THE VETERINARY HEALTH & NUTRITION HANDBOOK





This is the fourth edition of my Guide to Natural Health Care. The first Guide appeared in 1994 and consisted of three or four pages produced on a photocopier. Each version is much larger than the one before. This is not because there has been an increase in knowledge about Natural Medicine. The basic principles are as they have always been. Over the last 12 years we have responded to many thousands of requests for information and advice on pet health and nutrition. Much of the new material is a distillation of topics which have been discussed over the years.

We live in an ever more rapidly changing world and pet care and nutrition are not exempt from that. The Burns natural, holistic approach to nutrition and health was revolutionary in 1993. Since then, the success of Burns has set the standard for improvements in the quality of pet food which is being copied by others. Nowadays, if you're not holistic, you're not in fashion, and the claims become more and more extravagant.

Nevertheless, if standards of pet foods improve, that can only be to the benefit of pets although there is no doubt that the vast majority of dogs and cats are still being fed on low-quality "junk food" and they deserve better.

Part One of the Guide sets out the Principles of Natural Health Care and my description of how I believe disease develops. Most of the health problems and symptoms familiar to pet owners fall within this description.

Part Two explains many of the common health problems in more detail. It also covers the health of the growing dog and cat and the nutritional health of senior pets.

Part Three explains the characteristics of Burns as well as other products in the pet food market

Part Four is about holistic living for pets and people

Part Five is about home made and raw food diets.

Part Six – the Health Management Programme is basically a feeding guide.

This is important because feeding the right <u>type</u> of food is only half the answer; it is just as important to feed the correct <u>amount</u> for each individual.

Part Seven - Questions answered.

Veterinary Surgeon John Burns BVMS MRCVS

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GOOD HEALTH THE NATURAL WAY

"We don't know what causes the problem, we don't know how to cure it but we can use drugs to relieve it until we really understand how to deal properly with the problem." (John Burns BVMS MRCVS, 1972)

Shortly after qualifying as a veterinary surgeon I heard myself saying these words on numerous occasions to owners of dogs with skin problems. I was beginning to realise that I was not as well prepared to deal with health problems as I would have liked. Whilst drugs are useful for treating acute illnesses and relieving the signs and symptoms of chronic disease there are few if any chronic diseases which can be cured by drugs.

A few years later, having read some impressive reports about acupuncture I decided to become an acupuncturist. The two-year course on Traditional Oriental Medicine attempted to unite ancient principles of health to our Western way of life. During this time I came to realise that acupuncture suffered from the same important shortcoming as modem medicine - the illness itself was being treated but the treatment did not address the cause of the problem.

At the same time I became a student of the macrobiotic movement which was in great vogue in Britain in the seventies but which has now virtually disappeared from view (in the UK at least). Macrobiotics attempted to apply and adapt ancient, traditional philosophy in a way which was practical and appropriate to our modern lifestyle.

Although much maligned at the time, macrobiotics seemed to me to complement my scientific training although in some respects it presented an opposing view. In particular, macrobiotics, like many other branches of complementary medicine taught that most illnesses originate in the main from improper lifestyle especially the daily diet.

By extension, it follows from this that correct diet can be used to treat many illnesses or, more accurately, correct diet can allow the body to make the necessary adjustments in order to heal itself.

By experimenting on my own diet, I was able to verify the principle that physical health and mental well-being can be changed by diet. I decided to adapt and apply similar principles to the understanding and practice of Veterinary Medicine.

This background knowledge, followed by many years' practical experience in the treatment and prevention of disease in pets has allowed me to formulate this Guide to Natural Health Care.

PART ONE - FIRST PRINCIPLES

- 1) Good health is the normal state.
- 2) The body will tend towards a state of good health.
- 3) Healing will take place if it is possible.
- 4) Acute illness is a sign that the body is trying to heal itself.
- 5) Chronic illness is the result of failure or suppression of the healing process

This philosophy is positive and optimistic and believes that our health is in our own hands. This contrasts with the view of conventional medicine, which expects problems to develop; that illnesses are random and indiscriminate; and that we have little control over our health. However, natural health care does require us to accept the responsibility for health and wellbeing. The key to achieving good health is a simple one when these principles are applied: - if we can put in place the correct conditions the body will do the rest. Here the "correct conditions" mean correct lifestyle in which nutrition is the most important and also the one that is the easiest to control.

This is the essence of "Holistic" Medicine.

What makes a correct diet?

Everyone would agree that a balanced diet is important.

But what does "balanced" mean? The common view is that a diet is balanced if the food contains sufficient quantity of the various nutrients - proteins, fats, carbohydrates, minerals, vitamins and water to meet the needs of the body for maintenance, growth, reproduction and exercise. This definition fails to take account of several important factors: -

- 1) Is the amount consumed appropriate to the needs of the individual?
- 2) What if the food has excessive nutrients e.g. too much protein or fat?
- 3) Is the body able to utilise the nutrients in the food: i.e. is the food easily digested?
- 4) Does the food contain substances which are not nutrients e.g. chemical additives, impurities?
- 5) Does the food suit the animal's system? Many pets develop intolerance to certain foods.
- 6) Is the body able to eliminate the waste matter effectively?

Production and elimination of waste are normal functions of the body. Wastes are produced as an end result of breakdown and utilisation of nutrients. Protein and fat produce more harmful waste products than carbohydrate so a diet which is high in carbohydrate and low in protein and fat will reduce the toxic load which has to be eliminated.

Our definition of a balanced diet is that what goes in equals what comes out!

This means that over a period of time the body will maintain a good state of health and normal function and that all wastes will be efficiently eliminated.

In practice, many domestic pets do not have a balanced diet. In most instances, **intake exceeds output.**

Excess intake can result from

- 1) Overfeeding
- 2) Incorrect proportions of nutrients, for example too much protein or fat, or inclusion in the diet of non-nutrients e.g. colourings, chemicals.

Decreased output can result from

- 1) Insufficient exercise
- 2) A warm environment reduces the amount of energy needed to maintain body temperature
- 3) The organs of elimination (kidneys, intestines, skin, liver and gall bladder) may become less efficient as they become clogged.

DEVELOPMENT OF DISEASE – STAGE 1

When intake exceeds elimination this creates an excess in the body. This excess can lead to one or all of the following as the body attempts to maintain the balance between intake and output:

- 1. Decreased intake by loss of appetite or development of a fussy appetite.
- 2. Increased output as the body endeavours to eliminate the excess from the system.
- 3. Storage of excess in the system.

Short-lived or minor imbalance will be dealt with unnoticed but a prolonged excess will lead to the following signs of disease.

Storage of excess leads to weight gain. This is more commonly seen in the less active pet.

Elimination of excess gives rise to one or more of the following signs:

- Increased physical activity i.e. hyperactive, excitable or overly boisterous behaviour
- Persistent moulting/shedding of hair
- Appearance of wax in the ears
- Scruffy, dry coat
- Itchy skin and ears
- Biting or licking the feet
- Occasional vomiting
- Occasional diarrhoea
- Discharges from orifices eyes, ears, genital system
- Overfull anal glands
- Concentrated, strong smelling urine
- Unpleasant body odours
- Bad breath
- Tooth tartar
- Excessive grooming (cats)

These signs, which indicate discharge of excess, while unpleasant and uncomfortable are NOT symptoms of true illness. They are actually signs that the body is making adjustments in order to maintain health and that changes in lifestyle - especially diet - are needed

If we should attempt to "cure" these problems, with medication for example, without dealing with the cause this would be like switching off the fire alarm without putting the fire out

DEVELOPMENT OF DISEASE – STAGE 2

If imbalance between input and output persists over a period of time, the build-up of wastes (toxins) in the body will eventually begin to interfere with the proper function of the body systems.

A vicious cycle of deterioration develops



This may take weeks, months or years depending on the individual pet. At this stage one might encounter the following problems:

- Acute inflammatory reactions e.g. pancreatitis, hepatitis
- Allergic reactions such as eczema, auto-immune disease
- Hormonal imbalance false pregnancy, irregular oestrus
- Stiffening muscles and joints (rheumatism, arthritis)
- Increased susceptibility to infection because the body is providing a suitable environment for infectious agents to thrive

At this stage things have started to go wrong in the body. The problems tend to involve impaired biochemical and physiological functions rather than signs of degeneration and failure of the major organs.

