

PUPPY PACKAGE



PUPPY PACKAGE

LARGE BREED (spay/neuter after 1 year)	SMALL BREED
3 Vaccine Female \$1250	3 Vaccine Female \$1150
2 Vaccine Female \$1150	2 Vaccine Female \$1050
3 Vaccine Male \$1200	3 Vaccine Male \$1100
2 Vaccine Male \$1100	2 Vaccine Male \$1000

VACCINES – NO EXPIRATION DATE

DEWORMING
FECAL EXAM

UNTIL THE AGE OF 8 MONTHS

ONE **FREE** CONSULTATION
FREE NAIL TRIMS
1 MONTH OF **FREE** PET INSURANCE WITH TRUPANION

SPAY/NEUTER:

POST-OP PAIN CONTROL
E-COLLAR
IV FLUIDS
FREE MICROCHIP WITH REGISTRATION

- **The Puppy Package does NOT include:** medication prescribed during free consultation, lab work, hospitalization or radiology.
- **Vaccines do NOT include:** Kennel Cough or Lyme Disease.
- **Spay/Neuter does NOT include:** pre-op bloodwork.
- Prices fixed on **non-complicated cases**; Package **can be adjusted** based on other medical conditions.

FIRST GUIDELINES

Top Tips for Puppy Owners (04)

WALTHAM® pocket book of puppy nutrition and care

Choosing a puppy	When choosing, new puppy owners should select a breed or type of dog that is appropriate for their lifestyle.
Diet	Puppies should be fed a complete and balanced diet designed for puppies until they are adult (the age they are adult differs according to breed size). When transitioning to a new diet, it should be done slowly: mix old and new diets over 7-10 days to avoid causing diarrhea.
Socialization	Puppies should encounter a variety of different people, dogs, objects and situations – all in a positive way. The most important time for this to occur is between three and 12 weeks of age, but socialisation should continue throughout a puppy's development. Puppy classes provide a good opportunity to socialise puppies.
Training	The best way to train is to reward good behaviour and ignore unwanted behaviour. It is never too early to begin training a puppy but owners must remember that very young puppies become tired or distracted easily so training sessions should be kept to a short duration.
Health care	Owners should discuss vaccinations, parasite control and neutering with their veterinarian, as well as any other concerns they may have.
Oral care	Owners should introduce some form of oral care for their puppy as early as possible.
Exercise	Amounts of exercise should be controlled for puppies during growth. Puppies should not be forced to exercise beyond the amount they would engage in with another puppy of the same age and must be allowed to rest when they need to.
Water	Fresh drinking water should always be provided for puppies in a bowl that is appropriate for their size.

Breeder vs Shelter

AT THE BREEDER

When you are first introduced to a litter of puppies, sit down in a chair, not on the floor, and observe them. While the first puppy that comes bounding over may seem full of spunk, he may prove to be a difficult pet. You want a little hesitation from a puppy, especially if you are looking for a family pet. The puppy that immediately runs over might be too assertive and test boundaries when he grows up. On the other hand, a puppy that hides in shyness or cowers in the corner needs a home that can nourish this temperament, and a social family may not be the right fit. You want a dog confident enough to come over and say hello.

Take note too how the puppies interact with each other: you will probably find the "top puppy" (the one who pushes his brothers and sisters around), and the runt. Take in mind that often when a runt is taken out of the environment where he is bullied, he can become overly extroverted.

Then it is time to get on the floor with the puppies. Look for puppies that interact with you. Some will be more assertive, pulling on your hair and tugging at your clothes. If for any reason the puppy's behaviour makes you uncomfortable, go with that feeling. When you think you have narrowed down the selection, get some alone time with that puppy so you can get an even better read on his personality.

AT THE SHELTER

Here you may not see a whole litter, just one or two puppies. Puppies generally get adopted quickly, so if you are looking for one, call your local shelter and put your name on the waiting list. Its advised that you consider adopting an older dog (4 months and up) so that you can look for attributes that wouldn't be obvious in infancy: approximately how large the dog will be, how much exercise he requires, what his general level of energy is. Once you've made your selection, you should spend time alone with him, at least 10-15 minutes, to see if he can relax with you.

Choosing and Acquiring a Puppy

(04)

WALTHAM® pocket book of puppy nutrition and care



ENSURING A SUITABLE MATCH

There are several hundred dog breeds to choose from even before considering the further possibility of cross-breeds. Although it is tempting to base puppy choice on aesthetically pleasing attributes, selecting the right breed of puppy should be based on a number of factors that will help to decide which type of dog suits the owner's lifestyle best.

Different dog breeds have been selected over many generations for specific behavioural and physical traits required to perform specific tasks. It is important to understand the behavioural and physical characteristics of each type in order to decide which one best fits with an owner's lifestyle. For instance, breeds within the herding category are intelligent, highly active and require plenty of mental stimulation which may be achieved via training. Guarding breeds may be large, less active and sometimes more territorial as they have been bred to alert their owners to intruders. Many toy breeds were bred solely for their affectionate temperament and are often small, making them ideal breeds for small households or apartments. A number of factors should be taken into consideration when selecting a puppy to ensure the best possible outcome in terms of the relationship:

How much space does an owner have?

The size of an owner's house and garden and the availability of open spaces nearby for exercise will influence the type of dog an owner should choose.

How much exercise will a dog need?

Owners must consider if they are able to give a dog the exercise he needs. Some breeds, such as the border collie, need more exercise than others. However, size is not always a good reflection of the amount of exercise needed. Some giant breeds, such as mastiffs for example, need less exercise than smaller breeds such as terriers.

How much will it cost?

The initial cost of a puppy must be taken into account, but other costs continue for the rest of its life. The daily cost of feeding a small dog is obviously less than that for giant dogs. Budgeting is also needed for veterinary visits (for both routine check-ups and unexpected problems), kennelling during holidays and regular grooming sessions for certain breeds. The cost of pet health insurance will also vary according to breed or type of dog.

How much experience of dogs?

New dog owners should not opt for breeds which are difficult to train or which easily intimidate their owners.

Long or short hair?

Long haired dogs need regular grooming to keep their coat clean and in good condition. The coats of short haired dogs need less attention and are more manageable in wet weather. Some breeds need regular hair clipping to keep their coat in good condition.

Male or female?

Male dogs tend to be larger than females. Females come into season twice a year as part of their reproductive cycle unless they are neutered or some other form of oestrous control is used.

Choosing a puppy

Observing a puppy with his littermates will provide an idea of his personality and temperament which can have a bearing on how well he will fit into his new home. Owners should try to include as many of the household members as possible in the selection of a puppy. Ideally, a puppy should be viewed with the mother and, if possible, a potential owner should ask to see the father as well. This may help give an idea of a puppy's size and temperament when adult.

Owners may choose to acquire their puppy from a breeder, a private home, a dog shelter or a reputable pet shop. Whilst any of these may be appropriate, they all have differences which need to be considered. It may be helpful for a potential owner to carry out some research and prepare some questions. For example:

- How old will the puppies be when they are ready to be homed?
- How has the puppy been socialised so far?
- Has the puppy been introduced to cats or children?
- What diet is the puppy being fed?
- What is the worming and vaccination history of the puppy?
- If buying from a reputable pet shop a potential owner should ask if they may speak to the original breeder for more information if required.

Caring for a New Puppy ⁽⁰⁴⁾

WALTHAM® pocket book of puppy nutrition and care



PROVIDING A NEW HOME

Eight weeks old is a good time to home a puppy as this is still within the window of socialisation during which he is most receptive and adaptive to new experiences.

When an owner acquires a new puppy, they should ask for a week's supply of the diet he is fed from the breeder so that they can continue to feed it for the first few days and then transition gradually to a new diet if they choose to.

There are a number of essential items that are needed prior to obtaining a new puppy:

- A bed which is easily washable
- A feeding bowl and water bowl
- A collar and lead. These will need replacing as the puppy grows
- Toys that are safe for puppies
- Suitable restraint for travelling in a car, such as a dog guard, puppy crate or dog seat belt harness
- Grooming equipment.

There are a number of ways in which the owner can help him adapt to the new surroundings. Using an item that contains the scent of the mother, such as a piece of bedding, can help provide a puppy with a familiar environment when entering the new home. Placing the bed in a puppy pen or crate can give the puppy an area where he may feel secure and provides a safe place for him to be left unsupervised at night and for short periods during the day.

Health Care (04)

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Throughout his life a dog will need regular veterinary care and attention. Before getting a new puppy, owners should consult with a veterinarian to ensure they have a healthcare programme in place.

VACCINATION

Vaccines are pharmaceutical products that are designed to improve an animal's immunity against infection. They work by stimulating the body's immune system so that when exposed to the same infection the immune system can more rapidly recognise and react to it. It is recommended that all dogs should be given a set of core vaccines, which are Distemper, Adenovirus, Parvovirus and (in endemic areas) Rabies. Depending upon their geographical location or lifestyle a series of non-core vaccinations may be required. Vaccination not only provides protection to the individual animal but also helps to protect the entire population and minimise the chances of a major outbreak of any infectious disease.

PARASITE CONTROL

Dogs are susceptible to a number of different parasites, including worms, ticks, fleas and heartworms, which may be encountered during their normal day to day life. These not only pose a risk to the infected animal but certain parasites can infect humans as well. The type of parasites that a dog may be exposed to will depend upon where they live and their lifestyle and this will affect the type and frequency of treatment required. A wide variety of products are available for the treatment and prevention of parasites, including flea collars, spot-on or sprays, worming tablets and injections. Prevention and treatment plans should be discussed with a veterinarian to ensure that a dog receives the correct protection.

NEUTERING

Neutering is the surgical sterilisation of an animal through the removal of all or part of its reproductive organs. The primary reason for neutering is to prevent unplanned pregnancies. There are, however, other benefits associated with neutering such as reduced risk of certain cancers and potentially modifying unwanted behaviours associated with sex hormones. Behaviour problems, such as aggression, however, are rarely solved solely by neutering and are best addressed through a behaviour programme designed by a behaviourist or veterinarian. Owners are recommended to discuss the best age to neuter their puppy with a veterinarian.

VETERINARY INSURANCE

In many countries, owners may be able to take out pet insurance, which covers unforeseen expenses such as veterinary fees and third-party liability. This can be highly beneficial when facing expensive veterinary fees in unforeseen circumstances such as accidents or illness.

Canine Neuter

WHAT IS A NEUTER?

Neutering is the removal of your male dog's reproductive organs also known as castration. Once neutered your dog is considered sterile and is no longer capable of reproduction.

WHY NEUTER MY DOG?

- Reduced chances of testicular cancer and future prostate issues
- Stops male dog from roaming in search of a female
- Can help reduce some behaviour issues – scent marking

WHAT SHOULD I EXPECT THE DAY OF SURGERY?

Your pet should arrive in the clinic the day of surgery between 8:00-8:30 am. Your pet should be fasted meaning no food after midnight the night before. A small amount of water is acceptable.

When you arrive at the clinic you will be asked:

- Would you like to have pre-anesthetic blood screening run on your pet?

Note: the pre-anesthetic blood work has an additional cost

Patients over the age of six are considered higher risk under anesthetic and will have mandatory pre-anesthetic blood screening

BENEFITS OF PRE-ANESTHETIC BLOODWORK

- Detects hidden illness that may put your pet at risk during anesthesia/ surgery
- Help us to choose the anesthetic that is best for your pet
- Provides peace of mind

BENEFITS OF IV FLUIDS

- IV fluids make anesthesia safer
- Warmed fluids help to maintain body temperature as many patients suffer from hypothermia
- Helps keep blood pressure stable as many pets under anesthesia end up being slightly dehydrated with reduced blood pressure by the end of the procedure
- Reduces patient's recovery time

AFTER SURGERY CARE

- We advise that your pet stays in clinic over night after surgery so we can keep them quiet. However, we have an early release form for those clients who wish to take their pet home the same day as surgery
- Patients can be picked up at the clinic any time after 10 am the following day
- The nurse will go over homework rules with you at time of pick up
- You will be required to keep your pet quiet for 14 days during recovery
- An e-collar will be provided to prevent your pet from licking the surgical site.

Exercise (04)

WALTHAM® pocket book of puppy nutrition and care



EXERCISE FOR HEALTHY GROWTH

Dogs are intelligent animals that require mental stimulation. Exercise is a good way of fulfilling this need, and is important for all puppies but particularly for highly active or working breeds. It is, however, recommended that the amount of exercise a puppy receives should be controlled whilst they are growing to minimise the risk of developing joint problems.

Controlling the amount of exercise is particularly important in large breed puppies as they take longer to stop growing and reach maturity and they more commonly suffer from joint problems such as elbow and hip dysplasia. There is growing evidence that breeds that are predisposed to these conditions may be less at risk of developing problems if their exercise is restricted rather than being given unlimited exercise.

There are no specific guidelines for how much exercise should be given, but the best advice is that a growing puppy should not be given 'forced exercise'. 'Forced exercise' is usually defined as 'exercise that is beyond what a puppy would engage in with a dog of the same age'. Most large or giant breed puppies will stop growing between 12-18 months old and it is, therefore, best to wait until this age before giving free ('forced') exercise, in order to help minimise problems in the future.

Oral Care (04)

WALTHAM® pocket book of puppy nutrition and care



ESTABLISHING A ROUTINE

Puppies have a set of deciduous ('milk') teeth that begin to erupt at around 3-4 weeks of age and most puppies have a full set of milk teeth by 7 weeks. Between 14 and 20 weeks of age, puppies lose their first set of teeth and the adult teeth begin to emerge. Teething triggers an urge to chew or gnaw so it is essential to provide some chewing toys to help prevent the puppy from chewing inappropriate objects and damaging their teeth. It is not advisable to feed bones to puppies or adult dogs as they pose a risk of tooth damage and splinters of bone may damage the digestive tract. A full set of adult teeth should be present by 7 months. If the entire set of adult teeth is not present by this stage, it is best to ask a veterinarian to monitor progress.

Introducing the puppy to an oral health routine as early as possible will allow this habit to extend throughout their adult life, reducing their chance of developing gum disease or the more severe form known as periodontitis (periodontal disease). Periodontal disease is widespread in dogs and can cause pain, tooth loss and can potentially lead to problems in the rest of the body such as the heart and liver. Plaque build up is the trigger for periodontal disease, so it is important that a puppy is introduced to some form of regular plaque control as early as possible to ensure acceptance.

When they acquire a puppy, owners should make a point of putting their finger in the puppy's mouth and rubbing the gums and teeth gently on a daily basis. When the puppy is happy to accept this, they should be introduced to finger brushing. This technique involves using a commercially available finger brush and gently rubbing the outside surfaces of the teeth to remove plaque. When the puppy has finished teething, tooth brushing may be introduced. This may be carried out with or without a veterinary toothpaste and should be carried out daily for maximum effect. It is not recommended to use a human toothpaste as it contains fluoride and foaming agents which can cause stomach upsets when swallowed. Owners may supplement tooth brushing with specially designed puppy oral care treats which also help with plaque control. If owners need any advice on tooth brushing or any aspect of puppy oral care, it is best to speak to their veterinarian.

