



Vitamin K

Newborns are born with a blood level of vitamin K that is 30-60% the level of a normal adult. After birth, a baby's vitamin K levels will steadily rise until they are similar to that of an adult by about 6 weeks of age. However, the placenta tightly controls vitamin K levels of the baby in utero and no amount of vitamin K supplements the mother takes will alter these levels. Because vitamin K is essential to both coagulation and to cell division, and an unborn baby passes through stages of extremely rapid cell division and growth, it is speculated that the low levels of vitamin K in the blood stream prevent cell division from running rampant and potentially causing harm. Colostrum is high in vitamin K, so a breastfed baby will immediately begin getting supplements of vitamin K.

An injection of vitamin K (1.0 mg) is routinely administered to all newborns to prevent Vitamin K Deficiency Bleeding (VKDB), caused by low levels of vitamin K-dependent blood clotting factors. VKDB is a condition in which uncontrolled internal bleeding may cause serious injury or even death. It presents with symptoms including: bleeding from the umbilical stump, bruising, and painful crying. VKDB can be further broken down into three categories as follows:

Early VKDB, which occurs in the first 48 hours of life, is rare and is **not** caused by the naturally "low" levels of Vitamin K found in all newborn babies. It almost exclusively occurs in babies whose mothers are on medication to prevent seizures or have been treated for TB during pregnancy. It can be prevented by the administration of Vitamin K at birth.

Classic VKDB, is the most common form and occurs in the first week of life in 0.25 – 1.5% of newborn babies depending on what research papers you read. It is associated with inadequate intake of Vitamin K following birth probably as a result of a delay in feeding or an inadequate volume of breastmilk. It is important to note that nearly all the research on Classic VKDB was done at a period of time when mothers were encouraged to restrict feedings and to place their newborns on a strict schedule from birth.

Late VKDB is very, very rare and very, very serious. It occurs in infants between 2-12 weeks of age in 4-7 per 100,000 babies. Most of these babies are found to have cholestatic liver disease or cystic fibrosis. Others have severe malabsorption syndromes. The bleeding is a symptom of the underlying disease, **not** of vitamin K deficiency. The rate of Late VKDB can be reduced to 1.4 – 6 per 100,000 babies by giving the newborn an injection of Vitamin K which will prevent the development of late VKDB in some babies,.

The benefit of supplementing a newborn with a single injection of 1 mg of vitamin K at birth results in a statistically significant lowering of the rate of VKDB. An alternative oral dosing of vitamin K is recognized in European and other countries, but not in the United States. Unfortunately, the oral form used by those countries is not available here.

There is some controversy surrounding injected vitamin K, as the standard dose of 1 mg of vitamin K is much more than the amount naturally occurring in the body of the newborn. In addition, it is not completely understood how the injection protects against VKDB. In 1992 a research study in the United Kingdom showed a possible link between children who had been injected with vitamin K having a stronger likelihood of contracting childhood leukemia. This caused a huge uproar in the medical community and for a while vitamin K injections were suspended in the UK. The research was repeated with different and larger populations many times and the link was never repeated. At this time, it has been legitimately decided that the original research was a random fluke. It is still a popular objection on the internet as to why not to get the shot, so be aware that this has been debunked.

It is highly recommended, and mostly required by most doctors that a baby boy be given a vitamin K injection if he is to be circumcised.

References:

<http://patient.info/doctor/vitamin-k-deficiency-bleeding>

<http://evidencebasedbirth.com/evidence-for-the-vitamin-k-shot-in-newborns/>

Informed Choice for Vitamin K:

-I choose to **accept** an injection of 1 mg vitamin K for my child to be administered within 12 hours of birth.

Signed _____ Date _____

Midwife Signature _____ Date _____

After reading and understanding the above information, I choose, from the following options:

-I choose to **decline** prophylactic vitamin K for my child via injection. I will keep a close watch for possible symptoms of VKDB which include blood oozing from the umbilical cord, blood in the urine, or blood in the stool.

Signed _____ Date _____

Midwife Signature _____ Date _____