

Natural Feeding Handbook for Dogs

Jonathan Self





Honey's



NATURAL FEEDING HANDBOOK for Dogs

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Free advisory service

If you live in the UK and have any questions relating to your dog's health or nutrition, either myself or one of my colleagues (including our vets, vet nurses and nutritionists) will be delighted to help in any way we can. This service is completely free. Our contact information is on the back page.

HONEY'S NATURAL FEEDING HANDBOOK FOR DOGS

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1. HOW TO TRANSFORM YOUR DOG'S HEALTH WITH A SIMPLE CHANGE OF DIET

ONE

The connection between good health and diet is well established in humans. We know that if we eat fresh fruit, fresh vegetables, not too much dairy and moderate quantities of animal protein, we will live longer, healthier lives. We also know that if we eat processed food or food containing chemical additives, too much fat and too much sugar, we will live shorter, considerably less healthy lives.

In fact, it is well proven that everything from allergies to heart conditions and from skin complaints to cancer is caused by a poor diet. What holds good for humans and human food holds good for dogs and dog food. Dogs that eat a natural diet live longer, healthier lives. The problem is that we have lost touch with what the natural, correct diet for a dog actually is. Instead, we feed them the canine equivalent of junk food.

As a result, we are seeing more and more illness in our dogs and they are leading shorter and shorter lives. The development of all sorts of genetic conditions may also be attributable to generations of dogs eating a harmful diet.

Happily, the situation can be quickly and effortlessly corrected. We know what a biologically appropriate diet for dogs is, and it couldn't be easier to replicate a 'wild' diet using 'tame' ingredients. Furthermore, as those who have switched their dogs to a natural diet will testify, the results can be amazing.

Dogs on a raw food diet love the taste. They are also happier and calmer. Other benefits include a glossy coat, healthy skin, lean muscle tone, robust immune system, sweet-smelling breath, healthy teeth and gums, increased energy, better digestion, a strong heart, better behaviour and less poo.

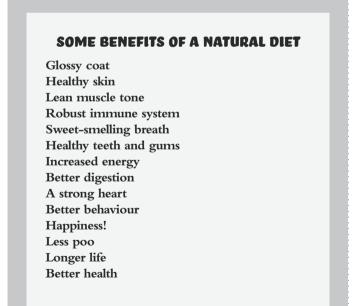
Crucially, naturally-fed dogs can be expected to live longer and to suffer less illness and disease. Indeed, if your dog has any health issues now, a switch to a raw food diet is almost certainly going to improve the situation and may even clear it up completely.

This short book explains why your dog will be better off on a natural diet and provides simple instructions on how to prepare his or her food yourself.

I have written it because although there are some excellent books on raw feeding, I couldn't find a short, plain-English, practical guide to the subject.

It is based on my own experience as the founder of an artisan dog food business, Honey's Real Dog Food, which is responsible for raw feeding over 5,000 dogs a month.

If you have any questions or need additional help, please do remember that my colleagues and I are always happy to assist in any way we can. I must stress you don't ever have to become a customer to take advantage of our knowledge and advice. You'll find our contact details on the back cover of the book.





2. A ONE-MINUTE GUIDE TO RAW FEEDING

TWO

Pressed for time but keen to understand the basics of natural feeding? Here is a summary of all the main points made in this book.

Dogs should be fed a species -appropriate diet

Every creature on earth must consume a diet that is biologically appropriate; otherwise, it will get ill and may (if the diet is really inappropriate) die. For the first four million years of dogs' existence on earth, they certainly didn't eat canned food or kibble. Four million years? Yes, that's how long wolves have been around, and dogs and wolves are classified as the same species. When wolves were domesticated (perhaps 30,000 years ago), we humans changed their outer appearance through breeding, but not their internal organs or digestive systems.

In the wild, dogs eat prey and not much else

Dogs are carnivores (they do need some vegetables and fruit and if push comes to shove can survive on it) as even a cursory glance at their anatomy reveals. Like other predatory mammals, they have powerful muscles, fused wrist bones and a cardiovascular system that supports both sprinting and endurance. And there's a reason why you don't want to get bitten by a dog: their mouths are positive Swiss Army knives, with five kinds of exceedingly sharp teeth. Leave them to their own devices and they will eat small birds and beasts (rabbits, mice, squirrels, etc.) and a share of larger prey (sheep, deer, boar, etc.). What's more, they eat the whole animal, including its bones.

Canine digestion is nothing like human digestion

Dogs have no digestive enzymes in their saliva (unlike humans) and very large, expandable stomachs (they can eat 5% of their body weight at a single sitting, which would be like someone who weighs 60 kg eating 3 kg of food in one go), not to mention indescribably strong stomach acids (strong enough to burn your fingers). Their digestive system is designed so that they can tear off chunks of raw meat, crunch up raw bones and swallow the lot whole. The lack of digestive enzymes in their saliva and their inability to move their jaws from side to side (necessary to grinding food) is why they gulp everything down. The entire digestive process takes place in their stomach.

Give a dog a bone

In the wild, up to a third of a dog's nutrition (including calcium, magnesium, complex fats and vitamins) may come from bones. Bones keep their teeth and gums clean (it has been proven that dogs with healthy teeth live longer) and exercise their upper bodies and jaw. Providing the bones are raw (cooked bones can splinter) they are safe for dogs to eat.

Dogs are extremely indifferent cooks

When food is cooked, its chemical structure is altered, and much of its value (such as enzymes and amino acids) is lost. Dogs need their food served raw in order to digest it properly. There is a reason why dogs are extremely indifferent cooks.

Dog poo

Dogs fed a raw, natural diet produce very little of it, what there is being firm and chalky.

Dogs don't eat regular, balanced meals

Regular, balanced meals work for humans, but aren't necessary for dogs. In the wild, a healthy dog may not eat for up to a week at a time. When they come across an ingredient that their body tells them they need in order to stay healthy (for instance, a particular grass containing useful trace minerals) they simply eat it. Dogs receive the nutrition they require over time. This is called the 'balance over time' approach.

What is wrong with processed dog food?

It doesn't matter which brand of dog food you use or how much it costs, it is never going to be as good for your dog as raw, fresh meat, bone and vegetable.

The key problems with processed dog food are:

- It is cooked. Cooking destroys the vast majority of the nutritional value of the food from a dog's perspective and makes it exceedingly difficult to digest.
- It can contain inappropriate and damaging chemicals (binders, colouring, preservatives and other additives). These may be absorbed through the bowel wall and transported to other organs, with a range of harmful effects.
- The quality of the ingredients is usually poor. Even expensive dog food often has very, very low-quality ingredients.
- Most dog foods contain a high percentage of grain (including rice), which is unsuitable for the canine digestive system and causes allergies.
- It generally fails to clean the dog's teeth and gums, allowing plaque to build up. This gives rise to periodontal disease and worse.

Dogs can't digest grain

Dogs should not be fed grain, because they can't digest it properly.

One of the main reasons why dogs fed on processed food produce so much – ahem – waste matter is because of the grain. Grain is also one of the main causes of skin allergies, diabetes and flatulence. There's a reason why you never see a dog stalking a wheat field.

The switch

Natural feeders sometimes refer to the time they moved their dog onto raw food as 'the switch'. The longer ago you made the switch, the more you will be respected in raw feeding circles! The switch itself can usually be made instantly. A very small percentage of dogs have to be weaned onto raw food, but the vast majority take to it immediately. There are a few dogs that shouldn't eat a 100% raw diet, such as those with a compromised immune system or who have just undergone bowel surgery. More about this later.

The BARF movement

If you become interested in natural feeding, you will hear a great deal about the BARF diet, which is the same thing. BARF, a rather revolting acronym thought up by a brilliant Australian vet called Dr Ian Billinghurst, stands for Biologically Appropriate Raw Food. The other big natural feeding hero, by the way, is Tom Lonsdale (also a vet), who heads up the Raw Meaty Bones Lobby.

It couldn't be easier to feed raw

Feeding a raw diet is remarkably easy. Try two-thirds raw, lean-ish meat and one-third grated or puréed raw vegetables (but not potato). The meat can be anything – chicken, lamb, beef, rabbit, pork, venison, squirrel, whatever – and you can mince it or serve it in chunks. Include a bit of offal. From time to time, add in the odd egg, spoonful of oil (cod liver, for instance), tin of pilchards, spoonful of natural yoghurt, etc. Make sure your dog gets plenty of raw bones – chicken wings will do if that's easier for you. A healthy adult dog weighing at least 10 kg should eat around 2% of their body weight each day.



3. THE MYSTERIES OF CANINE DIGESTION REVEALED

A WOLF IN ALL BUT NAME

If you look up dogs in any encyclopaedia you will see that their Latin classification is *Canis lupus familiaris* and that they are a domesticated form of the grey wolf, aka *Canis lupus lupus*.

In short, dogs and wolves are the same species.

The grey wolf has been in existence for over four million years, but domesticated wolves (dogs) have only been around for some 18,000 to 30,000 years (no one is entirely sure).

Whether humans captured wolves and domesticated them or wolves domesticated themselves is not clear. What possibly occurred was a bit of both.

What is certain is that from early on, we selectively bred dogs with a view to developing certain physical and behavioural traits. Thus, over time, we created hunting dogs, retrieving dogs, guard dogs, companion dogs and so forth.

We may have managed to alter the way dogs look and, to a certain extent, think, but physiologically, they haven't changed.

There is absolutely no difference (apart from size) between the internal organs and digestive process of a Chihuahua and a grey wolf.

This is why domesticated dogs should eat the same diet as wolves.

THREE

The bond between humans and dogs is so close that it is easy to forget that, being different species, we have markedly different digestive systems. Dogs actually have the same digestive system as the grey wolf and, therefore, need to eat the same diet.

The word 'need' is worth stressing. Every living creature on earth must eat a species-appropriate diet. Some species have a greater tolerance than others, but no species thrives on an incorrect diet. Although it is possible for a species to partially adapt to a new diet, palaeontologists believe that this change takes at least 100,000 years.

Meat glorious meat

Dogs are carnivores or, to be strictly accurate, mesocarnivores. Anatomically, they have evolved to catch, kill and eat prey, but they also eat vegetables and fruit. As with other predatory mammals, they have powerful muscles relative to their size, fused wrist bones and a cardiovascular system that supports both sprinting and endurance. And a quick look inside their mouth is all it takes to understand why they are really much, much closer to being carnivores than omnivores.

Your dog's mouth is a bit like a Swiss Army knife

No matter how sweet and innocent a dog may look, the inside of his or her mouth tells a different story. Dogs have five types of teeth, each designed to perform different and precise functions: fang teeth to catch and kill prey and to tear off meat, front teeth to scrape meat off bones, small incisors to grab and hold, large incisors that work like scissors to cut sinew and muscle, and molars to crush bones. None of these teeth, however, is capable of grinding food. Indeed, if you gently try to move a dog's jaw from side to side (necessary for grinding and chewing), you'll find that it is impossible. A dog's jaw can only move up and down.

All the action takes place in the stomach

A dog's digestive process starts in its stomach. This differs dramatically from humans. We use our teeth to grind our food and moisten it with saliva containing digestive enzymes so that the digestive process is well in hand by the time we swallow.

Dogs, on the other hand, don't have any digestive enzymes in their saliva and even if they did, it would be useless because they can't grind their food, owing to having jaws that only open and close.

Instead, they gulp their food with a view to getting it to where the action takes place (the stomach) as quickly as possible.

What happens when the food arrives?

The stomach starts to produce digestive enzymes and other chemicals to break the food down into small molecules that can be absorbed and used by the body. Some of these enzymes are produced by the pancreas, but many are produced by other small glands in the stomach wall itself.

To help the digestive process, dogs have extremely strong and corrosive stomach acids. Acidity is measured using something called pH. Neutral is pH 7, but when a dog is digesting food, its stomach operates between pH 1 and pH 2. Put in plain English: if you touched the natural acids in a dog's stomach, you would burn your fingers.

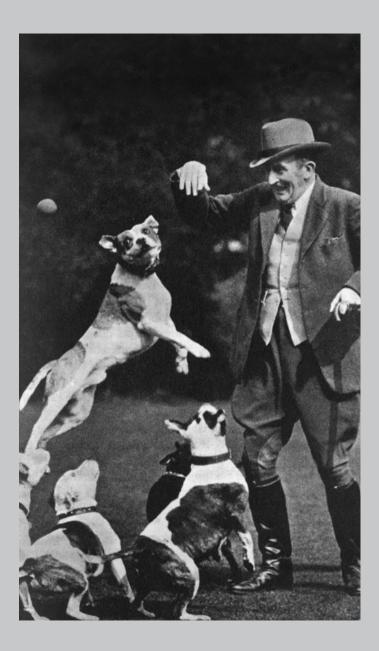
Another important point in relation to this is that most enzymes are extremely sensitive to pH and won't function in the wrong environment. If a dog eats inappropriate food, then its digestive system can't function properly.

Dogs have evolved to eat a lot, quite quickly

Dogs can consume up to 5% of their body weight in a single meal. To put this into perspective, it would be like a 60 kg human eating, say, 3 kg of food all at once. A dog's stomach looks rather like an accordion with lots of folds. It expands when full, and its muscles massage the food to ensure that the digestive juices work properly. Once all the digestible pieces of food have been dissolved, the muscles squeeze the now liquid mass into the intestine for the final stage of the process and for the absorption of the nutrients. A dog's stomach works best if it is allowed to digest one meal completely before being filled again. This process generally takes longer than for humans, although it very much depends on what the dog has eaten.

Why dogs should eat a natural diet

Every species should eat what it has evolved to eat; in other words, what it would eat in the wild or as close to what it would eat as is feasible. Dogs are essentially wolves and, as such, are designed to catch, kill and eat prey. They have a markedly different digestive system from humans and shouldn't eat the same diet as us (any more than we should eat the same diet as, say, a cow).



4. WHAT DOGS EAT (AND DON'T EAT) IN THE WILD

THE GRAIN PROBLEM

Why shouldn't dogs be fed grain? The answer lies in the effect of grain on the pH balance in a dog's stomach. Normally (see the previous chapter), this is quite low (between pH 1 and pH 2), because only with a low pH can dogs digest raw meat and bones. Grain has the effect of elevating the pH level and weakening the stomach acids. Weak stomach acids mean that proper digestion becomes impossible.

This is why dogs fed a lot of grain (and there is a lot of grain in most processed dog food) produce high levels of waste matter. It goes in one end and comes out the other.

If grain is processed in some way (rolled, soaked, heated, etc.), dogs can digest a small amount, which is what dog food manufacturers rely upon.

Even so, there is another issue. We humans can eat carbohydrates (such as porridge or pasta), convert them to sugars and store the energy in our bodies to use later on. Dogs have no capacity to do this. Grain (rice, wheat, corn, etc.), is much cheaper than meat and easier to process, which is why so much of it is used in manufactured dog food.

FOUR

As already discussed, every species should eat a species-appropriate diet (in other words, what they would eat in the wild or as close to what they would eat in the wild as is feasible). In the case of dogs there is quite a lot of variety in their natural diet.

What dogs eat in the wild

Dogs are mesocarnivores, and the primary component of their diet is prey. This could be small animals - mice, voles, rabbits, birds, insects and so forth - or it could be larger prey caught with the help of a pack. Either way, once the prey is caught, they eat everything (the internal organs, the meat, the bones... the lot). Dogs aren't obligate carnivores like cats. They can and do eat vegetable matter. Wild dogs will search for rotten fruit and will eat the semi-digested contents of their prey's stomach. Some will dig up vegetables and eat grasses and herbs. Dogs are also scavengers. As Dr Ian Billinghurst, a leading proponent of natural feeding, has pointed out, dogs receive 'valuable nutrients from materials that we humans find totally repugnant. Things like vomit, faeces and decaying flesh.' With regard to the faeces, incidentally, these contain the dead and living bodies of millions upon billions of bacteria. They are an excellent source of protein, essential fatty acids, fatsoluble vitamins, minerals, antioxidants, enzymes and fibre. Not wanting to dwell on an unpleasant subject, but if you have a dog that is on a processed food diet, he or she may be eating faeces in order to try to stay healthy (although if a dog is eating canine or feline faeces, it will probably be due to the undigested flavourings used to make them palatable).

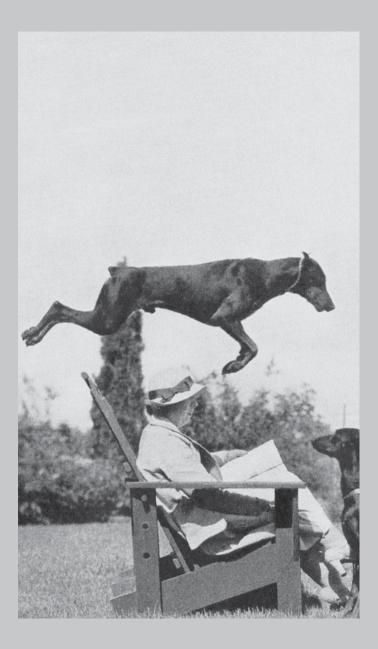
What dogs don't eat in the wild

Almost as important as what dogs eat in the wild is what they don't eat.

For starters (as it were), they don't necessarily eat every day. Depending on where they live, the season, the size of the pack, the available prey and other factors, they may eat as infrequently as every second or third day or even longer without suffering any ill effect. A healthy dog can manage for a whole week without food. Secondly, and perhaps more importantly, they don't eat 'complete' meals; dogs meet their nutritional requirements over time. They will seek out and eat whatever their body tells them they need. This is referred to as the 'balance over time' concept. Dogs should be fed according to this notion, as there is evidence that dogs fed all the ingredients they need in proportion at every meal suffer increased health problems. Finally, dogs don't eat grain. They can't digest it properly and, even if they could, they can't convert it into sugar and store it for later use.

REDUCE YOUR VET BILLS BY UP TO 85%!

In his book *Raw Food for Dogs*, Mogens Eliasen quotes a major Australian study on natural feeding. He points out that 'dogs fed on a natural diet develop a strong immune system that will cause your vet bills to go down, maybe even dramatically.' He goes on to remark that the kennels which switched from feeding kibble to raw food 'experienced a significant reduction in their vet bills' with the average saving being 85%! In other words, where they were spending £100 before, they now only spend £15. As explained elsewhere in this book, dogs on a natural diet have also been shown to live on average a third longer than dogs fed on processed food.



5. THE ELEMENTS OF A HEALTHY, NATURAL DIET

FIVE

Steve Brown, an expert on canine nutrition, has analysed what wild dogs and wolves eat in order to ascertain what domesticated dogs require. After extracting the water (in other words, on a 'dry matter' basis), he found that the dog's natural diet consists of:

- 50% protein
- 44% fat
- 6% carbohydrate

You may be surprised to learn that 44% of the diet comes from fat. But there are different sorts of fat (good and bad), as I will explain in a moment. Moreover, although 44% of the calories come from fat, in terms of overall volume, fat only accounts for around 6% of the diet. This is because fat is calorie-rich.

The importance of protein

Why is the amount of protein in your dog's diet so important? And does it matter what the source of that protein is?

Protein is what your dog needs to form healthy cells, organs, protective tissue, hormones, enzymes, tendons and ligaments. Protein is essential for a good immune system and the mainstay of a wolf's or wild dog's natural diet, accounting for around 90% of what it eats and providing around half the calories it requires. Research published in 2010 shows that a high-protein diet has the additional advantage of making a dog feel fuller for longer.

There is protein, and there is protein! In a natural diet, protein comes almost completely from animal sources (meat and fish), which, unlike the vast majority of plants, contain the right balance of amino acids as well as a complete range of protein-type nutrients (e.g. taurine and carnitine). I mention this because the protein in modern, processed dog food has various drawbacks. To begin with, the main constituent of protein, amino acids, are altered and/or destroyed by heat, and modern dog food has, of course, been cooked. Even if the proteins survive the rendering process (when they are, essentially, boiled for a long period of time) they are of low quality, being from factory-farmed animals. Also, some modern dog food relies on lesser, plant-based proteins.

The scientific evidence is clear: dogs need the protein supplied by a natural, raw diet.

What the experts say about protein

'Protein,' says Dr Lew Olson, author of *Raw* and *Natural Nutrition for Dogs*, 'is a dog's best friend.' She goes on to point out that: 'Recent studies have confirmed that a high level of protein is not just beneficial, but necessary for dogs of all ages.'

'Protein,' says Dr Karen Becker, author of *Real Food for Healthy Dogs and Cats*, 'is the foundation of the diet of a carnivore, necessary for the formation of healthy cells, enzymes, hormones, ligaments, tendons, organs and protective tissue.'