DEVELOPMENT OF DISEASE – STAGE 3

As the build-up of toxins continues, the major organ systems will start to show signs of degeneration and failure. At this stage, quality of life is likely to be impaired and the animal's life may be at risk. One may encounter for example:

- Heart disease
- Kidney disease
- Diabetes
- Tumour formation

Although I have described the development of disease as taking place in three distinct phases, in practice, all stages develop simultaneously. For example, when the body is eliminating toxic waste, it is unlikely that all the waste can be expelled.

It is probable that some clogging of the major organs will occur at an early stage. Clogging of the organs of elimination themselves (kidneys, lungs, liver, intestine) will further hinder the removal of wastes from the system, thus accelerating the deterioration.

Some animals do not even show obvious signs of toxic discharge but may develop a major disease without any prior warning.

PART TWO - HEALTH PROBLEMS EXPLAINED

FOOD INTOLERANCE/ALLERGY

I have decided to begin with this because food intolerance may be the underlying cause of many of the health problems described throughout this booklet.

Adverse reactions to ingredients in the diet may well be one of the most common yet least recognised causes of ill-health in pets and humans.

In theory, any dietary ingredient can cause an intolerance. In practice, protein (e.g. beef, milk) or carbohydrate (e.g. wheat, lactose) sources are the most likely causes although it is possible that chemical additives such as food colourings and preservatives could cause a reaction.

Understanding and recognising dietary intolerance is not helped by pet food legislation which allows pet food manufacturers to declare ingredients such as "animal derivatives and cereals" rather than naming the actual ingredients. This means that one cannot know precisely what one is feeding and the ingredients can be changed at will.

In general, adverse reactions to food can be divided into those which act through the immune system (allergy) and those which do not (intolerance). Although the mechanisms of the two are different, the symptoms are indistinguishable.

Signs of intolerance (symptoms) vary widely and are not well understood or documented.

A reaction can be instantaneous or delayed, even for several days. It can be mild and ill-defined causing non-specific signs of ill-health such as lethargy, loss of appetite, abdominal pain, stiffness, failure to thrive, unpleasant body odours, bad breath, discharge from orifices and so on.

At the other extreme, an adverse reaction can be severe and unmistakeable. An anaphylactic reaction can cause shock and death. Some people with an allergy to nuts are affected in this way.

In theory, any organ or system can be affected and this can give rise to a wide range of symptoms.

In pets, dietary intolerance most commonly affects the skin or digestive system causing disease/disorders related to these organs. This might be eczema, itchy skin, dermatitis, otitis (ear inflammation), vomiting, diarrhoea, colitis, gastroenteritis, pancreatitis, hepatitis, abdominal discomfort etc.

Other organ systems can also be affected e.g. immune system, musculoskeletal system, nervous system, endocrine (hormonal) system. Any symptom or disease affecting any of these organ systems could be caused by a dietary intolerance. This would include arthritis, convulsions (epilepsy), abnormal behaviour, allergic (pollen, house dust mite) and inflammatory reactions (pancreatitis, hepatitis), susceptibility to infection, Cushing's, Addison's, under- and over-active thyroid etc.

Long-term unrecognised dietary intolerance may be the underlying cause of degenerative diseases such as heart or kidney failure and cancer.

It is probable that dietary intolerance is much more prevalent than pet owners and veterinary surgeons realise. There are diagnostic tests but these are only possible for the minority which involve the immune system. In any case they are misleading in that they produce both false-positive and false-negative results.

Any symptom of ill-health which persists despite treatment or which recurs after treatment should arouse suspicion of food intolerance.

A feeding (elimination) trial is the only reliable method of diagnosis. This is the rationale of the Health Management Programme (Page 35). This involves eliminating the existing food from the diet and replacing it with a food which is new to the animal. Home-made food allows more control over ingredients but a commercial food like Burns may be more suitable for long-term use.

If symptoms improve when the suspect food is eliminated then it can be presumed that a dietary intolerance was responsible. Confirmation would require the re-introduction of the suspect food to see if the symptoms recur but, of course most pet-owners will be understandably reluctant to take that step.

Disorders of the digestive system which are due to dietary intolerance often disappear within a few days of eliminating the food which is responsible but most disorders will take 3-4 weeks to respond to removal of the offending food.

Most cases of dietary intolerance (those where the immune system is not involved) are dose-sensitive. This means that the amount of food can determine whether or not signs of intolerance will disappear. This is why it is important that whatever food is given, it should be fed sparingly.

It is likely that many people suffer from undiagnosed dietary intolerance with similar consequences except that the respiratory system is more commonly affected than the skin. This would result in conditions such as rhinitis, sinusitis, bronchitis and asthma.

ECZEMA/SKIN DISFASE

As explained in the previous section, an adverse reaction to food most frequently affects the skin or digestive system. This is why skin and intestinal disease are probably the most common problems seen by veterinary surgeons.

Skin disease varies from a low-grade itchiness, which many owners accept as normal, to severe widespread inflammation with reddening, blisters, eruptions, weeping clear fluid or pus. The appearance, frequency and distribution of lesions (areas of damage) varies tremendously. In most pets, self-mutilation by scratching, licking, chewing and biting serve to aggravate the problem.

The cat tends to produce less dramatic symptoms. Scratching tends to be less but the cat will groom excessively. As the condition progresses, the cat will become moth-eaten in appearance as bald patches appear. There will often be numerous tiny dry scabs all over the skin (known as miliary eczema).



Skin irritation tends to recur and become persistent and difficult to treat although some dogs tend to be affected only seasonally. Occasionally the problem will surface when the bitch comes into season or has puppies. Some breeds are affected more than others (West Highland Terriers seem particularly prone) so there is clearly some genetic susceptibility.

Diagnosis of skin disease can be extremely complicated and a mini-industry funded by pet insurance companies has grown in recent years. Dogs and cats are frequently found to be "allergic" to many different outside factors such as fleas, house dust mites, wool, carpets, synthetic furnishings, cleaning materials, chemicals in the diet, foodstuffs. Veterinary immunologists insist however that true food allergy is present in less than 10% of dogs that are tested.

Many "allergies" are due to food intolerance rather than true allergy, the difference being that an allergy is characterised by involvement of the immune system whereas an intolerance is not. The clinical symptoms are the same.

Treatment of skin irritation is usually by anti-inflammatory drugs (steroids), antibiotics, de-sensitising regimes using vaccines tailored specifically to the individual.

None of these approaches is likely to prove rewarding because they fail to tackle the true, underlying cause of the problem which is the build-up of toxins in the system. It is often impossible to prevent the pet encountering those things to which it is allergic (grass, house dust etc.) but it is possible to treat the condition by changing the system so that it does not over-react to its normal environment.

Many cases of skin disease are due to an undiagnosed adverse reaction to food ingredients and a change of diet which eliminates the offending ingredients will be effective.

Essential fatty acids (EFA) are important for maintaining healthy skin and there are many preparations on the market which are high in EFA's e.g. Evening Primrose Oil, fish oils etc. These will be useful to supplement a diet which is deficient in EFA but a properly formulated diet will have adequate levels.

THE DIGESTIVE SYSTEM

It goes without saying that all organ systems are important to the continued well-being of the body as a whole. But the role of the digestive system is probably the most important. A healthy digestive system underpins the function of the whole system by digesting and absorbing nutrients, neutralising toxins and infective agents and eliminating waste and unwanted products.

Along with skin disease the digestive tract is the organ system most frequently affected by dietary intolerance. This means correct dietary choice is one of the most effective ways of treating and preventing digestive disorders.

The common symptoms of digestive problems are:

loose bowel motions; occasional vomiting; abdominal discomfort; straining; passing blood or mucus; flatulence.

The most dramatic and frightening manifestation of a disordered digestive system must surely be gastric bloat and its partner gastric torsion. These affect the large, deep-chested breeds such as German Shepherd and Great Dane. An affected dog will often collapse and die of shock before treatment can be given.

