



**ETHICAL AGENTS  
VETERINARY MARKETING**

# EA News

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## Merry Christmas 2024

### Inside this issue:

- Carnitine - The Science 2
- Sources of Carnitine 3
- NeoSOOTHE Season 4
- Time Moves On 6
- Product Comparison 7



## Christmas Treat Time!



Yes, they are quirky and fun, and they are great for treating pets at Christmas.

Some clients even purchase them for giving as presents for their own good clients - for them to treat their pets.

Muttley's Estate Wines—non alcoholic and based on catnip, are ideal for involving your pets when you are having your own Christmas tittle.



## Carnitine - The Science

The vitamin and amino acid world is, at least in the human medical field, riven with pseudoscience. Pseudoscience really boils down to you want to believe, science is what you should believe. Despite that, all pseudoscience does have a basis in true science; fly by night marketers often take real science and divert it to their own purposes.

Hence, we do have some incredible claims made about the benefits of different vitamins and amino acids making it somewhat difficult to sort the wheat from the chaff.

A great example is the line, “boosts the immune system.” (Asking the marketer to explain the difference between T<sub>1</sub> and T<sub>2</sub> helper cells soon finds out their knowledge of the immune system!)

What we do know for a start is that the amino acids choline and methionine have vital roles to play in nutrition, and that both are susceptible in the rumen meaning that rumen protected forms are required for ruminants, but not for animals with simple stomachs.

We also know the role that many B vitamins play, as well as the fat-soluble vitamins, A, D, E and K. These are not in question. These are all examples of the more commonly utilised amino acids and vitamins. There are others, less readily available until recent times, that also have crucial roles in health, performance and nutrition. Of particular note are d-panthenol and, the most important of all, l-carnitine.

Starting with d-panthenol, Panthenol is an alcohol derivative of vitamin B<sub>5</sub>, or pantothenic acid. It is a stable, water-soluble, light ingredient that readily penetrates the skin. Experts also call it pro-vitamin B<sub>5</sub>, because the body converts it to vitamin B<sub>5</sub> once applied to the skin.

It is widely used in cosmetics as it can promote skin barrier repair by enhancing lipid synthesis and epider-



mal differentiation. This helps hydrate the outermost layer of the skin and locks in moisture.

Panthenol's moisturizing properties also contribute to its anti-inflammatory nature. By improving skin barrier function d-panthenol has proven to be effective for the treatment of atopic dermatitis in human medicine. (Source: *Yoon Sun Cho, Hye One Kim, Seung Man Woo, Dong Hun Lee*, Use of Dexpanthenol for Atopic Dermatitis—Benefits and Recommendations Based on Current Evidence, *Journal of Clinical Medicine* 2022 <https://dx.doi.org/10.3390/jcm11143943>)

Of greater importance is carnitine. It is not truly an amino acid but a quaternary ammonium compound that has wide ranging effects in the body.

In support of energy metabolism, carnitine transports long-chain fatty acids from the cytosol into mitochondria to be oxidized for free energy production, and also participates in removing products of metabolism from cells. Thus, carnitine is a substance that helps the body turn fat into energy.

The body makes it in the liver and kidneys and stores it in the skeletal muscles, heart, brain, and sperm. Given its key metabolic roles, carnitine is concentrated in tissues like skeletal and cardiac muscle that metabolize fatty acids as an energy source.

Hence red meat (particularly lamb) and dairy products are the main food sources of carnitine.

Carnitine has been around for some time but, until recently it was more

speculation than proof regarding benefits to performance and also recovery from debility. There is however now a lot of scientific data that proves the speculation was well founded.

Because of its role as the energizer of the mitochondria it was assumed that carnitine would be extremely beneficial in several areas, such as healing, inflammation, oxidative stress, muscle damage, etc.

Recent scientific work in the human field, a lot of which can be extrapolated to animals, shows not only all of the above, but also beneficial effects in osteoarthritis. In addition, low sperm counts have been linked to low carnitine levels in humans.

Several studies suggest that L-carnitine supplements may increase sperm count and motility. The latter data could be of great benefit to the equine stud industry.

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(Continued on page 3)

## Carnitine - The Science

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## Sources of Carnitine

Carnitine is a quaternary ammonium compound involved in metabolism. Derived from amino acids carnitine was first extracted from meat extracts in 1905, leading to its name from Latin, "caro/carnis" or flesh.