'To maximise our pets' health,' says Dr Ian Billinghurst, author of *The BARF Diet: Raw Feeding for Dogs and Cats Using Evolutionary Methods* (and many other titles), 'we should supply our pets with protein that mimics the protein eaten by their wild ancestors.'

The importance of fat

Fats break down into three different types: saturated fats, monounsaturated fats and polyunsaturated fats. In their natural state in animals, these come from muscle meat, storage fat, bone marrow and organ fat. By feeding your dog different types of meat, you make sure that they receive the right quantity of 'good' fats in their most natural state.

Fat is a vital part of your dog's diet. First and foremost, fat produces energy. The right sorts of fats are necessary for the absorption of fat-soluble vitamins. Additionally, they protect the nerve fibres in the body, provide protection from the cold, and are the ideal source of essential fatty acids. They are anti-inflammatory, too. The most important fatty acids for a dog are omega-6 and omega-3.

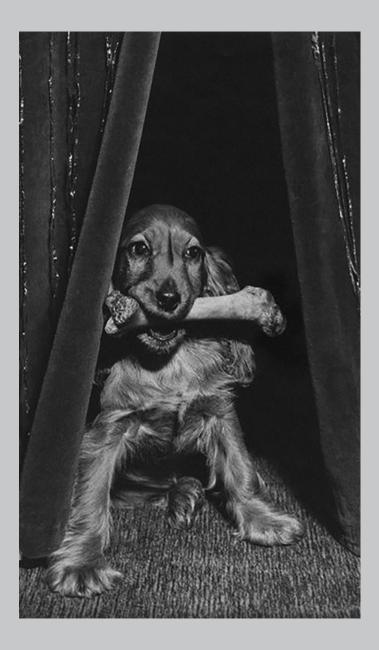
The fat you serve your dog should be fresh. Rancid and poorquality fats can really harm dogs, robbing them of essential fatty acids. The fat used in modern, processed dog food is of the poorest quality imaginable and comes from a variety of sources including the waste fat leftover from fast food businesses. It has almost no nutritional value and is the single most common reason why dogs may put on excess weight. Where extra fats (such as fish oils, a vital source of omegas) are added to factory-produced dog food, they generally turn rancid by the time the food is eaten. This is because fat starts to oxidise as soon as it comes into contact with air. The more rancid a fat, the less valuable it is as it will have the effect of reducing the nutritional value of the protein, vitamins and antioxidants so necessary to your dog's health.

The problem with carbohydrates

What is wrong with feeding a dog carbohydrates? Simple carbohydrates (such as rice, barley and oats) increase blood sugar, stimulate the production of pre-inflammatory hormones and (in plain English) play merry hell with a dog's immune system. There is another problem, which is that dogs lack the digestive

HEALTHY, NATURAL DIET

system required to convert most carbohydrates into a form they can actually use. Modern, processed dog food is very high in carbohydrates and the worst thing is that they are high-fibre carbohydrates. The cellulose in the fibre can't be digested (it goes in one end and out the other) and the starches reduce the body's ability to absorb other vital nutrients, such as calcium, magnesium, zinc and iron. A growing number of vets believe that it is the high levels of carbohydrates in modern dog food that are making so many dogs vulnerable to illness and disease.



6. GIVE A DOG A BONE

SIX

You may be worried about giving your dog a raw bone to chew on. Perhaps you are concerned that your dog will choke or, worse, that the bone will cause a blockage. Rest assured, there is nothing healthier, safer or more nutritious for a dog than a raw, meaty bone. They provide your dog with:

- 1. Nutrition (in the wild, dogs get a third of their nutrition from raw meaty bones).
- 2. Healthy teeth and gums (bones are nature's toothbrush)
- 3. Exercise (chewing a bone is an excellent way to stay fit if you are a dog).
- 4. Entertainment (bones make dogs happy)!

In the wild, dogs eat their prey, bones and all

In the wild, providing they have a choice, all animals eat what is best for them. For dogs, this means small prey or, if hunting in a pack, a share of larger prey. They are thrifty, too. Nothing is wasted, and that includes the bones. Initially, bones are ripped, torn, chewed and sucked to remove all the meat and marrow. Then they are gnawed, crunched and (if small enough) eaten whole.

There is plenty of scientific evidence to prove this. In Australia, for example, S. J. O. Whitehouse studied the diet of hundreds of wild dogs and found that they regularly ate bones. A. E. Newsome did similar research and discovered the same thing. Interestingly, they both found that no wild dog ever eats grain, even when it is readily available. In the UK, Neville Buck studied a wide range of dogs and wolves at Howletts and Port Lympne wild animal parks and came to the same conclusion.

Bones are packed full of vital nutrients

It is easy to understand why the dog wants the meat and marrow, but what makes the bone itself so desirable? The answer is that bones contain a huge number of nutrients that are vital to your dog's health. These include:

- Minerals, including calcium, magnesium and phosphorous
- Protein-containing essential amino acids, including lysine
- Essential fatty acids
- Fat-soluble vitamins (A, D and E)
- Blood-forming nutrients (these are in the marrow), including copper and iron

Bones keep your dog's teeth and gums healthy

Meaty bones are nature's toothbrushes. They keep your dog's teeth clean and gums healthy. They stop the build-up of plaque and prevent decay. As a result, your dog shouldn't develop any of the nasty oral diseases to which many of those on processed food are prone. It will also mean he or she has sweeter breath.

You may be interested to know that a growing number of vets believe that there is a close connection between oral health and general health. One veterinary dentist who has studied this is Dr Gary Beard of Auburn University in Alabama. He has written a paper pointing out that heart failure, hepatic compromise, renal failure and other serious diseases in dogs could be a direct result of poor oral hygiene. Another US vet, Dr Richard Hamlin, of Ohio State University, agrees. He believes that poor dental hygiene in dogs can lead to diseases of the heart, liver and lungs.

Bones provide great exercise and help with mental health

Two further benefits of giving your dog bones should be mentioned. They provide your dog with exercise, strengthening their jaws and upper body. They keep your dog occupied (dogs that have a bone to chew are happier and calmer).

Keep it raw

Bones must always be raw. Heat changes the chemical compounds in bone, making it brittle and indigestible, and therefore more liable to splinter and cause gut issues. Cooked bone should never, ever be given to a dog.

Keep watch

Dogs should be supervised when they have a bone – particularly for the first few times. You may like to limit your dog to just 20 to 30 minutes with the bone – you can always re-offer it to them on another occasion. This policy stops the dog taking in too much bone at once. Incidentally, some dogs like bones so much that they can become a little possessive, especially if guarding behaviour is something that has already proved an issue. In this situation, you may wish to stick to chicken wings and other soft bones that they will chew and swallow in a single sitting. Another approach is to keep bone sessions short.

Be marrow minded

Marrow bones (yum, yum) can be a complete meal in themselves because they are bursting with nutrition. However, do remember they also contain a higher percentage of (good, healthy) fat and so should only be given in moderation to dogs who need to lose a little weight. I don't generally recommend marrow bones for dogs that are really focussed chewers, as they can sometimes hurt their teeth in their enthusiasm.

Weather warning

One of the benefits of bones is that they help to firm up poo. However, if feeding bones during hot weather, make sure that your dog is also drinking plenty of water as otherwise he or she may become constipated.

Know your bone

Raw feeders divide bones into two main types: Licking/chewing bones and eating/swallowing bones.

Licking/chewing (and gnawing) bones help to keep teeth clean and gums healthy. Into this group fall marrow bones (although they also contain a good deal of nutrition) and knuckle end bones.

Eating/swallowing bones are part of the dog's daily nutrition if on a raw food diet and provide about a third of the nutrition. Into this group fall chicken or duck wings, backs (carcasses) and necks, as well as lamb ribs, lamb necks, pork ribs, pork tails and pork trotters.

Choosing the right bone

The type of bone that is suitable for your dog will depend on your dog's breed, size and personality.

Some dogs are 'hard' chewers. Once they get their paws on a bone their main objective is to finish the whole bone as quickly as possible. These dogs are better served softer eating/swallowing bones. A knuckle end can be tried but it is important to remove the bone completely once they have chewed it down to a size that they could swallow.

Other dogs are 'soft' chewers and can (happily for them) be given any sort of a bone.

Always give marrow bones and especially antlers a wide berth.

As a general rule of thumb, the bigger the bone, the better; it should be at least the size of the dog's head.

Bone no-no's

Bones that have been air-dried, smoked or cooked (which denatures the bone and makes it brittle so will cause splintering when chewed) are to be avoided completely as they may perforate the GI tract. Also, please don't serve denatured bone as it is indigestible and may cause blockages. I also suggest exercising caution when it comes to hooves. They can be sharp and may cut the mouth, tongue or gums.

Good news for poorly dogs

If your dog has chronic pancreatitis, the marrow can be scooped out of a marrow bone and replaced with mashed squash, pumpkin, carrot or cottage cheese and frozen as a low-fat option.

Some bone feeding tips

- Dogs love bones from pretty much any animal or bird you care to mention.
- A good bone to start with is a beef marrow bone. Ask the butcher to cut it to the right size for your dog: too large to be swallowed in a single gulp, small enough to handle.
- In terms of size, the general rule is that a chewing bone should be longer than the width of the dog's mouth.
- Carcasses (yes, carcasses!) from chickens, turkeys and ducks are excellent, too.
- Only feed raw bones. When a bone is cooked, it hardens and may splinter.
- Choose bones from young animals. Most bones you obtain from a butcher are bound to be from a younger animal, but it is worth checking. Older animals (and birds) may have harder bones, which are again, more likely to splinter.

GIVE A DOG A BONE

- The first time you give your dog a raw bone, stay around to watch. Inexperienced dogs can become overexcited and there is a slim possibility of choking. For this reason, a large, meaty knucklebone is perfect. Lamb bones and especially ribs, although excellent (if fattening), can get caught in the mouth and should only be fed to more experienced dogs. If your dog always chews all the meat off first, then lamb necks need to be treated with caution.
- If your dog is new to the raw food diet, I recommend limiting the amount of 'bone chewing' time to begin with. You could start with half an hour a day and build from that.

There are a few instances where bones should be fed with caution or not at all. If a dog has just had stomach or anal gland surgery, you should give bones a miss. Some dogs just can't get on with bones, and this needs to be taken into account.



7. THE UNPALATABLE TRUTH ABOUT PROCESSED DOG FOOD

HOW MODERN DOG FOOD CAME TO BE INVENTED

A good way to understand the dog food industry is to study its history. Modern dog food was invented by James Spratt, an American living in England, who launched the first complete dog food (a biscuit made of wheat meal, vegetables and blood) in 1860. Almost immediately mill owners saw its potential as a way of selling their by-products (basically, floor sweepings) and low-cost meat meal at a much higher price than they would otherwise achieve. The reason that manufactured dog food is wildly profitable for its producers is that, almost without exception, it uses ingredients that could never be served to humans. It turns food waste into hard cash! From day one, dog food producers made extravagant claims for their products and paid vets for endorsements. Interestingly, the basic recipe for dried dog food, manufacturers' claims and marketing methods have barely changed at all in over 150 years. Ken-L Ration, the first canned dog food, was launched after the First World War, when oversupply led to horsemeat becoming almost worthless. Demand grew, and by the end of the 1960s all but a tiny percentage of dogs living in developed nations came to be fed on processed dog food.

SEVEN

If the television commercials, advertisements and labelling are to be believed, modern, processed food is the only safe thing to feed a dog. It contains 'nothing but natural goodness', has been scientifically formulated and is endorsed by experts, including vets. What's more, if your dog is suffering from any particular ailment, there is almost certainly a processed food designed to put it right. Pet food manufacturers would have it that they are your dog's best friend. After reading this chapter, you may begin to feel otherwise. Indeed, you may conclude that you have been misled and deceived.

The law Joesn't protect Jogs

There is a considerable volume of legislation controlling the manufacture of dog food, but it barely considers the health of the animals eating it. Its real purpose is to protect the human food chain. This quote (the italics are mine), taken from the guidance given to pet food manufacturers, demonstrates how little the government cares:

> For pets, the main part of the risk assessment when setting the maximum permitted levels for *undesirable substances* will generally be the extent to which the animal can tolerate them.

In other words, it is legal to use *undesirable substances* in dog food, providing they don't kill the animal immediately.

Another disturbing quote from the same guide refers to ingredients:

The material of animal origin used by the pet food

ABOUT PROCESSED DOG FOOD

industry comprises those parts of animals which are either deemed surplus to human consumption or are not normally consumed by people in the UK, and derived from animals inspected and passed as fit for human consumption *prior to slaughter*. Animal material of this nature, which is not intended for human consumption, is classified as *animal by-products*.

This innocuous statement allows manufacturers to make their food from so-called *by-products*, that is to say, hooves, tails, testicles, ears and other bits of animal. It also authorises them to use ingredients that are not suitable for human consumption. How so? If the *by-products* or meat come from an animal that was fit for human consumption *prior to slaughter*, that's fine. The meat could be a year old and completely rotten for all the legislators care.

The notes about labelling are also revealing:

The labelling requirements for pet food are less onerous than those for feed for farmed livestock [for humans]. For livestock, the ingredients must be declared individually in descending order by weight, but pet food manufacturers have the option to declare them by category – e.g., 'meat and animal derivatives', 'oils and fats', 'cereals', 'vegetable protein extracts'.

The significance of this is huge, as it allows manufacturers to hide the actual ingredients being used in their dog food.

A licence to print money

It isn't just that the legislation doesn't consider canine health; it is entirely skewed in the manufacturers' favour. As you can see from the quotes above, they can put in almost any ingredient they want (providing it doesn't actually poison the dog) and can be misleading in what they tell consumers. How did this happen? Since the industry came into being, manufacturers have managed to persuade both the public and legislators that they are experts and can be trusted. They have used clever marketing techniques and veterinary endorsements to great effect and have been much aided by consumer demand for convenience.

It also helps that for many years the industry has been dominated by five multinational corporations, which between them control around 80% of the worldwide market. They are Nestlé (Purina, Bakers, etc.), Del Monte (the Heinz range of pet foods), Mars Incorporated (Royal Canin, Pedigree, etc.), Procter & Gamble (Iams, Eukanuba, etc.) and Colgate-Palmolive (Hill's Science Diet, Nature's Best, etc.).

These companies lobby hard to ensure that their business interests aren't disturbed by unhelpful legislation. Their biggest single market is the USA, where pet food accounts for over \$15 billion a year. But the UK market is still sizeable with over $\pounds 1$ billion a year spent on dog food alone.

It isn't just the overall size of the market that makes it so attractive to manufacturers. Processed dog food is incredibly profitable. As one commentator pointed out:

> What most consumers don't realise is that the pet food industry is an extension of the human food and agriculture industries. Pet food provides a convenient way for slaughterhouse offal, grains considered unfit for human consumption and similar waste products to be turned into profit.

Why processed food is so bad for dogs

It is made from low-quality ingredients

Processed dog food is generally made using extremely low-quality ingredients. As explained elsewhere in this chapter, that means animal by-products and derivatives and low-quality grain.

It has been cooked

Processed food has been cooked. Cooking alters the food's chemical structure, destroys much of its nutritional value and makes it extremely difficult for a dog to digest. A processed food

ABOUT PROCESSED DOG FOOD

diet, because it is cooked, forces the pancreas to work harder and to draw other enzymes from the bloodstream. This can leave a dog physically vulnerable because the enzymes in the blood are supposed to be protecting the body, not aiding digestion. A number of medical studies show that the pancreas enlarges on a diet of processed food. An enlarged organ means excessive function; excessive function can lead to degeneration. It is a similar story when it comes to amino acids. Cooking at high temperatures alters the arrangement of these acids, making half of them unusable by the canine body.

Manufacturers try to persuade consumers that the canine digestive system has altered and can now accommodate cooked and processed food. Palaeontologists estimate that a period of at least 100,000 years is required before evolutionary changes occur within a whole species. The most accepted theories estimate that dogs began their association with humans between 18,000 and 30,000 years ago. They haven't, therefore, had time to adapt to eating cooked food, let alone processed food, which has only been around since 1860! In the case of kibble it is also too concentrated and too dry (less than 10% moisture compared to 70% moisture in a natural diet).

It contains grain

Grain is used a great deal in processed dog food as it is inexpensive and provides bulk. Some processed dog food will contain up to 65% grain, although this may not be apparent from the labelling. In the wild less than 1% of a dog's diet will be grain. There is a reason why one rarely sees a dog stalking a wheat or rice field. Complex carbohydrates (grains) that dogs eat just end up in an accumulation of lactic acids. Whereas humans can convert complex carbohydrates into sugars and store them for later use (this is what happens when one eats, say, porridge), dogs can't do either. Most grain in processed dog food ends up going in one end and coming out the other.

It contains fibre

Processed food contains a high percentage of fibre (described as

'crude fibre' because it is of such low quality). In most cases the fibre takes the form of peanut hulls, almond shells, empty grain hulls, beet pulp and so forth. None of these things offers any nutritional value to dogs.

It contains preservatives

Chemical preservatives are added to keep the food from going off. Where there are no added preservatives, it is either because the food has been heated to such a high temperature that no preservatives are necessary, or because the original ingredients already contained sufficient preservatives.

It contains artificial colouring

Dried and canned food is usually grey. For this reason food colouring is added to give it a more natural appearance. Many trainers believe that this artificial colouring is one of the causes of behavioural issues in dogs.

What are animal by-products and derivatives?

The term 'animal by-products' refers to heads, hooves, feet, viscera and other animal parts you may prefer not to think about. The term 'animal derivatives' refers to: 'All the fleshy parts of slaughtered warmblooded land animals, fresh or preserved by appropriate treatment, and all products and derivatives of the processing of the carcass or parts of the carcass of warm-blooded land animals.' Pet food manufacturers use the terms to hide ingredients they would rather not describe.

It contains binders

In the manufacturing process, many of the ingredients in dog food are rendered, that is to say they are heated until they turn into a liquid. In order to make it look like kibble or 'chunks of meat', chemical binders are added.

It contains unhealthy fats

Many commercial dog foods have fat sprayed on them as a way of making them palatable. Fat may also be added to improve nutritional value. The quality of this fat is usually poor. Fat can be recycled from deep fryers in restaurants and tallow that rises from rendering plants. It may be rancid.

Modern, processed dog food v. a natural diet

How does modern, processed dog food compare to a dog's natural diet? As the law allows manufacturers to present the ingredients they use in a very misleading way, it can be difficult to judge. For example, they can hide the percentage of carbohydrates and disguise the volume and type of fat. However, my own research suggests the following averages:

	Protein	Fat	Carbohydrate
Natural or wild diet	50%	44%	6%
Dry food i.e., kibble	27%	30%	43%
Canned food	32%	58%	10%

You'll notice that modern, manufactured dog food is low in protein and high in carbohydrate. This is the opposite of a dog's natural diet. The fat content is low or high depending on whether you feed kibble or canned food, but either way it is harmful, as manufacturers use inappropriate and unhealthy fats.

Up to 9 out of 10 canine health issues may be caused by diet

A growing number of vets and nutritionists believe that many if not most of the medical conditions for which dogs are treated are a direct result of their diet. Tom Farrington, a well-respected veterinary surgeon who has been in favour of raw feeding for several decades, considers as many as 9 out of 10 canine health issues – from relatively minor problems such as bad breath, flatulence, itchiness, allergies and dry skin to major problems such as cancer, liver disease, heart disease and kidney disease – may be directly related to processed food. As Dr Ian Billinghurst, author of *Give Your Dog a Bone*, says:

> Our dogs' disease problems are increasing on a par with their increasing consumption of processed and cooked foods ... dog food manufacturers take useless waste from the human food industry and sell it as dog food. Why do they bother? Advertising implies that they are there to promote the health of dogs. Their primary concern is, in fact, profit. The laws which govern dog food production do not require it to promote health, reproduction, growth or longevity.

If one cares about dogs, it is very easy to get worked up about the processed dog food industry. It is a scandal waiting to happen. The only difference between this situation and what occurred with tobacco, asbestos, powdered milk formula, fast food and all the other consumer campaigns that have led to major changes is that the victims of the processed dog food industry can't speak for themselves.

How long will consumers (and their dogs) put up with the lies?

There is an Australian study (quoted by Mogens Eliasen) in which it was demonstrated that a dog's life expectancy increased by 30% when fed a raw, natural diet. Dogs that were expected to live until the age of 12 maintained a healthy life until they were 16 years old. This rather implies that dogs fed a processed food diet are leading shorter lives. Which, in turn, begs the question: How long can manufacturers of harmful processed food get away with their lies?

Watch out for 'palatability enhancers'

The leading raw food expert, Mogens Eliasen, warns against another rarely discussed ingredient in processed food – palatability enhancers:

Manufacturing of these chemicals is a whole industry on its own, supporting the pet food manufacturers with drugs that both taste good and make the animal addicted to the food, once it gets a taste of it. It is literally no different than giving a teenager cocaine or heroin in order to create a customer for more drugs.



