AMINO ACIDS FOUND IN DEER VELVET

Around half of the weight of deer velvet is in fact protein, so you can see why it's a fantastic source of over 30 amino acids, including 9 out of 10 of the essential* ones that must be taken in via the diet.

Glycine	Leucine*	Histidine*
Arginine*	Alanine	Proline
Methionine*	Cysteine	Glutamic acid
Valine*	Isoleucine*	Phenylalanine*
Lysine*	Serine	Tryptophan
Spartic acid	Threonine*	Tyrosine

Glyciine, Proline and Hydroxyproline are the major components of collagen

Glycine – is also important for **metabolism**, and used in production of

- collagen
- haemoglobin, the protein that carries **Oxygen in the red blood cells**
- glutathione – a vital **anti-oxidant**, with **anti-inflammatory** properties

Arginine – This one's a biggie, involved in all these things!

- combines with sodium to produce of **nitric oxide**, signalling **blood vessels** to relax (a deficiency can contribute to high blood pressure)
- Production of creatine, a source of **energy for nerves and muscles**.
- **wound healing**
- **nerve regeneration**
- cellular division and **RNA and DNA repair**
- peripheral **circulation** (the fine blood vessels)
- **immune function**
- **erectile function**
- production and release of **hormones**

Methionine* acts as a 'spark plug' for the cells, and is involved in

- **detoxification**
- **DNA** structure and correct replication
- **energy** production
- **digestive** enzyme function.

- production of chondroitin sulfate, > **cartilage health**
- production of **antioxidants** protecting joints from oxidative stress and damage.
- **excretion of heavy metals** through MSM

Valine* involved in

- muscle metabolism and energy, especially during intense physical activity or stress (can convert to glucose)
- helps reduce muscle breakdown and supports repair and muscle growth
- production of neurotransmitters (signals between nerve cells) affecting **mood, cognition, brain function.**
- **immune function** and production of anti-bodies which fight infection and disease

Cysteine – Necessary for production of:

- **glutathione** a powerful **anti-oxidant**
- Coenzyme A, vital for metabolism of proteins, fats and carbohydrates
- keratin, bringing strength to skin, hair and nails.
- neurotransmitters, dopamine and Taurine, influencing mood and brain function

and plays an important role in detoxification – helps to bind and eliminate heavy metals and toxins.

Lysine* - Required for

- **energy** production via methylation
- **stability** and bonding of collagen fibres > **strength** of **joints cartilage, skin and hair**.

Leucine – involved in:

- tissue and muscle growth and repair - key for wound healing, and for those involved in resistance training or intense physical activity
- blood sugar regulation
- hormone regulation
- immune cells and antibodies

Tyrosine - involved in the production of

- anti-stress hormones dopamine and norepinephrine,
- insulin receptors which maintain steady blood sugars,
- thyroid hormones for regulation of metabolism and energy
- coenzyme Q 10, vital for energy production, cholesterol balance, and muscle function.

Trypotophan – involved in production of

- the vital neurotransmitters serotonin and melatonin. A deficiency might contribute to depression, migraines, insomnia, anxiety, PMS.

Glutamine - plays a role in the synthesis of collagen and other proteins in the body. Involved in:

- the repair and maintenance of connective tissues, including those in the joints.
- And has anti-inflammatory properties that may help reduce joint inflammation

Glutamic acid –

- another precursor to Glutamine (already mentioned above),
- and also many other proteins in the body facilitating **repair and maintenance of tissue.**

And the rest I am still learning more about! 😊