



# Problems with lameness or egg shell quality?

More calcium is not the answer...



# Sufficient calcium in the feed but calcium deficiency related problems?

Related symptoms as:

- **Lameness in broilers**

Early in the crop or at periods of stress i.e. thinning

- **Poor egg shell quality**

After peak lay and increasing towards the end of production

- **Lameness in layers**

Commercial and broiler breeders

Increasing the feed levels of calcium have proven not to be effective. On the contrary it interferes with the phosphorus absorption.



**The inadequate absorption of calcium is where the problem lies...**



# DYNACAL D+

## A dual approach solution:

Pidolate and vitamin Hy-D® simultaneously.

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DYNACAL D+ is a stand alone solution supplementing both critical nutrients.

Improving the absorption of calcium.

A solution to lameness and poor egg shell quality.

### Two ways calcium passes the gut wall:

- **Passive:** paracellular transport

Both calcium and phosphorus pass in between the enterocytes (see fig) in a gradient manner towards the blood stream.

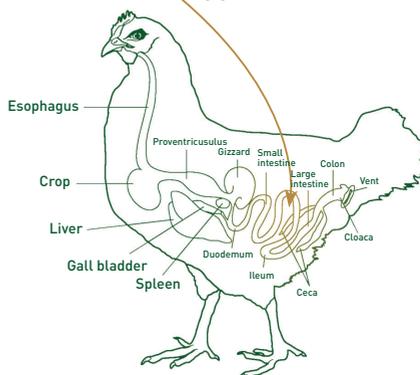
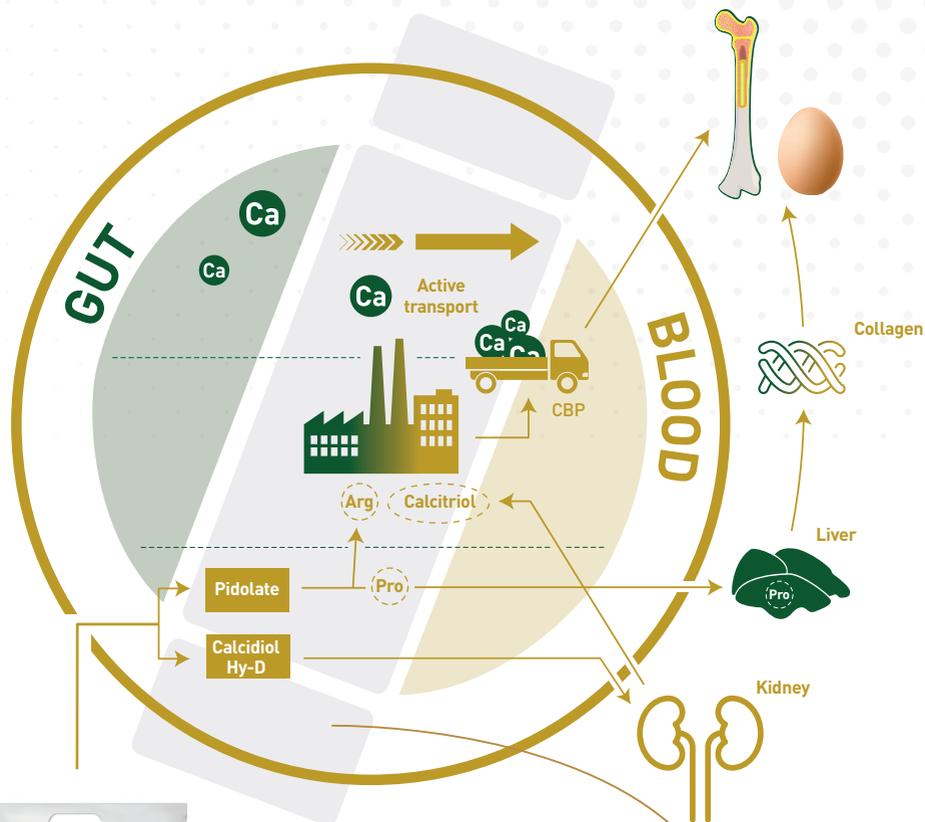
- **Active:** transcellular transport

A specific protein actively transports the calcium through the enterocytes towards the blood stream; Calcium Binding Protein (CBP).

*Not enough CBP reduces this way of increasing the calcium levels in the blood.*

- Active vit D (calcitriol) stimulates production of CBP using Arginine (Arg) as building blocks.
- Pidolate is the precursor of Arg.

# The process visualized:





## About pidolate

Besides being the precursor for arginine (CBP) pidolate can alternatively be metabolised into proline (Pro); needed for collagen forming the matrixes of bones and egg shells.

Offering pidolate has been proven to offer the following benefits:

- 1) 7.8% increase in tibia length with improved uniformity in 69 day old pullets\*
- 2) Increases the elasticity of and resistance to fracture in the tibias of 21 day old broilers\*\*
- 3) 7% Increase in egg shell strength after 53 weeks of production\*

**Proven to improve the quality and accelerating the development of the bone structure.**

**The result: an increased calcium storage capacity. Bringing stronger bones and egg shells.**

\*ESSAI PCa PULLETS UK ST V06 / \*\*ESSAI PCa BROILER ES V01

## About Hy-D

Hy-D® (calcifidiol / 25(OH)D3) provides all-round benefits for health, performance and productivity. Hy-D® is easily absorbed and does not need to be hydroxylated in the liver, thus not limited by poor liver functioning in situations like fatty liver syndrome.

Higher blood serum levels of 25(OH)D3:

- 1) 10% stronger bones\*
- 2) 2% more eggs per layer circle\*
- 3) 15% increase in saleable eggs through improved shell quality\*

**Vitamin D stimulates the absorption of calcium in the gut.**

\*Data on file

## How to use?

### In water:

Highly watersoluble powder to be used via medication pump or header tank.

### In feed:

Can be supplemented into feed.

## Use via the drinking water

### ***Lameness in broilers***

**Start at onset of lameness or prior to when problems normally occur.**

**Dosage:** 20g or 40g per 1000kg liveweight (LWT) per day

- Moderate lameness - first 2 days at 40g, followed by 20g/1000kg LWT
- Severe lameness - 40g/1000kg LWT

**Duration:** 3-5 days depending upon the resolution of symptoms.

### ***Lameness or egg shell quality problems in layers***

**Start at onset of lameness or prior to when problems normally occur.**

**Dosage:** 20g or 40g per 1000kg LWT per day

**Duration:** 7 days

## In-feed Supplementation

250-500g/1000kg feed continuously or pulsed depending upon the severity of deficiency.

## Packaging

DYNACAL D+ is packed in 1.6kg resealable doy packs.



For more information, please visit us online:

**[www.nuvan.net](http://www.nuvan.net)**