Whether the diagnosis is colitis, enteritis, gastro-enteritis, indigestion, allergy, infection, etc the problem can usually be attributed to one cause – <u>Improper diet.</u>

Traditionally, a high-fibre diet is usually recommended for treating most digestive disorders. My experience does not bear this out. A few diseases e.g. constipation may be better managed by higher fibre diet but I find that most cases benefit from a highly digestible diet. This is digested and absorbed in the small intestine so that a minimum of material reaches the lower end of the gut. Not only does this promote the health of the digestive system, it means that less faeces are produced which is more convenient to the owner and beneficial to the environment.

Digestive upset is often blamed on a diet being "too rich". This is a myth which some manufacturers are happy to perpetuate because it implies that their food is of a very high quality. The reality is generally the reverse of this. Low quality foods containing indigestible or unsuitable ingredients are more likely to cause problems than foods which contain easily digested materials.

For example, many pet foods use soya or other vegetable proteins which are difficult to digest, rather than animal proteins which are more easily digested. Wheat is much more difficult to digest than rice, and many dogs seem to be intolerant of wheat. Flaked foods consist of hot-rolled cereals, which are only partly cooked and are therefore more difficult to digest.

The best food to promote healthy digestive function should be easily digested, high in complex carbohydrate with moderate levels of protein and fat. This is best achieved by a diet based on cooked whole, unrefined cereal grains, with a fairly low meat and fat content.

Feeding amounts should be kept to the minimum necessary to satisfy requirements. Excessive food intake is the surest way of ruining the health and effective function of the digestive tract.

ARTHRITIS AND RHEUMATISM

Arthritis means inflammation/pain of the joints.

Rheumatism means pain associated with joints and muscles.

The two are linked because muscles attach to the bones at or near the joints. When a muscle is tensed it exerts its pull on the joint; if the tension is excessive or prolonged this will give the sensation of pain in the joint even if the joint is healthy and normal.

Arthritis and rheumatism are most commonly seen in older pets and this gives rise to the misconception that the problems are caused by wear and tear of the joints. In fact, much of the pain and restriction of movement is due to muscle spasm rather than to joint disease.

This muscle tension is caused by:

- 1. The accumulation of waste metabolic products in the muscles.
- 2. Weakness of a major internal organ system. This is a viewpoint which will be familiar to students of acupuncture, but suffice to say that certain muscles relate to specific organs e.g. a weakness in stomach function affects the muscles on the front of the (hind) leg or the lumbar muscles at the level of the stomach.

These effects may be due to unrecognised adverse reaction to food ingredients. When the pet changes to a high quality food which avoids damaging ingredients, the beneficial effect on the function of the internal organs and the elimination of toxic waste from the system will often lead to the relief of rheumatism/arthritis.

Benefits are possible even when there is degenerative joint disease e.g. hip dysplasia, but are less likely if there is structural damage which needs surgery e.g. ligament rupture.

A programme of controlled exercise is usually helpful. It is usually best to have four or five short walks each day rather than one long walk as this will maintain mobility without overtaxing the muscles.

BEHAVIOUR PROBLEMS

Behaviour problems are more commonly seen in dogs rather than cats, and manifest as the dog being

HYPERACTIVE : AGGRESSIVE : TIMID : NOISY: ANTISOCIAL : POSSESSIVE : DIFFICULT TO CONTROL.

Various surveys* show that between 20% and 80% of owners complain of problem behaviour of their dogs. This wide variation is probably due to differing perceptions of what constitutes acceptable or tolerable behaviour.

There are numerous reports of behaviour problems being directly linked to diet and the management of all behaviour problems should include attention to the diet.

It is likely that a significant proportion of these are related to adverse reactions to food ingredients. (See section on Dietary Intolerance on Page 9.)

A basic principle of holistic medicine is that there is no division of our being into separate physical and mental compartments. Good physical health promotes good mental health and vice versa.

Traditional Oriental Medicine had a Five Element system of classification.

A weakness of the Water organs (Kidney and Urinary Bladder) would cause excessive fearfulness. Healthy Water organs would ensure healthy caution.

A weakness of the Wood organs (Liver and Gall Bladder) leads to anger and aggressiveness.

Burns Food was developed to promote the good health and well-being of the animal and this includes mental as well as physical health. Burns is based on wholegrains, a food that has a long-established role in ensuring mental as well as physical fitness.

Burns is also low in protein and fat and these controlled levels can avoid over-stimulation of the nervous system.

* V. O'Farrell (1992). Manual of Canine Behaviour, BSAVA publication.

TREATMENT OF BEHAVIOUR PROBLEMS

There are no simple 'treatment remedies' that allow blanket treatment of all behaviour problems. Much aberrant behaviour, for example hyperactivity, can be relieved by consideration of diet.

Other behaviour problems will also require investigation of the causal factors in each

individual case together with a system of re-training. However, all behaviour problems should include consideration of diet

Stable mental and physical health are necessary aspects of eliminating undesirable behaviour and they depend on suitable nutrition.

PREVENTION OF BEHAVIOUR PROBLEMS

Behaviour problems may be due to...

Genetic: breeders have a responsibility to avoid breeding from dogs

with poor temperament

Early environment: young puppies need to socialise with humans and other

dogs; diet of dam and of the growing puppy are vital.

Owners should consider the following points:

Suitable breed: e.g. Border Collies need lots of exercise and stimulation

Buying a puppy: A puppy bred in a household may be better adjusted to family

life than a puppy from a large kennel or dealer

Re-homing: Dogs from rescue centres may have been abandoned

because of problems.

Upbringing: Correct rearing as regards diet, socialising, separation, training.

Many dogs are destroyed because of their behaviour. The quality of life of a family can be significantly impaired because of a troublesome dog; it may be impossible to have visitors; normal dog-walking may be impossible. Correct diet combined with a suitable emotional relationship plus re-training can help achieve a rewarding relationship between owner and pet.

MOULTING

Also known as CASTING or SHEDDING

Dogs and cats are supposed to moult. The moult is one of several means by which toxic waste matter is expelled from the body. This should happen once a year, in the spring, and should last 1-2 weeks. The warmer weather draws toxins to the surface where they are discharged. This moult cleanses and renews the system for the new year thus helping to maintain health and vitality.

Many domestic pets moult continuously throughout the year. This can be most irritating and is often accepted as an unfortunate fact of life. Central heating is often blamed and even excess light has been blamed. Central heating is not the <u>cause</u> of moulting but may aggravate the condition in two ways.

A warm environment (a) draws toxins to the surface of the body and (b) reduces energy needed to maintain body temperature thus altering the balance between intake and expenditure of energy.

It is a simple fact that waste products come from food and its breakdown products. A low quality food which does not suit the system will cause a build-up of toxins and even good quality food fed to excess will generate an excess of waste in the system.

Suitable food in the correct amount will minimise the amount of waste matter that the body produces.

See the Health Management Programme on Page 35.

OBESITY – EXCESS WEIGHT

Obesity is an accumulation of excess fat in the body as a result of an energy (calorie) intake which exceeds requirements. You should have already learned from this Guide that overeating has numerous consequences, of which excessive weight is one (the others being the signs of discharge as outlined in Stage 1 on Page 6.)

Obesity tends to occur in the individual which is less active physically whereas the active pet will tend to <u>discharge</u> the excess.

Obesity is associated with shortened lifespan, disease of the heart, lungs, liver, kidneys, rheumatism and arthritis. The overweight pet cannot tolerate warm weather, is less able to exercise and will generally have less fun than one which is lean and healthy. How can you tell if your pet is overweight?

Many owners are surprised when they are told that their dog or cat is overweight. The easiest way to tell is by feeling the ribcage. The ribs should be easily and clearly felt with little flesh between the fingers when you pinch the skin.

Burns Weight Control⁺ recipe for the dog can be helpful in the control of obesity. Oats have a higher fibre content than rice which means that the higher fibre level is due to the food ingredients themselves rather than an 'additive' e.g cellulose. Like the other Burns Adult formulations Weight Control⁺ is low in fat and protein. The high digestibility means that the dog can feel satisfied by a small volume of food. Burns is intended to ensure excellent general health and part of that is ensuring the weight is correct.

Weight control for the dog is by feeding Burns Weight Control⁺ according to the Health Management Guide on Page 35. Vegetables (cooked and raw) can safely be included to help fill up the dog if you think that is needed. It is important to check the weight regularly to ensure that the weight reduction programme is on course. It is better to lose weight slowly rather than rapidly - 0.5 lb per week for a small dog and up to 2 lb a week for a large dog. If your dog is overweight you are not getting enough exercise!