8. VETS AND RAW FEEDING

Finding a good vet

A growing number of vets are now in favour of species-appropriate feeding and many more are supportive. If, however, you are having trouble finding a vet to advise you, we recommend contacting:

- The Raw Feeding Veterinary Society (www.rfvs.info)
- The British Association of Homeopathic Veterinary Surgeons (www.bahvs.com)
- British Association of Veterinary Herbalists (www.herbalvets.org.uk)
- British Association of Veterinary Acupuncturists (www.abva.co.uk)

If you are looking for a forward-thinking, holistic vet, you could also contact Honey's. We would be more than happy to make a recommendation.

EIGHT

Given the irrefutable fact that the species-appropriate diet for dogs consists of raw meat, bones and vegetables, you may be surprised to hear that not all vets are in favour of natural feeding. Why, when dogs have been eating raw food for millions of years, should highly educated and caring professionals take such a stance? The reasons are various and complex.

Perceived lack of scientific evidence

There is a perception, amongst some veterinary professionals, that there is not yet sufficient scientific evidence to support raw feeding. This perception is encouraged by the big pet food manufacturers, who have massive marketing budgets to support their anti-raw stance. Happily there is more and more research showing that a natural diet is both nutritionally adequate and safe.

Vets are loyal

It takes a vet seven years to qualify, after which he or she will probably spend a year or two gaining experience in someone else's practice before starting up on their own. If and when they do set up on their own, they will have to invest heavily. Building a surgery is far from cheap and insurance is extremely expensive. They won't ever become rich, either. In 2020, the average GP earned around \pounds 120,000, whereas the average vet earned \pounds 49,000. Bear in mind that their seven years of study must also be paid for. Indeed, student debt is a huge problem for the majority of vets.

There are two highly profitable sectors that exploit this situation. The first is the pharmaceutical industry. The behaviour of pharmaceutical manufacturers need not concern us here, except it is worth remembering that it is not in their commercial interest for dogs to be healthy. The second is the pet food industry. Ever since pet food was invented by James Spratt in 1860, manufacturers have been persuading vets to endorse and sell their products.

Today, pet food manufacturers provide vets with financial support in the following ways:

- They pay commission to vets for selling food via their surgeries;
- They pay vets to carry out research, attend conferences, write papers and so forth;
- They support the larger professional bodies;
- They subsidise the costs of education for vets undertaking training and professional development.

Understandably, vets want to support the people who support them (in this case the big pet food manufacturers). Moreover, until the growth of the raw food movement, they had no reason to doubt what they were being told, especially as the pet food industry employs tens of thousands of scientists.

The colleges are no less to blame

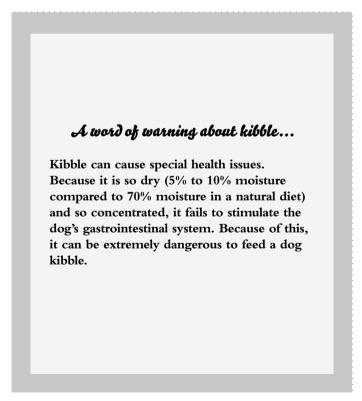
Vets can be forgiven for their lack of knowledge about raw feeding for another reason: they are taught very little about canine digestion in the course of their studies. Colleges rarely devote more than a day to the topic and the lectures are often sponsored by pet food manufacturers. You can guess how impartial such lectures are likely to be.

Fake news

Another problem is that a tiny percentage of vets and scientists genuinely believe – for reasons that aren't entirely clear – that raw feeding is dangerous. These vets and scientists spread fake news and put their names to very dubious research. Because they use medical terminology and publish learned papers, many vets believe what they say. The Raw Feeding Veterinary Society and other organisations work hard to correct these false claims. Nevertheless, some innocent vets are taken in.

On a positive note

Although some vets are not yet convinced of the benefits of raw feeding, the situation is changing. I doubt there is a veterinary practice in the country that doesn't now care for several rawfed dogs. As a result, vets are seeing the benefits for themselves. Moreover, new, genuine research comes out every year in support of species-appropriate diets, and this must help, too.





9. THE STORY OF BARF

NINE

The acronym used to describe the practice of raw feeding dogs is somewhat unfortunate: BARF. The word is defined in the *Oxford Dictionary* as 'slang vb (tr), to vomit', but in the canine world it stands for Biologically Appropriate Raw Food. The BARF diet is designed to replicate what dogs would eat in the wild, that is to say raw meat, raw bones and raw vegetables, herbs and fruits.

So, where does the BARF concept come from? It really began in the 1930s when a veterinary student, Juliette de Bairacli Levy, questioned the conventional approach to veterinary medicine and decided to explore traditional remedies and, in particular, herbalism. An intrepid explorer, she travelled extensively throughout Eastern Europe, the Middle East and Africa, living for long periods with gypsies and peasant farmers and learning about the natural remedies they used to cure man and beast. The result was a series of groundbreaking books on animal care and livestock management.

One of de Bairacli Levy's earliest conclusions was that dogs were healthier if they ate a natural diet of raw food and fasted regularly. Her books were highly influential and helped to stem the growth of manufactured pet food. However, from the 1950s onwards shopping and eating habits in the West changed. The amount of time spent in the kitchen fell dramatically, and there was a move to convenience and processed food. What went for humans went for pets, too. By the 1980s, all but a tiny percentage of dogs were being fed dried, canned or pouched food.

However, the switch to convenience food was not universal and even while it was happening, there were dissenting voices. In the field of veterinary science, one of those dissenting voices was the Australian vet called Dr Ian Billinghurst, who, in 1993, published a book called *Give Your Dog a Bone* in which he espoused the same

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principles established by de Bairacli Levy some 60 years earlier. Billinghurst was one of the first vets to make the connection between canine health and diet. It may seem obvious now, but at the time it went in the face of what was generally held to be true, namely that pet food manufacturers knew what was best. Billinghurst says in his first book that as he saw patient after patient coming in with the same, persistent health issues, all of which seemed almost impossible to treat, he suddenly realised that he should be focusing on prevention rather than cure. This, in turn, led him to consider possible causes and the role played by diet.

At almost the same time as BARF started to take off, another similar movement began to gain popularity. Its followers believe that the food we give our dogs shouldn't just be raw... it should be made up almost entirely of raw meaty bones. The Raw Meaty Bones Lobby was spearheaded by a British vet living in Australia called Dr Tom Lonsdale. He wrote a book called *Raw Meaty Bones: Promote Health*, which quotes the scientific evidence behind raw feeding.

There have been a number of studies into raw feeding dogs and, although logic says that it makes sense, it is reassuring to see that it is based on hard facts and research.



10. A SIMPLE BUT EFFECTIVE FEEDING PLAN FOR ADULT DOGS

TEN

Raw feeding is extremely easy. Feed around two-thirds raw meat and bone and one-third raw vegetables and fruit. For a healthy adult dog, feed around 2% of his or her weight every day (so, for a 20 kg dog, feed 400 g). Smaller breeds (under 10 kg) need more food. Dogs on a diet, less! It is as simple as that!

Switching a dog to a natural diet couldn't be simpler and if you are concerned that raw feeding will be complicated, time-consuming, risky or expensive please put such thoughts right out of your mind:

- All you need to know to be a successful raw feeder is what ingredients are suitable for your dog and in roughly what proportions and quantities.
- With a little bit of planning it won't take you any more time than opening a can.
- It is completely safe for dogs to eat the natural diet described in this book (remember: their stomach acids are so strong that they would burn your fingers).
- Your dog doesn't need prime steak! He or she will thrive on all sorts of inexpensive ingredients.

Unless your dog has certain health issues (see below), there's no reason not to make a straight switch. Having said this, there are

a few dogs (maybe one in a hundred) who don't take to natural feeding immediately, in which case you'll want to read Chapter Twelve. Incidentally, if you can withstand the looks of reproach, it is no bad idea to fast your dog for a day before the switch. This will help your dog to rid its body of toxins built up while on a diet of processed food.

A simple plan

The following, straightforward feeding plan for adult dogs is a summary of decades of experience. It rests on four basic ingredients:

> Group 1: Raw, lean muscle meat and organs Group 2: Raw, meaty bones Group 3: Raw vegetables and fruit Group 4: 'Boosters' such as eggs and sardines

In a moment, I will supply a shopping list for each of these categories.

The plan itself can be distilled into three simple steps:

- 1. Take any meat (chicken, beef, lamb, pork, whatever) minced or diced.
- 2. Grate vegetables or fruit into it so that it is roughly two-thirds meat and one-third vegetable (you can put the vegetable through the food processor).
- 3. Get some meaty bones from the butcher and give your dog one every day or two.

What about the 'boosters' mentioned above? These are to give your dog extra nutrition and vitamins, and you simply add one item every other day.

For portion sizes, follow the instructions below. Vary the types of meat, bones, vegetables and fruit you use. You can pick more than one ingredient from each group each day, although it is better not to mix protein sources. In other words, serve chicken meat with chicken bones and beef meat with beef bones. However, a bit of mixing and matching is fine if it is easier.

Be mindful of the vegetables and fruit that can't be fed (potatoes, for example, and grapes), a list of which you will find below.

That's it.

Typical seven-day feeding plan for an adult dog

This chart gives you a feel for how the feeding plan could work. Change the meat, bone, vegetables and fruit to suit what is available. The key thing is variety.

	Group 1: Raw, lean muscle meat and organs	Group 2: Raw meaty bones	Group 3: Raw vegetables and fruit	Group 4: 'Boosters' every other day
Sunday	Minced beef	Small marrow bone	Cabbage, broccoli and apple	Egg
Мопдау	Cubed pork	Pork ribs	Carrot and cauliflower	
Tuesday	Minced chicken	Chicken carcass with no meat on it	Spinach, mangetout and banana	Sardine
Wednesday	Beef knuckle bone	No need for extra bone	Skip for a day	
Thursday	Ox heart	Skip for a day	Pumpkin, celery and blueberries	Hempseed oil
Friday	Duck back and wings	No need for extra bone	Kale and red pepper	
Saturday	Whole rabbit	No need for extra bone	Skip for a day	Live yoghurt

Raw shopping made easy

There are so many ingredients suitable for your dog that the choice can be overwhelming. Here, to make the task easier, is a comprehensive shopping list.

Raw meat shopping list

Raw, lean muscle meat and organs should make up around a third of your dog's daily food. You'll notice that marrow bones and knuckle ends are included in this group. Why? Because the marrow in the middle of the bone is brimful of (healthy) but high-calorie fats.

Shopping list:

Beef heart (aka ox) Ox tongue Tripe Minced or cubed beef Minced or cubed chicken Chicken hearts Turkey heart Lamb heart Minced or cubed lamb Minced or cubed lean goat Minced or cubed turkey Minced or cubed goose Minced or cubed pork Venison meat Venison heart Minced or cubed duck Pork tongue Beef marrow bones (knuckle ends are best) Lean minced or cubed goat

What about carcasses and wings?

Chicken, duck and turkey carcasses (aka 'backs', as in 'chicken backs') as well as wings can replace both the meat and bone element of the diet depending on how meaty they are. Moreover, they are inexpensive and easy to serve. Some people feed nothing else, but I feel it is important to offer variety and wouldn't feed them to my own dogs more than three times a week. Also, it is hard to persuade some dogs to eat vegetables if they are only eating backs, wings, etc.

Shopping list:

Chicken carcasses Chicken wings Turkey carcasses Turkey wings Duck carcasses Duck wings Whole rabbits (gutted, feet removed, beheaded and skinned) Whole pheasant and other game (gutted, feet removed etc.) Goose carcasses

Raw bone shopping list

Raw, meaty bones should make up around a third of your dog's daily food.

Shopping list:

Pork ribs Pork trotters Venison neck Venison neck Chicken neck Turkey neck Duck neck Lamb ribs Lamb neck Lamb trachea Beef trachea

Please remember to read the chapter on feeding raw bones before serving.

Raw vegetables and fruit shopping list

Vegetables and fruit should make up around a third of your dog's daily food. It is vital that the ingredients are fresh. Tired-looking vegetables and fruit have lost most of their nutritional value. Whether you include one item or several from this list every day doesn't really matter. Unless your dog loves eating vegetables/ fruit (some do), my advice is to either blend or juice them before mixing with the other ingredients. Vegetables and fruit are a dog's best protection against cancer. The fruit element should never be more than a small percentage of the vegetables/fruit you serve – say between one-fifth and one-tenth of the total.

Shopping list:

Broccoli (go easy, it can irritate the stomach) Celerv Celeriac (go easy, as it has a high sugar content) Chinese cabbage Courgette Beetroot (go easy, as it has a high sugar content) Carrot (go easy, as it has a high sugar content) Parsnips Cauliflower Spinach Kale Green leafy vegetables Butternut squash Pumpkin Pepper (red, vellow and orange but not green) Mangetout Blueberries Blackberries Raspberries Strawberries Red watermelon Apple (go easy, as it has a high sugar content) Pear (go easy, as it has a high sugar content) Banana (just a small piece and not too often) Pineapple (go easy, as it has a high sugar content) Starchy vegetables to avoid: peas, potatoes, sweet potatoes, onion and leek. Fruits to avoid: grapes, avocado and dried fruit.

'Boosters' shopping list

Choose ONE item from this list and add it every *other* day (for instance, on Monday you could add an egg, on Tuesday, nothing, on Wednesday, a few tinned sardines, on Thursday, nothing and on Friday, a teaspoon of chia seeds). These 'boosters' are not vital to the diet, but help to ensure that your dog receives a wide range of nutrients.

Shopping list:

Eggs

One egg for a small or medium-sized dog. Two eggs for a very large dog. Eggs are packed full of protein and valuable nutrients, essential fats and vitamins. Include shells.

Sardines in water with no salt added

Add one sardine for a small dog, three for a medium-sized dog and a whole tin for a large dog. Sardines are a great source of protein, trace minerals and vitamins.

Hempseed oil One teaspoon. Contains valuable essential fatty acids/omegas.

Flaxseed oil One teaspoon. Contains valuable omegas.

Chia seeds

One teaspoon. Contains valuable amino acids, fibres and minerals. Good source of omegas, too.

Live yoghurt One tablespoon for every 10 kg your dog weighs. Good probiotic.

Vegetable extracts Such as, brewer's yeast, kelp and/or a modest quantity of molasses.

What aboat fish?

Many dogs love fish and fatty fish such as herring, salmon, pilchards and sardines provide excellent nutrition. If you can't find fresh fish, then once or twice a week you may like to add a tin of pilchards or herrings to your dog's food. There are, of course, a number of health and environmental issues related to feeding fish and I no longer feed it to my own dogs.



11. SECRETS OF A NATURAL FEEDER

ELEVEN

The real purpose of this chapter is to offer you a few tips and shortcuts designed to make raw feeding as easy as opening a tin or bag of food. Before I reveal my natural feeding secrets, however, I want to tell you about how I felt when I first made the switch to raw feeding myself. At the time I was living with around six or eight dogs. Three of them were permanent family members and the rest were part of a floating population of foster dogs that I took in when the local rescue centre was overloaded.

Feeding my pack was easy – all I had to do was scoop kibble from a bag and put it into their bowls. By contrast, raw feeding seemed extremely complicated. I fretted dreadfully about the choice of ingredients, the balance of ingredients and the volume of food to give. I worried about whether I was preparing it correctly and (despite what my vet said) had visions of the dogs choking on the bones. I wasn't entirely convinced, either, that it would be nutritionally adequate. Not much keeps me awake at night, but the idea that I might in some way be disadvantaging the dogs in my care did.

However, what I hadn't realised about natural feeding is that it is exactly that: natural. No dog counts calories, thinks about whether he or she is getting enough magnesium or weighs their food. The fact is, you only need to ask yourself three questions:

- 1. Am I feeding the right ingredients?
- 2. Am I feeding in roughly the right proportions?
- 3. Am I feeding approximately the right volume?

Natural feeding is as much an art as a science.

Achieving balance

Dogs don't eat completely balanced meals in the wild, but manage to obtain the nutrition they need over time. You don't, therefore, have to worry too much about balancing each meal you feed. Rather, you should be thinking about the balance over a week or even a month.

- The meat, organs and bones should account for no less than twothirds of your dog's diet.
- Provide plenty of variety (this ensures your dog is getting all the nutrition it needs from different sources).
- If your dog looks a little overweight or a little too underweight, adjust the volume accordingly.

Unless you have a dog with a serious health issue, there is no reason to consider the exact nutritional value of each element of your dog's natural diet.

Quality counts

Unfortunately, the nutritional value of meat, vegetables and fruit is falling. This is because of intensive farming techniques and soil degradation. It affects factory-farmed meat the most but even freerange, organic and wild meat is not what it once was. The situation with fruit and vegetables is no better. You may be interested to know that the British government believes that the soil in Britain could be infertile by 2050. In an ideal world, I would urge everyone to buy only certified organic ingredients, but the reality is that such ingredients are expensive and often imported. Still, try to buy the best quality of ingredients that you can afford. Below, I offer some tips on how to keep the cost down. For instance, you don't need tender chicken breast for your dog – a chicken wing or even a carcass is every bit as good. What is most important is the source of the meat. High welfare meat will always have a higher nutritional value.

What to say to your butcher

It is definitely worth finding a good butcher as it will save you a great deal of time and money when sourcing your dog's food. Also, if you live anywhere near a slaughterhouse, it is well worth seeing if they can supply you.

Either way, it is much, much easier if you have plenty of freezer space.

When searching for a butcher, explain why you want the meat and ask for:

- Mince (this should be 'visually lean')
- Inexpensive cuts
- Offal (heart, kidneys and liver)
- Green tripe (see below)
- Raw, meaty bones
- Chicken and other carcasses

With regard to the scraps and the mince, it is fine for it to have some fat in it, but it shouldn't be too fatty (more than 30% fat could be a problem).

So far as inexpensive cuts are concerned, every butcher has his or her own ideas what these might be. Take 'skirt', which is the diaphragm under the ribs. Some butchers sell this for next to nothing, while others know that there is good, lean meat to be had there and charge quite a bit for it. An efficient butcher will find you inexpensive ways to feed your dog.

Note that raw chicken carcasses and 'backs' are perfect for dogs, and some people feed their dogs almost nothing else. Chicken wings are also great, being a perfect parcel of meat and bone.

Some people feel it is important that the meat they buy for their dogs is suitable for human consumption. Others don't. The truth is that the dogs are unlikely to mind if it is a bit smelly, and you shouldn't be too obsessed with the 'best before' date.

⁻ Scraps

How much to serve

To begin with, you will need to monitor the quantity of food quite closely but once you get the hang of it, provided your dog is healthy, you can do it by feel. Lots of successful raw feeders simply watch their dogs carefully and adjust the quantity as they go.

There is no hard-and-fast rule but for a dog over 10 kg roughly 2% of their body weight in food (including edible bones) every day should be about right. In other words, a 20 kg dog should be eating roughly 400 g.

If you have a working dog, an underweight dog or a dog that exercises a great deal then increase this amount to between 2% and 5% of your dog's body weight per day.

If you have an elderly or overweight dog then reduce the amount to between 1% and 2% of your dog's body weight per day.

You can serve it in as many meals as you want and at whatever time, but food should never be left down for your dog to eat whenever he or she feels like it.

You might be interested to know that because wolves exercise so much they need about three times as much food as a typical dog.

For dogs under 11 kg in weight try:

- 1–2 kg: 10% of bodyweight
- 3-4 kg: 7% of bodyweight
- 5-8 kg: 5% of bodyweight
- 9–10 kg: 3% of bodyweight

I must stress these percentages are for guidance only.

How to tell if your dog is the correct weight

The easiest way to tell if your adult dog is the right weight is to make sure that your dog's ribs are easily noticeable. Of course, for a hairy dog, this isn't so easy! In this case run your hands over the rib cage. If it is easily felt, your dog is the right weight. If there is any fat...he or she may need to go on a bit of a diet!

A word about the 'recommended daily intake' figures

Dog food labelling makes great play of the 'recommended daily intake' figures for individual ingredients. Even some raw feeding experts refer to these so-called recommendations. By and large, you can ignore them completely. They have almost no basis in fact. In America, for instance, the Association of American Feed Control Officials (AAFCO) and the US Food and Drug Administration (USFDA) have laid down figures based on 'the assumption that

the animal should be able to survive on those quantities, with no observable ill effects for at least 3–6 months'. Hardly meaningful. And, anyway, the actual recommendations change frequently as a result of pressure from dog food manufacturers.