PUPPY GROWTH AND DEVELOPMENT

Stages of Development (04)

WALTHAM® pocket book of puppy nutrition and care



FROM NEWBORN TO ADULT

The development of puppies can be divided into four distinct stages: the neonatal period; the transitional period; the socialisation period; and the juvenile period¹. These developmental periods are followed by adulthood.

The Neonatal Period (birth to 2 weeks of age)

Through this period puppies are relatively helpless, relying entirely on their mother.

At this stage, the majority of a puppy's time is spent either sleeping or eating. Puppies' eyes and ears are closed when they are born but they are sensitive to touch and smell. The eyes open at around 10 days old but puppies do not respond to light and moving stimuli until the transitional period (two to three weeks of age).

Neonatal puppies have limited movement and are only capable of a slow crawl. They are not yet able to stand and support the weight of their body. During this period a puppy will actively seek its mother. If separated from its mother, a puppy will start to vocalise and crawl, swinging its head from side to side in an attempt to find her. At this stage puppies have a reduced ability to regulate their body temperature and so rely on their mother and littermates for body heat.

During this period puppies are only able to feed by suckling from the mother. It is essential that puppies consume colostrum in the mother's milk within the first 24 hours after birth, as this provides essential antibodies. Urinating and defecating are stimulated by the mother licking the anogenital region, and she keeps the nest area clean by eating any waste products.

Handling puppies for short periods during the first two weeks of age has been shown to be beneficial to their behaviour in life.

of
later



The Transitional Period (2 to 3 weeks of age)

This stage lasts for one week and is a time of significant change for a puppy. Over this time the eyes begin to respond to light and movement. The ear canals open at approximately eighteen to twenty days of age. Movement skills improve and puppies start to walk and stand. Social behaviours, such as growling, tail wagging and play fighting begin to develop over this period. Investigative behaviour also begins and by the end of the transitional period puppies respond to humans and

other animals. Instead of only vocalising in response to cold or hunger, this now also occurs when a puppy finds itself in an unfamiliar environment.

Lapping and chewing behaviours also begin to develop. Puppies start to show some interest in trying their mother's food, although all their nutrition still comes from the mother's milk. By the end of the transitional period puppies are able to urinate and defecate without their mother's stimulation, and often leave the nest to do this.

As with the neonatal period, regular handling of puppies for a few minutes each day has been shown to be beneficial to their behaviour later in life.

The Socialization Period (3 to 12 weeks of age)

The experiences encountered during this stage, negative or positive, can have profound effects on the behaviour of a dog later in life. Over this time puppies are more sensitive to socialization. Similar to the transitional stage this period is full of changes, particularly in puppies' social behaviour.

Many behavioural changes occur at this stage. The most notable of these is the appearance of play signals that increase in complexity throughout the socialization period. Investigative behaviour begins to increase. Puppies will readily approach new people and situations with interest, willingly interacting with humans.

The socialization period is particularly influential in the development of a stable temperament in the adult dog. During this phase, puppies are very willing to experience new situations and environments, and thorough socialisation and habituation to novel circumstances will help prevent fearful reactions when adult. Many social and behavioural problems observed in adult dogs are believed to be linked with poor treatment or insufficient interaction during this stage of puppy development. If puppies do not have the breadth of experience needed, they may subsequently approach new situations with fear.

Puppies begin to sleep less and play more. Predatory actions develop, such as pouncing, shaking and stalking of both their littermates and inanimate objects. It is during this stage that puppies begin to learn to control their bite. This control develops through a 'yelping' response of their playmate, thus letting the puppy know the bite was too hard.

Puppies also become much more vocal during this time with the appearance of play barking and growling in addition to distress vocalisations. Vocalising for the attention of their mother still occurs, though to a much lesser extent than in the neonatal and transitional stages.

The milk teeth begin to appear at three to four weeks of age and puppies increasingly eat solid food. As they make the transition onto solid food puppies need access to drinking water. The mother will gradually begin to discourage her puppies from suckling and the litter will be fully weaned by six to eight weeks old.

The best time for puppies to leave their mother and littermates and go to their new home is around eight weeks of age. Being separated from its mother earlier than this may be detrimental as a puppy may not be fully weaned and will also miss out on important social development time with its mother and littermates. Rehoming later than eight weeks may mean that new owners miss out on important socialization time.

The Juvenile Period (12 weeks to adulthood)

By the time the juvenile period is reached, most of the major changes have taken place. A puppy, however, is still growing and physiological changes



are occurring that may not be apparent to the owner.

All of the sense organs are fully developed at the onset of this stage and the rate of growth slows. The milk teeth are replaced by adult teeth and this is usually complete by seven months of age.

Puppies have similar motor skills to adults by the age of six months, although this can vary according to the individual dog and their environment. Socialization should continue and a training programme should be formalised. Puppies have a short attention span and may be excitable. Training, therefore, should be short, consistent and fun.

Sexual maturity is marked by the first season in bitches and the ability to achieve a fertile mating in dogs. This usually occurs at around six to seven months, although males may show sexual interest in females before this point. However, even though they are sexually mature and may be close to their full size, puppies are still developing and are not considered adults at this stage. This is a good time for owners to discuss neutering options with their veterinarian.

The length of the juvenile period varies according to breed size. Smaller breeds reach adulthood at around one year. Large and giant breed dogs mature more slowly and are not considered fully adult until 18 to 24 months.

Growth Rates (04)

WALTHAM® pocket book of puppy nutrition and care

HEALTHY NOT MAXIMAL

Different sizes of dogs grow at different rates and become adult at different times. A toy breed dog is fully grown in less than one year whereas a giant breed dog can take almost two years to achieve its adult size. All dogs grow rapidly during the first few months before slowing to a reduced rate of growth. Even after a puppy reaches its adult bodyweight further physiological developments continue for some time.

Puppies need to grow at a healthy rather than at a maximal rate. Puppies that grow too quickly are more likely to develop skeletal disorders, such as hip dysplasia, as well as becoming predisposed to obesity and its clinical consequences. It is particularly important that large and giant breeds grow at a slower rate than small breeds because they are particularly at risk of the skeletal disorders associated with rapid growth.

The optimal rate of growth for particular breeds of dogs is a controversial research area. The following approximate rates of growth for different sizes of dog are recommended.

Age in months	Percentage of adult weight		
	Small & medium breeds mature weight <25Kg	Large breeds mature weight 25-45Kg	Giant breeds mature weight >45Kg
1	9%	7%	6%
2	22%	20%	14%
3	37%	35%	26%
4	52%	48%	38%
5	61%	57%	49%
6	70%	65%	60%
9	83%	77%	70%
12	95%	88%	80%
15	Adult	94%	90%
18	Adult	100%	100%
21	Adult	Adult	Adult

Table: Recommendations for growth rates of various sizes of dogs. Adapted from NRC (2006). (1Kg=2.2lbs)

Guide to Standard Breed Weights

(lb) (13)

Breed	Male	Female	Breed	Male	Female
Afghan Hound	60	50	Irish Setter	70	60
Airedale Terrier	45-60	40-55	Irish Terrier	27	25
Akita	70-85	65-75	Irish Water Spaniel	55-65	45-58
Alaskan Malamute	85-95	75-85	Italian Greyhound	8-15	5-15
American Cocker Spaniel	25-30	20-25	Keeshond	40-50	40-50
American Water Spaniel	28-45	25-40	Kerry Blue Terrier	33-40	30-38
Australian Cattle Dog	35-45	35-45	Labrador Retriever	65-80	55-70
Australian Shepherd	45-65	45-65	Lhasa Apso	4-6	4-6
Basenji	24	22	Maltese	7-12	7-11
Basset Hound	65-75	60-65	Manchester Terrier	7-12	7-11
Beagle	13-18	13-16	Mastiff	75-190	160-180
Bearded Collie	55-65	50-60	Miniature Pinscher	10-12	9-11
Belgian Sheepdog	60-70	43-55	Miniature Poodle	17-20	15-20
Bernese Mountain Dog	75-90	65-80	Miniature Schnauzer	16-18	12-16
Bichon Friese	9-12	9-12	Newfoundland	130-150	100-120
Bloodhound	90-100	80-100	Norfolk Terrier	11-12	11-12
Borzoi	75-105	70-90	Norwegian Elkhound	55	48
Boston Terrier	15-24	15-24	Norwich Terrier	11-12	11-12
Bouvier des Flanders	70-90	70-90	Old English Sheepdog	60-70	60-70
Boxer	55-70	50-60	Papillon	8-10	7-9
Briard	65-75	60-70	Pekingese	10-14	10-14
Brittany Spaniel	35-40	30-40	Petit Basset Griffon Vendean	40-45	40-45
Brussels Griffon	10-12	8-10	Pointer	55-75	45-64
Bull Terrier	52-62	45-55	Pomeranian	4-7	3-5
Bulldog	45-55	40-50	Portuguese Water Dog	42-60	35-50
Bullmastiff	110-130	100-120	Pug	14-18	14-18
Cairn Terrier	14	13	Puli	29-33	29-33
Chesapeake Bay Retriever	65-80	55-70	Rhodesian Ridgeback	75	65
Chihuahua	2-5.75	2-5.75	Rottweiler	80-95	70-85
Chinese Shar Pei	45-55	40-50	Saint Bernard	130-180	120-160
Chow Chow	45-60	40-50	Saluki	50-70	45-65
Collie	65-70	50-65	Samoyed	50-65	45-60
Curly-coated Retriever	65-70	65-70	Schipperke	12-18	12-16
Dachshund, Standard	16-22	16-22	Scottish Terrier	19-22	18-21
Dalmatian	50-65	45-55	Shetland Sheepdog	16-22	14-18
Doberman Pinscher	65-80	55-70	Shih Tzu	12-17	10-15
English Setter	60-75	55-65	Silky Terrier	8-10	8-10
English Cocker Spaniel	28-34	26-32	Siberian Husky	45-60	35-50
English Springer Spaniel	49-54	40-45	Skye Terrier	25-30	20-25
English Toy Spaniel	8-14	8-14	Soft-coated Wheaten Terrier	35-40	30-35
Field Spaniel	35-50	35-50	Standard Poodle	50-60	45-55
Flat-coated Retriever	50-65	45-60	Standard Schnauzer	30-40	25-35
Fox Terrier	17-19	15-17	Staffordshire Bull Terrier	28-38	24-34
French Bulldog	20-28	20-28	Toy Poodle	7-10	7-10
German Shorthaired Pointer	55-70	45-60	Vizsla	45-55	40-50
German Shepherd Dog	75-90	65-80	Weimaraner	60-75	55-70
German Wirehaired Pointer	60-75	50-65	Welsh Corgi	27-30	25-28
Golden Retriever	65-75	55-65	Welsh Springer Spaniel	35-45	30-40
Gordon Setter	55-80	45-70	Welsh Terrier	18-22	16-18
Great Dane	120-180	100-130	West Highland White Terrier	12-14	11-13
Great Pyrenees	100-125	85-115	Whippet	20-28	18-23
Greyhound	65-70	60-65	Yorkshire Terrier	4-6.75	3-6
Irish Wolfhound	120	105			

PUPPY NUTRITION GUIDELINES

Introduction (04)

WALTHAM® pocket book of puppy nutrition and care



THE IMPORTANCE OF PUPPY NUTRITION AND CARE

Many years of scientific research have established that the essential nutrient requirements of the growing puppy differ from those of the adult dog. It is now also well documented that dog size influences the duration of the puppy growth phase, with smaller breed puppies maturing much more quickly than larger breeds. Provision of a diet designed specifically for puppies throughout the growth phase will provide the best start towards a long and healthy life.

Alongside nutrition, establishing a high-quality care regimen that includes socialisation and training has also been shown to be essential to ensure a puppy develops into a well-mannered adult dog that is a pleasure to be around. Early socialisation experiences will leave a lasting impression upon a puppy.

Veterinary care is also essential for growing puppies to ensure they remain fit and healthy. Owners should discuss vaccinations, parasite control and neutering with their veterinarian, as well as any other concerns they may have. Provision of a well-designed nutrition and care regimen in the early days will have a positive impact for the rest of a dog's life.

Lactation and Weaning (04)

WALTHAM® pocket book of puppy nutrition and care



THE TRANSITION FROM MILK TO SOLID FOOD

Mothers generally suckle their puppies for at least six weeks. For the first four weeks of life all of a puppy's nutritional needs are met by the mother's milk.

Weaning begins between two and three weeks of age when a puppy will start to show an interest in its mother's food and lap water from a bowl. Puppies can be offered finely chopped wet puppy food, dry food that has been softened with water or a specific weaning product such as a complete and balanced puppy porridge. Foods offered during weaning need to be specifically formulated for puppies. Offering small amounts of food during the early stages of weaning helps a puppy's digestive system adapt from milk to solid food and reduces the demands on the mother. It is essential that puppies are offered puppy food by 4 weeks of age as the nutrient content and the quantity of milk are no longer appropriate to support healthy puppy growth if fed exclusively. Puppies become fully weaned by 6-8 weeks of age, after which they are ready to leave their mother.

Lactation and Weaning (04)

WALTHAM® pocket book of puppy nutrition and care



TAKING THE MOTHER'S ROLE

Mother's milk provides complete nutrition during the first four weeks of a puppy's life. However, there are situations in which it may be necessary to hand rear puppies, such as when they are orphaned or when a mother has a large litter and cannot produce enough milk.

Caring for orphaned puppies is a large undertaking and veterinary advice is recommended. Puppies under the age of 38 days have a reduced ability to regulate their body temperature and will need a temperature-controlled environment. Puppies initially need feeding every two hours with a milk substitute specifically designed for puppies and also stimulation of the anogenital area to provoke defecation and urination.

Puppies must be fed milk designed specifically to meet their nutritional needs. Milk from cows or goats must not be fed as the protein, fat and calcium levels are unsuitable. Milk substitutes must be prepared according to the manufacturer's instructions to ensure the correct nutrition and energy requirements are provided. Milk substitutes should not be fed to puppies who are receiving adequate nutrition from their mother's milk as this may lead to excessive energy intake or a nutritional imbalance.

Feeding a Puppy (04)

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FUEL FOR GROWTH

Puppies have different nutritional requirements compared to adult dogs and it is important that puppies are fed a suitable diet for growth. It is also essential that puppies receive the correct number of calories to support their rapid growth.

Energy Requirements

Although energy requirements vary with breed, newly weaned puppies require approximately twice as much energy per Kg bodyweight when compared with adult dogs. This reduces to 1.6 times the energy when puppies reach 50% of their adult body weight and 1.2 times the energy when puppies reach 80% of their adult bodyweight. This can often mean that the same amount of food is offered, despite the puppy significantly increasing in size. For example, a Labrador puppy with an expected adult body weight of 30Kg requires the same number of calories at both 6 months and 9 months of age despite weighing 3.5 Kg more.

