

Section 1

Health checks and vaccinations

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A new puppy or kitten will be presented either by an existing client who has acquired another pet, or by a new client who has never been to the practice before. The purpose of this consultation is to evaluate the clinical well-being of the pet, advise on diet and discuss preventative medicine. However, during this time, the client will also be forming their opinion of the expertise, compassion and efficiency of the whole practice team.

Pre-purchase advice

Clients may occasionally ask veterinarians for advice about choosing particular breeds. However, what appears to be a simple question can have a very complicated answer. Choosing a breed of dog or cat is a very personal matter, so the final decision can rest only with the purchaser. Potential owners should be advised to do some research into the breeds they are considering, and ensure that they have the time, facilities and financial resources to own the breed that they choose. Factors that need to be considered are the size of the animal, the amount of exercise it will need and its likely temperament. In particular, veterinarians need to be aware of the many breed predispositions to disease so that they can answer specific questions when asked. For example, potential owners may want to know if the breed they would like to buy is prone to joint disease, skin problems or cancer.

If there is the opportunity to advise the client before they actually purchase their new pet, it should be suggested that finalising the purchase should be dependent on a satisfactory report from a veterinary surgeon. If the clinician subsequently finds a problem that could be detrimental, or have long-term financial implications, the animal then can be returned. The clinician should appreciate, however, that the majority of clients 'bond' very quickly with their new pet and cancelling the purchase, even after an unsatisfactory veterinary surgeon's report, is rarely an option. Indeed, many owners will feel that they have 'rescued' their new pet if they felt that the breeder/supplier would not look after it properly were it

to be returned, and are often prepared to invest the necessary care and finances to resolve the problems. If the animal is to be returned, treatment (especially surgical procedures) should not be instigated unless there are significant welfare issues.

The first consultation

The pet may be presented as soon as it has been acquired, but it is often better to see the animal after it has had the chance to settle in its new home for a few days and the owner has had the opportunity to observe its behaviour and demeanour. The owners can then describe any issues of concern and may describe signs that warrant further evaluation during the clinical examination. In most cases, puppies and kittens will be presented when they are 8–10 weeks of age, at which time they require their first vaccinations.

It is always helpful if reception or nursing staff can obtain the signalment (breed, age and sex) before the clinician sees the animal. It is permissible for them not to know that the dog is a Nova Scotia Duck-Tolling Retriever and not a mongrel but, unfortunately, not the veterinary surgeon!

Many owners are worried that their newly acquired pet will be exposed to infections at the practice and this concern should be appreciated. Practice policy may include keeping kittens and puppies contained within a pet carrier, or even waiting outside the building in the car, pending their appointment. At all times, the examination room, equipment and clinician should appear to be scrupulously clean. Owners of pedigree pets should be asked about the future use of the animal, whether it is for breeding, working or simply a family pet. Owners who wish to show their animals should be advised to seek the opinion of a recognised judge of the breed, if conformation is an absolute priority. The clinician's opinion should be confined to veterinary matters.

The clinician should check through any paperwork that the client has been given by the breeder/supplier. Often, they will have been given copies of the results of breed-related health schemes of the parents (e.g. hip scores, elbow scores, eye schemes) and this will introduce a discussion about diseases that will not be apparent at the time of the examination but may develop as that animal gets older (such as hip dysplasia, elbow dysplasia, cataracts, retinopathies, heart disease). In addition, the client

is likely to have been given a diet sheet, together with advice about worming and vaccinations. This information should be checked, to make sure it is broadly consistent with practice policy. Any differences in advice should be explained to the client.

The clinical examination

Time taken to ensure the consultation is pleasurable for the pet will pay dividends later. Forceful restraint and painful manipulations may make the animal fearful at future visits.

The physical examination should be thorough and follow the general principles outlined in the Introduction. Particular attention should be focussed on signs of infectious and congenital disease. The limitations of the examination should be explained to the owner and the results of all parameters that have been checked (whether normal or not) must be recorded.

General findings

- Puppies and kittens should be alert, bold and inquisitive, but it should be appreciated that some individuals are naturally reserved in a strange environment. Young animals that are genuinely ill are invariably lethargic, disinterested in their surroundings and reluctant to eat
- Coughing (dogs) and sneezing (cats) initially should be considered as signs of an infectious disease
- Diarrhoea is common and often associated with a change in diet but if the animal has diarrhoea when purchased, this concern should be addressed as it could have an infectious cause. Diarrhoea in young cats can be frustrating to treat
- Neurological signs such as intention tremors, ataxia or dysmetria may or may not progress, but rarely improve
- Breeds that have extreme characteristics (e.g. dwarfism, hairlessness, excessive skin folds) have their own 'in-built' problems and these should be mentioned, so that the owner knows what to look out for/expect as the animal matures. However, it would be unwise to make disparaging remarks about the characteristics of a particular breed to the owner, because often it is the eccentricity that has attracted the owner to the breed in the first place.