Supplement warning

Many dog food manufacturers – both those making modern, processed food and those offering a 'complete' raw food – add supplements and vitamins. This allows them to claim that substandard food is nutritionally adequate. For the most part, these supplements are artificially produced in a laboratory.

There are times, if a dog has health issues, when supplements and vitamins may be a sensible addition to his or her food. Generally speaking, however, they should be treated with great caution. This is because supplements and vitamins are not automatically bioavailable. In plain English, they are swallowed but not absorbed into the body (where they can do good) and are simply excreted straight out again. If they aren't excreted, which sometimes happens, this can be a further concern as they may remain in the body and cause organ damage.

The fact is, a proper natural diet does not need any additional supplementation. All the nutrition the dog needs comes from the food itself. If you or your vet decides something 'extra' is required, then it is always preferable to obtain this from food-based supplements (ideally made with certified organic or wild ingredients).

The pros and cons of green tripe

If there were only one ingredient you could feed your dog, it would have to be green tripe. Nothing else offers such a variety of digestible proteins, and your dog would thrive if fed nothing else. What is it? The dictionary defines it as: 'the raw, unbleached stomach of cattle or other ruminants, after no other treatment than a simple rinse in cold water'. It is called green because it has a green, fluorescent shine to it, although in colour it tends to be anything from light brown to black.

From a dog's perspective, it is almost a wonder food, but from a human's perspective, it has a couple of potential drawbacks.

To begin with, it contains a great deal of bacteria, some of which may be harmful to humans (but not dogs). For this reason, it can't be kept in the same fridge or freezer as food for human consumption. It must be handled and served carefully so that no contamination occurs. If you have any cuts or grazes on your skin, you shouldn't touch it as it can lead to infection.

Then there is the smell. This is not only strong but also lingers. It's not a bad smell when you get used to it, but it's a devil to wash off, and so it really is best to handle tripe using rubber gloves.

In short, it is a nuisance to deal with but well worth the effort, especially as it is relatively inexpensive.

One final point, bleached tripe is worse than useless as the bleaching process strips out most of the goodness and leaves a potentially harmful chemical residue. Washed trip (where it has been washed in plain water until it is no longer green) is not as nutritious as green tripe, but a less bothersome alternative and much safer for human handling.

Reassurance about parasites

The major dog food manufacturers clearly feel threatened by the natural feeding movement, and there is definitely a campaign to discredit raw feeding. As part of this campaign, it is sometimes suggested that there are dangerous parasites in raw meat. This is incorrect. The main reason why you don't have to be afraid of parasites in a 'prey' animal being transferred to a 'predator' is that if this happened, all predators would have become extinct long ago! Wolves simply wouldn't have survived. Also, one has to remember that, in the wild, carnivores frequently target sick and old animals as they are easier to catch and kill. So, not only is it safe for wolves to eat raw meat, but it is safe for them to eat raw meat from poorly prey. Another reason not to be concerned is the acidity in a wolf's (or dog's) stomach. This is so strong that no known organism can survive exposure. The parasites that survive on a herbivore are, by and large, very different from the parasites that attack carnivores. There is one exception to this: tapeworm. These can be caught from fleas found on rabbits; so, if a dog eats a whole rabbit (as opposed to rabbit meat), there is a risk. This won't affect you, though, unless you are giving your dog whole rabbit carcasses.

Incidentally, there is a prejudice against pork, because, in the distant past pigs used to carry a parasite called trichinosis. This parasite was eradicated in farmed pork in the UK (and Europe) in the 1960s. If you are still nervous about parasites, freeze the meat for at least 20 days.

Why fasting is good for your dog's health

From start to finish, it can take a dog anything up to 20 hours to digest a full meal (a full meal being the amount it can fit in its stomach at a single sitting). This is a very long time when compared to humans, who eat much smaller meals and digest them much faster. Why is the time it takes a dog to digest important? Because a dog's digestive system needs to rest for periods to operate at optimum efficiency. More than this, if the system doesn't get a chance to rest, it can be harmful to the dog's health (it needs the time for its liver to transform fat into glucose). My advice is to feed your dog once a day and to fast him or her for 24 hours once a week.

Storing, serving (and travelling with) raw food

You will find that most natural feeders depend upon freezers

to make their lives easier, as it is a nuisance having to buy fresh ingredients every few days. The simplest approach is to make up a batch of food, divide it into daily portions, freeze them all and then thaw as needed. The freezing process does nothing to reduce the nutritional value of the food, and it is absolutely fine to freeze bones and carcasses.

Food should be thawed before serving. You should not use a microwave to thaw food. Microwaves work by concentrating heat on selected spots within the food. These spots will be considerably hotter (and thus more damaging to health) than if you simply cooked the food. If you need to thaw food quickly, put it in a plastic bag and run cold water over it.

There is no appreciable health risk associated with freezing food, thawing or partly thawing it, and then freezing it again. This is because modern domestic freezers are so efficient that they bring the food down to minus 18 degrees – quite cold enough to kill off any dangerous bacteria. What does happen, however, is that food repeatedly frozen and thawed becomes increasingly mushy and bloody.

If you don't have access to a freezer, the best option is to take the food frozen and to keep it as cold as possible. It doesn't actually matter if the meat is a little smelly when served (your dog won't mind!), but after a few days the vegetable element will start to lose its nutritional value. Still, with careful management, food should last for up to nine days in a fridge.

A word about hygiene

Dogs may have stomach acids so strong that they would burn your fingers, but humans don't. Raw food does have bacteria on it that could cause health issues for humans. Keep it separate from the food you are going to eat, thoroughly wash your hands as well as any surface it comes into contact with (including utensils, storage containers and so forth). Use an anti-bacterial soap or mild disinfectant and/or wear rubber gloves. If you don't want to use harmful chemicals, vinegar is a natural alternative.

Guide to raw food safety

Healthy dogs have a digestive system that thrives on raw meat, but we humans don't. Happily, raw feeders all over the world (and the movement now includes millions of dog and cat lovers) are careful, with the result that natural feeding can be considered safe. When handling raw meat, please remember to follow these golden rules.

1. Wash your hands

Wash your hands thoroughly after handling raw meat – use soap and warm water and clean the taps as well, if you touched them.

2. Handle the packaging with care

Even if you only touch some outer packaging, we recommend washing your hands. You can't be too careful.

3. Store raw meat away from other food

In the freezer, we recommend storing raw meat away from other food. If you are keeping it in the fridge (to defrost, for example) we suggest using an airtight container and placing it on the bottom shelf/with other raw meat.

4. Wash down all surfaces and utensils

After preparing the food wash down all surfaces with hot soapy water or disinfectant. Think of everything you have touched – from the fridge handle to the worktop. Don't forget any utensils you may have used.

5.DIY? Don't wash the meat

It is not advisable to wash raw meat as it can have the effect of spreading any harmful bacteria.

Please don't support intensive farming

For the most part, farm animals lead short, painful lives in appalling conditions. They are kept indoors, in tiny cages, mutilated and transported hundreds and even thousands of miles before being killed. Furthermore, the way they are slaughtered is invariably drawn out and cruel.

The photographs and imagery used by farmers, producers, food manufacturers, butchers, marketing boards and supermarkets create, by and large, entirely the wrong impression. Only a tiny percentage of farm animals lead relatively happy and natural existences.

Unless the meat you buy meets certain criteria, the chances are that it has been intensively reared. To buy it is to support cruelty to animals. Of course, it is cheaper than meat from compassionately farmed animals (having a conscience does cost a little bit extra). But if you love animals, it is money well spent. What's more, intensively reared meat is much more likely to be packed with harmful chemicals, since intensively farmed animals are given many more drugs to keep them alive.

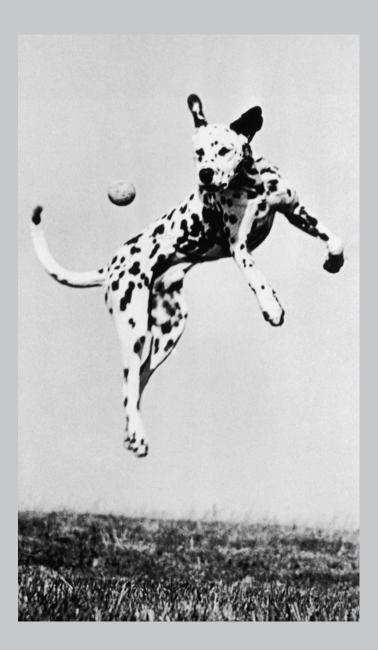
To ensure that the meat you are buying has not been intensively reared insist that:

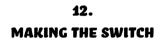
- Chicken, pork and turkey are free-range
- Rabbit and venison are free-range or wild
- Lamb and beef have been grass-fed, pasture-fed or are free-range

If you are buying organic meat, providing it is properly certified, you can be confident that it has been reared with animal welfare in mind.

It is much better for the environment and less wasteful to buy British. It is insane to buy meat from the other side of the world. Also, beware of labelling. Ridiculous government rules allow businesses to buy chickens in, say, Thailand but by cunning means describe them as being British. If you would like to learn more about intensive farming, you might like to contact: Compassion in World Farming (www.ciwf. org.uk), which was started by an ordinary British farmer; the World Society for the Protection of Animals (www.wspa.org.uk), a leading pressure group; and/or the Soil Association (www.soilassociation.org), the UK's leading campaigner for higher standards of animal welfare.

SECRETS OF A NATURAL FEEDER





TWELVE

The vast majority of dogs can't believe their luck the first time they are served raw food. It is as if all their gastronomic dreams have come true at once. A small percentage express initial doubt (*'What is this you are serving me? It smells good but are you absolutely sure it is food?'*), which they quickly overcome. An even smaller percentage (maybe one in a hundred or even one in two hundred) may have misgivings about the change and take a bit of persuasion.

The quickest and easiest way to make the switch

As long as your dog is healthy, the easiest approach is simplicity itself.

Leave a reasonable period of time between meals (24 hours is ideal, but you could try less) and then introduce the new, raw diet. Incidentally, in the wild, dogs may go for up to a week without eating, so although they may give you reproachful looks, a day without food will certainly do them no harm and may do them some good, since it will give their digestive system time to rest.

Other switching methods

The only reason to try another approach to the straight switch (as described above) is if you encounter resistance. In which case, I recommend one of the options listed below.

The Gradual Approach

Slowly start adding raw food to whatever it is you normally feed, increasing the amount every day until it is 100% raw after one or two weeks (or longer, if you prefer). This gives the dog's stomach time to adjust to the change.

The Warm Approach

Take the raw food and cook/warm/brown it lightly in a pan (not a microwave and not any bones). Every day, cook it slightly less until it is raw. This gives the dog's stomach time to adjust to the change from sterile, processed food.

The Veg-Free System

Some dogs love vegetables; others don't, and the ones who don't may decline to eat raw food for this reason. The solution? Give in to them! Remove vegetables from their diet completely and wait for a week or two before gradually reintroducing it.

The Gravy System

Another approach is to add a little homemade gravy before serving the food (mixing in a raw egg or some pilchards can also work).

The Load of Tripe Method

Fast Fido or Fifi for a day before making the switch to raw, but only feed him or her green tripe to begin with. Dogs find this incredibly easy to digest and it contains all the nutrients they need. Do be careful how you handle the tripe, however, as the bacteria it contains can be harmful to humans.

What the behaviourists say

There are some dogs – almost always very intelligent and sensitive dogs from loving homes – who take a firm line on any change of diet. *I don't care how good for me it is,*' they say by means of bark or gesture, *but I hate change and I would rather eat nothing than eat this raw food.*' This is really a behaviour rather than a dietary issue. It is usually because the dog's hunger for attention is greater than their hunger for food. Moreover, being smart, they realise that if they don't eat, you'll make a fuss over them, which, of course, they love.

MAKING THE SWITCH

The solution? Behaviourists say that you should:

- Give your dog a single chance to eat every 24 hours;
- If he or she doesn't pounce on it with enthusiasm the moment you put the bowl down, lift it straight back up and wait another day;
- Never leave food down for your dog to eat whenever he or she feels like it.

In short, adopt a tough love approach. Remember, no animal will starve him or herself if there is food available. Also, dogs will experience no ill effects even if they don't eat for a week. Be strong, remember you are doing it for their sake, and don't look into their eyes for too long as this may have the effect of weakening your resolve.

An exceptionally rare occurrence

A dog in a million (well maybe it is slightly more common, but it is definitely rare), will, and there is no nice way of putting this, regurgitate their raw food the first time or even the first few times they are fed it. This is almost certainly caused by a conditioned reflex. The dog's stomach is expecting the usual food and has prepared the wrong kind of enzymes to digest it. When the new food turns up, the system rejects it. It is quite normal in nature (if slightly disgusting) for a dog to eat something, vomit it up and eat it again. It is, of course, up to you whether you allow this. But you shouldn't panic. The solution to this sort of vomiting is, initially, patience and then to use one of the switching options mentioned above. Some canine experts suspect that dogs vomit a meal that they really enjoyed eating so that they can have the pleasure of eating it again!

If you have been raw feeding for a couple of weeks and the dog suddenly vomits, this may be an attempt to rid the body of toxins and is not unusual.

Obviously, if your dog is frequently vomiting, you should check with your vet that there isn't any serious underlying health problem.

Runny stools? Constipation?

You shouldn't panic, either, if your dog's stools change. It is probably caused by the new diet and will pass in a few days. In the case of runny stools, it could also be the result of not enough bone in the diet, as it is the bone that tends to make the stools firmer. In the case of constipation, the opposite may be true. At what point do you call in a vet? In the case of runny stools don't wait more than a week. In the case of true diarrhoea, you probably shouldn't delay more than 24 hours. In the case of constipation, don't delay more than two or three days. Incidentally, true diarrhoea is not caused by raw food *per se* but will almost certainly be the result of either a parasite or gastrointestinal problem. If the latter, all that has happened is that the raw feeding has exposed the underlying problem.

What to do if your dog becomes too thin

Occasionally, dogs lose an unnatural amount of weight after switching to a natural diet. This will usually be because he or she isn't receiving enough food and/or the food being provided contains too little fat. The solution is to increase the amount of food and/or the fat content. Another cause could be that his or her stomach has not yet 'learnt' to digest the raw food (bear in mind that it will need extra elasticity and muscle power). This is likely to be the problem if the dog is producing a large amount of waste matter. The solution is to try one of the switching techniques described earlier in this chapter.

A couple of things to be conscious of

There are a couple of possible issues that you should watch out for during the switchover period. The first is if your dog's stool contains yellow bile for several days running after the introduction of raw food, it may indicate a pancreatic problem. This isn't caused by raw food; rather, it is revealed by it. You should talk to your vet about this problem. The second is itchy hot spots, which can occur if the food you are providing is a little too rich in one or more specific proteins. If this occurs, vary the protein source (switch to different meats) or increase the fat and/or vegetable content.

When to seek experienced help

There are circumstances when a switch to raw feeding should only be undertaken with experienced guidance. Dogs that have recently undergone bowel surgery or chemotherapy or that have a compromised immune system can all benefit from a natural diet but may need certain ingredients more than others. Also, older dogs, pregnant dogs and new mums may benefit from specially designed raw diets.

MAKING THE SWITCH



13. A FEEDING PLAN FOR MUMS AND PUPPIES

THIRTEEN

Female dogs (I can't bring myself to call them bitches) fed on a well-balanced, raw food diet are more fertile, enjoy easier pregnancies and produce healthier puppies. The puppies themselves, if raised on raw food, grow into healthier dogs and lead longer lives. We don't have to look far to see why. Imagine feeding generation upon generation of humans an inadequate diet.

Diet and so-called genetic conditions

Much has been said in the media and elsewhere about how overbreeding has caused all sorts of genetic health conditions in dogs. While this is true, it diverts attention from another possible cause.

Processed food has two serious drawbacks. First, it is seriously deficient in the ingredients dogs need to maintain good health. Second, it contains ingredients that actually damage a dog's health. When experts describe a health issue as being 'genetic', they may be overlooking something more obvious: the effect of feeding processed food to generation upon generation of dogs.

A good example of this is skeletal disease. Almost unheard of before processed food, bone disease is now widespread in the West. For dogs to have healthy bones, they need the calcium and other vital bone-building nutrients that are only found in raw bones. Each generation that doesn't receive these vital bone-building nutrients is weaker than the last. Modern solutions to bone disease, involving various treatments as well as culling (appalling, but true) and selective breeding, are never going to solve the problem. What has to happen is a re-building of a healthy canine population by means of the correct diet.

Natural feeding for mums and expectant mums

Mums and expectant mums require more food than other adult dogs. Apart from this, there is no difference in the way they should be fed. However, there are certain extra ingredients and supplements you may like to consider.

Before you start

Just before your mum-to-be comes into season you should start to increase, very slightly, the amount of nutrition she receives. Reduce the amount of vegetable in her diet and give her more chicken wings and more eggs. If you are concerned that she may have trouble conceiving, you could consider some extra supplements, such as cod liver oil, vitamin E, multi B, vitamin C and foods high in zinc. Don't add supplements without taking professional advice.

Be careful about foods (especially commercial foods) supplemented with glucosamine, as this can interfere with conception. You want her to be increasing in weight as she comes to be mated because her body will respond to the increase in nutrition by increasing her hormone production. This, in turn, leads to greater fertility. You should carry on feeding her a little more than usual for about a week after mating and then drop back to the normal amount. Incidentally, check that the mum isn't anaemic (a sure sign of a poor diet) and make sure that she is free of any external parasites (fleas and ear mites) as well as internal parasites (intestinal worms and heartworm). The mum should be at her ideal weight, that is to say, slim without being too thin. She should have lots of energy, elastic skin, a shiny coat, a light covering of fat and well-developed muscles.

Once she has conceived

If mum is on a raw food diet then for the first two-thirds of her pregnancy, unless she has some health issue that needs addressing, there is probably no requirement to alter her normal feeding routine. In the last third of her term, that is to say the last three weeks, you should aim to gradually increase the amount of food she consumes. This is because the puppies do most of their growing during this period. The general rule is:

- Week 6: increase by 5–10%
- Week 7: increase by another 5–10%
- Week 8: increase by another 5–10% (By the time she reaches the end of the eighth week, she should be eating around a third to a half more than usual. Incidentally, don't feed it all to her in one sitting but spread it over the day and be mindful of her general condition.)
- Week 9: start reducing the amount of food very slightly

By the time she has the puppies she should be eating about a quarter less than she was eating in week eight. She should be eating less bone and more vegetables, as you want her diet to have a gentle laxative effect. On the day before giving birth, many mums go off their food completely.

Mum may be eating more in those last few weeks, but she shouldn't be getting fat. What she needs is extra protein, vitamins, essential fatty acids and minerals, exactly what you will find in a well-balanced raw food diet. Incidentally, there are a couple of things you need to avoid during pregnancy:

- First, don't give any food with too much vitamin A (such as cod liver oil) in the first five or six weeks of the pregnancy, as it can be dangerous to foetal health. Before the pregnancy and once mum is lactating, cod liver oil is valuable, however.
- Second, don't give mum any extra calcium while she is pregnant. Indeed, in the last week or two many breeders switch to a lowercalcium diet. Why? Because this is what mums do in the wild! They eat much more meat (and organ meat, especially liver, which has a laxative effect) than bones. They want the higher protein. Too much calcium during pregnancy can cause tissue calcification and other birth defects in puppies.

After the happy day

If your new mum wants to eat the afterbirth, then you shouldn't stop her. It is full of nutrients that will help to nourish her in the first few days after the puppies have been born, when she may not feel like leaving the puppies or eating.

By and large, if your new mum is on a well-balanced raw food diet then while she is feeding her puppies she can usually be given as much food as she feels like. The only time you might limit her intake would be during the first week or if the litter were very small. After the puppies are born, mum should return to close to her ideal weight (that is to say the weight she was before she became pregnant), and she should maintain this weight until the puppies are weaned. This will be over a five- to six-week period with the peak demands for milk in weeks three to five. When you wean the puppies off their mother's milk, you should reduce the amount of food you are giving her. You want her body to register that milk is no longer required. Assuming that she is producing ample quantities of milk, cut her food back to the normal amount and stop giving her chicken wings until her milk has dried up.

How a natural diet boosts fertility

The first thing to remember is that it takes two to tango! Male dogs are just as likely to suffer from fertility issues as females. Most manufactured dog food offers a narrow spectrum of nutrients, damaged fats and proteins, high chemical and grain levels, high levels of artificial calcium, salt and sugar mixed with low levels of natural antioxidants, enzymes, available micronutrients and phytochemicals and...you get the idea. None of these help. Indeed, one of the effects of feeding processed food to several generations of dogs, according to Dr Ian Billinghurst in his book *Grow Your Pups with Bones*, is substantially reduced fertility. He points out that: 'The best way to be certain of low to nonexistent fertility ... is to feed dogs a dry food starting from when they are puppies.'

