

## Vitamin K and newborn babies

Vitamin K is needed by humans for blood clotting. Older children and adults get most of their vitamin K from bacteria in the gut, and some from their diet. Without enough vitamin K, small cuts can go on bleeding for a very long time and big bruises can happen from small injuries. Bleeding can also occur in other parts of the body, such as the brain (causing one type of stroke).

Babies have very little vitamin K in their bodies at birth. Vitamin K does not cross the placenta to the developing baby, and the gut does not have any bacteria to make vitamin K before birth. After birth, there is little vitamin K in breast milk and breastfed babies can be low in vitamin K for several weeks until the normal gut bacteria start making it. Infant formula has added vitamin K, but even formula-fed babies have very low levels of vitamin K for several days.

With low levels of vitamin K, some babies can have very severe bleeding - sometimes into the brain, causing significant brain damage. This bleeding is called haemorrhagic disease of the newborn (HDN).

### Informed consent

For more than 20 years, all newborn babies have been given vitamin K at birth, by injection. This has been found to be very safe, and HDN was not seen in Australian babies. However, although the program was in place to give the injections, most parents did not get any information about the injection and why it was given. When some concern about its safety was published in an international journal, there was a considerable outcry - not so much about its safety (it was quickly shown to be both extremely safe and extremely effective), but about the fact that parents were not given information about the need for the injection, or given the opportunity to make an informed decision about an injection given to their baby.

### Injections or drops

For a short time, when concerns were first raised about the safety of vitamin K injections, parents were given information to make an informed decision and they were offered the opportunity to have their babies given vitamin K by drops, rather than injection. Two doses of drops were needed for all babies (one at birth and one 3 to 5 days later), and another in the fourth week, if the baby was breastfed.

During the time that many babies were getting vitamin K by drops, several babies in Australia had severe episodes of bleeding, which were probably due to HDN. It seemed very clear that getting vitamin K by one injection is far safer and more effective than by three sets of drops.

### It's your choice

Parents do not have to allow their baby to have a vitamin K injection, but it is very strongly recommended that they do give permission for it. Vitamin K injections have been routinely given in Australia for over 20 years, with no ill effects at the time of the injection, or later. Some babies have a slight soreness for a day or so at the injection site. Vitamin K injections remain the best preventive measure for reducing the risk of haemorrhagic disease of the newborn.

### Child Health Record

When a baby is given vitamin K by injection or oral dose, this needs to be recorded in the child's Health Record. The Victorian Child Health Record is given free of charge to parents after the birth of their baby.

### Where to get help

- Your doctor
- Maternity hospital
- Maternal and child health nurse.

## Things to remember

- Vitamin K is needed for blood clotting.
- Newborn babies are given vitamin K injections to prevent a serious disease called haemorrhagic disease of the newborn (HDN).
- Vitamin K can be given by mouth if preferred, but oral doses aren't as effective.

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