

## Article on the Barf Diet August 2007

Many pet owners are looking to improve the lifestyle of themselves and their pets. Part of this quest is to move towards a diet which is more natural. In fact, when a pet owner speaks of a “natural” diet they often mean a specific type of diet based entirely on raw food.

This type of diet is also known as the “evolutionary” or BARF” [Bones and Raw Food] diet.

The BARF (“Bones and Raw Food” or “Biologically Appropriate Raw Food”) diet is a system of holistic nutrition which is championed by Dr Ian Billinghurst who is an Australian vet. Dr Billinghurst has published several books on health and nutrition. The best known of these is called "Give Your Dog a Bone".

According to Dr Billinghurst domestic dogs have been fed on processed (cooked) foods for only approximately 70 years and this is not a long enough time to adapt to cooked foods.

The BARF or “Evolutionary” philosophy is to replicate the diet of the wild dog. To this end, Dr Billinghurst recommends that all carbohydrate should be avoided and pet dogs and cats should be fed on a diet based on raw meaty bones and raw vegetables.

After all, as BARF proponents are apt to remind us and it cannot be disputed, dogs in the wild don’t cook and they can’t open cans. This philosophy of “the natural diet” seeks credence by claiming that the dog by virtue of its evolution (or non-evolution) from the wild is physiologically unable to digest carbohydrate. Thus, the BARFists say, the dog which eats carbohydrate is apt to suffer a great variety of illnesses.

It is surely curious that the BARF philosophy should claim to be based on evolution, which is based on the principle that species change, whereas the BARF view that they do not.

Nevertheless, Dr Billinghurst insists that because of this “evolutionary” history, the BARF DIET is the ONLY correct way to feed the modern domestic pet dog (although at the same time he says that the dog is a natural scavenger apt and able to eat anything edible).

The BARF/ “Evolutionary” philosophy is at first glance an attractive one; it seems to be truly natural because it tries to emulate the lifestyle of the dog in the wild. But, like the emperor’s new clothes, it does not stand up to critical inspection.

The first hurdle which at which BARF falls is that it ignores the scientific evidence about the digestion and absorption of carbohydrate. In this I use as my source Strombeck’s textbook of Small Animal Gastroenterology (Saunders). Professor Strombeck tells us in the most minute detail that the digestive system of the dog, far from being unsuited to the purpose, has a highly sophisticated and sensitive system for digesting and absorbing carbohydrate.

The dog has digestive enzymes in the pancreas and in the enterocytes (cells lining the small intestine) which break down carbohydrate to the simple sugar glucose which can then be absorbed through the gut lining. So sensitive is this system that minor changes in type or quantity of carbohydrate are detected and result in changes over 4-5 days in the type and quantity of digestive enzymes. (This is why sudden changes in diet can cause digestive upset; the digestive enzymes need time to adapt to dietary change.) When we look at how glucose, the breakdown product of carbohydrate digestion is absorbed through the gut we find another indictment of the BARF position. A simple law of physics is that molecules will flow from an area of high concentration to one of lower concentration so that eventually there will be an even distribution of molecules. This process is called diffusion (remember those school experiments with purple potassium permanganate in water!) Certain foods are absorbed by this process which is a passive one e.g. fructose which comes from sucrose (sugar). Glucose is so important to the body that it is absorbed not just by diffusion but by an active pump mechanism which maximises the absorption of glucose, even when the glucose level in the gut is low.

The existence of so sensitive, responsive and beneficial ability to digest and absorb carbohydrate is enough to give the lie to the BARF claim that dogs are not capable of digesting carbohydrate.

When it comes to considering the digestion of protein, the BARF philosophy comes unstuck there too. According to the BARF view, animal and plant cells contain enzymes which are important for the digestion of food. These “enzymes” which according to Dr Billinghamurst are too numerous to name, are destroyed by cooking and so food should be eaten raw to avoid rendering the food indigestible. (If this were true, it would be the only example in history of plants or animals possessing specific characteristics necessary for their own consumption as prey. Evolutionary process favours species which are resistant to being devoured.) But again, if we consult Strombeck, we find that the digestive tract of the dog has its own highly sophisticated mechanisms for digesting and absorbing protein and fat.