Billinghurst then goes on to explain why the different elements (essential fatty acids, vitamin A, vitamin C, antioxidants and so forth) in a raw food diet boost fertility. For males, he lays great stress on the need for zinc, which occurs naturally in lamb, beef, chicken, liver, eggs and carrots, as well as methionine (found in eggs), magnesium (found in green vegetables), manganese (again, found in green vegetables) and selenium (found in eggs). Billinghurst feels that it is always better for dogs to obtain all these nutrients from their food and warns against overdoing it with supplements. Where supplements may be required, it is vital to get professional advice, as it is possible to overdose a dog on ingredients such as zinc.

How wolves feed their cubs

For the first three or four weeks, wolf cubs live on their mother's milk. Interestingly, if something happens to the mother, then another female from the same pack will take over (female wolves have the ability to produce milk even if they haven't given birth). The milk not only provides all the nourishment required but also helps to build each cub's immunity to disease.

At around three to four weeks (and sometimes earlier), cubs will start to pick up food scraps discarded by the other wolves in the pack. They will play with the food and chew on it. In this way, they learn to eat. Milk will be part of their diet until they are around seven weeks.

At around six to seven weeks, the mother and other members of the pack will start regurgitating their own food and giving it to the cubs. Cubs may eat regurgitated food as part of their diet for up to 20 weeks after they are born.

The switch to adult food is gradual, usually starting at around 12 weeks and finishing at 16 weeks, which is about the time the cubs get their permanent teeth.

Feeding newborn puppies

It is vital to a puppy's long-term health that he or she eat the best possible food when being weaned. It is especially damaging to puppies to allow them to eat processed foods containing harmful ingredients, additives and chemicals. A puppy's stomach lining is more permeable than an adult dog's, so the risk of causing lasting health issues is much greater.

For the first few weeks of their lives, your puppies need nothing more than their mother's milk. Weaning should be a gradual process starting at three to four weeks and finishing at about eight weeks, assuming that mum's milk holds out. If mum starts to dry up, then you may need to speed things up a little. The earliest a puppy can really be started on solid food is 3 weeks of age. As with humans, the longer puppies drink their mother's milk (within an 8- to 12-week timeframe... not indefinitely!), the better it is for their development.

At three weeks, it is a good idea to offer puppies cut-up bits of meat for them to lick and play with. It doesn't matter if they eat anything. You just want them to become familiar with the smell and taste. You could also try them on bones, but watch to make sure they don't bite off more, as it were, than they can chew.

You should slowly introduce solid food after the fourth week. After about six or seven weeks, the puppies should be nearly weaned. They may still be drinking mum's milk, but it won't be their main source of nutrition. Incidentally, if there are foods you want your puppies to eat when they are adults, this is a good time to introduce them.

In terms of volume of food, there is no hard-and-fast rule but, generally speaking, you should follow these guidelines:

0–4 months: 8% 4–6 months: 6–8% 6–9 months: 4% 9–12 months: 3% > 12 months: 2%

The percentage refers to the weight of the food to be fed per day in relation to the bodyweight of the puppy (so a puppy aged less than 4 months would receive 8% of its bodyweight every day).

The transition should be gradual, not sudden. The day a puppy turns 6 months don't suddenly drop the food from 8% to 4%. In the case of miniature and smaller breeds, you need to increase the quantity by up to half as much again. Do remember that no two dogs have the same metabolism, and the above is for general guidance only. The precise ingredients of what you feed will also have a bearing on quantities.

Puppy feeding tips

- Make the move from mother's milk to raw feeding gently. It takes a few weeks for a puppy's digestive system to cope with a 100% adult diet.
- There is an argument for feeding puppies the more solid food in the evening as this gives them time to digest the food properly while they are sleeping.
- During the transition, you might like to give your puppies foods that are easy to digest such as egg yolks, natural yoghurt, goat's milk and even a bit of mashed-up vegetable. In weeks four, five and six you could offer lightly cooked chicken and perhaps add some probiotic and digestive enzymes. Chicken wings are fine from six weeks but ideally should be from young birds. Personally, I don't feed my puppies food with more than about 15% bone content until after they are 10 weeks old.
- Remember that, in the wild, puppies would be eating the regurgitated, semi-digested contents of their mother's stomach. These easy-to-digest foods are in addition to the more 'solid' raw food you will be providing.
- Puppies start teething at four months and it generally lasts for about eight weeks.
- Small breeds tend to reach full size at between 8 and 10 months, larger breeds from between 10 months and a year. Giant breeds may take as long as 16 months to reach maturity.
- If possible, feed only the highest quality ingredients. It is best to keep as many potentially harmful chemicals out of your puppy's system as possible.
- Feed your puppy four times a day up until the age of 12 weeks and then three times a day until 16 weeks.
- Go easy on liver! Never more than 5% of the total food served every day. It can cause runny stools. If you do serve liver, lamb liver is best.

If your dog is pregnant or feeding puppies please don't hesitate to contact us for additional advice and information.

Puppy feeding plan

This is my own puppy feeding plan. Like everything to do with a natural feeding approach it is as much art as science. Canine mums do not use reference books!

- 0-3 weeks: Mother's milk.
- 3–4 weeks: Start on soft foods such as egg yolks, lightly cooked chicken, mashed-up vegetables. Let them play with 'adult food'. Four meals a day.
- 6 weeks: Introduce chicken wings and more adult food but not too much bone.
- 12 weeks: Full adult diet and cut back to two meals a day.
- Fully grown: One or two meals a day and the occasional fasting.



14. THE HAPPY HOUND WEIGHT LOSS PLAN

FOURTEEN

Do you look after a dog who needs to drop down a couple of collar sizes? Have you been worrying about how to help him or her lose weight easily and without hardship? The Happy Hound Weight Loss Plan is the answer. It is the natural, healthy, pain-free way for any dog to lose a few pounds or, if of a metric turn of mind, kilograms. How does it differ from the natural diet described elsewhere in this book? Very little! It is more or less the same raw food diet but with a few small adjustments.

Happy Hound Weight Loss Plan Benefits

- Your dog will love the food.
- It reduces fat, not muscle mass (much healthier for the dog).
- The diet only takes a few weeks to work.
- It will improve your dog's general health and may solve all sorts of other issues, such as skin complaints and allergies.
- Your dog will not suffer hunger pangs.
- No calorie counting or complicated maths involved.

A bit of background

According to the latest research, more than half the dogs in Britain are obese or overweight. You may think that the main cause is too much food and too little exercise, but it isn't. The leading culprit is modern, processed dog food. Modern dog food is high in simple carbohydrates, low in protein and full of harmful fats - a fatal and fattening combination if you happen to be a dog. Even many of the so-called 'diet' dog foods follow the same formula. Why don't manufacturers – who know the truth of what I am saving - tell their customers? Almost certainly because modern dog food is indescribably profitable. At any rate, if your dog is battling the bulge, the answer is to stop feeding dried or canned food and to switch him or her to a natural diet. That is to say, the diet he or she would eat in the wild. It's simple to make at home, and the pounds will fall away as if by magic. Best of all, on such a diet, your dog will be able to maintain a healthy weight without ever feeling hungry. There is, by the way, a reason why you don't see overweight wolves in the wild: they eat a natural, speciesappropriate diet, which provides them with the precise nutrition they need.

How much should your dog weigh?

What is your dog's ideal weight? You should be aiming for 'lean', which is to say:

- You should be able to feel your dog's ribs when you gently touch their rib cage;
- From the side the belly should be tucked up;
- From above, your dog should have a proper waist.

Does a little extra weight matter?

You may be asking yourself whether it really matters that your dog is carrying a little extra weight. If you care about your dog's health, then the answer is: it does. Excess weight will reduce your dog's life expectancy and will make him or her prone to all sorts of serious health problems, including joint disease, arthritis, heart disease, hypertension, respiratory problems, asthma, pancreatitis, diabetes, liver disease, skin issues, cancer and a compromised immune system.

Timing

The beauty of this diet is that it isn't really time-critical. That is to say, there is no need for you to set yourself the objective of slimming your dog down by a specific amount within a set period. My own experience is that an overweight dog will reach target weight by six weeks, whereas an obese dog may require up to 12 weeks (or more) to get into shape. I'd urge you not to rush it.

How to speed things up

The plan is much, much more effective when accompanied by an exercise programme. The best option is to get your dog out and about, but if this really isn't feasible, don't worry. There are ways of increasing the amount of exercise your dog receives without you having to leave home. For example, if you put a little bit of food into a Kong (a type of rubber toy) and play a game of fetch, your dog will burn a surprising amount of calories. Exercise will improve your dog's health, as well as his or her waistline, but simply changing your dog's diet will make a massive difference.

How much to feed

Initially, start by feeding your dog 1.5% of its body weight each day (unless it is a miniature or small dog, in which case, see below).

Let me give you an example:

Rex weighs 30 kg. Every day he gets 1.5% of his weight in food. 1.5% of 30 kg is 450 g. Therefore, every day Rex gets 450 g of food.

If, after a week or two, you are seeing no appreciable loss in weight then you may need to drop the amount to 1%.

The basic plan

The Happy Hound Weight Loss Plan has exactly the same formula as the natural, raw diet described elsewhere in this book with two small differences:

1. You feed the dog slightly less food.

2. You avoid certain ingredients.

Like the more general natural raw diet I recommend, you will be feeding your dog a meal made up of two thirds raw meat/bone and one-third raw vegetable/fruit.

Keep a food diary

A food diary is very useful because it allows you (and your vet, if necessary) to understand how diet is affecting your dog's weight. All you have to do is write down what you feed your dog every day. You could also include a note about how much exercise he or she gets.

Miniature, toy and small breeds need more food!

Even when they are on a diet miniature, toy and small breeds usually need more than 1.5% of their bodyweight a day. Below are my recommendations. If, after a week or two, you are seeing no appreciable difference in weight then you may need to drop the amount down gradually until you find a level at which your dog is starting to lose those unwanted pounds.

Dog's weight	Daily amount*
1–2 kg	7%
3–4 kg	5%
5–8 kg	3%
9–10 kg	2%

*As a percentage of body weight

I must stress that it is always difficult to apply hard-and-fast rules for the smaller dogs. In reality, breeds such as Shih Tzu, Lhasa Apso, Maltese and Bolognese tend to be much more sedentary, so often don't need anything like as much as the normal percentage, even for maintenance, whereas Chihuahuas, Pomeranians, Papillons and Yorkies tend to be more active, ping around all over the place, and so burn off food at a much higher rate.

How to weigh your dog (and how often to do it)

Wriggly things, dogs, and they are not always willing to step neatly onto the scales to be weighed.

The solution, if you are having a problem weighing them, is to weigh yourself holding your dog and then again not holding your dog.

My arithmetic is useless but even I am pretty certain that the difference will represent the weight of your dog.

Mrs. Smith holding Twiggy in her arms: 93 kg Mrs. Smith all by herself: 60 kg Twiggy: 33 kg

Ideally, you should weigh your dog once a week, and then adjust the daily portion size accordingly, keeping it at a steady 1.5% (or whatever percentage you have decided upon).

Typical seven-day weight loss plan

	Group 1: Raw, lean muscle meat and organs	Group 2: Raw meaty bones	Group 3: Raw vegetables and fruit	Group 4: 'Boosters' every other day
Sunday	Minced chicken	Chicken carcass with no meat on it	Cabbage, broccoli and apple	Egg
Мопдау	Cubed pork	Pork ribs	Carrot and cauliflower	
Tuesday	Minced duck	Duck neck	Spinach, mangetout and banana	Sardine
Wednesday	Beef knuckle bone	No need for extra bone	Skip for a day	
Tharsday	Ox heart	Skip for a day	Pumpkin, celery and blueberries	Hempseed oil
Friday	Duck back and wings	No need for extra bone	Kale and red pepper	
Saturday	Whole rabbit	No need for extra bone	Skip for a day	Live yoghurt

What not to feed!

As already explained above, there is very little difference between the natural raw food diet described elsewhere in this book and its weight loss version. The key differences to remember are:

- Avoid beef and lamb (minced or cubed), as both are quite fatty meats.
- If you are feeding fowl (chicken, duck, turkey, goose etc.) remove the skin, which is fattening.
- If feeding any sort of mince, make sure it is lean.

Otherwise, follow the diet set out in Chapter Ten.

A few words about treats

A treat is not food. Its purpose is either to reward a dog or, of course, to spoil them! Dogs love receiving treats, and we love dispensing them. Of course, a treat is only a treat if the recipient likes it. Few dogs, for instance, consider a spinach leaf to be a treat! On the other hand, dogs (like humans) can be trained to enjoy new tastes and sensations. For example, dogs can be trained to view a piece of cut-up apple or carrot as something highly desirable. Here are a few treat tips:

- Size isn't necessarily important when it comes to treats. A tiny, tiny piece of something desirable (for instance, a piece of cooked chicken a quarter of the size of a sugar lump) will be well received.
- Little bits of cut-up carrot make an excellent treat. If your dog is dubious, try cooking them slightly, rubbing them on some meat or adding a few drops of homemade gravy to give them extra taste. Remember, carrot has a high sugar content, so go easy in terms of quantity.
- Break larger treats into smaller pieces and use more sparingly.
- Air-dried treats (such as air-dried liver) are high in protein but low in fat.
- Avoid rawhide (high in fat) and jerky type (potentially contaminated) treats.
- Apple makes a great treat. Take the same approach as you would with carrot.
- Blueberries (packed full of valuable antioxidants) are easy to carry around and can also be popular.

An Oscar for Oscar

Your dog may believe, and may even convince you, that he or she is starving to death from lack of food. Don't be fooled. Dogs are incredibly talented actors. In fact, because this diet has high quantities of protein and healthy volumes of 'good' fats, your dog shouldn't actually feel hungry. A good option, when a dog is making those food eyes at you, is to distract him or her with a game or a cuddle. If you feel you simply must feed more, then increase the volume of fibrous vegetables in the food. Only, be warned! Fibrous vegetables can have two side effects: larger volumes of waste matter and a greater tendency to flatulence. If your dog is used to getting a food reward when they do something cute or for some other reason, *remember* that praise is just as effective and contains no calories!



15. A FEEDING PLAN FOR SENIOR DOGS

FIFTEEN

The pet food industry has created two self-serving myths.

The first is that it is nothing to do with them that dogs are leading shorter, less healthy lives. To quote Dean Ricard of the Canadian Association of Raw Pet Food Manufacturers: 'Fifty years ago, dogs were considered geriatric at the age of 12 (average size dog). Now they are considered geriatric at the age of 8. Dogs are put on a *geriatric* formula at a seemingly younger and younger age, and seem to age faster.'

This leads to the second myth, which is that older dogs need specially formulated 'geriatric' food. Older dogs may need less food (because they are doing less exercise) and there are ingredients that may help with certain conditions (such as arthritis) BUT this idea of different foods for different 'life stages' is rubbish. Indeed, there isn't a species on earth – including humans – that changes its diet when it reaches a certain age.

Why dogs are leading shorter lives

There are several possible reasons why canine life expectancy is getting shorter, including overbreeding, overuse of vaccinations and other medication, less exercise and – crucially – diet. In my opinion, it is no coincidence that ever since mass-produced, highly processed canned and dried dog food became widely used (which was really in the 1960s), canine life expectancy has been steadily falling.

What senior dogs need

As dogs get older and less active, they generally need fewer calories. However, just like humans, they still require the same nutrients. In other words, their diet should include the identical protein, fats (polyunsaturated), vitamins and minerals. Indeed, as they move through the canine equivalent to 'retirement', they require more bioavailable (aka digestible) nutrients to continue to support their immune system against the natural process of ageing.

A raw, natural diet has the advantage here because:

- It is easier to digest;
- Less time and energy is spent on converting nutrition;
- There is less strain put on the digestive tract and the organs.

Raw food slows the ageing process

One of the major factors identified in ageing (and cancers) are free radicals.

Free radicals are highly reactive molecules found all around us that can cause oxidative damage to our cells. How can we stop free radicals from doing damage? The only proven method of slowing down the ageing process is antioxidants. These are molecules that inhibit free radicals, and they are found in living foods such as fruits and vegetables. Crucially, they are destroyed by cooking and other heating processes. Feeding your dog raw food gives him or her access to antioxidants, which, in turn, will help to slow down the ageing process.

Why a raw food diet is so important

There are, of course, all sorts of ways in which you can ensure that any senior dog in your care will enjoy a healthier and longer life. For example, you could avoid unnecessary vaccination and overuse of steroidal and non-steroidal anti-inflammatory drugs. One of the most valuable (perhaps *the* most valuable) action you can take, however, is to switch your senior dog to a natural, raw (aka species-appropriate) diet.

FEEDING PLAN FOR SENIOR DOGS

Feeding older dogs a raw diet can help prevent and improve all sorts of common disorders, including:

- Dental disease
- Gastrointestinal disease
- Liver disease
- Kidney disease
- Hormonal disease
- Skin disease
- Obesity
- Arthritis
- Cancer

Moreover, it is never too late to make the switch.

Switching the older dog

In terms of the switch itself, I recommend:

- Taking it slowly. Older dogs may need more time to switch.
- Before you make the switch, start adding a little probiotic (live yoghurt, for example) to the existing food for a week or two. This can aid the transition.
- It is probably best not to mix the existing dry or canned food with the new raw diet as this can cause an imbalance.
- Instead of feeding your dog a single meal every day or even two meals – divide the food into four to six portions and feed throughout the day.
- Many older dogs don't like cold food! Serve at room temperature or even brown the food very slightly on the stove (not the bones).

As an aside, some older dogs may need longer to get used to eating raw bone. If stools are hard and chalky, try reducing the amount of bone you are feeding and then reintroduce it slowly.

FEEDING PLAN FOR SENIOR DOGS



16. NATURAL DIETS FOR SICK AND POORLY DOGS

THIS CHAPTER COVERS: Conditions relating to the digestive system

- Bloat or gastric torsion Inflammatory bowel
- Colitis
- Coprophagia (eating faeces)
- Flatulence

- Inflammatory bowel disease
- Irritable bowel syndrome
- Vomiting
- Prebiotics and probiotics

Internal conditions

- Addison's disease
- Cushing's syndrome
- Diabetes mellitus
- Exocrine pancreatic insufficiency
- Hepatitis (liver disease)
- Impacted anal glands

Oral conditions

- Gingivitis
- Halitosis (bad breath)

Skin conditions

- Alopecia (fur loss)
- Itchy skin
- · Paw chewing
- · Itchy ears and skin problems caused by allergies

Other conditions

- Arthritis
- Cancers and tumours
- Discospondylitis
- Elbow dysplasia
- Epilepsy
- Hip dysplasia

- Lafora
- Luxating patella
- Osteochondritis dissecans
- Spondylosis
- Von Willebrand disease
- A word about steroids
- . . .

- Kidney disease (renal failure)
- Liver shunt
- Pancreatitis
- Kidney stones and other purine problems

SIXTEEN

There is an extremely close connection between diet and health. Eating the wrong foods can cause all sorts of medical issues, whereas eating the right foods can do much to alleviate (and even cure) a wide range of conditions.

In this chapter you will find a short description of some of the most frequently found canine medical conditions, together with general advice on what food, herbs and supplements to give to sufferers.

As Hippocrates said: 'Let food be your medicine.'

Mostly raw

With one or two exceptions (primarily where the dog's immune system has been compromised), you will see that a raw food diet is always recommended. This is because raw food is the easiest thing for your dog to digest and supports his or her immune system. Where raw feeding isn't recommended, you should not revert to processed food, but simply cook the ingredients in the way prescribed. Processed food is an underlying cause for as many as 9 out of 10 visits to the vet (and this includes expensive, so-called 'scientifically developed' brands).

The importance of pure, clean water

Water is treated with a great number of chemicals. Ill dogs are less tolerant of these chemicals and so it is advisable to find a source of pure, clean water. This could be a mineral water (better from a glass bottle than plastic, as plastic bottles left in the sun alter the chemical composition of their contents), rainwater or filtered water.

The importance of good ingredients

Intensively reared meat and intensively farmed vegetables (especially those imported from poorer nations), are likely to contain a surprisingly high percentage of unnatural chemicals, such as growth hormones, nitrates, steroids and pesticides. Furthermore, meat will include the residue of whatever the animal has been fed, including, of course, antibiotics. Grain-fed livestock and poultry are to be doubly avoided, as grain is especially harmful to dogs. The importance of using high-quality ingredients cannot be overstated. Local, seasonal, certified-organic ingredients are best, of course. But high-welfare (free-range/pasture-fed) and wild meat can be almost as good. Many non-organic vegetable growers do not use harmful chemicals. 'We are,' as Anthelme Brillat-Savarin pointed out, 'what we eat' or, in the case of our dogs, they are what we feed them!