The National Research Council (NRC) gives the following equation to estimate the energy requirements of puppies.

$$\text{Energy} = 130W^{0.75} \times 3.2[e^{(-0.87p)} - 0.1]$$

Where W = actual body weight in Kg
Wm = predicted mature adult weight in Kg
p = W/Wm
e = base of natural log ~2.718
(1Kg = 2.2lbs)

The table below provides an estimate of the energy requirements in kilocalories of puppies based on predicted growth rates and the NRC energy requirement equation⁴.

It is important to note that these figures are merely a guide and adjustments must be made according to an individual puppy's growth rate to maintain an ideal body condition score. Owners should consult their veterinarian if they have any questions or concerns about their puppy's growth. Table shows energy requirements expressed in kcal per day:

		Age in months										
		1	2	3	4	5	6	9	12	15	18	21
Expected adult weight (kg)	1	56	97	123	137	140	141	adult	adult	adult	adult	adult
	2	95	163	207	230	236	238	adult	adult	adult	adult	adult
	3	129	221	281	311	320	322	adult	adult	adult	adult	adult
	4	159	274	349	386	397	400	adult	adult	adult	adult	adult
	5	188	324	412	457	469	473	adult	adult	adult	adult	adult
	6	216	372	473	524	537	542	535	adult	adult	adult	adult
	7	243	417	531	588	603	608	601	adult	adult	adult	adult
	8	268	461	587	650	667	672	664	adult	adult	adult	adult
	9	293	504	641	710	728	728	734	adult	adult	adult	adult
	10	317	545	693	768	788	795	785	adult	adult	adult	adult
	15	430	739	940	1040	1069	1077	1062	adult	adult	adult	adult
	20	533	917	1166	1292	1326	1337	1321	adult	adult	adult	adult
	25	532	1030	1349	1498	1551	1576	1575	1543	1516	adult	adult
	30	610	1181	1547	1718	1778	1807	1806	1769	1738	adult	adult
	35	685	1325	1737	1928	1996	2029	2027	1986	1951	adult	adult
	40	757	1465	1919	2132	2206	2242	2241	2195	2157	adult	adult
	45	744	1299	1836	2146	2341	2431	2455	2437	2385	2306	adult
50	805	1406	1987	2342	2533	2631	2657	2637	2581	2495	adult	
55	865	1510	2134	2515	2721	2826	2854	2833	2772	2680	adult	
60	923	1612	2278	2685	2904	3016	3047	3024	2959	2861	adult	
65	980	1712	2419	2851	3084	3203	3236	3211	3142	3038	adult	
70	1036	1810	2557	3014	3286	3386	3420	3395	3322	3211	adult	

Giant = adult weight of >45kg
Large = adult weight of >25kg, up to 45kg
Small & medium = adult weight up to 25kg
Toy = adult weight up to and including 5kg

Table: Recommendations for daily energy intake (kcal) for growing puppies, adapted from NRC (2006)

Number of meals per day

A young puppy has a small stomach therefore it is essential to offer small meals frequently to ensure that they can meet their high calorie requirements.

Birth to three weeks	Puppies rely solely on their mother's milk.
Three to eight weeks (weaning)	Puppies begin to take solid food. Puppies should be allowed free access to appropriate food in between suckling from their mother. During the latter stage of weaning it is advisable to feed puppies without their mother present. This will stop the mother eating and regurgitating food.
Eight weeks to four months	Puppies should be fed every 4 hours during a 16-hour day, with the first meal given early in the morning.

	After ten weeks meal frequency can be gradually reduced from four to three meals per day.
Four to six months	Meal frequency can be reduced to twice daily.
After six months	The adult feeding regime (one or two meals per day) can gradually be established.

The change in feeding pattern is dependent on the individual puppy. Owners should consult their veterinarian if they are unsure.

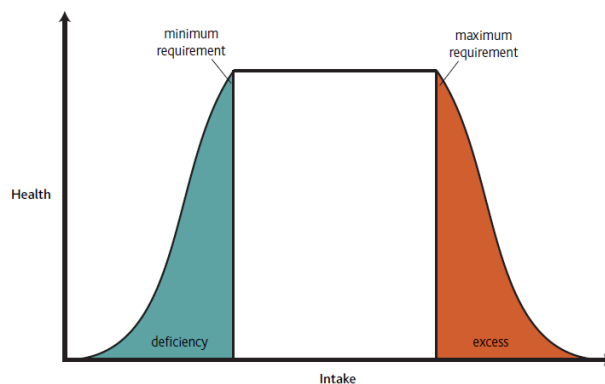
Puppy Nutrition

Puppies have nutrient requirements that are different from those of adult dogs. A nutritionally complete and balanced diet specifically formulated for puppies must be fed until adulthood. This may be provided by feeding either a wet or dry format or a mixture of the two. One of the most common causes of nutritional issues in puppies is switching to adult diets before puppies are fully mature.

Certain nutrients are particularly important during growth and it is key that a puppy receives the right balance of nutrients from the following groups. If intake of a nutrient is below the minimum requirement, then health may deteriorate due to deficiency. If intake is above the maximum requirement, then health may be compromised due to excess.

Water

Water is the most vital nutrient for life and is a major constituent of an animal's body, making up 75% of the body mass at birth. Water has a role in all major physiological functions including providing a medium for transportation and delivery of nutrients, regulation of body temperature and lubrication of joints, eyes and the inner ear. Puppies receive the water they need via the mother's milk prior to weaning and, after this time, should be given access to fresh drinking water in a suitable container appropriate for their size. If puppies do not receive an adequate water intake, they will show signs of dehydration such as neck skin that stays tented when gently pinched, lethargy or a dry mouth.



Protein and amino acids

Protein provides amino acids which are the building blocks for growth. Puppies require significantly more protein than adult dogs and this is particularly important during the rapid growth phase up to 14 weeks of age. An insufficient supply of protein will result in poor growth and development. As well as ensuring the puppy receives an adequate supply of total protein, it is important that they receive the right amino acids in the right amounts. There are 10 essential amino acids for puppies which means they must be supplied in the diet because the puppy cannot synthesise them. Some of the key amino acids are detailed below:

Lysine

This is an amino acid used for during growth when new insufficient dietary supply of reduced food intake. Too of arginine deficiency (another amino acid) such as muscle tremors and vomiting.



the synthesis of proteins so is vital tissues are being generated. An lysine will result in poor growth and a much lysine in the diet can cause signs

Tryptophan

This amino acid is a precursor of niacin (vitamin B3) in dogs and is also required for the production of serotonin and melatonin which act to balance mood and sleep patterns. Tryptophan is also a building block of protein and a deficiency of this amino acid in the growing puppy has been shown to reduce weight gain.

Methionine

Methionine is often the first limiting amino acid in diet formulation. It is an important precursor for both cysteine and taurine and is also involved in the production of the antioxidant molecule glutathione and carnitine. A deficiency of methionine can lead to an immediate reduction in food intake, severe weight loss and skin problems.

Fat and fatty acids

Fat is an important source of energy for fuelling growth. With approximately twice as many calories per gram when compared to protein or carbohydrate, fat represents a highly concentrated source of energy. As such, puppies have a higher daily fat requirement when compared to adult dogs to provide energy for this demanding life stage. Fats are made up of chains of fatty acids, some of which are considered essential for the healthy development of puppies:

Docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) (omega-3 fatty acids)

These polyunsaturated fatty acids (PUFA) are termed omega-3 fatty acids and, although there is debate around their essentiality in adult dogs, there is evidence that they are required for the normal development of the brain and nervous system of the puppy as it grows in the womb. Analysis of the mother's milk has shown the presence of DHA which is known to be beneficial in the maturation of the nervous system in the growing animal. For these reasons, it is essential that puppies receive a supply of DHA, and its precursor EPA, from birth to adulthood 4,10.

Linoleic acid (LA) and arachidonic acid (AA) (omega-6 fatty acids)

Puppies need a supply of LA to develop and maintain a healthy skin and coat. Although adult dogs can synthesise sufficient quantities of AA from dietary LA, puppies are less efficient at this process and so also need a dietary supply of AA.

Minerals

Puppies have specific mineral requirements that differ from those of adult dogs. Of particular importance are the amounts of calcium and phosphorus, required to form healthy bones and teeth.

Calcium and phosphorus

The amounts of both calcium and phosphorus and the balance of these minerals are of particular importance in puppies due to their role in the active formation of bones and teeth during the growth phase. Too much or too little calcium results in abnormal bone development which can cause severe pain. Large and giant breed dogs are most susceptible to excess calcium in the diets and, therefore, stricter control is required in their diets. High levels of calcium can also reduce the absorption of phosphorus in the diet so the ratio of calcium to phosphorus must be tightly controlled. The ratio of calcium and phosphorus is also important for determining the requirements of vitamin D in growing puppies.

Zinc

Zinc plays a role in skin health and protein metabolism. If puppies do not have an appropriate zinc intake their growth is impaired and they will show signs of poor skin condition such as lesions appearing on the foot pads.

Iron

The primary role of iron is in the synthesis of haemoglobin and myoglobin where it functions to transport oxygen around the body. Iron also functions in a number of enzyme systems that are required in the production of energy. During growth, puppies are manufacturing large numbers of red blood cells therefore their need for iron is greater than that for adult dogs. If a puppy is not receiving enough iron symptoms such as poor growth, lethargy, weakness and diarrhoea may be observed.

Vitamins

Puppies have vitamin requirements that differ from those of adult dogs.

Vitamin D

One of the major roles of vitamin D is in the formation of healthy bones. Too little vitamin D results in rickets, characterised by bowed, extremely painful limbs. Unlike humans, dogs cannot convert vitamin D to the active form using sunlight and are, therefore, reliant on their diet to provide this nutrient.

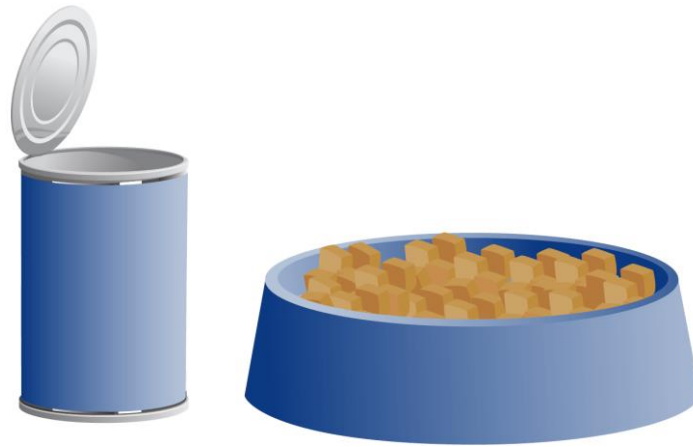
Vitamin A

Required for healthy vision, vitamin A is also involved in protein synthesis and is, therefore, critical for animals during growth. A deficiency of vitamin A in puppies has also been shown to result in deafness.



Importance of Variety (04)

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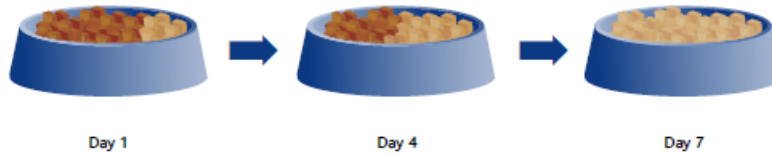
FORMATS AND FLAVOURS

Ensuring that a puppy is fed a variety of different flavours and types of food can be beneficial as it may help prevent fussy eaters when adult.

A varied diet can be comprised of different food formats (wet, dry or semi-moist), flavours or textures. When fed correctly wet, dry and semi-moist puppy diets are all carefully designed to provide the right nutrients in the right amounts. Exposure to variety early in life can result in dogs being more accepting of different diets when adult and can help to prevent an adverse response if a diet change is required.

Changing Diets (04)

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AVOIDING DIGESTIVE UPSET

Digestive upset is common in puppies. Rapid diet switches, in addition to other causes such as infectious agents, can lead to loosen faeces, diarrhoea or vomiting.

The required portion size varies greatly between wet and dry diets because dry foods are more calorie dense. For this reason, a gradual transition from one food type to another is recommended to allow time for adjustment.

When transitioning a puppy from one food type to another, it is recommended that the diet is gradually changed over a period of four to seven days, although some dogs may need longer. This should be achieved by adding a small proportion of the new diet to the puppy's regular diet on the first day. The proportion of the new diet should be gradually increased each day, so that it makes up half of the puppy's food on day four and the whole meal by day seven.

Treats (04)

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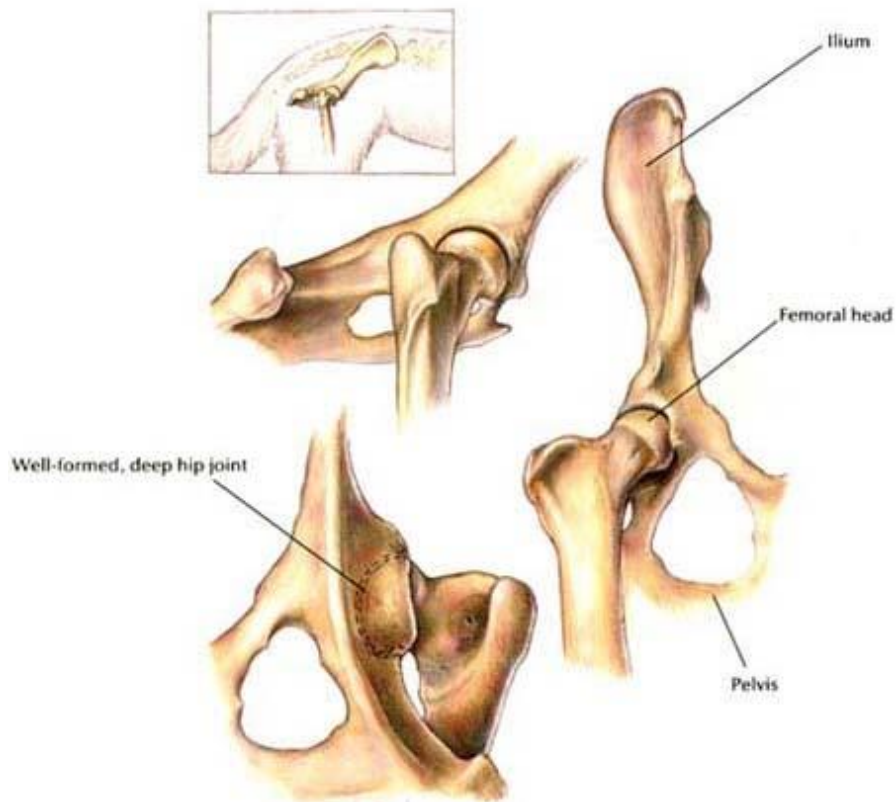
MAKING TREATS PART OF A HEALTHY DIET

Treats are particularly useful for training, but due to the risks of overfeeding, and nutritional imbalances their use must be carefully controlled. No more than 10% of the calories in a puppy's diet should come from dog treats which must be appropriate for their age. It is also essential to adjust the amount of main meal fed accordingly when feeding treats, to ensure the recommended daily calorie intake is not exceeded. The use of human foods should be avoided due to the risk of nutritional imbalances.