ANAL GLANDS

These are two glands located on either side of the anus. They usually contain a foul-smelling matter which is expelled at urination and/or defecation and acts as a territory marker. A secondary function of these glands is to act as the body's dustbin in that they are a means of collecting and discharging waste matter from the system.

Many dogs have problems with the anal glands - they cause discomfort, which causes the dog to rub its rear-end on the ground or floor ("tobogganing" or "scooting"). The usual treatment involves manual expression of the contents of the glands, which usually has to be done by a veterinary surgeon.

Sometimes these glands may even develop an abscess, which may burst discharging blood and pus. The German Shepherd breed seems to be prone to develop a condition called anal furunculosis, which is a chronic inflammation and infection of the glands and surrounding area.

Some veterinary surgeons recommend the removal of troublesome anal glands, but removing the anal glands surgically is akin to a household doing away with its dustbins and keeping the household rubbish under the bed!

Anal gland problems are usually blamed on lack of roughage (fibre) in the diet but in fact the problem tends to be seen mostly in dogs fed on diets which produce bulky faeces anyway.

In fact, if the anal glands fill up and cause trouble it is due to a low-quality diet which creates an excess of waste matter in the system. It is also possible that anal gland disorders can be due to dietary intolerance (See Page 9)

The Health Management Programme on Page 35 explains how to avoid this condition through correct feeding.

TOOTH TARTAR AND GUM DISEASE

Gum disease is usually but not always related to the formation of tooth tartar. A popular belief is that tartar is caused by a lack of abrasive food to clean the teeth. Many people mistakenly believe that feeding dry food keeps the teeth clean. One need only look at the teeth of dogs and cats fed on dry food to realise that this is not so. (Does your own mouth feel clean after eating biscuits?)

It is true that bone and hide and other hard food will help to clean the teeth but the real cause of tartar is an accumulation of waste matter in the body.

These wastes are dissolved in body fluids including the saliva. When the saliva washes over the teeth, much of this debris settles out and forms plaque which hardens to form tartar.

There are now specialist diets which are intended to prevent tartar by creating an abrasive cleansing effect. This technique is unnecessary if the underlying cause, i.e. the accumulation of waste products, is tackled properly.

It is possible to prevent tartar and gum disease without the need for special diets or even for brushing the teeth by following the Health Management Programme on Page 35. Correct nutrition works by avoiding excess waste in the system.

EAR INFLAMMATION (OTITIS)

Many pets show signs of ear irritation (head shaking and scratching) yet their ears are perfectly clean. This should be considered and treated in exactly the same way as eczema/itchy skin.

Other dogs and cats with signs of ear irritation have wax or sebaceous material in the ears. This corresponds to Stage 1 of the Development of Disease. These discharges provide an excellent medium for the growth of bacteria, fungus and yeasts which combined with the inflammation caused by self-mutilation, can rapidly progress to severe ear infection.

Treatment usually involves eardrops containing anti-inflammatory, antibiotic and antifungal drugs to break the cycle. This treatment will often be effective in the short term but unfortunately the problem often recurs because the cause is not being tackled.

Once again dietary intolerance can be responsible for otitis.

The Health Management Programme should help to eliminate the cause of the problem and prevent recurrence.

EPILEPSY/FITS

Epileptic fits result from a disruption of the electrical impulses in the brain. Fits can result from numerous disease conditions; for example liver and kidney disease, poisoning, infection, fever but here we are concerned with idiopathic epilepsy (there is no apparent cause).

In some breeds, for example the German Shepherd, there is a genetic connection but epilepsy can occur in cross-breeds too.

Holistic Medicine views epileptic fits as a process by which excess energy is discharged. Generally, excess energy is discharged by increased mental and physical activity – hyperactivity or excessively boisterous behaviour.

As with numerous disease conditions dietary intolerance should be considered as a possible cause of epilepsy (See Page 9.)

Holistic treatment of epilepsy is by feeding a diet which is hypo-allergenic, chemical-free, low in protein and fat, and high in complex carbohydrate (brown rice is best for this). It is essential that the quantity of food meets <u>but does not exceed</u> the dog's energy requirement. The Health Management Programme meets these needs.

COPROPHAGIA (EATING FAECES)

Coprophagia is a common phenomenon which is seen in puppies and in adult dogs. Many explanations have been offered as to why dogs do this. One suggestion is that coprophagia is caused by boredom. The condition is certainly common in kennelled dogs but they tend to be fed on very cheap, low-quality foods.

Another suggestion is that very high energy diets are responsible, the rationale being that the faeces must contain some undigested nutrients which are attractive to the dog. Some vets believe that coprophagia is normal and harmless but it is certainly unpleasant and disgusting for the owner.

My view is that coprophagia is an example of a depraved appetite and as such is a sign of non-specific ill-health, most probably affecting the gastro-intestinal system. It is not as is commonly thought, a sign that the dog is intuitively seeking out something which is lacking in the diet.

Dietary intolerance is a likely contributory factor.

Nutritional Management is by following the Health Management programme on Page 35.

Additional management techniques should be employed at the same time as the diet is corrected, for example denying the dog access or opportunity to eat faeces. This will help to break the habit.

Other common examples of depraved appetite are: eating soil, wood.

DIABETES

Diabetes seems to be becoming much more common. There is no clear understanding of why this should be so. A possibility is that the pancreas becomes damaged as a result of repeated low-grade bouts of inflammation which go unnoticed. This would correspond to Stage 2 or 3 in the Development of Disease.

Inflammation and damage to the pancreas could also be caused by dietary intolerance (See Page 9.)

In general, the daily insulin dose should be divided into two injections. Food should be divided into as many small feeds as practical.

The diet should be high in complex carbohydrates and fibre. This helps to avoid sudden rises in blood glucose levels. Burns Weight Control⁺ for the dog meets these criteria. Adding vegetables and keeping the quantity of a dog food as low as possible help to control blood glucose levels.

A diabetic dog which is underweight should not normally have a high-fibre food but should have a highly digestible food such as the brown rice based Burns adult foods.

CYSTITIS/UROLITHIASIS (CRYSTALS IN URINE)

Struvite is the commonest type of urinary crystal in the dog and cat. Struvite dissolves in acidic urine so some specialist veterinary diets have calcium sulphate added in order to make the urine acidic. Bacterial infection of the urinary bladder is actually the major contributory factor in struvite formation.

It is confusing that one commercial veterinary diet for oxalate reduction aims to make the urine alkaline whereas another brand aims to keep the urine acid.

Oxalate crystal formation is fast catching up on struvite.

Urate crystals occur in the Dalmation (and in humans.)

Burns is formulated to keep the whole system healthy and avoid excess waste in the system. This ensures that there are less waste products present in the urine to cause inflammation and form crystals.

A healthy system is naturally resistant to bacterial infection and that is the best way to prevent crystal formation. See the Health Management Programme on Page 35.

THE SNORING DOG

Snoring: An involuntary, deep, guttural sound emanating from the pharynx and

soft palate on inspiration or expiration; often intermittent depending on posture of the head. May indicate a chronic, obstructive lesion of

the pharynx. (Saunder's Comprehensive Veterinary Dictionary)

Snoring is seen most commonly in older, small-breed dogs which are overweight. Affected dogs are often short of breath and cannot exercise. Surgery is often suggested to try to open up the airways but I suspect is rarely carried out because of the uncertainty of the outcome

I believe snoring can often be cured by less drastic measures. The "obstruction" is usually caused by the muscles of the pharynx or soft palate. They become soft and flabby and as a result tend to sag and obstruct the airway.

An aggressive weight reduction programme combined with a controlled exercise programme will improve muscle tone and tighten up affected tissues.

CARE OF THE OLDER PET

The aim of correct care of the older animal is to improve the quality of life and prolong lifespan. Old age is not a disease in itself but there are numerous changes associated with ageing and many signs of deterioration can be slowed or minimised by correct feeding.

Bad breath, unpleasant body odours, stiffness, itchy skin, loss of vitality and interest in life are all signs of a developing toxic condition of the system. Accumulation of toxins comes from unsuitable diet together with a reduced ability to eliminate waste.

