

# Vitamin B1 Injection

## Supplement of essential Vitamin B1 (Thiamine)

### COMPOSITION

Thiamine hydrochloride 125 mg/mL

### ACTIONS

VITAMIN B1 INJECTION provides the essential vitamin Thiamine.

#### How Does It Work?

Thiamine (Vitamin B1) plays an important role in the metabolism of carbohydrates, and energy production for all cells. Thiamine is most important in the breakdown of pyruvic acid, a waste product in hard working muscles, along with lactic acid. In any situation where carbohydrates are the major energy source, or when glucose is added to the diet, thiamine requirement is increased significantly. Thiamine is essential as part of the coenzyme which is involved in the breakdown of glucose for energy.

Thiamine, in conjunction with Vitamin B6 (Pyridoxine) is essential in the metabolism of proteins and amino acids. Thiamine has effects on all tissues. The most sensitive are nerves, stomach and heart.

Free Thiamine cannot be stored in the body, and it is rapidly absorbed from the intestine or blood, as well as from injection sites. Like all B Complex vitamins, Thiamine is water soluble, so it is rapidly absorbed and excreted from the body, and requires regular supplementation, especially in hard working animals when dietary input will probably not be sufficient.

Thiamine is found in both meat and cereal products. Small amounts are manufactured in the gut, as long as horses are not under stress. Thiamine in food is destroyed by cooking.

High doses of Thiamine are reported to help calm nervous or over excitable horses.

Clinical signs of Thiamine deficiency include fatigue, muscle weakness, loss of appetite and increased heart rate. (This may be an important factor in endurance horses fed high grain diets). Many of these signs can be traced back to increased tissue levels of lactic and pyruvic acids. Nerve cells are particularly dependant on carbohydrate metabolism, and normal nerve function is greatly effected by increased levels of these acids during hard work.

### DOSAGE AND ADMINISTRATION

Give 5 - 10 mL by intramuscular injection regularly twice weekly, or as advised by a veterinary surgeon.

VITAMIN B1 can be safely used with all Nature Vet products. For added calming effect, consider TRANQUIL paste or MANNERS



powder in addition to Vitamin B1 injection.

### WARNINGS

Export Slaughter Interval (Horses): Nil

### PRESENTATION

100 mL sterile injection for intramuscular or intravenous injection.

### STORAGE

Store below 25°C (Air Conditioning). Protect from light .

### AVAILABILITY

For General Sale (APVMA 49860).

### NOTES

Trainers Tips: Vitamin B1 is best known for its ability to calm nervous horses when given in large doses. B1 is readily absorbed from the intestine, so may also be given in oral (paste or powder) formulations.

Consider TRANQUIL Paste, or MANNERS POWDER in combination with VITAMIN B1 injection if nervous or excitable horses require more effective calming, or if travelling horses do not settle well. The "bolus" effect of injections immediately prior to conditions which may excite a horse can assist in calming them. Those horses on high grain diets in particular, may benefit from additional VITAMIN B1.

Thiamine is available in powder form in the Nature Vet product THIASAL E.

### SEE ALSO

Tranquil Paste, Manners Powder, Vam, Thiasal E

## HANDY HINT

*Vitamin B1 is best known for its ability to calm nervous or over exciteable horses when given in large doses.*