Free health advice

Worried about your dog's health? Please don't hesitate to get in touch with the Honey's Health Team (vets, vet nurses and other professionals) who will be only too pleased to offer free health and nutritional advice (without any obligation on your part).

Conditions relating to the digestive system

Bloat or gastric torsion

Since the 1980s, the incidence of bloat (also known as gastric torsion, gastric dilatation-volvulus, or GDV) has increased dramatically. In this condition the stomach twists or flips over on itself and air is trapped. Then any food in the stomach begins to ferment, creating further gases. Later on, circulation to the stomach and spleen are cut off to the point where the dog may go into shock and die. It seems to affect mature, deep-chested dogs the most, especially larger breeds. The condition is extremely serious and potentially fatal. If you suspect bloat, contact your vet immediately. For a dog that has suffered and survived bloat, a dry food or kibble diet is definitely not to be recommended.

Instead, switch the dog to a raw food diet, which has been shown to improve the chances of preventing a recurrence. After bloat, many dogs lose weight and it is important to get this back on as soon as possible, since a healthy weight is one of the factors that reduce risk. Having said this, too much fat in the diet can be harmful. Instead, use lean meat and increase the frequency of meals and total volume of food served. One of the best things to give dogs that have suffered bloat is green tripe. Avoid vegetables as the fermentation process can produce gas. It is still not entirely clear why so many dogs appear to be getting bloat. One theory is that dry food is the cause. Most cases seem to occur quite late at night (between 9 p.m. and 2 a.m.). Bloat may be related to stress of some type. Interestingly, dogs that appear to be happy are much less prone to this condition.

Colitis

Colitis is either acute or chronic inflammation of the colon and the symptoms aren't terribly pleasant. In acute cases expect vomiting, with diarrhoea containing mucous and blood. In chronic cases the dog will frequently try to pass watery, blood-streaked, mucous and putrid stools. The dog may suffer from flatulence and vomiting. There may be weight loss over time. Do not, however, panic when your vet diagnoses colitis, as it is the cause of around half the cases of diarrhoea in dogs and is relatively common and very treatable. What causes it? Generally speaking, it is the result of eating something unsuitable (perhaps picked up while on a walk), food intolerances or allergies. Other causes can include infection or parasites. Some cases may be stressed-related, and there is a possibility of an autoimmune cause. In terms of treatment there is every reason to continue raw feeding since this is the easiest food for your dog to digest. If there is the possibility of a compromised immune system, lightly cook the meat before serving. Avoid gluten (grains) and dairy products. Use both a prebiotic and a probiotic. A period of fasting may be appropriate.

Constipation

Constipation can occur if a dog becomes dehydrated or has too

much bone in his or her diet without sufficient fibre. Other rare causes can be too little magnesium and/or too much aluminium in the dog's diet and also nerve degeneration. One of the benefits of a natural diet is that your dog is less likely to become constipated, but if it does become a problem then add more soluble fibre (ripe apple, pears or tinned sardines or pilchards), while cutting back on the bone element. Reduce the number of chicken wings given, if relevant. Incorporating liver or offal into the diet once or twice a week can help.

Coprophagia (eating faeces)

Human beings may find coprophagia (the medical term for eating excrement) disgusting, but to a dog it is a perfectly normal part of their diet. It is believed to have various causes:

- 1. The artificial flavouring and appetite stimulants in processed food frequently pass straight through the digestive system without being absorbed into the body. As a result this can give dog (and cat) faeces a very attractive flavour. It is worth noting that dogs fed pineapple sometimes produce less appealing excrement.
- 2. Boredom! This is especially true in the case of younger dogs and those in kennels who may not have enough to occupy them. Regular exercise, companionship and a selection of toys may help.
- 3. A mineral or trace element may be lacking from the diet. Adding offal (liver or kidney) to the dog's diet may provide the missing nutrients. A broad-spectrum supplement for trace minerals such as Dorwest Keeper's Mix may also be of value.
- 4. The intestinal flora may be out of balance, possibly as a result of a course of antibiotics. This is especially true if dogs are eating bovine and equine faeces (cow and horse poo, in plain English). A course of prebiotics and probiotics is recommended.
- 5. Submissive behaviour within a pack. Less senior members of a

pack will eat the Alpha dog's faeces as an ingratiating behaviour. This is a harder problem to solve. A homeopathic remedy may be of great assistance.

Coprophagia can also lead to worms. Worms can also lead to coprophagia. Therefore, treatment against worms may be advisable.

Diarrhoea

There is a huge difference between soft or runny stools and diarrhoea. There is rarely any need to be concerned about soft or runny stools. Diarrhoea, when switching to a raw diet, is also not uncommon for the first few days. True diarrhoea is virtually liquid (like soup) and movements are frequent. There are lots of different reasons for diarrhoea, including:

- Bacterial infection such as salmonella, E. coli, clostridia and campylobacter
- Fungal infection
- Viral infection such as parvovirus, distemper and coronavirus
- Yeast infection such as Candida albicans
- Parasites such as worms, coccidia and protozoa
- Poison
- Tumours
- Stress
- Malabsorption syndromes

It is obviously important to establish the cause before treatment can be recommended, and to this end it may be necessary to run blood and/or faeces tests. Depending on the seriousness of the condition, the options are to (a) do nothing, (b) fast the dog for 24 hours and (c) ask your vet for advice. If it continues for more than 24 hours you should consult a vet. Tips for dealing with runny stools and diarrhoea:

- 1. Feed a natural diet and plenty of pure, clean water.
- 2. Give some prebiotics (see below) to feed the good bacteria in the stomach.

- 3. Use a probiotic (but ideally not live yoghurt). See below for details.
- 4. Try to avoid antibiotics, steroids and anti-inflammatory drugs unless the dog is seriously ill.
- 5. Try slippery elm or a modest amount of brewer's yeast to aid digestion.
- 6. Psyllium husk can be added to thicken the stools.
- 7. Try a remedy such as Ferrum Phosphoricum $12 \times$ or $6 \times$ tissue salt to help slow the diarrhoea and increase absorption.

Please note that gluten, cereals, cereal by-products and modified starch all contribute to canine digestive problems.

Flatulence

All dogs, regardless of their diet, are likely to have a certain amount of flatulence. The most frequent cause is the carbohydrates in processed food – easily remedied by a switch to natural feeding. Antibiotics may also be responsible, in which case a course of probiotics will often help. A small percentage of dogs produce wind as a result of eating vegetables, or particular vegetables, and this can be dealt with by reducing the percentage of vegetables being served or excluding them completely. Incorporating more chicken wings in the diet can help, and so can adding a human–grade organic bone meal supplement.

Inflammatory bowel disease

Inflammatory bowel disease (IBD) is a relatively new condition in dogs and similar to Crohn's disease in humans. It is a chronic inflammatory intestinal disease that can occur anywhere in the digestive tract, but most commonly involves the small intestine and colon.

What should you watch out for? Recurrent bouts of diarrhoea that is sometimes watery, explosive, odd-coloured (yellowish), mucous-coated, slimy and often has blood streaks. Vomiting (sometimes blood-tinged) is not unusual and the dog may have abdominal pain with distension to the bowel and abdomen. The stomach may emit gurgling noises. Dogs are often lethargic, lose weight and may have an increase or loss of appetite. As these symptoms are similar to other conditions it can be difficult to make a positive diagnosis.

In terms of treatment there is every reason to continue raw feeding, since this is the easiest food for your dog to digest. However, reduce the fat content, avoid all grains and dairy products and increase the amount of fibre, such as psyllium husk. Slippery elm can help, too. Use both a prebiotic and a probiotic.

Irritable bowel syndrome

Irritable bowel syndrome (IBS) is difficult to diagnose because so many of the symptoms, which may be intermittent, are shared with other conditions. You should watch out for intermittent bouts of diarrhoea or soft stools, increased frequency of defecation, small stools, straining to defecate, abdominal distension (bloating), flatulence, weight loss and, sometimes, vomiting. The stomach may emit gurgling noises. It is believed that diet and stress are the main causes, with some drugs aggravating an already sensitive digestive system. In terms of treatment there is every reason to continue raw feeding since this is the easiest food for your dog to digest. If there is the possibility of a compromised immune system then lightly cook the food before serving. Avoid gluten (grains) and dairy products. Use both a prebiotic and a probiotic. Slippery elm can be a great help.

Vomiting

It is important to remember that dogs regularly regurgitate their food, and this process should not be confused with vomiting that is due to a potential or underlying health issue. If a dog vomits repeatedly and/or seems unwell in other ways then it warrants contacting a vet. However, if the dog isn't vomiting repeatedly and has no other apparent symptoms, you may like to start by fasting him or her for 24 hours, ensuring that there is an ample supply of pure, clean water available throughout. If your dog seems to be over drinking or having trouble keeping water down then give him or her a block of ice, which will thaw slowly ensuring a constant but reduced supply of water. Assuming the dog has stopped vomiting after 24 hours, offer a small, light meal. This can consist of scrambled egg or cooked chicken with a prebiotic and a probiotic. If vomiting doesn't reoccur then towards the end of the second day serve a smaller-than-usual meal of whatever the dog normally eats. Resume your ordinary schedule of feeding on day three.

Note: If vomiting continues or is constant or if it contains blood or if it is in tandem with diarrhoea, consult your vet immediately.

Internal conditions

Addison's disease

Addison's disease is the opposite of Cushing's syndrome in as much that the adrenal gland does not produce enough corticosteroid. It can be a side effect of the drugs used to treat Cushing's. It is less common than Cushing's and can lead to other health issues. The adrenal gland secretes several substances that help regulate normal bodily functions. Glucocorticoids such as cortisol have an effect on sugar, fat and protein metabolism. Mineralocorticoids such as aldosterone help to regulate blood pressure and allow the kidneys to maintain a proper water and salt balance in the body (by helping the kidneys retain sodium and excrete potassium). If the adrenal glands are not functioning properly, and the production level of aldosterone drops, a drop in blood pressure and severe dehydration can occur. Dysfunctioning adrenal glands are the main cause of Addison's disease. Symptoms include muscle weakness and general lethargy, diarrhoea and vomiting, hyperpigmentation, joint pain, lack of appetite and muscle shivers and tremors. The usual treatment is hormone replacement with drugs such as fludrocortisone. Diet should be under veterinary supervision. Changes in the health of the patient may require a change of diet and this will only be known if blood is monitored. Avoid vegetables and other foods high in vitamin A (such as carrots, celery and liver), also foods high in potassium (bananas, most meats but especially pork). Raw chicken or turkey are excellent as they have low potassium levels. Salt will generally have to be added to the diet, but this will depend on the blood analysis. Fresh adrenal gland in the diet can be beneficial as can dehydrated adrenal gland as a supplement. It is important that the patient is not stressed. Some herbal and homeopathic remedies can help to achieve this.

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Prebiotics and probiotics

Dogs, like humans, have bacteria living in their gut. The bacteria are made up of 'unfriendly' strains that can make the dog ill and 'friendly' strains that keep it well. Normally, the balance is in favour of the 'friendly' bacteria, but sometimes – such as after a course of antibiotics, during stress or through poor diet – the 'unfriendly' bacteria get the upper hand. This is called intestinal dysbiosis, a bacterial imbalance that results in an overgrowth of bad bacteria and yeast. Dysbiosis has been linked to various disorders, including yeast infections, irritable bowel syndrome and rheumatoid arthritis. It is treated by restoring the balance with prebiotics, probiotics and a healthy (natural) diet.

Probiotics are beneficial bacteria that can be found in various foods. When you eat probiotics, you will add these healthy bacteria to your intestinal tract. Common strains include the Lactobacillus and Bifidobacterium families of bacteria. Prebiotics, on the other hand, are nondigestible foods that make their way through our digestive system and help good bacteria grow and flourish. Prebiotics keep beneficial bacteria healthy. Happily, you don't need to buy special canine prebiotics or probiotics, as those designed for humans work perfectly. If you need a probiotic, try one containing Lactobacillus, Acidophilus and/or Bifidus-type bacteria with FOS (fructooligosaccharides). Use the minimum recommended human dose. Prebiotics include aloe vera and chicory.

Patients may also benefit from a small amount of quinoa or porridge – as well as chia seeds, cottage cheese, tuna, egg, sunflower or pumpkin seeds, raw walnuts and raw almonds. The most important thing is to stabilise salt levels and maintain sodium levels.

Cushing's syndrome

Cushing's syndrome is an enlargement of the adrenal glands resulting in increased production of adrenocortical hormones. Symptoms increase thirst, appetite and the need to urinate. With time the dog can develop a potbelly and an intolerance to exercise. Some patients suffer from muscle spasms and have difficulty bending their legs. The coat becomes dry, hairs fine and the skin thins. Hair loss around the flanks and abdomen can spread to the legs, back and head.

The diet has to be easy on the liver and help the thyroid gland. High-fat diets should be avoided and the best recipes to follow are chicken with some offal, rabbit and chicken mixed together, venison or lean beef. In terms of vegetables carrot is excellent (for the beta carotene) and broccoli, garlic and grapefruit seed extract. The best supplement to help the thyroid is kelp or a similar seaweed. For the liver add milk thistle and for the heart (patients are likely to suffer from raised cholesterol) add hawthorn. The addition of fresh adrenal gland and/or dehydrated gland powder can also help stabilise these cases. The diet and supplements need to be changed radically should the patient slip from Cushing's to Addison's. Other supplements that will help patients with Cushing's include vitamins A and D (cod liver oil), vitamin B6, folic acid, vitamin C, vitamin K, calcium, magnesium, potassium, selenium, brewer's yeast and zinc. However, you should not add extra supplements to the diet without consulting a vet. Herbal and homeopathic vets have much to offer in the treatment.

Diabetes mellitus

Diabetes mellitus occurs when the pancreas doesn't produce enough insulin or because cells do not respond to the insulin that is produced. Insulin is required for the body to efficiently use

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sugars, fats and proteins. The commonest symptoms are increased thirst and urination. Although dogs with diabetes mellitus usually have a good appetite, there may be weight loss. Confusingly, some dogs become obese. In many cases cataracts (cloudy lenses in the eyes) may be the first sign that there is a problem. This disease may occur in conjunction with Cushing's syndrome, urinary tract infections, hypothyroidism, pancreatitis and cancer. The condition is usually diagnosed from a urine or blood test. A natural raw food diet is excellent, but if you are changing the diet from a highcarbohydrate commercial diet the switch must be made under veterinary supervision. Carbohydrates and acidity are the two core issues for diabetics. One of the reasons why commercial foods are not good for sufferers is that they usually contain urinary acidifiers. Urinary acidifiers can have the effect of complicating the acidosis most diabetics are already suffering from, and the carbohydrates in the diet just keep the problems coming. If antibiotics are used as part of conventional treatment then prebiotics and probiotics are recommended. Other supplements that can help control the symptoms of diabetes mellitus include magnesium, fish oil, brewer's yeast, zinc and copper supplements and barley grass powder.

Exocrine pancreatic insufficiency

Exocrine pancreatic insufficiency (EPI) is the inability to properly digest food due to a lack of digestive enzymes made by the pancreas. It affects German Shepherds more than any other breed (about two-thirds of cases). EPI is caused by a progressive loss of the pancreatic cells that make digestive enzymes. It is often not diagnosed until it is well advanced. Symptoms include weight loss, poor coat, flatulence and a voracious appetite. Sufferers may also pass bulky, fatty stools. In terms of treatment there is every reason to continue raw feeding since this is the easiest food for your dog to digest. The amount of fat consumed should be kept to a minimum: chicken and lean beef are both good. Avoid any food containing a high proportion of sugar as this forces the pancreas to work harder. Digestive enzymes and Tree Barks Powder from Dorwest Herbs can help. It is also important to make sure your dog has plenty of pure, clean water.

Hepatitis (liver disease)

The liver has five important functions, affecting circulation, excretion of waste products, metabolism, immunological defence and blood formation. There are two types of liver disease: primary and secondary. Primary is caused by a non- or sub-functioning liver; secondary is caused by some other condition, such as bacteria, viral parasites, poisons, toxins or tumours. The most common symptoms associated with liver disease include loss of appetite, vomiting, abdominal pain, enlarged liver, jaundice, discoloured urine, oedema (swelling), weight loss, photosensitisation (skin disease related to sunlight), poor blood clotting, anaemia and a change in stools (either diarrhoea or constipation). Once the cause has been treated, diet has an important role to play, especially in relation to the carbohydrate, fat, protein, vitamin and mineral content. Raw feeding is ideal as it is naturally low in protein and carbohydrate. Avoid all dairy and stick to a low-fat diet. Conventional treatment can lead to a compromised immune system, in which case food should be lightly cooked.

If antibiotics have been used as part of the treatment then it is advisable to give your dog prebiotics and probiotics.

Impacted anal glands

Impacted anal glands are an extremely common problem for dogs. The glands are situated either side of the anus and discharge a foulsmelling liquid, which is used for marking territories. They are usually emptied by the passing of stools, or if the animal becomes frightened. If not emptied frequently they become impacted, which leads to infection and possibly an abscess being formed. Many vets feel that the primary cause of this problem is processed dog food. If your dog licks under their tail a great deal, especially if it causes eczema, or if they drag their bottom along the ground, this could well be an anal gland problem. (However, the same symptoms could also be caused by worms.)

One of the benefits of a natural diet incorporating bone is that it creates small, firm stools, which empty the anal glands as the dog excretes.

Kidney disease (renal failure)

Kidney disease (or renal failure) is fairly common in dogs, especially those reaching their senior years. It is one of the few conditions where I do not recommend 100% raw feeding. Instead, you should take the same ingredients and parboil with lots of water and extra vegetables (especially green vegetables). The extra vegetables will reduce the level of animal protein. When cooking the meat, heat it until it changes colour and then leave it to finish cooking using its own heat. A supplement called Udo's Beyond Greens may help. Add it once the food has cooled and is ready to serve so as not to destroy the nutrients. Where high blood pressure is an issue, test to see whether the calcium, magnesium, potassium and sodium are all in the middle of the normal range. If below this level, add supplements. Cod liver oil, zinc and magnesium are very important dietary additions for patients with high blood pressure. Solidago (also called goldenrods) can also be of assistance. See below for more information about kidney stones and purine problems.

Liver shunt

The medical term for liver shunt is portosystemic shunt (PSS). A 'shunt' is a blood vessel that bypasses the liver rather than passing through it. Dogs can be born with the condition or it may be acquired. Small dogs are affected more than larger dogs. Diet has an important role to play in the treatment of liver shunt. Normally, the liver removes ammonia from the bloodstream so when this isn't happening it is important to stop the body from producing ammonia in the first place. This can partly be achieved by a low-protein diet. Adding drugs like lactulose and ursodiol to the diet helps with this problem. Make sure the dog drinks plenty of water in order to avoid dehydration. A low-fat diet is best. Homeopathic support for the liver can be very helpful and should be done under veterinary supervision.

In some cases adding carbohydrate to the diet in the form of organic porridge oats soaked overnight in water can assist in reducing the protein percentage in the diet. Other suitable carbohydrate additions are polenta and brown rice.

Pancreatitis

The pancreas is a V-shaped organ located behind the stomach and the first section of the small intestine, known as the duodenum. It performs two main functions: it aids in the metabolism of sugar in the body through the production of insulin and is necessary for the digestion of food by producing pancreatic enzymes. Inflammation of the pancreas is called pancreatitis. The symptoms of the disease are a painful abdomen, abdominal distension, poor appetite, depression, dehydration, vomiting, diarrhoea and yellow, greasy stools. The dog may also look 'hunched up'. There are various causes of pancreatitis, including certain medications, infections, metabolic disorders (high amounts of lipid or calcium in the blood), trauma and shock. Middle-aged dogs and dogs with diets high in fat and/or carbohydrates seem to be at most risk. It is thought that dogs who suffer from Cushing's disease, hyperthyroidism and diabetes may also be at risk. In terms of treatment there is every reason to continue raw feeding since this is the easiest food for your dog to digest. The amount of fat consumed should be kept to a minimum: chicken and lean beef are both good. Avoid any food (including vegetables such as carrots) containing a high proportion of sugar, as this forces the pancreas to work harder.

If the pancreas is totally non-functional or very subfunctional, medical supplements such as enzyme replacements may be necessary. This can be done with conventional enzyme replacements (such as Tryplase) or herbal supplements (such as Tree Barks Powder from Dorwest Herbs). Patients may also need antibiotics or steroids as part of a conventional treatment. One problem with conventional treatment is that patients can become immunocompromised as a result of the steroids, meaning that they will be more susceptible to infection even from the relatively normal bacteria in raw food. In such a case the food should be lightly cooked first.