Burns adult dog and cat foods are formulated with moderate protein, fat and mineral levels. There is no need for a special diet for the older animal because the normal adult foods are already suitable for the older pet.

Burns should be fed according to the standard Health Management Programme on Page 35.

Regular veterinary check-ups will identify problems at an early stage and allow progress to be monitored. Regular booster vaccinations may not be appropriate for the older pet.

GROWTH AND DEVELOPMENT

Pet owners are naturally anxious to ensure that the growing puppy/kitten receives adequate levels of nutrients to sustain growth and development. Breeders and owners love to see plump, roly-poly puppies/kittens which seem to epitomise good health and proper care. In the same way, fat babies were once admired but this is now frowned on by health professionals.

In practice, more health problems result from over-nutrition than from lack of adequate nutrition. Although severe underfeeding will stunt growth, slight underfeeding during growth will actually reduce health problems in adulthood.

There is undisputed evidence that a high intake of protein and fat during puppyhood leads to skeletal disorders such as hip dysplasia, obesity and a shortened lifespan. Behavioural problems especially hyperactivity can often be attributed to the same cause. Skin disease which used to be seen mostly in older dogs now seems to be prevalent in the young dog also.

In spite of this, most proprietary pet foods for growth have very high levels of protein and fat and this is even promoted as a virtue. (The adverts may even say "The first ingredient is meat!!!) The key to having a healthy puppy is to feed enough to ensure a slow rate of growth rather than for the puppy to shoot up. A puppy which grows slowly will still realise its growth potential but may take a little longer to reach full size.

The needs of puppies vary tremendously so recommended feeding amounts should be treated with suspicion. Good judgement and experience are better guides.

Burns Puppy Range have been developed to ensure that requirements are met but not exceeded. Levels of protein and fat are only slightly higher than for adult food.

Like other Burns foods, Burns Puppy Range are made with brown rice, white rice, chicken fish, lamb and are highly digestible so that the puppy will be able to utilise the food rather than pass much of it as faeces.

Again like other Burns foods, Burns Puppy Range will avoid excess harmful waste matter within the system.

SOME PROBLEMS OF THE GROWING DOG

Although many health problems/weaknesses have a hereditary basis, correct diet can minimise the effect of these inherited weaknesses. Weakness of the digestive system, as in the German Shepherd or a tendency to develop eczema as in the West Highland Terrier can be avoided by a correct diet. Hip dysplasia has been shown to be aggravated by incorrect diet during growth and it is likely that other developmental disorders of the skeleton are diet-related.

EXERCISE AND THE GROWING DOG

Some health care professionals advocate that puppies should not be exercised as this will damage the developing bones and joints. This makes as little sense as recommending that children should not have exercise until adulthood. Exercise promotes good muscle tone, and well-developed bones and joints as well as providing social interaction. As mentioned above, developmental defects of the skeleton are caused, not by exercise but by poor diet.

VACCINATION

Many pet owners who are interested in holistic medicine or who are concerned about using drugs and chemicals on their pets are reluctant to have their pets vaccinated. <u>In theory</u> if a pet has the correct diet and lifestyle it will be naturally resistant to disease and therefore need not be vaccinated.

However, theories do not always work in practice. My policy is that a puppy/kitten should be vaccinated by conventional methods in the usual way. Distemper, parvovirus and leptospirosis are too dangerous to be treated lightly and I do not have sufficient confidence in Homeopathic vaccination.

The question of booster vaccination is much more emotive and controversial. Current veterinary advice is that dogs and cats should have annual booster vaccinations. This is backed by the advice of vaccine manufacturers and one expects the suppliers of medicinal products to supply accurate advice on the use of their products.

In the USA and in the UK some veterinary practitioners now recommend distemper vaccination every three years with an annual parvovirus and leptospirosis booster. Many years ago I stopped recommending annual booster vaccinations. I believe they are unnecessary and may be harmful in that they may over-stimulate the immune system. This is only my opinion, which I am unable to back with solid evidence but I am sure many dogs with skin disease suffer flare-ups after being given boosters. Also, I do not recall a single case where a dog which was vaccinated as a puppy but had no boosters ever caught distemper or parvovirus.

Vaccine manufacturers argue that there are variations in the effectiveness of immunisation and an occasional animal may not be fully protected. This is probably correct but for me this does not justify wholesale repeat vaccinations of already immunised pets.

My view is a personal one which is not shared by most vets in practice. Circumstance may vary by country and even region so it is probably wise to seek the view of your own vet on this complex and highly charged subject.

PART THREE - PFT FOOD

ABOUT BURNS REAL FOODS

For a number of years I recommended my veterinary practice clients to avoid feeding proprietary pet foods but instead to feed a home-made diet of brown rice, vegetables and chicken, fish or meat sold for human consumption. Although a number of people were able to follow this recommendation and achieved remarkable improvements in the health of their pets, many found that preparing food at home for the dog was simply too daunting a task. Now that I have a dog of my own I realise what a burden this is and I doubt if I would be able to do it myself. I am sure I lost many clients in this way.

I eventually decided that to manage health through diet, food would have to be convenient and readily available. Burns Real Food is based on the home-made diet which I used to recommend. There are no secret or magic ingredients; there are no added pharmacologically active supplements or ingredients.

As the name implies, Burns Real Food is just that; a simple food which is intended to allow the body to function as it should. <u>Burns is not intended to intervene in order to alter the normal metabolism of the body.</u> The aim is to stand back and let the body get on with what it does best; to maintain and repair itself and to prevent deterioration of the organ systems.

This is in contrast to medicinal products which are intended to have a direct therapeutic action.

There are many, many different chemical and physical reactions taking place in the body at all times. Although we can influence one or two of these by drugs, most of these reactions are being carried out by the body itself which is always working to be at its best - to absorb the nutrients it needs, to build and rebuild itself, to resist infection, to eliminate waste products and so on.

A puppy or kitten instinctively knows more than the most skilled physician how to maintain normal health, when something has gone wrong, how to correct that and how to heal itself. This all happens in a subconscious, instinctive way as a result of billions of years of evolution from simple cells to complex mammals.

This is the basis of the Principles of Natural Health Care as explained in Part One of this Guide (Page 4)

The most important and simplest way of promoting that process is through the choice of food. Needless to say, we humans have to make that choice on behalf of our pets. There is a section on how we make that choice later in the Guide – Levels of Judgement Page 30.

The main protein sources in Burns are chicken, lamb, fish, and duck which are nutritious and highly digestible.

Sunflower oil and chicken oil provide essential fatty acids and seaweed provides an organic source of minerals. The formulae are fixed so the ingredients do not alter when cheaper ingredients are available. This is of enormous importance as many health problems are caused by undiagnosed intolerance to food ingredients. (See Page 9)

Burns products (other than high-energy foods) are low in fat and protein and high in complex carbohydrate. There are no chemical additives. This minimises the amount of waste matter which the body has to eliminate. When metabolised, carbohydrate produces less harmful toxic waste than protein and fat.

Owners find that when their pet goes onto Burns the pet's condition is transformed. Skin and coat condition improve, hair stops falling out, itching ceases and the coat becomes glossy with a silky feel. Unpleasant odours disappear and older pets become livelier, less stiff and generally more interested in life.

These changes, which take about 4 weeks, show that the body is clearing itself of accumulated toxic waste products.

Many owners think that if their pet seems healthy there is no need to feed a good-quality food. It is true that some pets (and humans) seem capable of thriving on poor quality food but this is the exception, not the rule. Many pet owners do not recognise symptoms of incipient health problems but accept them as normal conditions. (See Part One –Development of Disease). Many pets suffer from sub-clinical diseases for a long time before symptoms appear. For example, the kidneys and liver can lose over 70% of their function before signs of failure appear.

"COMMERCIAL" PET FOODS

I am often asked to explain what exactly is wrong with the "normal" pet foods. Even when it is obvious from the health of the pet, it may be difficult to say what it is about the food which makes it unsuitable. Unlike for human food the law allows ingredient listing on pet food to be generic.

The ingredient list may read something like this" Cereals, animal derivatives, vegetable derivatives . . . " so it is impossible to know what is in it.

Why are manufacturers so vague? There are two reasons that come to mind.

Firstly, if you knew precisely what you were feeding your pet you would not buy the product.

