



## RAW FEEDING FOR HEALTH & BEHAVIOUR

If you feed raw or have ever looked into feeding raw then you will know of some of the benefits, risks and myths surrounding a raw diet. Many of us will have seen the effects of raw feeding on health and behaviour and just accepted that it is a natural way for a dog to eat, but lately I have been looking into the 'why' further.

Over the years I have developed a dislike for high protein kibble when it comes to certain behaviour issues as I have found that this diet can often exacerbate existing nervousness, fear, aggression and sometimes hyperactivity. This is likely due the mechanism of the amino acid tryptophan. This amino acid, essential for serotonin production, is forced to compete heavily with other large neutral amino acids also found in protein for access to the brain.

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territorial behaviour and general nervousness. For some reason raw feeding - although very high in protein (when compared dry weight to dry weight) - doesn't seem to offer the same pitfalls to those dogs that become unmanageable on high protein kibble. I wanted to find out why. July's seminar has been a real eye opener for me in many ways!

I discovered that 90% of serotonin is stored in the epithelium of the dogs gut. Along with dopamine, peptides and enzymes - the gut lining is host to so many beneficial chemicals that are essential for health, both physical and mental. This part of the body also deals with vitamin conversion and its health is vital for proper immune function.

This important role can only occur if the epithelium is healthy and this relies largely on beneficial bacteria. If the PH of the gut is at the optimum level, and the gut is strong and flexible, then the healthy bacteria can flourish whilst the damaging bacteria are wiped out.

Why is meat and bone in its natural state so beneficial then? The domestic dog is of the order Carnivora and the dentition and jaw, as well as musculature is designed to tear and crunch. The gut is short and perfectly geared towards digesting meat at a low PH (acidic) and the saliva contains no amylase essential for breaking down carbohydrate - only the pancreas produces this enzyme. It should be noted here that forcing the pancreas to continuously produce amylase as well as triggering the associated insulin 'surges' through feeding excessive amounts of carbohydrate is no good thing - the dog's body is not designed to deal with constant excesses in this area and their organs can suffer as a result.

Although adaptation towards scavenging has allowed the domestic dog the evolutionary advantage of tolerance for carbohydrate, the dog's physiologically is perfect for tearing off huge pieces of meat and swallowing them whole without much mechanical action or breaking down of the food in the mouth - this then leaves the stomach to do the majority of the hard work and to play a major role in the digestive process. The stomach actually 'grinds' and releases acid in order to digest the contents - and this is how it should be. When we feed kibble the gut tends to get very flaccid and 'out of practise' and can present as 'sensitive'. The acid is not released in high enough quantities as it is not required for digesting cooked carbohydrate so the PH of the body rises and the gut becomes weak. This also means that the beneficial bacteria can be very easily crowded out by the unwanted bacteria due to these sub-optimal PH levels. These poor conditions and this lack of work can cause the gut lining to become very thin and the villi that line the intestines don't regenerate as they should thus creating a poor environment for the chemicals that influence health and mood to call home.

This also explains why many dogs that present as 'sensitive' or 'allergic' to certain foods do very well on a raw diet - even dogs with an 'allergy' to chicken can eat vast amounts of chicken in its raw state with no ill effect. The reason being that if the epithelium of the gut is very thin through consistent feeding of commercial kibble then it can become 'leaky' which causes the immune system to respond in an attempt to remedy the situation.

So perhaps much of the time when we focus on pathogens, allergies and harmful bacteria - and in doing so address them through antibiotics, steroids or an elimination diet we actually make the overall health and behaviour of the dog considerably worse. If we were to take preventative measures and feed a natural diet then the gut would be actively involved, strong and healthy, and we would likely have far fewer issues as a consequence.

As with all holistic intervention raw feeding targets the root cause rather than the symptoms and offers additional benefits too;

- Clean teeth and fresh breath - lower instance of dental disease and better oral health
- An increase in energy that is balanced by better focus and self-control - and therefore better trainability
- Soft, shiny springy coat and healthy skin, dogs are visually healthier and shed less
- Better endorphin production due to the mechanical action of chewing
- Better condition and weight maintenance to assist both overweight and underweight dogs
- Raw meat and bone is naturally 'hypoallergenic' so suits those dogs plagued with food intolerances
- Better immune function - so an excellent approach for dogs with allergy issues
- Manageable faeces and less flatulence (for those Bulldog owners among us!)
- Better mental health and behaviour due to enhanced production of neurotransmitters and hormones

Where raw is concerned none of the nutrients can be broken down through heating as with complete dry food, and the source of minerals, vitamins and amino acids is presented in a completely bio-available form due to coming from a natural complete source rather than a synthetic replica, this is mother nature at her best and the most beneficial way to feed a biologically appropriate diet.

So after much searching, and thanks to July's seminar on raw feeding, I have at least in part answered the question; 'Why does high protein raw feeding not have the pitfalls of high protein complete food?' The answer lies in the gut which plays host to

so many beneficial bacteria and chemicals that are essential for self-control, energy, balance of mood, happiness and contentment - this can affect a dog's mood via the link between gut and brain rather than exclusively via the bloodstream. This two-way feedback between gut and brain is not fully understood but neurogastroenterologists explain that mood is influenced dramatically by diet and gut health. Knowing all of this, why wouldn't we recommend raw feeding for health and behavioural benefits?

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Further reading:

Raubenheimer et al (2015) British journal of Nutrition Vol. 113

Kelly et al (2005) 'Improving trainability through nutrition'

Dillitzer et al (2011) British Journal of Nutrition