In its role supporting energy metabolism, carnitine transports long-chain fatty acids from the cytosol into mitochondria to be oxidized for free energy production, and also participates in removing products of metabolism from cells.



Carnitine exists as one of two stereoisomers: the two enantiomers d-carnitine and l-carnitine

Both are biologically active, but only l-carnitine naturally occurs in animals, and d-carnitine is toxic as it inhibits the activity of the l-form.

Carnitine is available in New Zealand as in both oral forms for the purposes of correcting a nutritional deficiency, and also in parenteral forms for the adjunct treatment of animals with metabolic symptoms.

The parenteral forms are Metabolase, with added antioxidants plus methionine, other vitamins and detoxifying agents, and Metabolase Forte, which is more concentrated but has fewer 'extras'.

Metabolase is for the veterinarian to inject I/V and Metabolase Forte to leave with the clients to further treat I/M.



For the nutritional products Hep Ora is aimed at ruminants and so also contains rumen protected choline and methionine while two new pastes, both labelled CP+ are aimed at horses and dogs, primarily racing animals..



## First Day of School

The little boy had just started school. When he returned home the first day, his mother asked,

"Billy, what did you learn today?"

"I learned to write."

"Oh, what did you write?"

"I don't know. I haven't learned to read yet."

## NeoSOOTHE Season

Spring allergies are here and we are on the cusp of meteorological summer, which means that the summer 'itchies' are upon us, or more particularly our pets.

This is the time of the year for NeoSOOTHE, a topical antibiotic, anti-inflammatory & local anaesthetic lotion in a water-miscible base.

**"Thus, the itch-scratch cycle is broken"**

The Indications are moist dermatitis, certain skin allergies, lacerations & topical infections due to susceptible organisms and where an anti-inflammatory and/or anti-pruritic action is required, i.e. all the summer 'itchies'.

The ingredients of NeoSOOTHE are the secret to its success.

*Neomycin* is an aminoglycoside antibiotic, bactericidal in action. It has a broad spectrum of activity against gram-positive & gram-negative organisms & resistance to Neomycin develops slowly. Neomycin is poorly absorbed topically & therefore remains active at the wound site. This is responsible antimicrobial use at its best, focused treatment on where the organisms are rather than the scattergun approach of systemic therapy.

*Hydrocortisone* is synthetic 17-hydrocorticosterone, a replica of the compound naturally produced by the adrenal cortex. It is a highly effective topical anti-inflammatory with a rapid onset of action.

*Lignocaine Hydrochloride* is a local anaesthetic of the amide type. It is absorbed readily through damaged skin. It is also an excellent surface anaesthetic.



It is not just the list of ingredients that is important but also the combination, i.e. how they work together as a team to achieve a result. While infection control and control of

*(Continued on page 5)*

Ingredient	Effect	Benefit	Cause	Symptom
Neomycin	Antimicrobial	Treats infection	✓	
Hydrocortisone	Anti-inflammatory	Reduces pain and inflammation	✓	
Lignocaine	Analgesic	Reduces inflammation Abolishes scratching Deters licking		✓

## Reindeer Names

One Christmas, a mother asked her young daughter if she could name two of Santa's reindeer.

"Rudolph and Olive," replied the young girl confidently.

"Rudolph and Olive?" said the mother, quizzically. "Are you sure?"

"Yes, mommy, Rudolph and Olive. Like in the song."

"The song?" asked the mother. "What song?"

The girl sang, "Rudolph the red-nosed reindeer, had a very shiny nose. And if you ever saw it, you would even say it glows. Olive the other reindeer...."



## NeoSOOTHE Season

*(Continued from page 4)*

inflammation are vital in treatment of cause, the piece de resistance is the local anaesthetic effect of the lignocaine in treating the symptoms.

Thus, the itch-scratch cycle is broken leading to less self-inflicted damage so a faster overall cure, with the significant added bonus of instant welfare benefit.

There are systemic anti-itch treatments available but they are much more costly for the client and, simply by being systemic instead of topical treatments, prone to whole body side effects. In the case of systemic corticosteroids, the side effects are very wide ranging and can be severe, especially if used long term, hence the development

of non-steroidal treatments such as oclacitinib maleate.

However, oclacitinib maleate is still a systemic treatment and, as such, has side effects of its own, as noted on the package insert: vomiting, diarrhoea, lethargy, anorexia, SQ or dermal masses (unspecified), decreased leukocytes, decreased globulins, and increased cholesterol and lipase.

