



Injecting Vitamin K (Vitamin K-1 or phytonadione) one-half to one milligram intramuscularly into the thigh within one hour after birth is recommended by the American Academy of Pediatrics to prevent Vitamin K Deficiency Bleeding (VKDB) in infants. VKDB was previously known as Hemorrhagic Disease of the Newborn. All newly born babies normally have prolonged blood clotting times, but this abnormal condition of VKDB occurs in only 0.01% to 1.5% of newborns who have not received prophylactic Vitamin K at birth. Life threatening incidence is estimated to be 5 to 50 per 100,000 newborns when no Vitamin K (VK) is administered. A diagnosis of VKDB is nearly confirmed when a bleeding infant has a prolonged prothrombin time (PT) together with a normal fibrinogen level and platelet count. Rapid correction of the PT and/or cessation of bleeding after VK is administered confirms the diagnosis. The wide statistical range of how often VKDB occurs in newborns is due to different feeding patterns and risk factors. In many national surveys of millions of babies conducted since 1980 almost all the babies who had VKDB were breastfed. By far, the vast majority of breastfed infants who do not receive VK at birth have an adequate VK supply and do not develop VKDB. Most formulas have VK added to them.

External visible bleeding as evidence by skin bruising or blood seepage from any body opening, may be the first warning sign of VKDB. This can quickly lead to serious internal bleeding. In 30 to 60% of the time unseen, internal bleeding from fragile capillaries in the brain may lead to severe developmental delays or even death. If such bruising or bleeding occurs, a health care professional needs to be contacted immediately. Medical intervention with VK is needed swiftly before seizures occur. Internal bleeding may also occur without any visible outward signs of bleeding.

When an infant is circumcised he must be carefully observed for any signs of hemorrhage. Baby girls may have an occasional spot of vaginal bleeding due to a transfer of maternal hormones while in the womb. A few drops of blood from an infant's umbilicus just after the cord has detached is also normal, as long as it doesn't continue to bleed.

VKDB can occur early, within 24 hours after birth. All countries recommend giving a VK injection if the birth has been unusual or traumatic in any way or if certain maternal drugs have been given in pregnancy. Known drugs of concern are anticonvulsants, cephalosporin antibiotics, tuberculostatic agents and VK antagonists such as phenprocoumon and warfarin. A reported link between intramuscular VK and childhood cancer prompted a number of studies which have yielded inconsistent results. Most studies have been reassuring, but the possibility of a small risk remains. Many countries have found that giving oral VK, one milligram, soon after

birth *and* weekly, or giving one milligram after birth and 25 micrograms (not milligrams) every day may be equally effective as the intramuscular dose in preventing VKDB. Some countries recommend a two milligram initial oral dose. However, prophylactic oral VK is not recommended for newborns in this country at this time.

Breastfeeding mothers who are taking medications need to check with their midwives to discern the importance of giving VK to their newborns or supplementing with VK during their pregnancies. If VK prophylaxis is desired, this can be arranged with your pediatrician or medical back-up physician during your pregnancy or in the first 24 hours after your child's birth. If you would like additional information, please ask the midwives.