The head

- The mucous membranes should be normal. Abnormalities, such as cyanosis or pallor, are serious and will be associated with other clinical signs
- The mouth should be checked for cleft palates and normal primary dentition. Acceptable dental

occlusion varies with the breed standards, although in most breeds maxillary prognathism (overbite) is a fault. Although malocclusions are a serious show fault, they are rarely of clinical significance for the pet animal

- The eyes should be clear and bright, with no ocular discharges or epiphora. The eyelids should not show signs of entropion, which if present can lead to severe corneal damage. A degree of ectropion is a characteristic of certain breeds and would have to be deemed normal in such individuals. The nictitans should be in the correct position and there should be no deformity of its free edge. The globes and pupils should be of equal size, and there should be no signs of a strabismus or nystagmus. The identification of lens defects and retinopathies in very young animals requires considerable expertise, and it is often difficult to obtain the necessary restraint required for a thorough ophthalmoscopic examination. Rather than carry out a poor ophthalmoscopic examination, it may be preferable to outline the conditions that may exist (within the breed) and advise referral to a specialist at the appropriate age
- The ear canals should be clean and odour-free. Infestation with ear mites (*Otodectes cynotis*) is quite common and requires prompt treatment. The pinnae of most prick-eared dogs will not be erect until they are several months of age
- The nose should be free of discharges. The external nares are often small in brachycephalic breeds (both dogs and cats) and although this may be accepted as part of the breed standard, extreme stenosis may result in respiratory problems as the animal matures.

Chest and abdomen

- Auscultation of the lungs should not reveal any abnormal sounds
- The heart should be carefully evaluated on both sides of the chest, over the entire cardiac area, listening for heart murmurs that would suggest a congenital heart defect (see Chapter 56). Some murmurs associated with congenital heart disease can be very focal. If there is any doubt about the origin or significance of a murmur, the opinion of a specialist should be sought
- The rib cage should be palpated for symmetry
- Abdominal palpation need not be exhaustive, especially if it is being resented, as it is rarely productive. In the absence of other gastro-intestinal signs, thickening of the intestines would suggest a significant worm burden

- Umbilical hernias are very common and some may warrant surgical correction. This, however, is rarely urgent and can usually be deferred until the vaccination course is complete. In bitches, it can often be corrected at the same time as neutering. Inguinal hernias are much less common and can be difficult to detect. They carry a higher risk of complications later in life and should be repaired when the animal is reasonably mature
- Cryptorchidism is common but the testicles of very small animals can be difficult to palpate. It is a serious defect in animals that are to be shown or used for breeding and the clinician must be confident before declaring both testicles are present. If there is any doubt, the clinician should defer making a decision.

Skeletal system

- Limbs of chondrodystrophic or giant breeds can be difficult to evaluate but should always appear symmetrical when viewed from the front and rear. Growth plate disorders are uncommon but can lead to limb deformity that develops at an alarming rate. If such a deformity is suspected, expert advice should be sought at an early stage.

Skin

- The coat should be clean and should not smell
- The skin should be examined carefully for evidence of parasites
- Pruritus is common and may even lead to areas of excoriation. Allergic skin disease (atopic dermatitis, dietary) is uncommon in the puppy or kitten, and pruritus is usually caused by ectoparasites (whether obvious or not).

Taking the temperature of puppies and kittens is not particularly helpful unless they appear unwell. If it is done, it should be left until the end of the clinical examination, as the procedure is often resented. Elevated temperatures are common, especially in nervous puppies, and should be interpreted with care and in the context of the animal's demeanour.

Vaccination

One of the main reasons for the puppy or kitten consultation is to start the vaccination programme. However, it is unwise to administer vaccines until the animal has had time to settle into its new environment in case it is incubating any infectious diseases. If the animal develops signs of illness shortly after being acquired, the clinician and owner will then know that it was not induced by the vaccine.

Dogs are typically vaccinated against distemper, parvovirus, infectious canine hepatitis (adenovirus-1) and leptospirosis. In some countries, rabies vaccination is also required. Protection can also be given against canine kennel cough organisms by vaccinating for canine parainfluenza and *Bordetella bronchiseptica*. The necessity for these latter vaccines should be based on a risk-benefit analysis. The clinical signs that can be seen with these diseases is summarised in Table 1.1.

Cats are typically vaccinated against feline viral rhinotracheitis (herpes virus, FHV), feline calicivirus (FCV), and feline panleukopenia (feline parvovirus). In some countries, rabies vaccination is also required. Protection against feline leukaemia virus (FeLV) should also be advised in cats that are at risk of contracting this infection (especially outdoor cats or in multi-cat households). Vaccination against feline immunodeficiency virus is

Table 1.1 Clinical signs of the infectious diseases that dogs are normally vaccinated against.

