

For Parents and Other Caregivers:

Understanding the Vitamin K Injection

The American Academy of Pediatrics (AAP) recommends that every newborn receive a vitamin K injection, or shot, shortly after birth. Learn more about what vitamin K is, why newborns need it, and how this safe, routine shot protects your baby.

What is vitamin K?

Vitamin K is an important nutrient. Its most important jobs are to help our body with:

- Clotting blood, so we can heal injuries
- Building strong bones

We get vitamin K from foods like green, leafy vegetables, meat, dairy, and eggs. Healthy bacteria in our gut also make some vitamin K.

Why do newborns need vitamin K?

All babies are born with very low levels of vitamin K for a few reasons:

- Very little vitamin K passes through the placenta during pregnancy.
- Newborns don't yet have the gut bacteria that make vitamin K.
- Newborns haven't started getting vitamin K through solid food.

Low vitamin K puts babies at risk of a serious condition called vitamin K deficiency bleeding.

What is the vitamin K shot?

The vitamin K injection, or shot, is a single dose of vitamin K given to newborns shortly after birth. The shot is administered into a baby's thigh. Some vitamin K is absorbed into the bloodstream right away, and some is stored in the liver and released over time.

The vitamin K shot is extremely effective in preventing dangerous bleeding in newborns for the first six months of life, until they can get enough vitamin K from other sources.

What is vitamin K deficiency bleeding?

Vitamin K deficiency bleeding (VKDB) is a serious condition that happens when a baby's blood can't clot well enough to stop bleeding. This can cause dangerous, uncontrolled bleeding. The bleeding often happens inside the body, in the intestines or brain, where parents can't see it.



About [half of babies](#) who develop VKDB have bleeding in the brain, which can cause brain damage or death. About [1 in 5 babies](#) who develop VKDB die.

How common is vitamin K deficiency bleeding?

Without the vitamin K shot, as many as 1 in 60 babies may develop VKDB. The vitamin K shot [virtually eliminates that risk](#): fewer than 1 in 100,000 babies who receive the injection at birth develop VKDB.

Are vitamin K shots safe?

Yes. The American Academy of Pediatrics (AAP) has recommended the vitamin K shot since 1961. Over the past several years, there has been a [concerning increase](#) in the number of parents who choose not to give their newborns the vitamin K shot at birth because of misconceptions about how safe or necessary it is.

The most common side effects of the shot are mild and short-lived, including brief pain during injection and redness or swelling at the injection site. Serious reactions, such as allergic reactions or anaphylaxis, are extraordinarily rare. On the other hand, VKDB can be fatal, and babies who don't get the vitamin K shot are [81 times](#) more likely to develop VKDB than babies who get the shot.

Can newborns get vitamin K orally instead?

Oral vitamin K (given by mouth) is not a substitute for the vitamin K shot. There is no FDA-approved formulation of oral vitamin K. Oral vitamin K also requires multiple doses over several weeks and is not absorbed as well by a newborn's developing gut, which is why pediatricians recommend the vitamin K shot.

Does breastfeeding or formula give newborns enough vitamin K?

Babies don't get enough vitamin K until they transition to solid foods, typically between four and six months of age, which is why pediatricians recommend the vitamin K shot for both breastfed and formula-fed newborns.

Breast milk has many benefits for babies, but it contains only small amounts of vitamin K. Formula contains more vitamin K than breast milk, but still not enough to prevent VKDB effectively.

What are next steps for the Vitamin K shot?

Discuss any questions you have about the vitamin K shot and VKDB with a healthcare provider. It helps to ask before your baby is born, so you can make a plan ahead of time.

Sources

- American Academy of Pediatrics. [Why Your Newborn Needs a Vitamin K Shot](#).
- American Academy of Pediatrics. [Vitamin K Helps Prevent Dangerous Bleeding Disorders in Newborns](#).
- Children's Hospital of Philadelphia. [Vitamin K shot versus oral vitamin K](#).
- Cleveland Clinic. [Vitamin K: What Does It Do?](#)
- Cleveland Clinic. [Vitamin K Deficiency](#).
- Mayo Clinic. [8 common questions new parents ask about vitamin K](#).