The second reason is that this vague wording allows the manufacturer to change the ingredients without having to change the labelling. Why would a manufacturer want to change the recipe? Because large manufacturers are constantly on the lookout for cheap ingredients and it is more profitable to purchase whatever happens to be available than to stick to the same recipe regardless of cost.

As I explained in the section on dietary intolerance (Page 9) many health problems are caused by adverse reaction to pet food ingredients. One needs to know what is in the food and that the recipe will not change if food intolerance is to be avoided.

The title of a food can be misleading. A food may be called "Chicken and Rice" but a manufacturer need only put 4% chicken and 4% rice into the formulation in order to be able to do this. In Burns foods the brown rice and meat make up over 80% of the total.

In general the price of the food gives a clue as to the quality; good quality ingredients cost more than poor quality ingredients. Protein from soya is a lot cheaper than protein from fish or venison. Sometimes it is obvious from its appearance that a food contains artificial colours.

In theory it ought to be possible to tell from the condition of the pet whether its diet is right for it. But this is fraught with difficulties. To the unpractised eye it may appear that the pet is perfectly healthy but to the expert there may be many signs that a problem is present

For example I encounter many dogs which have a "doggy" smell, the coat may feel greasy or unpleasant to the touch, the dog may be constantly moulting or is somewhat itchy, or have tooth tartar. Owners may not notice these symptoms or may assume that they are normal. Or they do not realise that diet is responsible for the condition. Toy breeds often have runny eyes where the tears stain the hair on the face; it took me years to realise that this can be corrected by proper feeding. In our client surveys we find that many pet owners tell us that before putting the dog or cat on Burns they thought their pet was healthy but saw substantial improvements after feeding Burns.

LARGE BREED DIETS

Some manufacturers of dog foods produce diets specifically for large breeds. The justification is that large breeds have special needs which cannot be met with "normal" foods. My view is that adult large-breed dog's requirements are no different from other breeds. Large breed foods for growing dogs have lower protein and fat levels. These levels are similar to Burns foods for growing dogs. Our view is that all foods for the growing dog should have these lower levels of nutrients to avoid too rapid growth. (See section on the Growing Dog on Page 24)

PART FOUR - HOLISTIC LIVING FOR PETS AND PEOPLE

A HOLISTIC LIFESTYLE

The animal kingdom depends entirely for its existence on the plant kingdom. Animals need to consume plants for sustenance. Even carnivorous animals depend on plants by eating animals which have eaten plants. The evolution of the animal kingdom reflects the evolutionary changes in the plant kingdom. As plants became more complex so the animal kingdom developed. The most highly developed animal is man. Man has the most sophisticated nervous system and is the most adaptable species on earth and is capable of surviving in the widest habitat of any creature.

The macrobiotic view is that this has come about because man evolved through eating the most complex plants, namely whole cereal grains. Eating cereals, plus the ability to cook have given man the pre-eminent position at the top of the evolutionary tree. As recently as a few hundred years ago, man relied on a diet based on whole cereals and vegetables with meat and other foods forming only a minor part of the human diet.

In the West, the change to a diet based on meat, dairy foods and refined foods high in sugar has taken place as recently as the Second World War.

Our affluent Western society has largely overcome the problem of infectious disease. This is due as much to improved public health measures as the role of medicine in developing vaccines and antibiotics. Similarly, our pets rarely die of infectious disease (unlike farm animals which suffer epidemics due to poor hygiene and overcrowding).

But although we have largely seen off infectious disease, our hospitals and mental health clinics are swamped, veterinary clinics are busier than ever and our society is fragmented and ill-at-ease. We have replaced the problem of infectious disease with that of degenerative disease.

Many people believe that a return to a more holistic, inclusive lifestyle offers a solution to many of the ills of modern society. To begin that process we have to define and understand what we mean by the word "holistic" which has become one of the most used (and abused) terms in present day language.

"Holistic Medicine" is defined as "a system which treats the whole person physically and psychologically, rather than simply treating the individual [affected] part."

While this may seem self-evidently desirable, that is not how modern medicine is structured or practised. We have experts who specialise in the different organ systems e.g. specialists for skin, kidneys, gastro-intestinal system and so on.

My view is that nutrition is fundamental to the practice of Holistic Medicine. Correct diet underpins all therapies, whether conventional or complementary and may even make them unnecessary. Some companies market additives or supplements which they describe as "holistic" but a holistic lifestyle involves much more than correcting a deficiency or providing a particular stimulus.

It is beyond the scope of this booklet to set out a comprehensive prescription for a holistic lifestyle but it does seem sensible that if we try to provide a holistic life for our pets we would wish to do the same for ourselves.

LEVELS OF JUDGEMENT.

Michio Kushi set out his Seven Levels of Judgement as part of the Macrobiotic philosophy and that offers us a framework for choices in holistic living especially in selecting food for ourselves and our pets. Here we will consider only four levels.

The lowest level is Mechanical. This is the level at which simple life-forms operate. At this level, selection of food is instinctive and automatic. Anything which can be recognised as food will be consumed. Higher animals, even humans, select food at this level under certain circumstances, e.g. when starving anything will be acceptable. This is the level which is being exercised when we buy food because it is cheap or convenient. This is most common where cost is an important consideration, such as in kennels or catteries or in a household where there is little affection for the pet.

The next level of judgement is Sensory. This is generally the highest level at which most animals can make choices. Decisions are more selective and are based on the senses. Humans rely mainly on the sense of taste whereas dogs and cats rely mainly on their sense of smell. Pet owners often complain that the pet is fussy or prefers a certain brand of food. Pet food manufacturers appeal to this by emphasising how appealing the food is. Think of the adverts – "nine out of ten cats prefer…"

The next level is Intellectual. Here, decisions are more carefully reasoned. Animals cannot reason at this level so we, as human, have to exercise judgement on their behalf. We may avoid certain foods because we think they are potentially unhealthy e.g. they contain artificial ingredients or are high in fat. Or we may have found through experience that our health or that of a pet has been affected by food.

The fourth level of judgement is Social. At this level we are conscious of the impact our choices have on society as a whole. We may purchase locally grown produce to support local business; we may buy Fair Trade products to support Third World producers. Or we may choose free range because of concerns about animal welfare or non genetically

modified because of concerns about the environment.

The higher the level of judgement we exercise, the wider the view and the more "holistic" our thinking and life become. Our choices, taken for more holistic reasons will include more than one level of judgement.

For example, we may choose to eat organic food because of the impact on the environment (social), because we think it is better for our health (intellectual) or because we think it tastes better (sensory).

CHANGING TO BURNS

When humans make the change from a typical Western diet high in meat, dairy food, sugar and refined foods to a diet based on wholefoods, some people find that they lose too much weight. This is because the system cannot assimilate sufficient nutrients from a diet high in complex carbohydrate but low in fat, protein and sugar.

The same thing can happen when changing to Burns. Burns foods are low in protein and fat but high in complex carbohydrate of whole cereal grains. Cats and most dogs can change to Burns over the space of a few days. However, a small percentage of dogs lose too much weight and become bony. If this happens the solution is NOT to increase the amount of food but to slow the rate of change. The original food may have to be partially re-introduced and the change to a more natural diet should be done over several weeks.

Alternatively, it may be useful in the early stages to feed higher amounts of protein and fat. This can be done by supplementing with home-prepared meat, eggs, vegetable oil etc. or by feeding high-energy Burns food (Active or Puppy Original).

The switch to the normal Burns adult food can be made gradually as the system adapts to the more natural diet.

PART FIVE - RAW AND HOME-MADE FOOD

RAW FOOD DIETS

The BARF ("Bones and Raw Food" or "Biologically Appropriate Raw Food") diet is a system of holistic nutrition which is championed by Dr Ian Billinghurst who is an Australian vet. Dr. Billinghurst has published several books on health and nutrition. The best known of these is called "Give Your Dog a Bone". The BARF Evolutionary philosophy is at first glance an attractive one; it seems to be truly natural because it tries to emulate the lifestyle of the dog in the wild.

But, after due consideration I am of the opinion that the BARF theory, like the emperor's new clothes, does not stand up to critical inspection.