A number of dog treats may deliver a functional benefit such as supporting oral health or joint health. If feeding these, it is essential to check the manufacturer's guidelines to ensure they are appropriate for a puppy's age. Owners should also take care to ensure functional treats are fed at the recommended daily allowance.

If feeding a complete and balanced puppy diet, vitamin and mineral supplements may lead to a nutritional imbalance. Supplementation is not recommended unless advised by a veterinarian.

Relationship of Nutrition to Developmental Skeletal Disease in Young Dogs ⁽¹²⁾



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RELATIONSHIP OF NUTRITION TO DEVELOPMENTAL SKELETAL DISEASE IN YOUNG DOGS

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Developmental skeletal disease is common in large and giant-breed puppies. One manifestation, hip dysplasia, affects millions of dogs. Genetics, environment, and nutrition all contribute to developmental skeletal disease. Of the nutritional components, rate of growth, specific nutrients, food amounts consumed, and feeding methods influence skeletal disease. Excess energy and calcium are known risk factors; therefore, the level of these nutrients in the food should be near the Association of American Feed Control Officials minimum requirement. Puppies should be fed a growth-type food using a food-limiting technique. All puppies should be weighed and evaluated at least every two weeks. Amounts fed should be increased or decreased based on weight and body condition score.

Key Words: Developmental skeletal disease, calcium, energy, hip dysplasia, electrolyte balance, osteochondrosis, body condition, feeding method.

INTRODUCTION

The musculoskeletal system changes constantly throughout life. These changes are most rapid during the first few months of life and slow with skeletal maturity (about 12 months for most breeds). The skeletal system is most susceptible to physical and metabolic insult during the first 12 months of life because of the heightened metabolic activity. The physical manifestation of these results can be lameness and/or altered growth. Both can affect locomotion and/or soundness of adult dogs.

Developmental skeletal disease is a multifactorial process that has genetic, environmental, and nutritional components. These skeletal abnormalities primarily affect fast growing, large-breed dogs. Lack of careful genetic monitoring can introduce and propagate disorders (e.g., hip dysplasia, osteochondrosis) that are difficult to eliminate. Trauma, whether obvious (e.g., hit by a car) or subtle (e.g., excessive weight) can adversely affect relatively weak growth centers and cause skeletal disease (e.g., angular limb deformities). Nutrient excesses (e.g., excess calcium supplementation) often exacerbate musculoskeletal disorders. This article reviews the role of nutrition in developmental skeletal disease in young dogs.

NUTRITION AND SKELETAL DISEASE

The role of nutrition in developmental skeletal disease is complex. Rate of growth, specific nutrients, food consumption, and feeding methods have all been shown to influence skeletal disease. Large and giant breeds are most susceptible to developmental skeletal disease, presumably because of their accelerated growth rate. Dietary deficiencies are rare in young, growing dogs fed commercial growth foods. Problems associated with dietary excess are far more likely, especially if a high-quality growth food is supplemented with minerals, vitamins, and energy. The following review discusses some of the more critical nutrients in developmental skeletal disease.

ENERGY

The energy needed for any individual depends on breed, age, neuter status, and activity levels. In general, growing puppies require twice as much dietary energy as adults for body maintenance, activity, and growth. The need is greatest right after birth and decreases as the dog grows and matures. Rapid growth in large and giant-breed dogs increases the risk of skeletal disease. Excessive dietary energy may support a growth rate that is too fast for proper skeletal development and results in a higher frequency of skeletal abnormalities in large and giant-breed dogs. Because fat has twice the caloric density of protein or carbohydrate, dietary fat is the primary contributor to excess energy intake.

Excess energy leads to rapid growth. Dietary energy in excess of a puppy's needs will be stored as body fat. Body condition scoring evaluates body fat stores and therefore correctness of energy intake. Maintaining appropriate body condition during growth not only avoids excess body fat storage, but also helps control excess growth rate. Limiting intake to maintain a lean body condition will not impede a dog's ultimate genetic potential. It will only reduce food intake, fecal production, obesity, and lessen the risk of skeletal disease.⁸ Energy or food-dose calculations can only be used as general guidelines or starting points that must be modified based on frequent clinical evaluation of each puppy because individual needs can vary widely. Physical evaluation or body condition scoring should be done at least every two weeks (See Evaluation of Feeding Methods and Scoring to follow).

TABLE 1
Recommended Levels of Key Nutrients for Growing Puppies

Nutrient	Minimum (Amount Dry Matter Basis)	Maximum (Amount Dry Matter Basis)
Protein	22%	
Fat*	8%	
Calcium*	1%	2.5%
Phosphorus	0.8%	1.6%
Copper	7.3 mg/kg	
Zinc	120 mg/kg	
Vitamin D	500 IU/kg	5000 IU/kg

*Nutrients proven to be risk factor for developmental skeletal disease

PROTEIN

Unlike other species, protein excess has not been demonstrated to negatively affect calcium metabolism or skeletal development in dogs. Protein deficiency, however, has more impact on the developing skeleton. In Great Dane puppies, a protein level of 14.6% (dry matter basis) with 13% of the dietary energy derived from protein can result in significant decreases in bodyweight and plasma albumin and urea concentrations. The minimum adequate level of dietary protein depends on digestibility, amino acids, and their availability from protein sources. A growth food should contain > 22% protein (dry matter basis) of high biologic value (Table 1). The dietary protein requirements of normal dogs decrease with age.

CALCIUM

The absolute level of calcium in the diet, rather than an imbalance in the calcium/phosphorus ratio, influences skeletal development. Young, giant-breed dogs fed a food containing excess calcium (3.3% dry matter basis) with either normal phosphorus (0.9% dry matter basis) or high phosphorus (3% dry matter basis, to maintain a normal calcium/phosphorus ratio) had significantly increased incidence of developmental bone disease. These puppies apparently were unable to protect themselves against the negative effects of chronic calcium excess. Further, chronic high calcium intake increased the frequency and severity of osteochondrosis.

Often puppies are switched from growth to maintenance-type foods to avoid calcium excess and skeletal disease. However, because some maintenance foods have much lower energy density than growth foods, the puppy must consume more dry matter volume to meet its energy requirement. If the calcium levels are similar (dry matter basis) between the two foods, the puppy will actually consume more calcium when fed the maintenance food. This point is exemplified in the case of switching a 15-week-old, 15-kg male Rottweiler puppy from a growth food containing, on an as fed basis, 4.0 kcal/g metabolizable energy and 1.35% calcium (1.5% on a dry matter basis) to a maintenance food containing the same amount of calcium but at a lower, 3.2 kcal/g energy density. The puppy would require approximately 1,600 kcal/day. In order to meet this energy, need the puppy would consume approximately 400g of the growth food (containing 5.4g of calcium) vs. 500g of the maintenance food (containing approximately 6.7g of calcium).

Feeding treats containing calcium and/or providing calcium supplements further increases daily calcium intake. Two level teaspoons of a typical calcium supplement (calcium carbonate) added to the growth food of the 15-week-old, 15-kg Rottweiler puppy would more than double its daily calcium intake. This calcium intake is well beyond the levels shown to increase the risk for developmental bone disease. A recent review article best sums up the need for calcium supplements: "Because virtually all dog foods contain more calcium than is needed to meet the requirement, the use of a calcium supplement certainly is unnecessary. Now that the deleterious effects of excess dietary calcium have been delineated, we can say that the feeding of calcium supplements not only is unnecessary, but, in fact, contraindicated!"

Because these studies demonstrate the safety and adequacy of 1.1% calcium (dry matter basis) and the Association of American Feed Control Officials (AAFCO) minimum recommendation is 1% (dry matter basis, Table 1), we recommend that calcium levels for a growth food be within this range for at risk puppies, with no supplementation.



An example of Severe Hip Dysplasia

(Fig 2)

OTHER NUTRIENTS

L-ascorbic acid (Vitamin C) is necessary for hydroxylation of proline and lysine during biosynthesis of collagen, a major component of ligaments and bones. Food devoid of Vitamin C fed to puppies for 147 to 154 days neither affected growth nor caused skeletal lesions. There are no known dietary requirements for Vitamin C in the dog.

Vitamin C supplementation in pigs elevates plasma levels of Vitamin C without changing articular concentrations of hydroxyproline. Similar studies in dogs demonstrated transient elevation of plasma Vitamin C concentrations; however, long-term supplementation did not increase concentrations much above normal. Even though Vitamin C has been recommended,

the relationship between Vitamin C and developmental skeletal disorders in dogs such as osteochondrosis and hip dysplasia is unproven.

Vitamin D metabolites regulate calcium metabolism and therefore skeletal development in dogs. These metabolites aid in the absorption of calcium and phosphorus from the gut, increase bone cell activity, and influence endochondral ossification and calcium excretion. Unlike other omnivores, the dog seems dependent on dietary Vitamin D sources from plants (Vitamin D₂) or animals (Vitamin D₃). Commercial pet foods contain from two to 10 times the AAFCO recommended amounts of Vitamin D. Diagnosis of Vitamin D deficiency can be made by measuring circulating levels of Vitamin D metabolites and by measuring growth plate width. Clinical cases of Vitamin D deficiency (rickets) are extremely rare in animals eating commercial foods. Increased growth plate width is not associated with low calcium/high phosphorus foods but is a strong indicator of rickets. Excess Vitamin D can cause hypercalcemia, hyperphosphatemia, anorexia, polydipsia, polyuria, vomiting, muscle weakness, generalized soft tissue mineralization, and lameness. In growing dogs, supplementation with Vitamin D can markedly disturb normal skeletal development due to increased calcium and phosphorus absorption.

The trace minerals copper and zinc are involved in normal skeletal development. Supplementing a mare's dietary copper intake during the late stages of pregnancy, and supplementing the foal's diet from 90 to 180 days of age has been shown to reduce the prevalence and severity of developmental cartilage lesions. Copper deficiency in dogs has been associated with hair depigmentation, hyperextension of the distal phalanges, and decreased copper levels in the hair, liver, kidney, and heart muscle. However, bone copper concentration was not influenced by dietary treatment and developmental skeletal abnormalities associated with a deficiency of dietary copper were not described. Similarly, long-term studies of dietary zinc on canine growth and reproduction showed no significant clinical influence on the skeletal development. The role of these two nutrients in the development of skeletal disease in the dog remains unclear at this time.

Two of the most common skeletal diseases of growing dogs are hip dysplasia and osteochondrosis. The balance of this section will review the relationship between these diseases and critical nutrients.

CANINE HIP DYSPLASIA (CHD)

Canine hip dysplasia (CHD) is the most frequently encountered orthopedic disease in veterinary medicine (Fig. 2). The actual number of cases is estimated to be in the millions. This extremely common heritable disorder of large and giant-breed dogs can be influenced by nutrition during growth. Early developmental findings of CHD, including joint laxity and coxofemoral anatomical changes, have been documented within 2 weeks of birth. Rapid weight gain in German Shepherd dogs during the first 60 days after birth has been associated with CHD at a later age. The importance of this early influential time period was demonstrated in a study comparing cesarean-section, hand reared puppies to vaginal birth, bitch-fed puppies. Cesarean section and hand rearing markedly reduced growth and the incidence of CHD in these puppies. Vaginally born, bitch-fed puppies that grew "optimally" or somewhat "suboptimally" had a higher incidence of CHD. The period from 3 to 8 months of age is important in the development of CHD, with the first 6 months generally regarded as the most critical. Frequency and severity of CHD was influenced by weight gain in growing dogs that were offspring of parents with CHD or parents with a high incidence of CHD in their offspring. Dogs with weight gain that exceeded breed standards had a higher frequency and more severe CHD than dogs with weight gain below breed standards.

In one colony of fast-growing Labrador Retriever dogs, the triradiate growth plates of the acetabula fused at 5 months as determined by conventional radiography. These growth plates

normally close at 6 months in puppies growing at conventional rates. The investigators speculated that early fusion in the acetabulum may result in bone/cartilage disparities in the future and predispose to dysplastic changes. Limiting food intake in growing Labrador Retriever puppies has been associated with less subluxation of the femoral head and fewer signs of hip dysplasia.

Palpation of the hip is of little to no value in predicting development of hip joints. However, the combination of physical and radiographic examination are important diagnostic methods for evaluating the hips (Orthopedic Foundation for Animals, Columbus, MO; Penn HIP, Malvern, PA). A recent review of nutritional influences on CHD contains more information and a more complete reference list.

ELECTROLYTE BALANCE AND CHD

Control of dietary electrolytes has been proposed as a preventative for CHD. Investigators have associated the dietary anion gap (DAG) with the radiographic changes of subluxation in the coxofemoral joints in several canine breeds. A food with a DAG ($\text{Na}^+ + \text{K}^+ - \text{Cl}^-$) < 23 mEq/100g of food was fed to large-breed puppies and resulted in less femoral head subluxation, on average, at 6 months of age. The slowed progression of subluxation was also observed in dogs fed a food with a reduced DAG from 35 to 45 weeks of age. Hip joint laxity was determined using the Norberg hip score computed from radiographs. Significant correlation between radiographic findings (e.g., Norberg hip scores) and progression of CHD, either radiographic or clinical was not proven. The authors propose the balance of anions and cations in the food (specifically sodium, potassium, and chloride) influence the electrolytes and osmolality in joint fluid. The joint fluid of dysplastic dogs has higher osmolality and is increased in volume when compared to that of disease-free hips from dogs of the same breed. The changes in osmolality and fluid volume could be a result rather than a cause of CHD. Changes in synovial fluid osmolality and electrolyte concentrations were not reported. These studies suggest an association between DAG and joint laxity without proving a mechanism of action.

OSTEOCHONDROSIS (OCD)

Osteochondrosis is a focal disruption in endochondral ossification. OCD is manifested clinically by pain and lameness. Physical examination results can be confirmed radiographically. Figure 3 shows a classic inoperative lesion on the proximal humerus. Acute inflammatory joint disease begins when the subchondral bone is exposed to synovial fluid. Inflammatory mediators and cartilage fragments are released into the joint and perpetuate the cycle of degenerative joint disease. OCD occurs in the physis and/or epiphysis of growth cartilage, and is a generalized or systemic disease. When OCD affects the physis, it may cause growth abnormalities in long bones. OCD is wide-spread among young, rapidly growing, warm-blooded, domesticated species and humans. In all species, the etiology is considered multifactorial. In dogs, risk factors for OCD are age, gender, breed, rapid growth and nutrient excesses (primarily calcium).