If the BARF view that digestion relies on enzymes in the raw food rather than the body's own digestive enzymes we would expect to see signs of digestive failure on a diet of cooked food. But the opposite is the case; cooking makes food more digestible. The importance of the dog's own digestive enzymes can be demonstrated most vividly when they are lacking. The German Shepherd is prone to EPI –exocrine pancreatic insufficiency –a condition in which the lack of pancreatic enzymes which digest protein, fat and carbohydrate causes diarrhea, inability to gain weight and failure to thrive.

How can such an absurd system of beliefs have gained so many committed believers?

Firstly, it has instant appeal. We instinctively want to go back to basics, to a simpler, less complicated more natural lifestyle. For many years I have recommended a simpler method of feeding dogs, based on cooked brown rice, meat and vegetables and free from additives. As well as being a cooked diet it is low in protein and fat and high in

complex carbohydrate. When I first heard Dr Billingham's presentation of his BARF philosophy I thought that perhaps I had got it all wrong. Yet my methods give similar results to the BARF method. When I asked him how that could be, he suggested that perhaps what I was doing was going in the right direction but that his theory was more complete. That cannot be correct because the two are opposites of each other.

Secondly, the BARF premise that diet and health are inextricably linked is basically correct. Good health depends on a correct lifestyle of which a correct diet is the most important. Many health problems are related to poor quality commercial pet foods. But the reasons for this are not that they are cooked or that they are commercial or that they contain carbohydrate. It is the quality and type of ingredients which causes the problems. The solution as I have proved with both home cooked and commercially produced food is to use different and better quality ingredients which put the health of the pet first, rather than the profits of the pet food manufacturer. The use of whole grains such as brown rice, oats and maize is central to that.

Thirdly, the "inventor" of the BARF philosophy has been a tireless and uncompromising advocate of his system.

Fourthly, many people have seen benefits in the health of their dogs when they have changed from a commercial food to a raw food diet. This, I believe is primarily due to the avoidance of undiagnosed intolerance/allergy to an ingredient in the commercial food.

Another problem with the "evolutionary" argument is that domestic dogs bear little relationship to the original wild dog. Very early in their association it is likely that man selected and bred those animals which suited his purpose e.g. guarding, hunting, more docile, less independent – even better suited to the food provided by man.

There are practical reasons why the diet of the wild dog is not automatically suitable for the domestic dog.

The modern dog and its lifestyle bear no similarity whatever to the wild dog. We provide shelter in heated houses, they do not have to forage or compete for food, they eat every day, and they have little exercise compared to a wild dog.

Many dogs have dietary sensitivity which means that they need a highly digestible diet, low in protein and low in fat. I can't see how that could be achieved with a BARF diet.

Modern farm livestock is reared in such a way that the fat content, even in "lean" meat is very high. So a diet high in meat will inevitably be high in fat too.

But, according to BARF, carbohydrate causes so many health problems e.g. inflammatory disease such as pancreatitis. While it is true that low-quality or refined carbohydrate may be undesirable, my experience is that I have had excellent results in

treating and preventing inflammatory disease using both home-cooked and Burns diets which are based on whole grains i.e. high in carbohydrate.

On a simple level what vet has not recommended chicken and rice to treat gastrointestinal disease?

There are other major flaws with the BARF philosophy. One which flies in the face of the facts is the assertion that raw food is more digestible and that cooking destroys that digestibility.

Simple common sense and experience tell us that cooking actually increases digestibility.

Increasing the digestibility of the food is an important way of treating bowel disease and problems of malabsorption. Cooking does this.

I suspect that any success claimed for the Raw Food system is due to a much more mundane explanation than the grandiose but erroneous philosophy. This is that any benefits are due to the avoidance of ingredients which cause dietary intolerance.

My main criticism of the BARF philosophy is its self-righteousness. BARFism puts forward a flawed theory with a certainty which bears comparison to religious fundamentalism; it brooks no dissent. It advocates a system which is impractical and does not fit well into the lifestyle of present society, denying the possibility of alternatives, thereby condemning those pet owners, the majority, to feelings of inadequacy for failure to follow its teachings.

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