The BARF or "Evolutionary" Diet is based on the principle that domestic dogs should be fed on a diet which replicates as closely as possible the diet of the wild dog. According to Dr Billinghurst domestic dogs have been fed on processed (cooked) foods for only approximately 70 years and this is not a long enough time to adapt to cooked foods.

To replicate the diet of the wild dog he recommends that all carbohydrate should be avoided and pet dogs and cats should be fed on a diet based on raw meaty bones and raw vegetables . Dr Billinghurst insists that because of this evolutionary history the BARF DIET is the ONLY correct way to feed the modern domestic pet dog.

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

There are practical reasons why the diet of the wild dog is not automatically suitable for the domestic dog. The modern dog and its lifestyle bear no similarity whatever to the wild dog. We provide shelter in heated houses, they do not have to forage or compete for food, they eat every day, and they have little exercise compared to a wild dog.

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

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

The Carbohydrate Question...

According to Dr Billinghurst dogs cannot digest carbohydrate. In reality, the dog has very sophisticated, sensitive and efficient mechanisms for breaking down carbohydrate and ensuring its absorption. This could not have evolved if carbohydrate was detrimental.

But, according to BARF, carbohydrate causes so many health problems e.g. inflammatory disease such as pancreatitis. While it is true that low-quality or refined carbohydrate may be undesirable, my experience is that I have had excellent results in treating and preventing inflammatory disease using both home cooked and commercial diets which are based on whole grains i.e. high in carbohydrate.

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

There are other major flaws with the BARF philosophy. One which flies in the face of the facts is the assertion that raw food is more digestible and that cooking destroys that digestibility. Simple common sense and experience tell us that cooking actually increases digestibility. Increasing the digestibility of the food is an important way of treating bowel disease and problems of malabsorption. Cooking does this.

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

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

FEEDING HOME-MADE FOOD

Veterinary surgeons and pet food manufacturers often warn against feeding home-made diets. This is because of the assumed difficulty of ensuring adequate levels of all nutrients especially minerals and vitamins. My experience is that it is perfectly feasible to feed a natural homemade diet even without adding vitamin and mineral supplements. But the key to achieving this is VARIETY!

It may be necessary to distinguish between using diet to maintain healthy condition and using diet as a means of treating an existing health problem (Clinical Nutrition). For example, a severe or chronic skin condition may be caused by an underlying dietary intolerance but the offending ingredients have not been identified. In that case it may be necessary to keep to a restricted, fixed diet with only a few ingredients to avoid the risk of introducing an ingredient which could trigger a reaction.

The following suggestions are based on my own recommendations to prevent health problems and ensure an excellent level of general health. Treatment of specific health conditions may require specialist advice and careful attention to detail.

For the dog

1/3 rd by volume Boiled brown rice

1/3 rd by volume Meat (this should be varied regularly using chicken, fish,

lamb, beef)

1/3 rd by volume Vegetable, again varied using roots and greens and to

include some seaweed (dried or fresh)

I have less experience in the use of home made food for cats but in general cats need a higher level of protein and less carbohydrate.

This could be achieved by increasing the meat portion to 50% with the rice and vegetable portions of 25% each. Again, some seaweed should be included to provide trace minerals.

DonaldStrombeck, has written a book on homemade diets for the treatment of disease of the dog and cat. (Strombeck, Donald R. 1999. Home Prepared Dog and Cat Diets – The Healthful Alternative. Iowa: Blackwell Publishing. ISBN 0-8138-2149-5)

PART SIX – THE HEALTH MANAGEMENT PROGRAMME

You may wonder why a single Health Management Programme could be suitable for all sorts of health problems and illnesses. The answer lies at the root of natural medicine, the principles of which are described at the beginning of this booklet. If the right conditions are present the body can heal itself and this Health Management Programme provides those conditions. We are harnessing the innate healing abilities of the body in order to achieve a proper, long-lasting cure.

There are two strands to the holistic management of health. The first of these is the selection of suitable food which will promote rather than compromise these innate powers. But it is almost as important to ensure that the quantity of food is right. Overfeeding will undo much of the benefit of feeding the correct type of food.

This Management Programme is basically a feeding guide to assist in ensuring the correct amount based on actual need rather than body weight.

- 1 Gradually change to the appropriate new food. Slow introduction allows a smooth change of intestinal bacteria, thus minimising the risk of intestinal upset.
- 2 Following the introductory period the new food should be the only food given.
- 3 Quantity of food must be carefully controlled to meet but not exceed requirements. (See below)
- 4 Regular suitable exercise helps to use up excess calories, discharge waste products, improve circulation and provides mental stimulation.
- 5 Ask your veterinary surgeon to empty the dog's anal glands. This aids in the elimination of wastes from the system.
- 6 All family members must co-operate by ensuring that no extras titbits, treats, table scraps or other foods are given.

This Management Programme has to be tailored to the needs of the individual because each pet is an individual whose differing needs have to be accommodated. It is not enough to try the diet and hope for the best.

We at Burns Pet Nutrition are able to offer professional, practical advice on managing health through correct feeding. If you do not see changes or if you have any questions it is important to ask us for assistance. A symptom or illness may be due to a reaction to a food ingredient which is absent from the new food.

If this is so then we can expect to see improvements in health in 3-8 weeks. Many disorders of the digestive system will improve within a few days.

If there is an improvement then we can expect that it will be safe to feed that particular food indefinitely. On the other hand, if there is no improvement on one variety of food, a different one should be tried. For example if symptoms persist on a Chicken variety this may be due to an intolerance to chicken. Changing to a different meat source such as, fish or duck may be successful. It is possible to have intolerance to any food ingredient and this includes any meat or any of the other ingredients e.g. rice, oats, peas, sunflower oil.

If symptoms persist on all varieties, fed at the correct amount, it is advisable to try a completely different regime. This could be another proprietary food with a completely different ingredient profile or home-made food using novel ingredients.

GETTING IT RIGHT

THE DOG:

Getting the quantity of food right depends on taking account of individual variations viz.

THE FUSSY EATER

Feed once daily, usually 5 - 7 pm. Offer less than the recommended amount for the dog's weight e.g. if the dog weighs 20 kg offer 5-6 ounces (125 - 150g) rather than 8 ounces (200g.)

Any food not consumed within 10 - 15 minutes should be taken up and no more food offered until the same mealtime next day. At the next meal, offer slightly less than the amount eaten the day before.

Experiment with quantities until you ensure that your dog is READY for its meal each day, consumes the whole amount and would even eat a little more if it were available. After the first few days, if you have to offer extras to encourage your dog to eat then you are probably overfeeding.

THE "HUNGRY" OR "GREEDY" DOG

With these dogs, appetite is NOT a reliable guide to requirements. Offer the prescribed maximum according to weight. This can be given as one feed or split between two feeds depending on preference and the amount can then be adjusted depending on results.

THE CAT

THE FUSSY FATER

Feed 2 - 3 times daily, on demand ensuring that the quantity offered is such that the cat will consume the whole amount. For most cats a few pellets at a time will suffice. This "rationing" helps to avoid overfeeding and should prevent the cat from seeking food elsewhere.

Any food uneaten after 10 minutes should be removed and none offered until the cat next demands feeding. Occasionally your cat may ask for food but refuse to eat that which is offered. Resist the temptation to try an alternative food. If you give in at this crucial stage all will be lost.

You will probably find the cat will eat happily a few hours later confirming that he/ she wasn't really hungry in the first instance.

THE 'HUNGRY' OR GREEDY CAT

Here, appetite is no guide to need. Feed 4 - 5 times daily but do not exceed the daily amount according to weight.

Being out at work each day does create some problems but a slight change in established routine is worthwhile. Feed in the morning but lift uneaten food before departure and give the main feed in the evening.

SPECIAL CONSIDERATIONS

What if the pet won't eat? Some older pets may be underweight yet have poor appetite due to loss of sense of smell and taste. These pets can be encouraged to eat by e.g. more frequent meals, hand feeding, adding warm water or vegetable stock to the food to increase palatability.

The anorexic pet... Some pets will not eat due to stress. This applies particularly to the pet with a timid or nervous disposition. Initially they may benefit from hand feeding several times daily. If possible, eliminate the cause of the stress. But too much effort towards getting the pet to eat will itself cause stress to pet (and owner) and perpetuate the problem.