All large and giant-breed dogs are at increased risk for OCD. Great Dane, Labrador Retriever, Newfoundland, and Rottweiler breeds are at highest risk. Males have an increased risk of OCD in the proximal humerus but gender relationships are not found with OCD involving other joints.

At least two schools of thought exist concerning the pathogenesis of OCD. In the first, cartilage lesions develop secondary to excessive biomechanical stresses. This may be termed an "outside-in" development. Over-nutrition, such as ad libitum feeding, stimulates skeletal growth, cancellous bone remodeling, and weight gain in breeds already having inherent capacity for rapid growth. Rapid growth combined with remodeling results in weakened subchondral regions to support the cartilage surface. If osteopenic and biomechanically weak subchondral spongiosa develops, there is inadequate bony support to the articular cartilage. The increasing body mass exerts excessive biomechanical forces on the cartilage and secondarily disturbs chondrocyte nutrition, metabolism, function, and viability. An outside-in development suggests OCD results when nutritional effects initiate a biomechanical disease.

An "inside-out" pathogenesis has also been proposed. Here, abnormalities of the cartilage canal vessels and chondrocyte necrosis are thought to precede degenerative changes in the articular cartilage matrix. Focal lesions of dead and necrotic chondrocytes develop, and subsequently, biomechanical stresses disrupt the lesion. Osteochondrosis lesions are routinely found in pigs as young as 25 days of age, when rapid growth and weight gain are much less of a factor. These findings support a localized, primary effect on the chondrocyte rather than secondary effects of biomechanical force.

Regardless of the pathogenesis of OCD, nutrition is still an underlying factor. In growing puppies, overnutrition can result in a mismatch between body weight and skeletal growth, which can overload skeletal structures. Nutrition of the mother may also play a role in the development of OCD in the offspring.

FEEDING TECHNIQUES

The nutrient profile of the food and how it is fed control nutritional risk factors for developmental skeletal disease. There are three basic methods of feeding growing dogs: free-choice (ad libitum), time-limited, or food-limited.

FREE-CHOICE FEEDING

Free-choice feeding is relatively effortless and may reduce abnormal behavior such as barking at feeding time. Frequent trips to the food bowl help reduce boredom, timid or unthrifty animals have less competition when eating, coprophagy may be decreased, and frequent small meals may result in a more constant blood level of nutrients and hormones. Disadvantages of ad libitum feeding include food wastage, only dry forms of pet food can be fed, and competition or boredom may stimulate overeating. The most serious disadvantage is increased risk of developmental bone disease because of overconsumption in the large and giant breeds. In general, free-choice feeding is contraindicated in "at risk" dogs until they have reached skeletal maturity (about 12 months of age or at least 80 to 90% adult weight).

TIME-LIMITED FEEDING

Time-limited feeding can be used for most large and giant breeds. Making food available for a set period of time, two to three times per day, may help control intake and help in discipline and housetraining young puppies. The owner interacts with the puppy during this time and is able to observe general condition and behavior. This may lead to earlier detection of health problems. A routine of feeding a puppy then taking it outdoors can enforce house-training by taking advantage of the gastrocolic reflex.

Some researchers have proposed that puppies fed on a time-limited basis consumed less food, had slightly reduced growth rates, but achieved similar adult size and lean body mass when

compared to puppies eating free-choice. Other studies have shown that feeding 15 minutes twice a day did not result in decreased food intake between ad libitum and time-restricted groups. Many variables (e.g., breed, temperament, housing, etc.) influence these results and account for the varied findings. If time-restricted feeding is used, 5 to 10-minute feeding periods (3x per day for the first month after weaning, then 2x per day) may be required to decrease food intake in some puppies.

FOOD-LIMITED FEEDING

The method of choice for feeding puppies is limiting food intake to maintain growth rate and body condition. Food-limited feeding requires feeding a measured amount of food based on calculated energy requirement or as recommended by the manufacturer. Energy requirement is most easily calculated by using resting energy requirement (RER) as a base on which to build. RER can be calculated using either of the following two equations:

$$\text{RER (kcal/day)} = 70 (\text{Wtkg})^{0.75}$$

or

$$\text{RER (kcal/day)} = 30 (\text{Wtkg}) + 70$$

As a starting point use 3x RER for the first 4 months of life and 2x RER from 4 months of age to skeletal maturity (about 12 months for most breeds). Most large and giant-breed dogs will continue to increase bodyweight and muscle mass after 12 months, but the growth rate is reduced and most, if not all, growth plates are closed. At 12 months they can be fed as adults (1.6x RER).

Once daily caloric requirement has been calculated (kcal/day), divide this number by the energy density of the food (kcal/cup or kcal/can) to determine the number of cups or cans to feed per day. Remember, these calculations and manufacturers' recommendations are only starting points. Clinical evaluation of the growing puppy and adjustment of food offered is crucial. Rapidly growing, large and giant-breed dogs have a very steep growth curve and their intake requirements can change dramatically over short time periods. These puppies should be weighed, evaluated, and their daily feeding amount adjusted at least once every 2 weeks (Fig. 1). Most of the studies that have demonstrated the beneficial effects of limiting food intake of puppies have fed the limited group 25 to 30% less food than their counterparts ate when fed free-choice. Unfortunately, this is not a practical approach to feeding most puppies in a home environment.

EVALUATION OF FEEDING METHODS AND BODY CONDITION SCORING

Regardless of a food's nutrient profile and how it is fed, the ultimate measurement of appropriate intake is the physical condition of the puppy. The only way to reduce potentially harmful nutritional risk factors that may affect skeletal development is to assess body condition and adjust the amount fed to ensure lean, healthy growth. We recommend that at risk puppies be evaluated at least every 2 weeks. Figure 4 reviews body condition scoring and physical findings. A more in-depth discussion follows.

A body condition score of 1 is characterized as very thin. The ribs are easily palpable with no fat cover. The tail base has a prominent raised bony structure with no tissues between the skin and the bone. The bony prominences are easily felt with no overlying fat. In animals over 6 months, there is a severe abdominal tuck when viewed from above.

An underweight condition is categorized as a 2 in the scoring system. The ribs are easily palpable with minimal fat cover. The tail base has a raised bony structure with little tissues between the skin and the bone. The bony prominences are easily felt with minimal overlying fat. In animals over 6 months, there is an abdominal tuck when viewed from the side and a marked hourglass shape when viewed from above.

The ideal body condition of a puppy is represented by a score of 3. The ribs are palpable with a thin layer of fat between the skin and the bone. The bony prominences are easily felt with a significant amount of overlying fat. In animals over 6 months, there is an abdominal tuck when viewed from the side and a well proportional lumbar waist when viewed from above.

A score of 4 is defined as overweight. The ribs are difficult to feel with moderate fat cover. The tail base has some thickening with moderate amounts of tissue between the skin and the bone. The bony structures can still be felt. The bony prominences are covered by a moderate layer of fat. In animals over 6 months, there is little or no abdominal tuck of the waist when viewed from the side. The back is slightly broadened when viewed from above.

An obese condition is represented as a 5 on the scale. The ribs are very difficult to feel under a thick fat cover. The tail base appears thickened and is difficult to feel under a prominent layer of fat. The bony prominences are covered by a moderate to thick layer of fat. In animals over 6 months, there is a pendulous ventral bulge and no waist when viewed from the side. The back is markedly broadened when viewed from above.

CONCLUSION

Large and giant-breed dogs are the most susceptible to developmental skeletal disease. Genetics, environment, and nutrition play key roles. Nutritionally, rate of growth, food consumption, specific nutrients, and feeding methods influence our ability to optimize skeletal development and minimize skeletal disease. Maximizing the growth rate in young, growing puppies does not correlate to maximal adult size. It does, however, increase the risk of skeletal disease. The growth phase of 3 to 8 months, and possibly the phases before weaning, are vital to ultimate skeletal integrity. The large and giant breeds may be limited in their ability to cope with excesses of minerals such as calcium.

Overnutrition from over-consumption and over-supplementation increases the frequency of developmental bone disease in large and giant-breed dogs. Energy and calcium are the nutrients of greatest concern. Often, owners feeding highly palatable, energy-dense growth foods switch to maintenance type foods in an attempt to reduce developmental disorders. As shown earlier, this practice may worsen total calcium intake. It is not only important to feed the appropriate food, but to feed the food appropriately.

Table 1 lists the minimum requirement of some nutrients of concern for growing puppies. These values represent the minimum and, in some cases, the maximum AAFCO recommendations for these nutrients. Foods for large and giant-breed puppies should meet these recommendations. Because energy (primarily from fat) and calcium are nutrients known to be risk factors for developmental skeletal disease, the level of these nutrients should be near the minimum requirement. Meeting but not exceeding the requirement for these nutrients ensures proper growth while minimizing risk factors for skeletal disease.

Nutritional management alone will not completely control developmental bone diseases. Skeletal diseases can be influenced during growth by feeding technique and nutrient profile. Dietary deficiencies are minimal concern in this age of commercial foods specifically prepared for young, growing dogs. The potential for harm is in overnutrition from excess consumption and over-supplementation.

Dangerous Foods (02)

<p>ALCOHOL COMA DEATH INTOXICATION</p> 	<p>AVOCADO CONTAINS PERSIN: VOMITING DIARRHEA</p> 	<p>RAISINS CURRANTS KIDNEY FAILURE</p> 
<p>COOKED BONES STOMACH LACERATIONS</p> 	<p>WALNUTS MACADAMIAS NERVOUS SYSTEM AND MUSCLE DAMAGE</p> 	<p>ONIONS GARLIC TOO MUCH BLOOD CELL DAMAGE ANEMIA</p> 
<p>DAIRY TOO MUCH: DIARRHEA</p> 	<p><i>the world's</i> MOST DANGEROUS FOODS FOR DOGS</p> <p>©LILI CHIN & THE LABS & CO.</p>	<p>GRAPES KIDNEY FAILURE</p> 
<p>MUSHROOMS SOME VARIETIES: SHOCK DEATH</p> 		<p>FATTY FOODS TOO MUCH: PANCREATITIS</p> 
<p>CAFFEINE VOMITING DIARRHEA TOXIC TO HEART & NERVOUS SYSTEM</p> 	<p>XYLITOL (GUM, CANDY ETC.) LIVER FAILURE HYPOGLYCEMIA DEATH</p> 	<p>CHOCOLATE TOXIC TO HEART & NERVOUS SYSTEM DEATH</p> 
<p>MEDICATIONS (TYLENOL, ADVIL ETC.) KIDNEY FAILURE GI ULCERS</p> 	<p>If you think your dog ate something dangerous, CALL YOUR VET or: ASPCA POISON CONTROL HOTLINE (888) 426-4435 NATIONAL PET POISON HELPLINE (800) 213-6680</p> <p>Illustration by LILI CHIN layout by THE LABS & CO. DOGGIEDRAWINGS.NET THELABSAND.CO</p>	

TEACHING, TRAINING AND SOCIALIZING YOUR DOG

12 Rules for Training Dogs (08)

Dr. Don McKeown, Dr. Andrew Luescher, and Dr. Mary Machum

1. Make learning fun for both of you and your dog!
Spend 10 minutes 2 or 3 times daily. The training sessions should be separated by 4 hours for maximum efficiency of learning. Normal dogs of any age can learn if use patience, praise and rewards.
2. Train the dog to come, sit, stay, down, and down-stay off the leash, and to heel on the leash, in this order. Be progressively more demanding. If the dog fails in any level, stop, don't reward, and start again at a simpler command. You will find that your dog's motivation to perform decreases as the complexity of the task increases. Make learning fun!
3. Use one-word commands. Do not combine them with the dog's name, which should only be used to get the dog's attention. It is easy to talk too much to your dog. If you do, the command you are trying to teach gets lost in all the verbiage. This is a common mistake made by beginner dog trainers.
4. Train the dog in a quiet environment with few distractions. Once the response is learned there, move the training location to progressively more complex and stimulating environments. The dog will have to be trained in each environment that you wish him to respond in. You may start in the basement; move on to the kitchen, backyard, street, plaza, train station, etc. If the dog fails at any level, go back to the previous level.
5. Appropriate responses should be rewarded within ½ second of the command. If you tell the dog to come, and he walks across the yard, give the command "come" again, just before you reward him. This will ensure that the dog associates the command with the reward.
6. The dog will learn most rapidly if every desired response is rewarded. Once the behavior is established, reward it intermittently. This will make the response more permanent, and less likely to be forgotten.
7. Use valued rewards. Find out which your dog like most (food touch, voice, praise) and use that reward most frequently in the beginning. As the training progresses, mix up the types of reward given.
8. Once the dog knows the commands, you can start giving them in a quieter voice. Gradually decrease the loudness of your commands, rewarding the dog for the appropriate response.
9. Once the dog has learned the commands from one person, have other members of the family train him to respond to them. If the dog knows the command well, this should not take long.

10. How quickly and enthusiastically the dog responds is a function of the intensity of the training. If your dog responds only when he feels like it, start training again using the rule.
11. The longer an unwanted, learned behavior has been performed, the longer it takes to recondition it.
12. PUNISHMENT DOES NOT WORK – THE OPPOSITE OF A REWARD IS NO REWARD, NOT PUNISHMENT! Punishment is defined as any stimuli that cause pain or excitement. Punishment may frighten or excite your dog, which reduces his ability to learn. One could and should give negative directives such as NO in a deep voice. If the dog is performing some unwanted behavior, ignore it, or instead call the dog to you; tell him to sit and reward him for doing so. Both reward and punishment must be given within ½ second of the event to be effective. So, if you reward him for sitting, the dog will not think that he has “gotten away” with previous unwanted behavior. Your dog wants to please you, and if he can do something and be rewarded for performing it, that unwanted behavior will eventually stop. If the dog has learned that he will get attention when he performs the behavior, the activity will increase in frequency and intensity when you first start ignoring it. Persevere and it will stop.

Canine Behaviour Development⁽⁰¹⁾

National Association of Dog Obedience Instructors

“Super Dogs Are Made and Not Born”

The critical or important periods are divided into several major time frames from the neo-natal through most of the first year of their life.

IMPORTANT PERIODS:

1st Period.....	Birth to 3 Weeks (0 to 20 days)
2nd Period.....	4 th Week (1 month)
3rd Period.....	5 to 7 Weeks (1 to 1 ½ months)
4th Period.....	8 to 12 Weeks (2 to 3 months)
5th Period.....	13 to 16 Weeks (3 to 4 months)
Juvenile.....	5 th to 7 th Month

FIRST PERIOD – 1st thru 3rd weeks (0 – 20 days)

Needs: Food, sleep, warmth, massage. Responds by reflex, benefits from careful handling. About tenth day, eyes open.