Kidney stones and the purine problem

If you have a Dalmatian, Beagle, Bulldog, Basset Hound, Cocker Spaniel, Bichon Frise, Miniature Schnauzer, Lhasa Apso, Miniature Poodle, Miniature Schnauzer, Yorkshire Terrier, Dachshund,

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Newfoundland, Irish Terrier, Scottish Terrier or Irish Setter then you are probably only too aware that these breeds can have purine metabolism problems. What are purines? Purines are natural substances found in plant and animal cells that are vital to the chemical structure of genes. High levels of purine can be found in any food group (i.e. vegetables, fruit, meat and fish). Certain foods, such as kidneys, game, yeast, mackerel, herring, sardines and mussels have particularly high levels of purine. Others, such as chicken, beef, lamb and non-acidic fruit contain lower levels. When cells die and get recycled in a dog's body the purines in their genetic material also get broken down. Once completely broken down they turn into uric acid, which is important to good health because it serves as an antioxidant that protects blood vessels. However, sometimes uric acid levels in the blood and other parts of the body can become too high. This happens, for instance, when the kidney isn't functioning properly (as it is the kidney that helps keep blood levels of uric acid balanced) or where there is an excessive breakdown of cells. Although kidneys regulate the amount of purine (excreting what isn't required), it is worth remembering that the cause of the problem lies in the liver where purine metabolism takes place.

So, what is the purine problem in dogs? The breeds already mentioned above metabolise purine in a unique way ending up with excess uric acid. This in turn leads to urate stones. Worse, if treated with allopurinol to block enzyme-producing urates, dogs can end up with xanthine stones instead of urate stones. Urate stones are radiolucent and thus can easily be missed, especially when in the kidneys as X-rays pass right through them, leaving no shadow, unlike other stones. It takes air contrast X-rays to show them up. But this cannot be done in the kidney and the stone cannot be felt in the kidney, either. Even ultrasound can miss them but CT (computerised tomography) scanning can pick them up. Dalmatians are one breed that has been particularly prone to urinary stones and if you have a Dalmatian or are interested in why then this site will be of interest: www.thedca.org/stonecharts.html.

How can diet help? A raw food diet without organ meat and with none of the high-purine vegetables (such as cauliflower, peas,

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spinach, mushrooms and legumes) is generally excellent as a diet for all breeds with a purine metabolism problem. Commercial and homemade low-purine diets can make the condition worse rather than better. In compromised dogs a high-fat diet can add to the problems by increasing urate formation, especially in the kidneys. So if you have a thin dog with a purine problem, consider increasing the frequency and size of meals rather than the fat level and check for hidden stones. Bear in mind that plenty of pure water is also important. The word 'pure' must be emphasised as some additions to water for purification and sterilization purposes can change the urine pH or entire body chemistry, triggering crystal formation. What else? 'Table foods' are out and so is anything with salt in it. With regard to diet, incidentally, this may require the addition of potassium citrates (for preventing calcium oxalate crystals) and sodium bicarbonate (for preventing cystine crystals). Always ensure that the diet does not have excessive amounts of vitamin C (ascorbic acid) added, as it acidifies urine, decreasing the risk of the most common forms of stones but increasing the risk of urates. Finally, do remember to arrange regular urine checks to ensure that the pH stays alkaline and for the presence of either urate or xanthine crystals.

Oral conditions

Gingivitis

Gingivitis is an infection of the gums and is often caused by the build-up of plaque on the teeth. Symptoms include bad breath, a sore mouth and consequent loss of appetite. Prevention is better than cure and chewing regularly on bones is to be recommended. There is a close connection between oral health and general health. There is every reason, therefore, to feed a raw diet.

Halitosis (bad breath)

The most common cause of bad breath is poor diet or poor oral health. The latter could be caused by bacteria, saliva and food particles forming plaque. A worse problem is periodontal disease, which can lead to gingivitis. Other possible causes include diabetes, kidney disease, gastrointestinal disease and infections in the area around the mouth. Respiratory diseases (for instance a sinus infection) and other oral diseases may be responsible. Finally, one should not rule out something that the dog is eating, such as household waste (or worse!). Obviously, the treatment will depend on the cause. Good dental hygiene can be achieved by chewing regularly on bones. There is a close connection between oral health and general health. There is every reason, therefore, to feed a raw diet.

Skin conditions

Alopecia (fur loss)

There are many reasons why dogs may lose their coats. Some of the more common causes are allergies, bacterial, fungal or viral infections, mites and poor diet. Trauma to the skin from scratching, burns or wounds as well as stress and hormonal changes (as seen in Cushing's syndrome) may also be responsible. Dietary advice will depend on the underlying condition. A raw food diet will help, however, as it will rebalance the hormones and may even act as a natural hormone replacement (raw meat contains traces of hormones that dogs would be used to ingesting).

Itchy ears and skin problems caused by allergies

Itchiness, ear infections, fur loss and skin problems may be caused by a variety of issues, the most common of which is an allergy to food, grains, fleas, ticks, household chemicals, pollen or something else. If the problem is a food allergy it could well be the result of eating grain or grain-fed meat (intensively reared beef and chicken are often responsible). Traditionally, vets have treated ear and skin problems of this type with a course of antibiotics and steroids, desensitising injections and creams such as cyclosporine A. Before treatment can be started, it is important to identify the cause of the allergy. In the case of any food allergy the switch to a natural diet may solve the problem, especially as it will help to support the immune system. If the patient has taken antibiotics, a course of prebiotics and probiotics is recommended. One of the ways in which the body responds to a skin-related allergy is to release histamine and other chemicals. Omega 3 can, sometimes, reduce the effects of histamine. Note that other fatty acids, such as omega 6, can actually worsen some allergies.

Itchy skin

Apart from allergies (see above), there are many different reasons why dogs suffer from itchy skin, including mites, demodex and mange. Until the cause is known, it is difficult to recommend a treatment, but the following tips may help:

- Various oils reduce inflammation, including cod liver oil, evening primrose oil and starflower oil.
- Consider adding vitamin C to the diet. At least 1000 mg daily and even more if the dog can absorb it without diarrhoea.
- If you are taking a dog off medication, use a broad-spectrum multivitamin that includes magnesium as this will dampen down the side effects.
- If the dog has been given antibiotics, a course of prebiotics and probiotics is recommended.
- Homeopathic remedies can be very helpful alongside conventional medicine in these cases.

Paw chewing

If your dog is chewing its paws, the first step is to check that there are no foreign bodies, such as eggshell splinters, thorns or glass, present and that he or she hasn't sustained a cut. If the dog is on processed food, the cause may be dietary since grain can produce this symptom. A raw food diet is to be recommended. If the cause is boredom then giving the dog a bone may solve the problem. If persistent check the dog's urine for a kidney problem. It may also be worth checking for a thyroid problem.

Other conditions

Arthritis

Depending upon who you talk to, the terms 'arthritis', 'osteoarthritis' and 'degenerative joint disease' may or may not be used to describe the same thing. Degenerative joint disease is characterised by the loss of the smooth cartilage that covers and protects the ends of the bones in a movable joint. The cartilage has no nerves so when it touches the cartilage of another bone there is no pain. When the cartilage wears away, the bone is exposed and, since bones do have nerves, pain and inflammation are caused by the two ends in a joint touching each other. This is the sign that arthritis is present and will probably be progressive. In degenerative joint disease, small bony projections known as osteophytes form on the bone that is closest to the joint. Degenerative joint disease can occur as a result of wear and tear on an otherwise normal joint as the dog ages. Osteoarthritis may also occur as a result of hip dysplasia or elbow dysplasia. A raw food diet helps arthritis because it is low in carbohydrates. High-carbohydrate diets create an excessively acid bloodstream, decreasing uric acid solubility, which in turn leads to joint pain. Bones are an important part of the diet and should include joint bones for their cartilage content (high in chondroitin sulphate) and the marrow of bones including chicken (chicken bones have lots of glucosamine). Turkey is also a good source and, importantly, much lower in salt than most commercial supplements. Such a diet often does away with the need for such supplements as glucosamine and chondroitin, or lowers the required dose. Supplements that help arthritic pets include cod liver, evening primrose and starflower oil, vitamin C, green-lipped mussel, turmeric, ginger and boswellia (between 1/16th and 1/8th of a teaspoon only), black treacle (also known as blackstrap molasses), the herbs devil's and cat's claw.

Cancers and tumours

One of the ways in which many cancers and tumours can be starved is to reduce the carbohydrates in the diet to 20% or under. (Bear in mind that most commercial dog foods contain 60% or more carbohydrates.) The purity of the food – ideally it should be organic – and the water is crucial. The vegetables should be as fresh as possible as after a few days vegetables start to lose their nutritional value. Of the many different supplements that can help cancer patients, vitamin C is perhaps the most important: 1000 mg a day (or more) is recommended. Please contact Honey's Real Dog Food if you would like more specific advice.

Discospondylitis

Discospondylitis (diskospondylitis or vertebral osteomyelitis) is a bacterial or fungal infection of the vertebrae and the intervertebral discs. The resulting inflammation and swelling along with the bone deformities put pressure on the spinal cord, which runs through the vertebrae. Feed the dog a natural diet. Supplements to consider include vitamin C and zinc. Give the dog a natural probiotic.

Elbow dysplasia

Elbow dysplasia is more common in fast-growing larger-breed dogs while they are still puppies. Dogs with elbow dysplasia usually have a limp and may hold the leg out from the body when walking. Some will avoid putting any weight on the leg at all. As many sufferers mature, the symptoms may become less severe. Medication may be needed to reduce pain. Some dogs may need surgery and others will have an altered elbow joint with arthritis from a young age. Feed a raw food diet with plenty of bone such as chicken wings, chicken thighs, drumsticks, pork ribs and marrow bones. Supplement with oil (fish, evening primrose or hemp oil) and vitamin C. Do not allow the dog to over-exercise.

Epilepsy

Epilepsy is a disorder of recurring seizures. Epileptic fits are the result of a sort of short-circuiting of the nerves in the brain, so that many nerves are stimulated at once. This can result in quite violent body spasms. Not all dogs that have seizures are epileptic; fits can happen for a number of reasons. For example, older dogs may have an underlying heart, kidney or liver condition, or there may be a tumour on the brain. This last possibility is, thankfully, not all that common. Traumatic injuries to the head can lead to fits in any age dog, as can infections, such as viral or bacterial ones. Occasionally, poisons, such as slug pellets (metaldehyde), will cause a dog to fit. In any of the above cases it is important to treat the underlying problem, if possible, and so eliminate or control the fits that way. Diet has an important role to play in the treatment of epilepsy. Meats low in glutamate, such as lamb, are best. Avoid meat from animals that have been fed a grain diet. Avoid rabbit, turkey and oily fish, as all are high in glutamate. Epilepsy is definitely on the rise and the combination of wheat and soy in pet foods may well be responsible. Eggs (again low in glutamate) are a good source of nutrition. In addition to the above, one should try to ensure the diet is free of chemicals (preservatives, taste enhancers, palatability factors, chemical antioxidants and so forth), making organic ingredients ideal. Processed foods are particularly bad for epileptic dogs as they are high in grain and incorporate rancid fats.

Hip dysplasia

Hip dysplasia is associated with abnormal joint structure and a laxity in the muscles, connective tissue and ligaments that normally support the joint. As the laxity develops, the head of the femur and socket joint separate. This is known as subluxation. Most dogs are born with normal hips; however, owing to their genetic makeup and possibly other factors, the soft tissues surrounding the joint develop abnormally, causing subluxation that leads to altered gait and/or lameness. One or both hips may be affected. Feed a raw food diet with plenty of bone such as chicken wings, chicken thighs, drumsticks, pork ribs and marrow bones. Supplement with oil (fish, evening primrose or hemp oil) and vitamin C. Do not allow the dog to over-exercise.

Lafora

Lafora disease is an inherited form of epilepsy that can occur spontaneously in any breed of dog, but it particularly affects the Miniature Wire-haired Dachshund, Basset Hound and Beagle. There is a website (www.laforadogs.org) which is asking for testing to be done for the breeds at risk so that dogs who are carriers are no longer used for breeding. The same dietary advice as for epilepsy (see above) is recommended.

Luxating patella

Luxating patella only occurs in certain breeds, particularly small dogs with short legs, and describes a process whereby one leg bone jumps out of its socket. When it occurs, the leg locks up with the foot held off the ground. It cannot return to its normal position until the quadriceps muscle relaxes and increases in length. Typically, a small dog will be running and then in mid-stride yelp, hold up the back leg and then continue as if nothing is wrong. After a time, the leg drops back down and is used normally. The lameness is very intermittent and does not seem to worry the dog. A raw food diet is excellent. Ensure plenty of bone. Keep the dog from becoming overweight as this will worsen the symptoms.

Osteochondritis dissecans

Osteochondritis dissecans, or OCD (not obsessive-compulsive disorder!), is a disease of the cartilage which may affect the shoulder, elbow, knee or hock. Some dogs will barely have a limp, while others may not want to put any weight on the affected leg. Lameness can worsen after exercise and improves after resting. It is caused by many factors, including genetics, trauma, rapid growth and poor nutrition. The conventional treatment is strict rest, an NSAID (non-steroidal anti-inflammatory drug) such as carprofen or surgery to remove the damaged cartilage. It is important that the dog does not become overweight. Feed a raw food diet. Ensure plenty of bone. Supplements which may help include oil (fish, evening primrose, starflower and/or hemp) and vitamin C.

Spondylosis

Spondylosis is a non-infectious fusion or degeneration of the vertebrae. The dog is stiff after getting up, appears to be limping (especially after exercise) or begins snapping or licking the lower back. Occasionally, a bony spur or fusing of the vertebrae will cause loss of bladder control and the dog will become incontinent. Feed the dog a natural diet. Supplements to consider include turmeric,

ginger, boswellic acids, cat's claw, devil's claw, green-lipped mussel, cod liver oil and glucosamine. It is important that the dog isn't allowed to jump up.

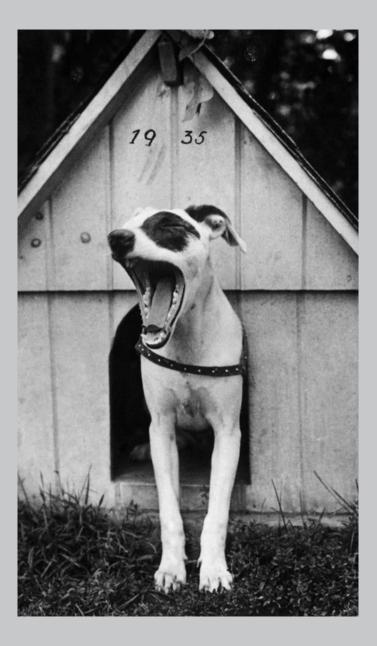
Von Willebrand disease

Von Willebrand disease is a common inherited bleeding disorder similar to haemophilia in humans. Because of the risk of bleeding not being stopped, these dogs need to be looked after very carefully. As even a tiny scratch can cause a problem, patients should not be given any bones. To compensate for potential blood loss a diet high in iron (such as liver) is recommended perhaps two or three times a week. To compensate for the lack of bones a human-grade bone meal supplement should be added to the food so that the patient receives around 700 mg of calcium every day. Fish oil is an antiinflammatory and will protect the kidneys, so one or two teaspoons (depending on the size of dog) every day is recommended. (If you can't obtain fish oil then cod liver oil is an alternative, although not quite as effective.) Aloe vera with cranberry juice can also help to protect the kidneys; give 20-60 ml (depending on the size of dog) three times a week. Some sufferers of von Willebrand disease haemorrhage frequently, especially internally, and can develop uremia. Additionally, if the problem is autoimmune, where the body attacks its own clotting factors, then the kidneys operate even less effectively. Diet has an important role to play here, too. If the dog is in the uremic stage then raw chicken is recommended. The dog should be given plenty of fluids to keep the kidneys flushed through.

A word about steroids

Steroids can produce unpleasant side effects (including lethargy, excessive hunger and excessive thirst) and may even cause diabetictype syndrome. Before putting your dog on a course of steroids, consider consulting a holistic vet to see what other options are available.

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17. ANSWERING THE ARGUMENTS AGAINST NATURAL FEEDING

SEVENTEEN

Raw feeding is an emotive subject, and you may be surprised at how many people try to dissuade you from switching your dog to a natural diet. The arguments against natural feeding can be very convincing. In this chapter I explain some of the myths put about by the processed pet food industry and others who are against natural feeding.

Myth one: Dogs aren't wolves

One of the main reasons why natural feeding makes such sense is that dogs and wolves are the same species, the only difference being that dogs have been domesticated. It is sometimes suggested that because dogs have been domesticated, their physiology and digestive systems have evolved and no longer resemble those of the wolf. Therefore, the argument goes, the idea that they should eat the same diet as wolves (or wild dogs) is wrong. This line of reasoning falls apart both in the bedroom and on the dissecting table! Wolves and dogs can interbreed. The digestive system of a Chihuahua and the digestive system of a wolf are identical in everything but scale. Yes, some of the world's dogs may have been eating a certain amount of cooked food for the last 18,000-30,000 years but (a) it has only been a percentage of their diet and (b) it hasn't been long enough for them to change the way their bodies digest and absorb nutrients. The idea (sometimes suggested) that dogs have adapted to processed food since it was invented in 1860 is laughable. It is possible for a species to partially adapt to a new diet, but palaeontologists believe that it takes at least 100,000 years and probably a great deal longer.

Myth two: Raw food can harbour salmonella

You can pretty much ignore anything anyone says to you about the dangers of salmonella poisoning in relation to raw feeding. Salmonella poses a very, very low risk to humans and an even lower risk to dogs. It is present in 80% to 85% of all raw chicken, and yet the number of people who actually suffer from salmonella poisoning is tiny. It is even rarer for a dog to suffer from it, and it is interesting to note that when tests were done, and dogs were fed infected meat, only one-third had any evidence at all of salmonella in their faeces. In other words, the canine stomach acids (which are strong enough to burn your fingers) killed the vast majority of it off.

So, what is salmonella? Salmonella is a bacterium that can cause some unpleasant reactions in our gastrointestinal system like vomiting and diarrhoea, and often fever. The attack may last about a week. There was some interesting research done in the US which showed that people have a risk of about 0.25% per year of getting infected with salmonella, and 0.05 ppm (ppm = 'parts per million') of dying of a salmonella infection. To put this in perspective, this compares to a yearly risk of 108 ppm for a man (33 ppm for a woman) getting murdered, about 100 ppm for getting killed in a car accident and 11 ppm for a person less than 91 years old to die of influenza or pneumonia.

What chance is there of a human catching salmonella from a dog? Dogs do not carry salmonella in their saliva or on their skin, not even after eating 100% salmonella-infected raw food. But, when they do eat salmonella-infected food, about one-third of them will show a moderate concentration of salmonella in their faeces – yet no clinical signs of being sick. The only way a human is ever likely to catch salmonella from a dog is by, to put it bluntly, eating its youknow-what! Incidentally, dogs eating a processed food diet are just as likely to have salmonella in their system, as it is easy to pick up in parks and elsewhere. We have been made paranoid about bacteria. In fact, there are more bacteria on a shopping trolley handle than on a piece of raw chicken. Finally, I must just add that we tested faeces from a number of Honey's fed dogs, and there were no traces of salmonella at all. We believe this is because we use such high-quality ingredients.

Myth three: Raw food contains dangerous parasites

In the wild, dogs will usually go for the easiest prey, often animals that are frail and sick. They also eat meat that is rotten, meat that has been buried for weeks and then dug up and, of course, meat that contains parasites. In all these instances, they suffer no, or very few, ill effects. Nevertheless, it is sometimes argued that raw feeding is dangerous to canine and human health because the meat may contain parasites. This is incorrect for two reasons. First, the foodborne parasites to which dogs are vulnerable do not pose any risk to humans. Second, a dog's stomach acids are so strong that they destroy almost all known food-borne parasites likely to be of harm to them. If you are still worried about parasites, freeze the food for at least 24 hours before serving. This will deal with all but a very few, very rare parasites that are never found in food suitable for human consumption.

Myth four: Raw-fed dogs are at risk from Neospora

Neospora is a very interesting issue, especially as it was only discovered relatively recently. There have been lots of studies on its effect on cattle, but there is almost no research in relation to dogs. Neospora is a parasite and, so far, it seems to be most prevalent in beef herds. Can it be transmitted from cattle to dogs via meat? If it can, what effect does it have on the dog? Finally, is there any risk to humans? There have been so few cases reported in dogs that there is almost nothing to go on. The dogs that seem most at risk are puppies and dogs with compromised immune systems. It appears to follow the same model as toxoplasmosis and coccidiosis. But there are no properly documented cases of it affecting raw-fed dogs. Amongst pro-raw feeding vets, the basic feeling is that if it were a serious risk, we would be hearing a lot more about it. There is no need to worry about this risk, especially as Neospora has probably been present in dogs and cattle for hundreds of thousands of years.