The show animal... Many owners of show animals complain that they cannot get the dog or cat to eat. This is because it is eating enough to satisfy its own needs but not enough to fatten up for the show ring.

Pets with digestive problems.. If your pet is underweight as a result of poor absorption of food there is a strong temptation to increase the food to build the pet up. But it is better to proceed cautiously in order to avoid any setbacks. An occasional hard-boiled egg can be a useful supplement.

When changing to Burns you can expect to see normal stools within a short time. But the intestines may need several weeks of correct feeding before regaining their efficiency. Increasing the food intake reduces the efficiency of absorption.

SOME QUESTIONS ANSWERED

MY DOG/CAT VOMITS/HAS DIARRHOEA OCCASIONALLY BUT ISN'T ILL

This usually indicates that there is a build-up of waste matter in the animal's system or may be due to a dietary intolerance (see Page 9) which may be the same thing.

Vomiting and diarrhoea are ways of discharging offending material from the system. See also Development of Disease Stage 1 on Page 5 and the Health Management Programme on Page 35.

THE FUSSY PET

It is truly remarkable how many owners have pets which are fussy. Many owners seem determined to make their pets eat come what may.

The main reason why a pet refuses food is that IT IS NOT HUNGRY! However, the owner concludes that the pet no longer likes the food and decides to try something else (usually tastier) in order to get the pet to eat. The pet will eat this tastier food for a time until it tires of that. The owner will then seek out something else in order to stimulate the pet's jaded appetite. And so it continues. The owner does not seem to realise or care that the pet is simply not hungry.

There is a parallel here with how some parents care for their children. We indulge them with sweets and expensive toys instead of devoting time to them. The best way to indulge a dog or cat is with your time, through the stimulus of play and walks rather than with food.

THE PERPETUALLY HUNGRY PET

Some dogs and cats seem to be always hungry and want to eat non-stop. This can happen even when it is clear that the pet does not need more food. This excessive desire for food seems to be like an addiction.

Many humans are similar in this respect. Sometimes there is no solution to this problem of feeling guilty that the pet is being deprived. Very often, the desire for food is conditioned. That is, the pet has learned from past experience that if the owner is eating then they will be given food.

The best way of dealing with this is the same as for the fussy pet - by providing diversion and stimulation in the form of a walk or play. The more you give food on demand, the more the pet will expect it.

WHY DOGS AND CATS EAT GRASS

Grass eating is an intuitive action to stimulate vomiting as a means of discharging toxins from the system.

ISN'T RAW FOOD BETTER THAN COOKED?

Raw food advocates claim that it is more "natural" for dogs and cats to eat raw food which is a reflection of their origins in the wild. Cats have to some extent remained independent and separate from humans. They are obligate meat eaters and they hunt, kill and eat prey. But this is not the case for dogs.

Fourteen thousand years of close association with man have resulted in a creature very different from the wild animal. Dogs have adapted to eating the same food as humans for many generations. Until fairly recently human nutrition was based on cooked whole cereal grains and this forms the basis of the diets I have formulated for pets.

It is sometimes claimed that cooked food has been damaged or "denatured" by cooking. Cooking is <u>intended</u> to denature food. When we consume protein, we do not want that protein to be assimilated into our system intact. If we eat chicken, we do not want to build our bodies with chicken protein; we want to build human protein.

The purpose of the digestive system is to break down complex molecules to simple molecules which can be absorbed and utilised. Cooking begins that process and makes food more easily digested and absorbed. Denatured (cooked) protein is less likely to be recognised as a foreign protein which can cause an adverse reaction.

WHICH IS BETTER - MOIST FOOD OR DRY?

How the food is presented is of minor importance compared to what the ingredients are or their proportions. Moist foods tend to be tastier than dry but that is mainly because moist foods tend to be higher in protein and fat. Dry food is more convenient and usually more economical. When comparing the analysis of moist and dry foods it is necessary to allow for the difference in moisture content.

A moist food with a declared 10% protein and 80% moisture has 10g of protein in 20g of dry matter i.e. 50% protein on a dry matter basis.

A dry food with a declared 20% protein and 10 % moisture has 20g of protein in 90g of dry matter i.e. 22.2% protein on a dry matter basis.

The dry food although appearing to have twice as much protein actually has less than half as much protein on a dry-matter basis.

WHY SHOULD I CHANGE IF MY PET IS FINE ON ITS PRESENT DIET?

Health problems are more likely on a low-quality food and they often develop without showing outward signs. For example, the liver and the kidneys may lose as much as 75% of their function before signs of organ failure appear.

HOW MUCH FOOD DOES MY PET NEED?

It is much easier and much more common to overfeed than underfeed. Recommended feeding amounts are only a very rough guide and as such should only be used as a starting point. Two similar individuals may require very different amounts and this will only become apparent with experience. Also, the amount will probably vary from summer to winter. A pet which spends a lot of time outdoors will probably need more food in winter in order to generate body heat.

The Health Management Programme on Page 35 is really a feeding guide which should enable you to find the right amount for each individual.

Desire and necessity are not the same thing. Remember you can undo the value of good quality food by overfeeding.

IS IT HARMFUL TO ADD OTHER THINGS TO THE PET FOOD?

This depends on the individual pet and what you want to add. I rarely recommend adding other pet food to the Burns but home-made food especially vegetables may be acceptable.

If a health problem is present, more care is needed and the diet may need to be controlled strictly. If there is a possibility of underlying food intolerance it is important to restrict the number of different components of the diet.

A prepared pet food cannot by its nature be tailored exactly to suit every circumstance and we sometimes even recommend adding other home-made foods depending on the individual's needs. I do not necessarily agree with the advice which other manufacturers give that adding to the diet will "upset the balance". But it is not advisable to add things regularly to the food in order to get the pet to eat more. Over a period of time this will result in the pet eating more than it would otherwise and could undo the benefit of the Burns food.

I CAN'T BE OVERFEEDING BECAUSE MY PET IS NOT OVERWEIGHT

NO! Many pets which are overfed do not put on weight because they discharge the excess rather than store it as fat. This discharge gives rise to the symptoms described in Development of Disease Stage 1 on Page 4. This discharge of excess tends to occur

in those pets which are physically active. It is the less active ones which become overweight.

I CAN'T BE OVERFEEDING BECAUSE MY PET ONLY EATS WHAT HE NEEDS AND LEAVES THE REST

NO! This probably means that the animal is eating to its maximum capacity. If your pet regularly picks at his food and leaves food behind then this means that he is eating as much as he wants rather than as much as he needs. It is likely that he could manage with a little less each day, his health would improve and he would probably enjoy his food more if he was eating less.

MY DOG/CAT HAS DRY, FLAKY SKIN. DOES HE NEED MORE OIL IN HIS DIET?

No! Dry, flaky skin (dandruff or scurf) is a sign that there is an excess of waste matter in the system. It is rarely a sign that anything is lacking in the diet. The solution is to feed a high quality diet in smaller amounts. This will enable the body to eliminate the waste matter and the skin condition will then improve. See the Health Management Programme on Page 35.

MY PET HAS ARTHRITIS. WILL ADDING OIL TO HIS DIET HELP THIS?

Some animals do improve when oil is added to the diet but the best way of treating arthritis is to tackle the cause which is the build-up of waste in the system. See the Health Management Programme on Page 37. It is better to improve general health by feeding a good quality diet than to supplement a poor diet in order to compensate for its inadequacies. Arthritis can be caused by reaction to an unsuitable food ingredient (see Page 9.)

MY PET IS UNDERWEIGHT. SHOULD LEFED HIM MORE?

It is first necessary to establish if the pet really is underweight. There are so many overweight pets that a fit, lean one looks underweight. Forget what the charts and scales say. You should be able to feel the ribs with only a thin covering of skin. In a short-coated animal you should not be able to see the ribs and the bones should not be prominent. Many animals are lean because they are active, not because they need more food. Often, increasing the food intake will reduce the efficiency of digestion so the dog or cat may not put on weight. Increased feeding may even cause problems; for example signs of excess in the system as described in Stage 1 of the Development of Disease.

NEED MORE HELP AND ADVICE?

Support when you need it...

Whether you need in-depth advice on managing specific health problems or simply fine tuning feeding amounts, our expert pet nutritionists can give you straight forward and individually tailored advice.



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