SECOND PERIOD – 4th week (21 – 28 days)

Critical week. Pup becomes aware of environment and occurrences. Rapid development – can see, hear, smell, taste, and feel. Indicates transition to 2nd period when “startle” response is evident. Socializing with adults, children should begin. Starts to learn and benefits from being taught simple exercises.

Needs: Food, sleep, warmth, litter, mother, limited human exposure (gentle). Unaltered environment, do not remove from litter, learning to be dogs. Do not wean suddenly, transition must be easy. Do not permit negative events to occur.

THIRD PERIOD – 5th thru 7th week (29 – 49 days)

Leave with the litter, they are learning greeting, dominance, submissiveness and play gestures. Do not completely remove the mother or you will become the surrogate mother for care and discipline.

Needs: Personal attention away from the litter, slowly and consistently. Three short periods daily are ideal. Teaching and socializing should be intensified. Housetraining and weaning can begin.

Optimum learning time is 21 to 49 days of age. Things to do in the optimum learning time – lead break, examine teeth, testicles, ears, feet (caress nails); pose, pill dosing, fingers in their mouth, brush retrieve, come (call “Puppy Come” at meal times).

FOURTH PERIOD – 8th thru 12th weeks

The brain is fully developed.

Needs: Socializing with the outside world. Remove from the mother, remove from the litter or rotate with littermates. Dominance is reinforced during this time. Training should continue and socializing with other dogs is imperative. Optimum time for learning, great responsiveness.

AVOID: Fright or pain during the 8th thru 10th weeks. First fear period is during the 8th week. The puppy will remember who hurt it and avoid.

FIFTH PERIOD – 13th thru 16th weeks

Emotions are fixed by the 16th week. If training has not been started by the 16th week, the dog will never reach full potential.

Needs: Training, formal obedience, less exposure to dogs. Dominance and fight instinct more prominent. Fight period can come anytime between 4 to 8 months of age, depending on the size of the breed.

Note: "Permissively raised puppies, upon reaching sexual maturity, will treat owners with complete indifference and, if physically restrained or disciplined, may react with aggressive violence" ... Michael Fox.

JUVENILE – 4th thru 7th months

May show fear of new (or even old) situations. Attains sexual maturity. Dominant traits are established.

Important Considerations: These periods represent average time frames for an average puppy. Not all puppies are the same and one must provide for individual differences as puppies go through each period.

These notes were taken from a talk given by Jack Castor, information compiled by Olive Point and Joachim Volhard and others.

Sources:

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Reprinted from the NADOI NEWS, Official Publication of the National Association of Dog Obedience Instructors, In.

Behavior Tips for New Puppy Owners (06)

Dr. Wayne Hunthausen, *Animal Behavior Consultations*

INTRODUCTION FOR HOUS TRAINING

1. Establish a regular feeding schedule, put down to only 20 minutes, 2 or 3 times daily, at the same time every day.
2. Take the puppy outside to eliminate as soon as it wakes up each morning, after meals, after drinking, after it plays, before and after confinement and whenever it sniffs, circles or whines.
3. Always go out with the pup, guide it to the same area each time and happily praise the pup as it eliminates.
4. Until the pup has not eliminated inside the house for four consecutive weeks, it must be watched 100% of the time. Whenever it cannot be closely monitored, confine to a dog crate or small safe room.
5. If the pup soils in the house:
 - A. Scold it with a loud "no", but only if you catch it in the act.
 - B. Never scold after the act and **never, never** strike the puppy with your hand or newspaper. It is not necessary to rub its nose in the "mistake". Physical punishment may actually slow down the housetraining process.
 - C. Thoroughly clean up the soiled area with a product made especially for pet odors and stains.

DESTRUCTIVE CHEWING

1. Chewing and mouthing are normal behaviors for all puppies. This is how they investigate their environment, get relief while teething and entertain themselves.
2. All puppies chew. A judicious amount of supervision or confinement will be necessary through the pup's first 9 to 12 months.
3. Put everything out of reach that is dangerous, expensive or irreplaceable. If you can't put it up, make it taste bad. Use bad tasting sprays to protect furniture, door mouldings, electric wires, etc.
4. Buy a variety of safe rubber or nylon chew toys. Play with the pup and toys as often as possible. A small amount meat juice or cheese may be wiped on the toys to encourage chewing.
5. Every time the pup chews on one of its toys, lavish praise on it.
6. Do not allow the pup to chew on old socks, shoes, towels, stuffed toys or any objects which are similar to those that you don't want chewed.

Housetraining Tips for New Puppy Owners

1. Constant supervision is the key to successful housetraining. Keep the puppy with you at all times, either within eyesight or attached to you by means of a leash tied to your waist.
2. If you are unable to supervise, a crate can be a useful tool. The crate creates a den concept. Canines instinctively are reluctant to soil their living areas. If you have purchased a large crate for your adult sized pup, it may be necessary to partition for him/her during housetraining.
3. Allow frequent access to chosen elimination areas 6 – 8 times daily. Take the pup outside after awaking, eating and playing.
4. It is essential that you remain with the pup, until his duty is done. Assuming the puppy has eliminated outside on his/her own has led to many indoor accidents.
5. Make sure you allow 15 minutes of sniffing and investigation for the puppy. Do not encourage any play before he/she has completed their business.
6. Repeat a key phrase (such as "hurry-up"), to encourage elimination. The pup will begin to associate this clue and eventually will have elimination behavior under verbal control.
7. Reward elimination with verbal praise, a food treat or a play session. Positive reinforcement is a powerful training tool.
8. Do not punish the pup for accidents that occur unseen. The action elimination and punishment are separated by too much time for the puppy to understand. Only if you actively witness a mistake can you legitimately react. A loud "Outside!" can startle the pup and interrupt the act. Quickly take the pup outside to the appropriate location. Never rub a puppy's nose in a soiling accident!
9. Have a feeding schedule for the pup. A full stomach will need to be emptied approximately 10-30 minutes after eating. Avoid free feeding, this does not help you to predict eliminations. This also gives the pup control over an important resource. Do not restrict water for housetraining purposes.

GUIDELINES:

- At about 8 ½ weeks, puppies begin to develop surface and location preferences for elimination.
- Most Pups 8-12 weeks of age can go 2-4 hours without needing to eliminate.
- By 6-8 months of age, a dog can go 8-10 hours without soiling.
- Many puppies are reliably housetrained by 14-20 weeks of age.

Helpful Suggestions for Training your Puppy ⁽¹¹⁾

Dr. D. McKeown, *Animal Behaviourist*

Training is fun and very rewarding for you and your puppy. Puppies have an amazing capacity to learn complex commands quickly.

1. Start training as soon as you obtain your puppy. Puppies learn very rapidly but their attention span may be short. It is better to spend 10 to 15 minutes, twice daily.
2. Training should be conducted when the puppy is not excited and when the home environment is quiet. Once the puppy has learned a response in one environment, move the training location to progressively more complex and stimulating environments. That is, the puppy will have to be retrained for each environment which he will encounter.
3. Learning occurs more rapidly if only one person trains the puppy at first. The other family member can get involved too. Train the puppy by using one-word commands to "come", "sit", and "heel". Try not to use the puppy's name in association with the command, it is too distracting and slows the learning process.
4. Reward appropriate behaviour as soon as possible after giving the command. This is best done immediately! Give valued rewards such as food, touch and praise every time the puppy responds to a command. You will quickly learn which reward is most valued by your puppy. Once the response is learned, give the rewards intermittently. This will result in rapid learning and make the response more permanent.
5. If the puppy fails at any level of training, stop, don't reward. Start the training again at a simpler level. How consistently a puppy responds to a command is the result of the degree of training. If the puppy doesn't respond in an exciting environment or to your satisfaction, then more training is required.
6. Be patient. Never punish. *The opposite of reward is "no reward"*. It is not punishment. Punishment that causes pain or excitement does not work and generally causes problems. Punishment may also interfere with the owner/pet relationship. If the puppy is doing something that is inappropriate, distract the pet, issue a command and reward this response.

A TRAINED PUPPY IS A HAPPIER PUPPY AND A GREAT COMPANION!

What to Do

SOCIALIZING YOUR PUPPY

Socialization is the process during which your puppy develops relationships with people and other animals in its environment.

The experience that it has during its first six months of life will dramatically influence its adult temperament.

A well-socialized dog will readily interact with people and play with other dogs. To prevent a social behaviour and biting, it is important that the puppy has frequent, positive experiences with anyone that it meets during these years.

Be sure to avoid physical punishment and confrontations with people that may make it anxious. Encourage each person who meets the puppy to give it a biscuit. This will teach it to look forward to meeting people and discourage hand-shyness.

Once the pup has learned to sit on command, have each new friend ask it to sit before getting a biscuit. This teaches a proper greeting and will make the pup less likely to jump up on people.

Introducing your puppy to other dogs can begin after he is vaccinated. Puppy training classes are an excellent way of meeting people and other pups.

You are now on your way to enjoying a long and happy relationship with your new dog!

JUMPING

You hope that your friend would recognize that her pet is jumping up on you, but if she doesn't, politely say something. It is the owner's responsibility to notice these situations and ask people if they're comfortable with, say, a dog roaming among the party guests. But if an owner seems oblivious, it's perfectly fine to remind her tactfully of her duty.

BATHROOM BREAKS

If you have neighbours, don't let your dog use someone's lawn as a toilet. Even if you're going to pick up the mess, people don't like the fact that their kids may be running around barefoot where a dog has done his business. Instead, take your dog to the street or to the grassy strip between the sidewalk and the curb. Be sure to pick up any messes and throw them in your own garbage can.

If you live in the city, don't take your dog to the one tree on the block. The salt and urine can harm the tree if every dog that walks by it gives it a shower of urine. It is also a good idea to keep them out of small gardens and flower beds, it is best to teach your dog to use the curb as a toilet and always pick up after.

FOUND ANIMALS

Use extreme caution when a dog or cat that you do not know comes towards you, especially if they do not have an owner with them. One option if you see a stray animal is to call Animal Control. If you're comfortable with animals and can read their body language well, determine whether the stray seems approachable; if he does, look for identification, usually on the collar.

The lack of collar may be a sign that a dog is not friendly, in which case it's usually best to wait for an animal-control officer to handle the situation.

BARKING

Your neighbour may not know her dog is barking if she's not there to hear it. So, your first course of action should be to gently alert her. Communicate. Leave a polite note if you're not comfortable talking about it face-to-face. If you offer to help in finding a way to ease the dog's barking, make sure you have a local dog trainer in mind.

Your dog is barking. It's your responsibility to make sure that your dog is comfortable when you're away so that they don't bark and howl constantly. Make sure you give her a good bit of exercise at the start of the day. Most dogs just need a walk in the morning, breakfast, a chew toy, and blankets and they'll probably spend most of the day sleeping. Definitely, don't ignore a comment that your dog was barking. Find out when, then consult with a trainer or an animal behaviourist, who may suggest such strategies as giving the dog a treat whenever you leave the house to help ease his separation anxiety. You can also take the simple step of leaving a radio or a television set on, which can be soothing to the animal. If all else fails, consider taking the dog to a day-care facility or having a friend keep him company during the day.

ACCIDENTS ON OUTINGS

If your pet makes a mess while visiting a friend, on any of your friend's belongings, you should offer to pay to have it cleaned. If the item is ruined, offer to pitch in to buy a replacement or buy the replacement completely if finances permit. You need to consider what a hotel would ask you to do if your dog ruined a carpet, the carpet owner should not be left in the position of having to ask for reimbursement or help of some kind. It may be a good idea to bring a crate or carrier with you on extended visits. That way, whenever you're not in your friend's house with the pet, then the chances of them exploring and wanting to "spruce up the place" with their own fragrance is zero!

ANGRY PETS

If your lovely pooch is as friendly as Jaws, they should be kept under your control always – no exceptions. Dogs that are aggressive toward other dogs should always be walked on a leash. Dogs should be socialized with all different breeds and sizes of dogs from the very beginning in their puppy stages.

If you don't want people touching your pet, speak up! "I'm sorry – please don't pet him" and "sorry she's not great with children" are perfectly acceptable things to say. But if your dog welcomes the attention, encourage people to pet under the chin, which is less dominating.

If you are wanting to pet someone's dog and you don't know the dog's temperament, always ask if you can pet their dog, first! It is especially important to teach your children about how to behave around dogs. Teach them to ask "Is your dog friendly?" or "Is it ok to pet your dog?"

BRACE FOR IMPACT

You are walking by your neighbour's house and long behold the neighbour forgot to put their 120lbs angry dog on its leash, and it's growling and crouched ready to pounce. Try to remain calm, don't make any sudden movements. Do not look directly at the dog and do not yell or make loud noises. It is best to stand with your arms folded across your chest and look away from the animal. A dog can read your stare as a challenge and you don't want that. If you have

food or something that might be of interest to the dog, throw it away from you and the dog. That should distract him and you can slowly walk away.

EXPECTING COMPANY

If you don't know your new guests well, tell them in advance that you have animals. If someone is severely allergic, it's fair for them to ask you to put the pet in another place in the house. It's never appropriate to leave the animal outside unsupervised. But you can set up a comfortable room with the animal's blanket, crate or basket as well as toys and water. Even turn the television or radio on to calm the animal. In fact, you might even consider doing this every time you have a large group of people over as it can be stressful for the animal and for you if there is a lot of commotion or if people unintentionally let your pet outside thinking they're being helpful.

Nine Ways to Prevent Aggression

(07)

By Brian Kilcommons and Sarah Wilson (Taken from "Child-Proofing Your Dog")

1. Neuter your dog at six months.
2. Socialize and train your dog as young as possible.
3. Get him around nice children as early as you can.
4. Supervise children and dogs always.
5. Don't ever hit or yell at your dog.
6. Praise him warmly when he is behaving himself.
7. Don't play aggressively or roughly with him.
8. Make him respond to a command before you do anything for him.
9. Make him a member of your family. Tied to a tree is no place to be!
7. If he chews on an "off limits" object, scold him with a loud "no" and immediately replace that object with a chew toy.
8. Do not scold or punish if you do not catch him in the act and **never** swat or spank the pup.

How to Teach your Dog NOT to Come When Called ⁽⁰³⁾

By Augusta Farley

1. Say come, then not be willing or able to enforce it.
2. Make it hard for the dog to be successful, i.e., make it easy for the dog to fail.
3. Let your dog run loose all day without supervision.
4. Let your dog play with other dogs in the park without being able to call it back when you want it.
5. Football tackle it as it runs by.
6. Let your dog learn to escape from the yard.
7. Catch your dog when you are mad and let it go thinking you are still mad.
8. Yell at it when it is doing something wrong and make it go away from you.
9. Put it on a leash when it does not come rather than teach it to come.
10. Let it go 100 yards away before it has mastered coming at 99 yards.
11. Wait until it is faster than you are to teach it to come.
12. Do something unpleasant to the dog, e.g. put it in its pen, without planning a bonus reward (usually food) for obeying both "Come" and "Kennel" while you are still teaching "Come".
13. Play retrieve games and let the dog not bring the item to you.
14. Fail to define what the definition of "Come" means to you.
15. Let the dog bark at dogs or people without acknowledging your "Enough" or "Come" command.
16. Let the dog bolt through doors and gates without thinking.
17. When your dog "steals" something, chase it, preferably yelling.