Myth five: Raw-fed dogs are at risk of renal failure

It has been suggested that feeding a dog bones puts them at risk of renal failure, owing to the high amount of calcium/phosphorous to be found in a natural diet. Calcium is vital to your dog's health and is the most common mineral in the body. The majority of it (99%) is in the bones, with the rest distributed between other tissues and blood. Calcium has an indispensable role in major bodily functions. It is required for the transmission of nerve impulses. It is required for muscle contraction. It is a vital component in the blood-clotting mechanism. It is the structural component of bones and, hence, is of vital importance in growing animals. Phosphorous is the other dietary mineral required in a relatively high amount in the diet. About 80% of phosphorus in the body is found in bones and teeth, principally as apatite salts and as calcium phosphate. It is located in every cell of the body. Phosphorus is also intimately involved in the acid-base buffer system of blood and other bodily fluids, as a component of cell walls and cell contents as phospholipids, phospho-proteins and nucleic acids. Chronic signs of deficiency include rickets in young animals and osteomalacia in adults, poor growth and lactation performance, and unsatisfactory fertility. Phosphorous is required at levels slightly less than calcium. Meat or organ meats are relatively high in phosphorous but relatively low in calcium. It is completely wrong to say that raw feeding, eating bones and meat, causes renal failure! To begin with, in a wellbalanced raw food diet calcium and phosphorous will be in the correct proportions. Then there is the fact that raw food has lower levels of phosphorous than most canned or dried food. Plus the idea that a high-protein diet increases the chance of renal failure has been pretty much blown out of the water as rubbish.

Myth six: Raw-fed dogs are at risk of choking on bones

Bones, it is suggested, can cause dogs to choke, or may rupture the stomach or intestine. In fact, dogs are more than capable of digesting raw, uncooked bones. This is thanks to their strong stomach acids. They are much more likely to choke on dried, processed food, which usually has a water content of between 5% and 10%, far below the 70% water content of a natural diet.

Myth seven: Raw food is covered in bacteria

Yes, it is! But dogs are surprisingly well equipped to deal with bacteria. Their saliva contains lysozyme, an enzyme that destroys harmful bacteria. Their short digestive tract is designed to push through food and bacteria quickly without giving bacteria time to colonise. The extremely acidic environment in the gut is also a good bacteria colonisation deterrent. Incidentally, processed dog food is as much of a risk in terms of bacteria as this quote proves: 'Pet foods, commercial or homemade, provide an ideal environment for bacterial proliferation'. (LeJeune, J. T. and D. D. Hancock. 2001. Public health concerns associated with feeding raw meat diets to dogs. *Journal of the American Veterinary Medical Association* 219(9): 1224.) The starches, rancid fats and sugars in kibbled foods provide much better food sources for bacteria than the proteins in raw meat do.

Raw proof : the latest scientific research

Is there scientific evidence to support a natural, raw food diet? The answer is: Yes. Every vear. more and more academics turn their attention to the subject. My own company decided to fund a major, independent trial, the results of which were published in 2018. Our researchers set out to investigate two things. First, whether a species-appropriate (aka raw food) diet can be formulated so as to meet the highest possible nutritional guidelines for dogs, as specified by the European Pet Food Industry (FEDIAF). Second, whether such a diet will prove to be nutritionally adequate when fed to a meaningful sample of dogs over 26 weeks using an extended version of the rigorous trial protocol developed by the Association of American Feed Control Officials (AAFCO). We designed our investigation with great care to ensure that we achieved the most accurate possible results. To this end, we appointed an independent, veterinary surgeon to plan, oversee and carry out the research and employed an independent laboratory for all the analysis work. The results were reviewed by a panel of independent veterinary surgeons. You won't be surprised to hear that we found that it was possible to meet FEDIAF guidelines or that the diet was nutritionally adequate. If you would like a copy of the research or to know more about this important subject, please do get in touch.



18.

A CHAPTER ABOUT SOMETHING NO ONE LIKES TO MENTION (POO)

EIGHTEEN

There's no point in beating about the bush: this chapter is about your dog's poo. Why? Because it is an important indicator of your dog's health. Before we tackle the nitty-gritty (as it were) of this subject, some good news. Dogs on a raw food diet produce much less excrement, and what little there is of it biodegrades quickly and doesn't smell.

Normal? What's normal?

A normal stool should be soft, yet firm. Its colour will be determined by the dog's diet: anything from a mid-brown to nearly black is usual. The more meat in the diet, the softer and darker it tends to be.

If you want to firm your dog's stools up, the simplest way is to add bone. It is normal to find a greyish bag of slime around your dog's stool from time to time. This is the old mucous membrane, which the intestine sheds every few months.

It is also normal to see the remains of vegetables in the stool. This is vegetable matter the dog hasn't digested, and it helps to stimulate the mechanical function of the intestine.

A reason to be firm

It is important that your dog passes relatively firm (even quite hard) stools on a regular basis. Why? In the area under the tail, dogs have two anal glands. These excrete a particular smell when dogs move their bowels, thus allowing them to mark territory and so identify other dogs.

Dog faeces are normally firm, and the anal glands usually empty when the dog defecates, lubricating the anal opening in the process. When the dog's stools are soft, they may not exert enough pressure on the glands, which then may fail to empty. This may cause discomfort as the full anal gland pushes on the anus. If you see a dog pulling its bottom along the floor, it could well be because its anal glands are causing it a problem.

Stool guide

Very dark or black stool

This is caused by a high percentage of meat in the diet, especially liver and other offal.

Greyish stool

Usually, the result of eating grain and/or processed food.

Light-coloured stool

Especially if greyish. May be caused by a liver or pancreatic problem, so worth consulting your vet.

Greasy stool

When dogs have a pancreatic problem, they are unable to digest fat efficiently. A greasy, sour-smelling stool may be an indication of an underlying pancreatic issue. Discuss with your vet.

Foamy stool

Could be an infection in the intestine or colon as a result of undigested fat. Again, you should probably discuss with your vet.

Very hard stool

If your dog is on a processed food diet, then the cause is probably one of the ingredients included to keep the stools firm: it is not unknown for dog food companies to use sawdust for this purpose! If your dog is on a raw food diet, a hard stool is usually the result of a healthy meal of bone.

Blood in the stool

This may be caused by anything from a parasite (such as a worm) to a stool that is too firm. You should keep a sample (sorry!) to show to your vet. Bear in mind that the blood may not be red. If it is not fresh, it may appear almost black.

Soft and runny stools

A soft, runny or watery stool is not necessarily anything to worry about unless it lasts for several days or is combined with other symptoms (such as blood in the stool or vomiting). It is normal for stools to be soft, runny or watery when a dog changes diet or eats something that it can't easily digest.

Why raw food produces so much less waste

Mogens Eliasen, a raw feeding expert, has published information about the volume of stools compared to the volume of food being eaten. Meat, offal and animal fat are almost completely digested. The amount of excrement produced will represent between 2% and 7% of the food being eaten. Fruit and vegetables produce around 30% to 60% waste. Kibble, on the other hand, produces 60% to 80% waste. This is because dogs are able to take a great deal of nutrition from meat, organs and animal fat, but not from processed food.

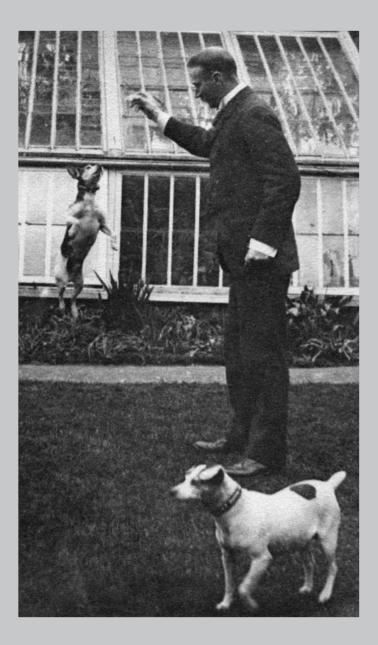
When to be worried about diarrhoea

If your dog has diarrhoea for more than three days, or if it has diarrhoea one day, normal stools for a few days, and then diarrhoea again until it ends up mostly having diarrhoea, then the problem may be worms. If your dog has diarrhoea together with another symptom – such as blood in the stool, vomiting, fever or a change in behaviour – then you should consult your vet.

Good news for your garden

Naturally fed dogs produce less excrement and what they produce breaks down quickly. As it has no harmful chemicals in it, it won't damage your lawn. If you feed your dog raw food there will be fewer chemicals in its urine, too. This will mean that the urine should not damage your grass or turn it yellow.

SOMETHING NO ONE LIKES TO MENTION



19. ADVICE FOR ETHICAL DOG LOVERS

NINETEEN

Because dog lovers tend to be kind, thoughtful and empathetic individuals, they are frequently concerned about ethical and environmental issues. In this short chapter, I explain how to do the best for our canine companions and the planet.

Reducing a dog's environmental impact

Dogs have a surprisingly high impact on the environment. They require a meat-based diet, and thus contribute to the consumption of animal products, the meat farming industry and all the pollutions, toxins and other emissions that it creates. They use up other resources, too, from food packaging to bedding and from medication to transport. According to one estimate, a mediumsized dog can have a similar carbon footprint to a large SUV.

However, dogs also benefit the environment. The philosopher John Berger says a great deal about the value of dogs in his book *Why Look at Animals*. He points out that one of the major effects of industrialisation is that humans in developed nations have almost no contact with other species. Our ancestors lived close to farm animals, used horses for transport and were much more likely to have daily encounters with wild animals and birds. Now, zoo animals have become 'the living monument to their own disappearance'. If we hadn't domesticated the dog (and, in so far as they can be domesticated, the cat) many humans would live in total isolation. Dogs serve to remind us that other species exist and need to be protected. In other words, dogs help to promote the environmental message. They also have a positive effect on society, providing comfort and love and promoting responsibility and empathy.

ETHICAL DOG LOVERS

It seems to me that the hardline environmentalists who demand we should no longer keep dogs – thus ending a symbiotic relationship that goes back tens of thousands of years – are completely overlooking the rights of dogs and the value of dogs. Having said this, it is our duty to reduce the carbon pawprint of any dog we care for. To this end, my advice is:

- Keep dog food miles to a minimum. Feed your dog using ingredients that are as local as possible and avoid any ingredient that has to be imported.
- If you buy pre-made dog food consider the packaging. Is it as minimal as possible? Is it recyclable? By the way, compostable packaging is not, at the time of going to press, as environmentally friendly as its manufacturers would have consumers believe.
- Consider holistic health options...veterinary pharmaceuticals are often un-environmental and also unnecessary.
- Make everything from dog beds to dog collars last. Remember the 'reduce, reuse, recycle' philosophy.

Incidentally, if you were contemplating switching your dog to a vegetarian or vegan diet for environmental reasons you may be surprised to learn that it won't necessarily be better. A study undertaken by John Hopkins University discovered that a meat and vegetable diet is considerably less carbon-intensive than a 100% vegetarian diet. Intensive meat production is terrible for the planet but so, for example, is intensive production of all sorts of fruits, nuts and vegetables.

The meat question

What about switching your dog to a vegetarian or vegan diet for moral reasons? I should declare here that I am a vegan (one of my favourite jokes, by the way, is: 'How do you know if there is a vegan in the room? Don't worry, they will tell you.'), and for several years I have been working with a team of vets, food scientists and nutritionists to try and create a nutritionally adequate meat-free diet for dogs. Some of the issues we face include:

ETHICAL DOG LOVERS

- Dogs require an easily digestible diet that is rich in protein so that nutrients can be rapidly absorbed into their bodies. Dogs that don't eat any meat struggle to digest the high fibre of plant-based diets and are at risk of vitamin D and B deficiencies.
- Proteins derived from animal products, like collagen, elastin and keratin – all of which are vital for healthy skin, muscles and joints – are difficult, if not impossible, to derive from a non-meat diet. Plant-based protein does not contain the right balance of amino acids.
- Many dogs are lactose intolerant so should not eat milk or cheese. Eating too many raw eggs can result in deficiencies in essential nutrients like biotin.
- Puppies have high protein needs (up to five times an adult dog) and require a complex balance of nutrients. Not eating meat could lead to bone disease and/or stunted growth.
- It can take two years and sometimes longer for any deficiency in a diet to show up.
- In one study of vigorously exercising dogs, those eating a plantbased diet showed damage to their blood. The blood remained normal in meat-eating dogs.
- A non-meat diet often contains high-fibre carbohydrates. The cellulose in the fibre can't be digested (it goes in one end and out the other) and the starches reduce the body's ability to absorb other vital nutrients, such as calcium, magnesium, zinc and iron.
- Many dogs lose an unhealthy amount of weight when switched to a non-meat diet.

In time, we hope to overcome all these issues. After all, there are dogs who seem to manage very well on a non-meat diet. However, forcing naturally carnivorous animals to eat diets which

ETHICAL DOG LOVERS

may jeopardise their health is both counter-productive and, in my opinion, unethical. If we are going to keep dogs then we owe it to them to give them a species-appropriate diet. And a speciesappropriate diet for a dog consists largely of prey or its closest equivalent.

My own view, based on the latest science, is that for both environmental and health reasons, dogs need a meat-based diet. For this reason I only feed local, ethically sourced (free-range, pasture-fed, certified organic and wild) meat from farmers and game keepers with the highest possible animal welfare standards. I hope that at some point in the future I will be able to write a book about how to feed your dog a nutritionally adequate, meat-free diet. In the meantime, bear in mind that I am already recommending that your dog's diet has a high vegetable/fruit content (one-third).

A final point. I cannot recommend any of the complete vegetarian or vegan dog foods on the market because they depend on artificial supplementation. Such supplementation often has poor bioavailability and may cause long term health issues.



20. HONEY'S REAL DOG FOOD

TWENTY

As I explained in Chapter One, I have written this book because although there are some excellent reference works on raw feeding I couldn't find a short, plain English, practical guide to the subject. It is based on my own experience as the founder of an artisan dog food business, Honey's Real Dog Food, which is responsible for raw feeding over 5,000 dogs a month.

I launched Honey's because I believe passionately that all dogs should be fed a natural diet. For this reason, my colleagues and I are happy to provide unlimited advice and support to anyone who wants to make the switch, even if they never plan to become a customer. So, if you have any questions not answered in these pages, please contact us. Meanwhile, this final chapter explains what we do at Honey's.

We make feeding a natural diet incredibly easy

At Honey's, we make it incredibly easy to feed your dog a natural diet. Our raw, fresh dog food is produced using lean, minced meat and grated vegetables. What about the all-important bone element – so crucial to your dog's health? We grind the bone (so that it can barely be seen) and mix it in. We also supply individual bones in convenient sizes as well as chicken wings, handmade biscuits and treats. I will come back to the subject in a moment, but I want to stress that we are deeply concerned about animal welfare and the environment. To the best of my knowledge, for instance, we are the only dog food producer in the UK that doesn't use any intensively reared meat. Incidentally, if you want to go the DIY route, we can also help. See below.

A very personal approach

One of the first things you'll notice if you decide to feed your dog Honey's is that we take a very personal approach. It isn't just that we want to know your dog's name, we also want to know his or her vital statistics, medical history, lifestyle, preferences and personality. We like a photograph, too, so that we can see what he or she looks like. Equipped with the information you provide (together with your feedback), we can adjust the ingredients and quantities on an ongoing basis so as to best meet your dog's needs.

The ordering process

You can order online or by telephone. After you supply us with your dog's details and preferences, we make up his or her food in our kitchens and freeze it. The next stage is packing and shipping. The food, bones and treats are placed into separate containers and labelled. This is then packed (together with feeding notes) into insulated, recyclable boxes and despatched to you using an overnight delivery service. Our packaging keeps food cool for up to 48 hours. When the shipment arrives, we ask you to take it out of the box and put it into your freezer. We suggest that before going to bed every night you simply remove the following day's food from the freezer so that it can defrost. We ask you to keep us up to date with any changes in your dog's health or lifestyle so that we can adjust his or her diet if necessary. A week before we are due to make up the next month's supply, we contact you to check everything we plan meets with your agreement and then we repeat the whole process.

Excellent value for money

It costs much less than you might expect to feed your dog with Honey's. We keep the cost down by dealing direct with our customers (so no profit to retailers or wholesalers). The price is linked to the exact weight of your dog and will be calculated for you as part of the order process. Our policy is to charge less than you would pay for the identical ingredients if you purchased them from an ethical supplier, such as Waitrose, Riverford or Able & Cole.

Our 100% money-back guarantee

We are proud to say that almost all our customers come to us by word of mouth. In order to ensure that we maintain our reputation for quality, service and integrity, we guarantee that your food will arrive in first-class condition on the promised date. If you are dissatisfied with the quality of our food, simply follow the instructions in the delivery box and we will refund the cost in full and without argument.

Never worry about running out

Assuming you and your dog are happy with Honey's, we will be happy to set up a regular order for you so that you never have to worry about running out.

The best for your dog

Our formulas have all been created by experienced veterinary surgeons and meet all a dog's nutritional requirements. You can be confident that Honey's Real Dog Food provides the right nutritional balance for your dog.

Free health advice, without obligation

If you are worried about your dog's health, a change of diet could make a huge difference. One of our vets, veterinary nurses or other experts will be delighted to review your dog's health issues and make dietary recommendations. You will be under no obligation to accept their suggestions and no charge will be made. Where we recommend a raw diet (and this isn't automatic), we will happily quote for preparing it for you.

We are deeply concerned about animal welfare

All the meat we use is free-range, pasture-fed, certified organic or (in the case of the game) wild. We are concerned about the welfare of the animals we use to make our food. We know and trust all the farmers we buy from. Our objective is to keep 'dog food miles' to a minimum, and we only buy from British farmers and gamekeepers. We visit our producers on a regular basis.

We are deeply concerned about the environment

Honey's has been signed up to ISO 14001 (which relates to environmental management) since 2013. The company is carbon neutral and a member of 1% for the Planet. Our minimal packaging is all 100% recyclable. As an aside, I was a trustee of the World Land Trust for many years and in 2020, was elected as a trustee of the Rainforest Trust. We also employ two consultancy firms to advise us on how we can best reduce our environmental impact.

Our ingredients are good enough for you to eat

All our ingredients are suitable for human consumption at the point at which we make our food. In other words, our ingredients could also be sold for human consumption. Or to put it in even plainer English: they are fresh! As an aside, by law we are not allowed to describe our actual food as suitable for human consumption as it is legally considered to be pet food. To the best of our knowledge, no other dog food producer in the UK uses as high a quality of ingredients as we do.

We donate 1% of sales to Compassion in World Farming

We donate 1% of all our sales to Compassion in World Farming (CIWF). This is because we believe that the low standard of farm animal welfare both in the UK and elsewhere is one of the greatest scandals in modern human history.

CIWF was founded in 1967 by a British farmer who became horrified by the development of modern, intensive factory farming. Today, it strives peacefully to end all cruel factory farming practices. Its campaigning has resulted in the EU recognising animals as sentient beings, capable of feeling pain and suffering. It has also secured landmark agreements to outlaw the barren battery cage for egg-laying hens, narrow veal crates and sow stalls across Europe. We like the fact that CIWF generally works with businesses, not against them.

Just looking for ethically sourced ingredients?

If you want to prepare your own raw food then we can supply you with a range of ethically sourced raw ingredients along with full instructions. All our raw ingredients are suitable for human consumption.

Please, please remember we are happy to offer free advice

Our main objective at Honey's is to encourage people to switch their dogs to a natural diet. We will happily help you with free advice, tips and recipes even if there is never, ever any chance that you will become a customer. Please don't hesitate to contact us if you feel we can help you.

How to get in touch with Honey's

By telephone 01672 620 260

By email

info@honeysrealdogfood.com

By post

Honey's Real Dog Food Darling's House 1–3 Salisbury Road Pewsey Wiltshire SN9 5PZ

Or visit our website

www.honeysrealdogfood.com





Honey's Natural Feeding Handbook for Dogs

This plain English, comprehensive, easy-to-follow guide contains everything you need to know about natural, raw feeding, including:

- Why naturally fed dogs lead longer, happier and healthier lives
- How to switch your dog to a raw diet in three easy steps
- How canine digestion works
- Why tinned and dried food is 'junk food' for dogs
- Lots of tips, recipes and advice
- Special diets for poorly dogs
- How to give your puppies the best start in life
- How to reduce your dog's carbon pawprint

Jonathan Self is a journalist who writes about farming and the environment. He is a trustee of the Rainforest Trust and the founder of Honey's Real Dog Food.



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