VITAMIN K SHOT FOR NEWBORNS

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The Vitamin K shot has been standard of care for newborns since the American Academy of Pediatrics (AAP) suggested it in the 1960s. **AAP recommends Vitamin K shot for newborns because the benefits outweigh the risks.**

RISKS OF VITAMIN K DEFICIENCY BLEEDING (VKDB)

VKDB is a rare hemorrhagic bleeding disorder that can be life threatening. The bleeding can be visible or inside the body, making it invisible, such as a brain bleed. Brain bleeds happen in about half of all babies who develop VKDB, and it can lead to brain damage or death.

There are three types of VKDB: early, classic, and late. 50% of VKDB cases are late VKDB which have an onset at 3 weeks - 8 months of age.

In the U.S. **we are seeing increased rates of late VKDB** due to lower Vitamin K administration at birth. 50% of severe cases of VKDB is **associated with parental decline of Vitamin K at birth.**

Babies who are at higher risk for VKDB include preterm babies, those who received antibiotics, have liver disease or diarrhea, and exclusively breastfed babies. The risk of VKDB is much higher among babies who do not get a vitamin k shot.

> **The relative risk of VKDB is 81 times higher in babies who do not receive vitamin K at birth compared with those who do.**

One out of every five babies with VKDB dies. One of the most effective ways to prevent VKDB newborns is by giving vitamin K. **The American Academy of Pediatrics (AAP) recommends** all infants receive an intramuscular dose, or injection into the muscle, of **vitamin K within 6 hours of birth.**

WHY OUR BODY NEEDS VITAMIN K?

Vitamin K is normally produced by bacteria in our gut. It is one of the 13 essential Vitamins our body needs to function. One of the many important roles of Vitamin K in our body is producing clotting factors. Clotting factors are proteins that help form clots in the body. Without clotting factors, our body **can't stop bleeding.**

WHY NEWBORNS NEED A VITAMIN K SHOT?

- **Newborns have very little gut bacteria and cannot produce enough Vitamin K on their own.** Additionally, newborn livers are still developing, meaning they are not as efficient at processing Vitamin K.

  > **Newborns typically have about 30-50% of the Vitamin K found in adults.**

- **Vitamin K does not pass well through the placenta and breastmilk** to your baby, even if you supplement your diet.
- Because babies are low in Vitamin K, they are at **higher risk for uncontrollable bleeding** called **hemorrhaging.**
- **Giving babies Vitamin K is prophylactic**, meaning that it is given as a way to prevent disease or complication, and in this case, **to prevent hemorrhaging.**

AFTER VITAMIN K SHOTS

Mild local reactions, such as pain, redness, swelling, or rarely, hardening of the skin around the injection site can occur, but these usually go away on their own.

Serious reactions such as severe allergic reactions, are **extremely rare.**

EVIDENCE-BASED FACTS:

- **The Vitamin K shot does not cause cancer**. A single, small study in 1990 found an association between leukemia and Vitamin K. However, **no other scientifically rigorous research has been able to reproduce the results** or show any evidence that Vitamin K causes cancer in children

- Although there is a black box warning for Vitamin K, that applies to the much higher IV doses given to adults and **not newborns**. Black box warnings are the highest safety warnings the FDA has for prescription drugs. The warning reminds providers about any risks for serious adverse effects

- **Vitamin K can be given orally, but it is less effective at preventing VKDB** and requires multiple doses with strict instructions. There is also no oral form of Vitamin K that is FDA approved in the U.S

LEARN MORE (SOURCES & RESOURCES):

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- Dekker, R. (n.d.). Evidence on the vitamin K shot in newborns. Evidence Based Birth. evidencebasedbirth.com/evidence-for-the-vitamin-k-shot-in-newborns/ (evidencebasedbirth.com)

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