Training (04)

WALTHAM® pocket book of puppy nutrition and care

REWARD GOOD BEHAVIOUR – IGNORE UNWANTED BEHAVIOUR

Puppies have different nutritional requirements compared to adult dogs and it is important that puppies are fed a suitable diet for growth. It is also essential that puppies receive the correct number of calories to support their rapid growth.

Training to sit

An effective way to teach your puppy to sit is to lure him into a sitting position using a treat. When the puppy is standing the owner should hold a treat just in front of his nose and then slowly lift the treat up and over his head. He should follow the treat with his nose and tip his head back as he follows it, resulting in him putting his bottom on the ground. He should be rewarded by giving the treat and praise as soon as his bottom touches the ground.



Training to lie down

A good method to teach the down position is to hold a treat just in front of the puppy's nose when he is sitting and slowly lower it down to between his front legs. This should lure him into a down position. He should be rewarded with the treat and praise as soon as he is lying down.



Training to come when called

Recall is an important lesson for puppies to learn at an early age. This can be taught by asking a friend to hold the puppy while the owner walks backwards a short distance and crouches down. The puppy should be allowed to see that the owner has a treat in their hand and then the owner should call the puppy. The friend should release the puppy as soon as he is called. The puppy should be rewarded immediately when he reaches the owner with the treat and praise.

This should be repeated, gradually increasing the distance, varying the location and with various levels of distraction.

Wearing a collar

A collar should be introduced as soon as possible and efforts made to teach the puppy to walk on a lead. Choosing the right size is important. The collar should fit so that two fingers easily fit underneath it. The collar is likely to need replacing as the puppy grows.

Walking on the lead

It is important for puppies to learn to walk on the lead without pulling so that both the puppy and the owner enjoy walks. When the lead is first attached, the puppy should be briefly allowed to drag it around. Next, the owners should pick up the end of the lead and let the puppy feel the resistance. A puppy should learn that pulling on the lead results in stopping rather than going forward. Owners should attach a lead to the collar and then encourage their puppy to stand near their side. The owner should then attract the puppy's attention by saying his name and start walking forward. When the puppy is walking by the owner's side without pulling, they should be praised. If the puppy pulls on the lead the owner should stop so that the puppy cannot continue forward. They should then encourage the puppy back to their side and begin moving forward again. It can help to lure the puppy into position with a treat or a toy. Special harnesses and halters are available which can help prevent large or strong puppies from pulling on the lead. These may be useful but should not be used as a substitute for training a puppy to walk without pulling.



Resting quietly

It is a good idea to give puppies praise and treats occasionally for lying quietly so that they learn that this is good behaviour. It can be useful to introduce a command such as 'settle' or 'bed' for times when the owner wants the puppy to remain quietly in one place.

Toilet training

One of the key things is to give a puppy lots of opportunities to go to the toilet in the right place. An owner should take him outside frequently, particularly after meals, after he has woken from a sleep, first thing in the morning and when the owner has been out. When he goes to the toilet in the right place, he should be given lots of praise and a reward. A puppy should never be punished if he has an accident – it should simply be cleaned up as if nothing has happened. Accidents should be cleaned up with a non-ammonia-based detergent (ammonia can smell like urine to dogs causing them to mark over it).

Behaviour problems

If a puppy develops behavioural problems it is best to speak to a veterinarian who can give him a health check and offer advice. A thorough health check by a veterinarian can sometimes reveal health problems that may be causing the behavioural issues. If appropriate, a veterinarian can refer the puppy to a behavioural specialist who can take a full and detailed history and then explain the motivation for the problem behaviour and help put together a treatment programme.

Using a crate

A puppy crate can be a great aid to training a puppy. However, the crate should be a nice, safe place for the puppy to rest in and should never be used as a punishment. It is important that a puppy crate is large enough for the puppy to stand up, lie down and turn around in easily when he is fully grown. Puppies should never be left in a crate for long periods of time. Owners who wish to use a crate for their puppy should begin by feeding the puppy in the crate so that he associates being in it with enjoyable experiences.

Other things to train

Puppy training classes are a great place for owners to learn to teach other tasks to their puppy. Useful commands to teach include 'stay', 'leave' and 'drop'. Puppy training classes can also help owners to teach tricks, such as rolling over or giving a paw, which can be a great way to keep an intelligent puppy's mind active.

Crate Training (09)

Dr. Don McKeown, Dr. Andrew Luescher, and Dr. Mary Machum



Although many people do not like the idea of crate training, most dogs look on their crate as a den which provides privacy, comfort and security. Crate training can be extremely useful in a variety of circumstances:

- Prevents vocalization at night because the crate can be placed in your bedroom
- Prevents investigative activity (chewing/destructive behaviour)
- The best method for house training
- Crate trained dogs will travel calmly and will not need to be tranquilized
- Crate trained dogs are happier when boarded if their crate is with them

The only disadvantage of crate training is that it cannot be used if the pup is isolated for long periods. The pup should never be left in the cage for more than 4 hours during the day, although it is fine to leave him in all night.

STEPS IN CRATE TRAINING

The crate, for a puppy, should be large enough for the adult dog to stand up and turn around in. one should reduce the crate size for puppies during house training.



The crate should be kept in the kitchen or bedroom. You may wish to keep it in the kitchen for the day and move it to your bedroom at night. It should not be left in an isolated area.

To start with, put treats, meals, water and toys in the crate so the pup can go into it on its own. Try to associate the crate with pleasant experiences.

DO NOT USE THE CRATE AS PUNISHMENT!

Put the pup in the crate for a few minutes with the door closed. If the pup misbehaves, discipline it with a loud noise. Try for 10 minutes (if the pup is quite), then let him out. After one hour, try again for 30 minutes. If the pup is happy for this length of time, he is conditioned to be left alone. Never let the pup out of the cage, or pay attention to it, if it is barking, whining, howling or doing anything you don't want. Make a loud noise and if he's quite for 5 seconds let him out. This makes him learn that he cannot get out by making a fuss and that you reward quiet behaviour with attention.

You may want to put a blanket over a wire cage to make it seem more like a den. Give the puppy a chew toy, but something to lie on is optional.

Do not put food, water or a chew toy in the crate while house training the pup.

Puppies should not be crated for more hours than they are months old plus one. Meaning a three-month-old pup should not be crated for more than four hours; a four-month-old pup for five hours. The self control of puppies varies; let your puppy guide you. The adult dog can be left for eight to night hours in the crate, but it is mentally and physically difficult. Large amounts of exercise before or after such stints in the crate are a must. You try not going to the bathroom for 8 hours.

- Puppies can usually hold it overnight by four months of age if a consistent feeding and watering schedule is followed
- Never put papers in the crate. You're trying to teach him NOT to go in there
- If your dog dirties his bedding don't put any in with him
- Don't expect a puppy to get muscle control until four months of age

- Put a towel UNDER the crate between the crate and the floor. This will keep it from rattling when the pup steps into it
- Store all toys and a few treats in the open crate. Allow the dog to get things as he wishes
- Feed your companion in the crate. Leave the door open, let him come and go as he pleases. If he is hesitant, put the bowl close to the door of the crate so he can easily reach in and get his meal

Halter Handling (05)

Debra Horwitz, DVM, Diplomate ACVB & Gary Landsberg, DVM, Diplomate ACVB © Copyright 2009 Lifelearn Inc.



TRAINING DOGS – HEAD HALTER TRAINING

Why should I halter-train my dog?

Head halters are commonly used as an alternative to neck control collars and have many advantages.

- Firstly, they make control easier, requiring less physical effort, so you don't end up battling with your pet or trying to save your shoulders from being pulled out of their sockets when going for a walk like you do when using a flat neck collar. The head halter has a strap that encircles the muzzle, and where the nose goes the body follows.
- Secondly, dogs pulling on neck collars can injure themselves as the collar presses into the trachea and neck. In addition, ocular pressure (pressure within the eyes) may increase with pressure against a neck collar, which may prove a risk to dogs with glaucoma. Dogs that pull may also be at greater risk of becoming aggressive to strangers or dogs that they meet on walks if they are punished or choked each time they meet a new person or animal.
- Thirdly, some head halters give you control over the dog's mouth, which may help control barking, turn the head away from the stimulus and reduce the risk of dog biting. However, if you know your pet has an aggression problem, a muzzle may be more suitable as it will prevent biting without having to rely on owner control.

HOW DO HEAD HALTERS WORK?

The head halter is an excellent aid for control and training. However, it is primarily a tool to help you achieve success. Some time and effort will be needed for your dog to adapt to wearing a head halter, and for you to ensure that it is fitted and used correctly. Briefly, head halters work by applying pressure behind the neck and around the muzzle so that the pet can be prompted to display the desired response. As soon as the desired response is achieved, the release of tension

(negative reinforcement) and the presentation of a reward (positive reinforcement) can be used to increase the chance of the pet repeating the behavior as it learns the target behavior that achieves reinforcement. As soon as the pet responds reliably, verbal cues / commands can be added. Since pets tend to pull against pressure, a strategic but gentle pull in just the right direction may be all that is needed to get your pet moving in the opposite direction.

How do I use a head halter to aid in the training of desirable behaviors such as a sit, relaxed walk, quiet, turn around, back up and down with a head halter?

With a few inches of slack on the leash the dog can be taught to walk on a loose leash by gently pulling the head back and releasing when the dog is walking by your side, or by pulling forward which should cause the dog to back up.

Pulling gently to the side will reorient the dog's head away from the stimulus and toward the owner (turn away, focus).

Pulling more firmly will close the mouth to stop barking or biting, while a pull upward and forward (with the aid of the second hand cupped under the chin if necessary) should insure a sit. Slight modification to the head position can then be used to teach the dog to maintain eye contact (focus / watch). Should the pet start to rise, a gentle pull upward and forward should help to maintain the sit, provided the release is properly timed to occur as soon as the sit is achieved.

Interestingly many dogs will move into a protracted and settled down when they realize that they are unable to rise from the sit. A gentle continuous pull rather than a jerk should be used to achieve the desired behavior. Once success is achieved, training should proceed to varied environments and slightly more complex tasks.

How do I use head halters to help manage undesirable behaviors?

The head halter can also serve as a tool to interrupt undesirable behavior and achieve the desirable response during training. For example, the head halter and leash can be used to prompt the dog to be quiet when barking, or to "stop" puppy mouthing. Similarly, a pull on the leash can be used to immediately curtail pulling, barking, chewing, stealing, stool eating and some forms of aggression. With a long leash left attached, the head halter can also be used to interrupt behaviors from afar such as garbage raiding, house soiling or digging.

AREN'T HALTERS IRRITATING TO DOGS?

Halters themselves are not cruel, but like any collar they can cause irritation if a little time is not spent fitting the halter properly and training your animal to accept wearing it. If the guidelines below are followed, your pet should enjoy wearing the halter. The most common errors are to immediately think your dog will accept the new sensation on its face, and allowing it to get the halter off. Critical issues are to insure proper fitting, to apply the head halter in association with something positive, to prevent the dog from removing the halter until it is settled, and to use the halter properly so that keeping the dog in the loose leash / released position rather than pulling on the head halter should be the focus of training.

HOW DO I GET MY DOG TO FEEL COMFORTABLE WEARING A HEAD HALTER?

1. Show your dog the halter, let him sniff to investigate it, and hold a treat through the open noseband so he voluntarily puts his nose through the ring. Repeat this procedure several times with the strap resting on the dog's nose for increasingly longer times before the treat is given. This starts to build a positive association with the muzzle loop.
2. Gradually expect more from your pet when you introduce the halter. Put the halter on and reward your dog with it on and again when you take it off. Slowly increase the time you leave it on and practice feeding treats with the halter on, but only when he is not

pawing or rubbing at the collar. You may be able to keep your dog distracted by playing a game, giving treats or going for a short walk with the leash attached to the neck collar. Alternately you can leave the leash attached and use a gentle pull if your dog tries to paw at or pull off the head halter.

3. Next you can apply the head halter and lead, and leave the leash trailing. You should aim to work towards keeping your dog haltered for about five to ten minutes. Try to keep your dog distracted and playing and give rewards when he is not focusing on the head halter.
4. When you first begin to use the lead to control your dog, make sure your dog's attention is focused on you. You should be animated and talk to him continuously, with lots of verbal praise. This also serves as a distraction from the halter, which reduces the chances of him pawing at it. You can use a lure or target and many small tasty rewards to keep your dog focused and on task. Training can begin indoors, in your yard or on a short walk. Make sure you frequently change directions by applying gentle tension to the lead while keeping up the praise and treats. Alternatively, you might play a game such as turning circles, in which your pet is encouraged to gently turn in one direction then the other. In this way, your dog learns that you have control of the head with light pressure and verbal commands.
5. Never remove the halter when your pet is trying to remove it. He can be encouraged to leave it alone by a slight tug on a lead. When he relaxes, the halter can be removed. Consider whether you are expecting too much too soon. The important rule is to work at a rate that your pet can accept and cope with. This may mean that the whole program may take a few days rather than a few minutes.
6. In some cases, a faster acclimating technique may be preferred. First, adjust and fit the neck strap and then take it off. Next, using treats or a favored toy as a lure, distraction and reward, slip the nose strap over the nose and continue to distract the dog with the treats or toy while attaching the neck strap. Then, using a leash, favored food treats and plenty of praise, it may be possible to play with your dog or take him for a short walk while he gets accustomed to the head halter. By making the walk fun, keeping the pet distracted and using food rewards to mark the desirable response, many pets will adapt to the head halter by the end of the first training session.

MOTIVATE:

An encouraging calm voice, targeting, and appealing eye contact should be used to help motivate the pet to respond. Positive reinforcement is then given when the dog responds appropriately.

COMMAND TRAINING:

If the owner gives a command and the dog does not immediately respond, the head halter is pulled immediately and gently (but firm enough to succeed) to achieve the desired response (sit, heel, quiet). The owner then releases tension as soon as the desired response is achieved. If the desired response is maintained, a reward is given immediately (e.g. food, clicker, toy, praise, stroking) to mark the correct response so that future success is ultimately driven by rewards. In practice, the behavior should not be given a name or command until you can reliably achieve the desired behavior.

