Vitamin K

Purpose of Vitamin K
Vitamin K is important so blood can clot well. It is also helpful in bone metabolism for good bone health.

Sources of Vitamin K
Adults get vitamin K from food — mainly leafy green vegetables — and from good bacteria in the gut. Newborns have very little vitamin K in their bodies at birth. Also, the good bacteria that make the vitamin in the newborn's intestines are not yet present. Breast milk has only low levels of vitamin K, and it may take weeks to months for vitamin K to be present and working in the infant's 'sterile' gut. Infants start out having low vitamin K levels, which causes an increased risk for bleeding, called vitamin K deficiency bleeding.

What is vitamin K deficiency bleeding (VKDB)?
Infants who do not receive the vitamin K shot are at risk for developing VKDB.

Early VKDB (0–24 hours of age) is severe, and is mainly found in infants whose mothers used certain medications during pregnancy that hinder vitamin K metabolism. Classical VKDB (1–7 days of age) causes bruising or bleeding from the umbilicus (belly button or base of the cord stump). Late VKDB (2–12 weeks) is the most troubling type — this bleeding happens up to 6 months of age in healthy infants, and between 30–60% of late VKDB causes an intracranial bleed (bleed in the brain). This life-threatening complication tends to happen in exclusively breastfed infants who have received no or inadequate vitamin K treatment. Infants can bleed into their intestines or brain where adults cannot see the bleeding to know that something is wrong. Infants who do NOT get the vitamin K shot at birth are at 81 times higher risk for developing VKDB than infants who DO get the shot. VKDB is effectively prevented by the vitamin K shot. VKDB rates fall to less than 1/100,000 infants when vitamin K is given at birth.

What are the warning signs of VKDB?
In most cases of VKDB, there are **NO WARNING SIGNS** at all before a life-threatening bleed happens. Infants who do not get vitamin K at birth might have any of these signs of VKDB:

- Bulging soft spots
- Bruising easily
- Feeding troubles
- Nosebleed
- Yellow or pale skin

How can I prevent VKDB?
Make sure all newborns get the vitamin K shot. Getting vitamin K (1 mg) after birth can prevent intracranial bleeding and other bleeding symptoms.

Is Vitamin K safe?
A study from the early 1990's found a possible link between the vitamin K shot and leukemia. Multiple follow-up studies did not confirm these findings. At this time, it can be concluded that vitamin K is safe for newborns.

Where can I get more information?
For more information, please visit these websites at:
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6245a4.htm
http://www.cdc.gov/ncbddd/blooddisorders/index.html

References
Centers for Disease Control and Prevention. (n.d.). Protect Babies from Life-threatening Bleeding: Talk to Expectant Parents about the Benefits of the Vitamin K Shot for Newborns. Retrieved from http://www.cdc.gov/ncbddd/blooddisorders/documents/vitamin-k-provider.pdf