Quite clearly if itchiness, or any skin condition, can be successfully treated topically, that is the way to go, steroid or non-steroid.

The other big advantage of NeoSOOTHE, also down to the lignocaine is that, not only does the local anaesthetic remove the urge to scratch, it also numbs the tongue

**"it also numbs the tongue so deterring the urge to lick."**

so deterring the urge to lick. This 'two-way' effect means faster healing and happier animals.

Relief is rapid and long lasting for affected animals and, since nothing drives an owner more to distraction than an irritated itchy pet, the relief for pet owners is also palpable.

There are numerous products in this market but the unique combination in Neosoothe is not only highly effective but is also extremely economic, making it very attractive to clients.

## Santa's Lap

A father took his son Billy to the Manukau mall to see Santa. They stood in line awhile, and finally the boy was able to meet Santa and sit on his lap.

"What would you like for Christmas, Billy?" asked Santa.

"An X-Box and a Hobbit game," Billy said.

"Okay, we'll see what we can do about that," said Santa with a big smile.

Later on that day they also went to see Santa at the Sylvia Park mall.

When Santa asked Billy what he wanted for Christmas, Billy again responded with, "An X-Box and a Hobbit game."

"Will you be a good boy and do what your daddy tells you?" Santa asked.

Billy turned to his dad and said, "Let's go back to the other Santa, Dad."

"Why Billy?" asked his father.

"Because I didn't have to make any deals with that one."

## Praying Aloud

Two young boys were spending the night before Christmas at their grandparents.

At bedtime, the two boys knelt beside their beds to say their prayers when the youngest one began praying at the very top of his lungs.

"I PRAY FOR A NEW BICYCLE... I PRAY FOR A NEW NINTENDO... I PRAY FOR A NEW VCR..."

His older brother leaned over and nudged the younger brother and said, "Why are you shouting your prayers? God isn't deaf."

To which the little brother replied, "No, but Grandma is!"



## Time Moves On

When a successful product over many years becomes discontinued it often leaves a hole in the market. But, like ageing sports stars, sometime it seems time has caught up; either the market has shifted or newer technology has taken over.

Both instances seem to be the case with the Troy product Hemoplex being discontinued recently. Hemoplex was a vitamin and mineral supplement that was marketed both as a prevention and as a treatment.

The problem was that the advent of bolus technology, such as Cosecure, obviated the need for preventative minerals and the launch of Metabolase a few short years ago took over the therapy market.

When we look at the active ingredients Hemoplex did have several vitamins but was top heavy with minerals. With mineral needs being satisfied by other means that left the main *raison d'etre* for the product to be therapeutic.

In this field the minerals were generally superfluous, leaving the vitamins and amino acids as the major contributors.

The arrival of Metabolase, with not only routine vitamins and amino acids, but also the vitally important l-carnitine, necessary for mitochondrial energy utilisation, plus high-level antioxidants such as thioctic acid, detoxifying agents and also energy

sources, brought a much more efficient means of recuperation for energy deficient animals.

So, it really was a bit of both, a market change and newer technology, that saw a previously useful drug being discontinued.

Time moves on, just as it did in the world of disinfectants with the halogenated tertiary amines replacing glutaraldehyde, Calol replacing the 'bottle under the skin', and the glass technology of Cosecure revolutionising the bolus world.

Metabolase is yet another example of this phenomenon, being so much more efficient in its role as an adjunct to recuperation that it is no longer viable for such a previous mainstay to remain in the market.

Time moves on everywhere and thus is epitomised in the world of veterinary medication.

Hemoplex	Metabolase
Nicotinamide	l-Carnitine
dl-Methionine	Thioctic acid
l-Lysine	Pyridoxine
Glycine	Cyanocobalamin
Iron ammonium citrate	dl-Acetyl Methionine
d-Panthenol	l-Arginine
Pyridoxine	l-Ornithine
Riboflavin	l-Citrulline
Choline chloride	l-Lysine
Inositol	Glycine
Cobalt gluconate	Aspartic acid
Copper gluconate	Glutamic acid
Cyanocobalamin	Fructose
Biotin	Sorbitol



## Christmas in the Deep South

In a small Southern town, there was a "Nativity Scene" that showed great skill and talent had gone into creating it. One small feature bothered the visitor from New York. The three wise men were wearing firemen's helmets.