PULL - RELEASE – REWARD:

By pulling on the head halter, the desired behavior can be quickly achieved and the pressure released when the response has been achieved. As the owner releases (by letting out a small amount of slack), the dog may then continue to exhibit the desired response (for which a reward should be given) or may begin to resume the undesirable response (e.g. tries to stand, lunge ahead, bark), in which case the pull (tension) should be reapplied. In some cases, it may take numerous repetitions of the pull and release to get the desired response but the total time to achieve success might not be much more than a few seconds. By releasing only, a small amount of slack, it will require only a slight pull to regain control.

HOW DO I USE THE HEAD HALTER TO TREAT BEHAVIOR PROBLEMS?

Once the head halter is fitted properly and can be used successfully to achieve a relaxed sit and heel in the absence of any distractions, the owner can proceed to more complex tasks and more difficult environments.

To achieve a relaxed sit and focus: The dog can be taught to sit and stay for gradually longer periods of time before the reward is given. The leash should be relaxed with a few inches of slack, but if the dog begins to rise or break focus a gentle pull up and forward should be used to maintain the sit. For most problems, training should then proceed to greater degrees of relaxation, by watching the dog's body postures and breathing, and reinforcing only when sufficiently relaxed. The owner can then begin to move away from the dog (still maintaining only an inch or two of slack) to train the dog to stay and not to follow or lunge forward.

To teach a relaxed down, the dog is reinforced for lying in place with a short amount of slack on the leash, and reinforced for gradually longer down times. If the dog begins to rise during the session the leash is used to maintain the down position. Rewards are given and the dog released to rise at the end of each session. As with sit / focus, the goal is to reinforce gradually longer and increasingly more relaxed sessions of down time. Relaxation can be observed by monitoring breathing and body postures (e.g. lying over onto one hip).

Socialization (04)

WALTHAM® pocket book of puppy nutrition and care

PREPARING FOR LIFE

Good socialization involves introducing the puppy to the world and is one of the most important things owners can do to ensure that their puppy grows up into a happy healthy dog. The main aim of socialization is to introduce puppies to a wide range of different people, dogs, objects and situations. Puppies should be familiarized with anything that they might encounter in later life. All of these things should be encountered in a positive way so that the puppies do not become frightened. A well socialized puppy should be able to cope with new things that he may experience in later life.

The period from 3 to 12 weeks of age is a particularly important time for young puppies because at this age they are highly sensitive to the beneficial effects of socialization. As owners usually take their new puppy home at seven or eight weeks of age, it is the responsibility of a good breeder to ensure that they do everything they can to socialize their puppies before they are homed. Although 3 to 12 weeks of age is the most important time for socialization to occur, socialization should not stop at the end of this period; puppies and adult dogs benefit from socialization throughout their lives.

Meeting people

People come in all shapes and sizes and puppies need to meet lots of different people to ensure that they are confident with all humans when older. One of the best ways for an owner to ensure that their puppy becomes confident with people is to invite lots of different people to their house. It is also important for puppies to meet people of different ages, particularly children. It is important that encounters with children are controlled so that the children do not overwhelm or frighten the puppy.



Meeting other animals

Puppies need to meet and interact with other puppies and older dogs so that they learn appropriate behaviour. This is important in preventing them from becoming frightened and potentially aggressive towards other dogs in later life. Owners should ensure that any adult dogs their puppy meets are well socialized and trustworthy with puppies, as it is essential to avoid negative experiences with other dogs. It is also essential that any adult dogs a puppy meets are healthy and fully vaccinated.

If a puppy is to live with other animals in the household such as cats then he needs to encounter them at an early age while carefully restrained to learn that they should not chase them. Similarly, it can be beneficial to allow a puppy to see livestock, while being prevented from chasing them, so that he learns that they are of little interest.



Novel situations and objects

Owners should familiarize their puppy with any objects that they may encounter in their daily life, particularly anything they may find frightening, such as vacuum cleaners, washing machines, televisions, umbrellas, bicycles and traffic. It is important to introduce the puppy to lots of different situations so that he learns there is nothing to be afraid of.

Travelling in a car

Owners must always ensure that their dog is appropriately restrained using a suitable dog guard, travelling crate or dog seat belt harness in the car. It is best to start with short journeys that end with enjoyable experiences such as going for a walk. Owners may find that allowing their puppy to eat some food or play with a favourite toy in the back of the car whilst the car is stationary helps him learn that it is a great place to be.

Being alone

It is really important to get puppies comfortable with being left alone for limited periods. Owners should begin by leaving their puppy alone in a room for a couple of minutes and gradually increase the amount of time. The time alone should be a positive thing, so providing suitable play toys in their absence will help to keep him occupied. An owner should start leaving the house for short periods and gradually increase the amount of time the puppy is left. The length of time alone should be varied so the puppy learns that the owner leaving doesn't always mean they will be gone for a long time. When leaving him alone it is important not to make lots of fuss saying goodbye; it is better to simply leave as if nothing is happening. On returning, it can help to ignore the puppy for a few minutes so he is not rewarded for any over-excitable behaviour. If he has had an accident and messed in the house owners should simply clean it up as if nothing has happened, and never punish him for it. It may also help to leave a radio on whilst out, so they have background distractions and so the home is not so quiet. This will also drown out any noises coming from outside that the puppy may react to.

Health checking and handling

Owners need to train their puppy to enjoy being handled by gently and calmly moving their hands all over his body. An owner should begin to look at his eyes, in his ears, open his mouth and gently feel each of his paws. All this should be done very calmly, giving plenty of praise and treats. This should get the puppy used to the way a veterinarian might examine them.

Long haired puppies should be introduced to brushing, so that they learn that it is an enjoyable experience, and breeds that may require hair clipping should be introduced to the sound of electric clippers so that they are not frightened the first time they go to the groomers.

Puppy parties and training classes

Puppy parties and training classes are a great way to start socialising and training a puppy. Here owners can get good advice on basic training and puppies can meet a wide range of other puppies of all shapes and sizes, as well as different people. Puppy classes should be well structured and organised and should not just be a free play session for puppies as this can frighten young or less confident puppies. In addition, class sizes should be limited to no more than 10 puppies. Veterinarians can often recommend where to find good puppy classes.



Checklist for Socialization (14)


The Art and Science of Animal Behaviour
 Dr. Sophia Yin, DVM, MS | ©2011



The goal is that the puppy has positive experiences, not neutral or bad ones. It's important to watch the puppy's response and note what it is and to also give treats to help ensure the exposure is a success. Here's a checklist that can help you. Download a copy of this puppy socialization checklist at www.drSophiaYin.com.




You can grade the response if you want or just check off each exposure.

PROGRESS	SCORE	RESPONSE TO THE PERSON, OBJECT, ENVIRONMENT OR HANDLING
Needs Work	1	Over arousal or try to get at: Growl, nip, bark, struggle (for handling), or lunge
	2	Avoid: Struggle, hide, try to get away, won't approach, or hesitant to approach
	3	Freeze: Holds still (but not eating), non-exploratory, moving slowly or acting sleepy when they shouldn't be tired
Going Well	4	Calm, relaxed, explores the object or environment, playful, focused on the food
	5	Calm, relaxed, explores the object or environment, playful, even without food

Additionally, a (+) can be used to denote better progress and a (-) denotes not as well: e.g. 2+, 2, 2- three levels of response.

Week Start Date _____		DAY & SCORE (or check mark)						
CLASS OF SOCIALIZATION	SPECIFIC SOCIALIZATION	M	T	W	Th	F	S	Sun
Handling 	Checking the ears							
	Examining mouth and gums							
	Opening the eyelids							
	Squeezing the feet							
	Handling and trimming the toenails							
	Pinching skin							
	Poking the skin with a capped pen							
	Touching and squeezing the nose							
	Poking the nose with a capped pen							
	Cradling puppy in your arms on its back							
	Holding him in your lap							
	Holding puppy upside down							
	Holding puppy on its back while giving a belly rub							
	Hugging your puppy							
	Pulling the collar (gotcha)							
	Grabbing puppy by other part of body							
	Wiping body with a towel							
	Putting on a head halter							
Putting on a harness								

Week Start Date _____		DAY & SCORE (or check mark)						
CLASS OF SOCIALIZATION	SPECIFIC SOCIALIZATION	M	T	W	Th	F	S	Sun
Unfamiliar People 	Women							
	People of many ethnicities							
	Tall men							
	Men with deep voices							
	Elderly							
	People wearing hats, helmets							
	People wearing Ugg® boots							
	People wearing hoodies							
	People wearing backpacks							
	People wearing sunglasses							
	People with canes, walking sticks or walkers							
	Teenagers							
	Children standing as well as playing							
	Toddlers (walking and squealing)							
	Infants (crawling)							
	People running by							
Indigent or homeless people								
Unfamiliar Dogs 	Dogs who play well							
	A dog who will reprimand puppies with appropriate force and restraint for getting into his personal space							
	With puppies who play well and do not get overly aroused							

Week Start Date _____		DAY & SCORE (or check mark)						
CLASS OF SOCIALIZATION	SPECIFIC SOCIALIZATION	M	T	W	Th	F	S	Sun
Objects with wheels 	Skateboards							
	Rollerblades							
	Garbage cans outside							
	Shopping carts							
	Baby strollers							
	Wheel chairs							
	Bikes							
	Cars							
	Buses							
	Motorcycles							
Man-made objects 	Pots and pans							
	Blankets or rugs being shaken							
	Brooms							
	Balloons							
	Umbrellas							
	Bags blowing in the wind							
	Sidewalk signs							
	Garbage cans in the house							
	Garbage cans outside							
	Plastic bags blowing the wind							
	Large plastic garbage bags							
	Metal pans or other metal surfaces							
	Metal-pens							
New environments 	Suburban neighborhood							
	Residential city streets							
	High traffic city street (such as downtown)							
	Shopping mall parking lot							
	Inside buildings							
	Dog-friendly event such as an agility or obedience trial							
	Location of several different dog training classes							

Separation Anxiety⁽¹⁰⁾

Dr. Don McKeown, Dr. Andrew Luescher, and Dr. Mary Machum

Dogs are social animals, and form strong attachments to other dogs and people. The dog's first experience with separation anxiety is when the pup is separated from its litter mates. New owners expect their puppy to be restless the first few nights he spends in his new home. In later life, problems arise when a genetically dependent dog hands strong attachments to one person. The owners are kindly people who spend a lot of time with their dog: they allow it to follow them around the house, and appreciate the excited welcome the dog gives them when they return home. Unwanted behavior often starts when the owner's schedule changes is that the dog is left alone more frequently, or at different times, than he is used to.

Signs of separation anxiety are only seen in the owner's absence, or when the dog is prevented from being close to the owner (for example, at night). The dog is in high state of anxiety or conflict because he wants to be with the owner and is prevented from doing so. Dogs, like people, cannot stay in high state of anxiety for long, and must do something to reduce tension. While you or I might have a relaxing bath, go for a run, or have a drink, the dog can only do "doggy" things to reduce tension. Things dogs do to reduce tension include:

- Chewing, digging, or licking which cause destruction in the home
- Hyperactivity (pacing, drooling)
- Urination or defecation
- Diarrhea or vomiting
- Barking
- Self-destructive redirected behaviours such as lick granuloma
- Resists confinement

It is important to realize that the dog is not going these things to get even with you for leaving him, out of boredom, or due to a lack of obedience. Consider instead that his dependence on you is so great that he becomes anxious when you leave. He must relieve this tension, and his methods of doing so may cause considerable damage. Also consider that, no matter how flattering his constant attention to you may seem, it is not fair to the dog to allow him to be so stressed by your absence that he must respond with one of these unwanted behaviors.

TREATMENT OF SEPARATION ANXIETY – WHAT DOESN'T WORK

1. Many people wonder about getting a pet for their pet, so that the dog won't be lonely while they are out. This does not work because the excessively tight bonding is between you and your dog. Having company of another has no effect on the distress your dog feels when you leave.
2. **PUNISHMENT DOES NOT WORK.** Dogs do not make the association between making a mess and being punished for it at a later time. They also cannot reason that if they don't make a mess in the future, they won't be punished. Even though your dog may look guilty.
3. Tying the dog to chewed objects, or painting them with a hot sauce, may stop him from chewing them. However, the tension he feels will be redirected elsewhere.

TREATMENT OF SEPARATION ANXIETY – WHAT DOES WORK

1. Have someone, other than the person, to whom the dog is attached, take the dog for a fast walk on a leash at least once a day. It should be 15-30 minutes long. Even if your dog has a large yard to run in all day, the fast walking will be beneficial.
2. Owner should obedience train the dog for 10 minutes twice daily. Train control and quiescence by teaching come, sit, stay and down stay. The goal is to achieve a 20-minute down stay. Train with food rewards. Give it, reward every time he performs when you are first time teaching a command, but as he gets better at it, reward the behavior intermittently. This makes the response less easily forgotten. It is valuable to perform these training sessions at the same time every day.
3. Give the dog an acceptable item to chew, ONLY when you go out. We find that a hard nylon bone is very useful. Drill a number of small holes in it, and stuff the holes with cheese. The cheese helps to attract the dog to the bone, which becomes a distracter. Give the bone to the dog without inducing excitement about 15 minutes before you go out, and WELL BEFORE you give the dog and notice cues that you are about to leave.
4. Everyone in the family must TOTALLY IGNORE THE DOG, especially 15-20 minutes before leaving the house (after you give the dog his bone) and for at least 20 minutes on returning home. This helps reduce the dog's excitement level before you leave, which reduces the tension he feels when you are gone.
5. In addition to the above training, the person the dog is most attached to should TOTALLY IGNORE THE DOG for a minimum of 3 weeks. This is the most important part of the treatment because it is what reduces the dog's dependence on you. Ignoring means not allowing your dog to follow you around, and not looking at, talking to, or touching the dog. Just pretend that the dog doesn't exist! I know how difficult this is (you got a dog in the first place to enjoy its company), but it is absolutely essential that you do it. Keep in mind that it is for a short time relative to the dog's life, and that if you do this conscientiously, it will work quickly and effectively to solve your problems. Be assured that you will be able to relate to your dog in a more normal way, once the dog's dependence on you has been reduced. Drugs are necessary in order to stop destruction or noise and assist the dog in accepting being ignored.
6. Drugs may be used with retraining, but they do not cure the problem.
7. Make a list of the things that you do before you go out for the day (and the destruction it occurs), and the things you do before you go out for a short time (AND NO DESTRUCTION OCCURS). Then, mix up the cues. For example, if the dog is fine when you go down stairs to do the laundry, try taking the laundry basket with you when you go to work.
8. It is important not to confine the dog because the more confinement, the greater the anxiety.
9. If the above techniques do not work, we will try Planned Departure training in conjunction with the above program. However, this is quite time consuming, and requires even more commitment from you than the above. Please get in touch with us and we will send you more information and help you through training.

The above techniques have worked well in the past, but they require a commitment from you if they are to be effective. Although we cannot retrain your dog, we are here to help in whatever way we can, so please call if you have a problem or questions.

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