- Use up the glucose stored in the body
- Stop or delay the use of glucose by the body

These conditions are rare. However, if the hypoglycaemia continues your baby may need other tests and treatments. Your healthcare team will talk with you about this.

Support & Information

13HEALTH (13 432584) is a phone line that provides health information, referral and services to the public. www.qld.gov.au/health/contacts/advice/13health

Lifeline 13 11 14 Lifeline offers a telephone crisis support service to anyone www.lifeline.org.au

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

Preterm Infant’s Parent Association (PIPA) 1300 773 672 http://www.pipa.org.au/

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

This information sheet aims to answer some commonly asked questions about newborn hypoglycaemia.

IMPORTANT: This is general information only. Ask your doctor, midwife or nurse about what care is right for you and your baby.