At a "Quick Stop" on the edge of town, the visitor asked the lady behind the counter about the helmets.

She exploded into a rage, yelling at him, "You damn Yankees never do read the Bible!"

He assured her that he did, but simply couldn't recall anything anywhere about firemen in the Bible, certainly not in the Nativity.

She jerked her Bible from behind the counter and ruffled through some

pages, and finally jabbed her finger at a passage.

Sticking it his face she said, "See, it says right here, 'The three wise men came from afar.'"



# Product Comparison

A Competitor has appeared as direct competition to Heme, selling at \$10 per box cheaper, but the difference between the two is much more than that, especially when aimed at high performing animals in big money races. It really is a false economy when one looks at the label differences of the active ingredients:

## B Vitamins

All B vitamins help the body to convert food (carbohydrates) into fuel (glucose), which is used to produce energy. These B vitamins, often referred to as B-complex vitamins, also help the body metabolize fats and protein.

**Vitamin B2**, also called riboflavin helps break down proteins, fats, and carbohydrates. It plays a vital role in maintaining the body's energy supply. Riboflavin helps convert carbohydrates into adenosine triphosphate (ATP).

Heme	✓	Competitor	X
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**Vitamin B3** (Niacin), probably the forgotten vitamin, is a B vitamin that's made and used by the body to turn food into energy. It helps keep the nervous system, digestive system and skin healthy.

Heme	✓	Competitor	X
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**Vitamin B5**, also known as pantothenic acid, is a water-soluble nutrient necessary for various metabolic functions within the body.

Heme	✓	Competitor	X
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**Vitamin B6** is also known as pyridoxine and helps the body make several neurotransmitters. It is needed for normal brain development and function, and helps the body make the hormones serotonin and norepinephrine.



Heme	✓	Competitor	X
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**Vitamin B-9** (Folic acid) is important in red blood cell formation and for healthy cell growth and function.

Heme	✓	Competitor	✓
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**Vitamin B-12** (cobalamin) plays an essential role in red blood cell formation, cell metabolism, nerve function and the production of DNA.

Heme	✓	Competitor	✓
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\*Although present in both products there is more than 6 times as much in Heme than in the Competitor.

## Amino Acids

DL-Methionine is an essential amino acid that is involved in the synthesis of proteins and other important compounds in the body.

Heme	X	Competitor	✓
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\*Although not present in Heme, the role of methionine is mainly targeted at liver function. The major purpose of feeding products like Heme is to assist red cell production so restoring a performance animal to its peak abilities. Hence little indication for methionine.

## Minerals

**Copper** is required for iron transfer from cells to blood, ensuring dietary iron absorption and systemic iron distribution.

Heme	✓	Competitor	✓
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**Zinc.** Next to iron, zinc is the most common mineral in the body and is found in every cell.

Animal model studies indicate that in anaemia, zinc is redistributed from plasma and bones to the bone marrow to produce new red blood cells and so zinc supplementation increases the levels of the vital haemoglobin.

Heme	✓	Competitor	X
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**Manganese** has been found bound within erythrocytes and is thought to have a role in porphyrin metabolism.

Heme	✓	Competitor	X
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**Iron** is an essential component of haemoglobin, an erythrocyte (red blood cell) protein that transfers oxygen from the lungs to the tissues.

Heme	✓	Competitor	✓
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\*Although present in both products it is in the inorganic form of iron carbonate in the Competitor, but is in the much-preferred chelated form in Heme.

## Note on Chelation

Chelates are organic forms of essential trace minerals such as copper, iron, manganese, and zinc.

Both humans and animals absorb, digest, and use mineral chelates better than inorganic minerals. This means better efficacy, while at the same time, lower concentrations can be used.

## Conclusion

The science says it all. As a haematinic Heme is a much superior product, containing more and better active ingredients. Manufactured in New Zealand supply is constant and is also economical for such a high-class haematinic. Ideal for high performance animals.

\$10 per box at retail price is less than \$1 per sachet; when striving for peak performance going for top of the range is a no brainer!

## The Gift

Nagy bought his wife a beautiful diamond ring for Christmas.

After hearing about this extravagant gift, Tony said, "I thought she wanted one of those sporty four-wheel-drive vehicles."

"She did," Nagy replied. "But where was I going to find a fake Jeep?"

**Animal welfare is our business**



products or services, you can include