



Rapid  
absorption



# Nov-A-Vit

Emulsion for injection

## Vitamin A

- ✓ Essential for reproduction, growth, and normal function of most organs
- ✓ Helps maintaining the integrity of epithelial tissues
- ✓ It is a defense against infections

## Vitamin D<sub>3</sub>

- ✓ Involved in the regulation of calcium and phosphorus metabolism
- ✓ Increases tubular and intestinal absorption of calcium
- ✓ Promotes the mineralization of the cartilaginous matrix which is being developed in the bones epiphysis

## Vitamin E

- ✓ Antioxidant activity



**LABIANA**  
*always works*



## The ADE fat-soluble vitamin complex helps to increase the animal production

### Vitamin A

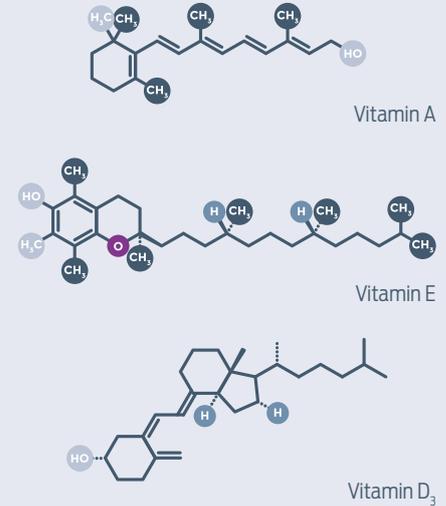
It is easily absorbed from the point of inoculation. As vitamin A passes through the intestinal wall is esterified to palmitate retinol. Esterification also occurs in the liver, where up to 95% of it is stored. After hepatic metabolization, palmitate retinol is released into circulation in the form of retinol attached to a specific alpha globulin. Retinol is mostly removed by urine and in smaller amounts in the feces.

### Vitamin E

After absorption, vitamin E passes into the circulatory system attached to beta-lipoproteins. Vitamin E disseminates to most tissues and finally is stored in adipose tissue. Vitamin E suffers liver metabolism and is excreted mainly in bile and, to a lesser extent, in urine and milk.

### Vitamin D<sub>3</sub>

After parenteral administration, Vitamin D<sub>3</sub> is transported in the blood attached to 2-globulin and finally is mainly stored in the liver and adipose tissue. Before Vitamin D<sub>3</sub> can exercise its physiological functions it must be metabolically activated. Vitamin D<sub>3</sub> is transformed in the liver by an oxidation process in the endoplasmic reticulum of hepatocytes into 25-hydroxycalciferol and is subsequently hydroxylated to 1,25-hydroxycholecalciferol in the mitochondria, which stimulates the synthesis of a protein that uptakes calcium in the intestinal mucosa. After being transported to the kidney, Vitamin D<sub>3</sub> suffers another hydroxylation under the influence of an enzyme from proximal contoured tubular cells transforming it into 1,25-dihydroxycholecalciferol (active form). Eliminated in bile and milk.



## COMPOSITION PER ML

### Active substances:

Vitamin A (retinol propionate) .....	500,000 IU
Vitamin D <sub>3</sub> (cholecalciferol) .....	75,000 IU
Vitamin E (all-rac-α-tocopherol acetate) .....	50 mg

## INDICATIONS

- Prevention and treatment of deficiencies in vitamin A, D<sub>3</sub> and E.

## POSOLOGÍA Y VÍA DE ADMINISTRACIÓN

**Bovine:** 1-5 ml/animal (equivalent to 500,000-2,500,000 IU vitamin A, 75,000-375,000 IU vitamin D<sub>3</sub> and 50-250 mg vitamin E).

**Caprine and ovine:** 0.5-2 ml/animal (equivalent to 250,000-1,000,000 IU vitamin A, 37,500-150,000 IU vitamin D<sub>3</sub> and 25-100 mg vitamin E).

Intramuscular administration, as a single dose.

## WITHDRAWAL PERIOD

**Meat:** 28 days.

**Milk:** Zero days.

## ADVERSE REACTIONS

- Anaphylactic reactions may occur in very rare cases. If this occurs immediately administer epinephrine and/or injectable antihistamines.
- In very rare cases abscesses or a small local reaction may occur at the injection site.

## SPECIAL PRECAUTIONS FOR STORAGE

Store below 25°C.

Keep the vial in the outer carton box in order to protect it from light.

## PRESENTACIONES

25ml, 100ml and 250ml vials.

Registry No. 3687 ESP

*Medication subject to veterinary prescription.*

*Administration under control or supervision of the veterinarian.*

## Bibliography:

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