

Vitamin K

WHAT IS IT?



Vitamin K is a fat-soluble substance stored in the liver to aid the process of blood clotting. When we bleed, Vitamin K activates clotting factors that clot the blood. We do not produce our own Vitamin K and we do not store it very well in the body but it can be provided by our diet, as Vitamin K is found naturally in many foods such as leafy green vegetables.

WHY IS IT OFFERED?

Vitamin K is currently offered to parents of all babies to help prevent a rare but very serious disease. The disease it prevents is called Haemorrhagic Disease of the Newborn (HDN) - also known as Vitamin K Deficiency Bleeding (VKDB). It affects approximately 1:11000 babies (WHO 2016) where Vit K has not been administered at birth, and whilst extremely rare it is potentially fatal. It is not known beforehand which babies may be affected by HDN/VKDB therefore Vitamin K is currently offered as a precaution to all newborns as a preventative measure.

HDN CAN PRESENT IN 3 WAYS:

- Early onset HDN can occur due to certain types of medication during pregnancy (typically anticonvulsants or anti-clotting medication) interfering in vitamin K storage or function. It usually occurs within 24 hours of birth.
- Classic onset HDN occurs due to an insufficient supply of Vitamin K for breastfed babies and usually occurs between day 1 and day 7.
- Late onset HDN is associated with unrecognised liver disease and unfortunately cannot be prevented by the administration of Vitamin K at birth, this can occur anytime between 2 and 12 weeks of age.



RISK FACTORS



Babies are born with very low Vitamin K levels as only a small amount passes through the placenta. Breast milk contains low levels of vitamin K, therefore breastfed babies are more likely to develop HDN than artificially fed babies, as formula milk has added vitamin K.

OTHER RISK FACTORS INCLUDE BABIES WHO:

- are born before 37 weeks gestation
- are born by instrumental birth (forceps, ventouse or caesarean section)
- are very bruised during birth
- had breathing difficulties at birth
- have liver problems
- were unwell at, or soon after birth
- have mothers who took drugs for epilepsy, to prevent clots or for tuberculosis during pregnancy.

How is Vit K administered?

Injection

This is a synthetic form of vitamin K, dissolved in oil to ensure slow release into baby's tissues over time. A single dose is administered in the hours following birth by IM injection into the thigh. Advantages of injectable Vitamin K: Most effective for preventing HDN, only a single dose is required. Disadvantages: Same risks apply as with all injections- invasive procedure, risk of bruising at injection site, risk of infection at injection site, pain and discomfort for baby.

Oral Administration

This is the same form of Vitamin K used in the injection. The liquid is administered orally in 3 doses. 1 at birth, 1 on day 7 and 1 on day 28. Advantages of oral Vitamin K: non-invasive, easy administration. Disadvantages: cannot guarantee absorption due to spitting and vomiting.

One thing to note is that the current preparation used in both options is prepared from an animal derived (bovine) source, therefore unsuitable for vegans/vegetarians. A vegan friendly option, called Neokay, is available to purchase yourself. However, it is not currently recognised or approved in the prevention of HDN/VKDB and is classed only as a supplement.

Neokay comes in 2 forms, one as higher dose capsules given once weekly for 12 weeks, and the other as drops which are smaller doses given daily for 12 weeks. The Neokay solution is vegan friendly but the capsule itself contains gelatin so is not free from animal products. The Neokay drops may be more suitable for those wishing to avoid animal products completely.

YOUR CHOICE

The decision to give your newborn medicine is absolutely yours and no matter what you decide is the best thing for your child, you will be respected and supported. Please contact your midwife if you wish to discuss further.



Parents who choose not to give Vitamin K to their baby should be aware of the following signs of potential bleeding and consult a doctor immediately with any concerns:

- Bruising, particularly around baby's head or face.
- Bleeding from the nose, mouth, ears, umbilicus or heel prick sites.
- Pale skin or skin becoming paler than normal - look for pale gums in darker-skinned babies.
- Yellowy whites of the eyes.
- Blood in baby's nappy.
- Vomiting blood.
- Irritability, extreme lethargy, vomiting, seizures.

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