Disease	Signs and symptoms
Distemper	Oculo-nasal discharge, conjunctivitis, coughing, dyspnoea, vomiting, diarrhoea, lethargy, anorexia, fever followed by neurological signs (seizures, vestibular disease, cerebellar signs, paresis or involuntary twitching)
Parvovirus	Vomiting, diarrhoea (often haemorrhagic), lethargy, anorexia, fever, dehydration and shock
Infectious canine hepatitis	Corneal oedema (blue eye), vomiting, diarrhoea, abdominal pain, hepatomegaly, jaundice, coagulopathy, lethargy, anorexia and fever
Leptospirosis	Shivering, muscle tenderness, lumbar pain, vomiting, polydipsia, jaundice, petechial haemorrhages, lethargy, anorexia and fever
Rabies	Behaviour change, difficulty swallowing, ptialism, bark change, dropped jaw, aggression, biting, ataxia, paralysis, seizures
'Kennel cough' Parainfluenza virus <i>Bordetella bronchiseptica</i>	'Hacking' cough, sensitive trachea, nasal discharge (see Chapter 54)

Table 1.2 Clinical signs of the infectious diseases that cats are normally vaccinated against.

Disease	Signs and symptoms
'Cat flu' Herpes virus Calicivirus (<i>Chlamydophila felis</i>) (<i>Bordetella bronchiseptica</i>)	Sneezing, nasal discharge, ocular discharge, ulcer on tongue, corneal ulcers, lethargy, anorexia, fever (see Chapter 55)
Panleukopenia	Abortion of dead kittens, 'fading kittens', sudden death, vomiting, diarrhoea, extreme lethargy, ataxia, intention tremors, seizures
FeLV	See Chapter 12
FIV	See Chapter 13
Rabies	Aggression, altered voice, biting, ptyalism, ataxia, paralysis, seizures

available in certain countries, but this can complicate subsequent diagnosis of the infection using immunological tests (see Chapter 13). The clinical signs that accompany these diseases are summarised in Table 1.2.

The recommended protocols and timing of vaccination varies between manufacturers and can change as new scientific information comes to light. Veterinarians should familiarise themselves with the type of vaccines used in their particular clinic and the requirements in specific geographic locations.

Antiparasitic treatment

The first consultation is also a good opportunity to continue deworming programmes and to initiate preventative treatment against other parasites. Puppies and kittens require continual protection against the development of intestinal roundworms (*Toxocara canis*, *Toxocara felis*, *Toxascaris leonina*). They should also be treated for tapeworms (*Dipylidium caninum*, *Taenia* spp.), hookworms (*Ancylostoma caninum*, *Uncinaria* spp.) and whipworms (*Trichuris vulpis*). In endemic areas, protection against *Angiostrongylus vasorum* is also advised. In some countries, year-round protection against heartworm (*Dirofilaria immitis*) is also required.

Many pets also require protection against ectoparasites (fleas, ticks). The nature of the control programme should be based on a risk-benefit analysis for the individual

patient, as the requirement for such prophylactic treatment varies dramatically with geographic location and even microenvironment.

There are many products available for antiparasitic treatment in dogs and cats with differing active agents, spectrum of activity and routes of administration. However, as yet, there is no single product that will effectively treat and protect against all the parasites listed above. Clinicians must determine what level of protection is required for their patient against each of the parasites, bearing in mind that this requirement can change at various stages of the animal's life. In most clinics, there will be established protocols that are based on local conditions. Despite this, there is always an element of choice when selecting antiparasitic products and factors such as cost, and the ease and frequency of administration can be taken into account.

Further advice

Diet

Discussions about diet can be fraught if the clinician disagrees with the advice that the owner has received from the breeder. On this subject, the client is likely to favour the opinions of the breeder and want to continue with their recommendations. However, dietary faults, such as over-supplementation with vitamins and minerals, are common. In addition, the palatability of some diets may not suit the individual, and the quantity of food recommended by the breeder may be too much or too little. In such cases, it can be suggested to the owner that the breeder's diet should be used as a basis for a transition to an adult diet. Many practices have nursing staff who are competent at giving dietary advice but initially the veterinarian should be responsible for advising any dietary changes.

Neutering

The practice will have established its preferred times for routine neutering. Although this operation will not be carried out imminently, the subject should be broached, if only to obtain the client's views on the procedure. Neutering is not appropriate in all cases (see Chapter 3). If the animal is to be neutered, other procedures, such as hernia repair can be carried out at the same time.

Training and socialisation

Advising on this subject can be very time consuming. Many practices have lay-staff who are competent to advise on this subject, and run (or know of) suitable classes or puppy parties.

There has been a tradition in some countries to alter the appearance of some dog breeds by docking their tails,

removing their dewclaws and cropping their ears. There are legal, ethical and moral issues surrounding this practice and clinicians should be aware of the legislation that exists in their own countries. For example, ear cropping is illegal in the UK but is permissible in the USA. Tail docking is now illegal in England, Wales and Scotland, although it is permitted in certain specified breeds in England and Wales if specific written evidence is provided that the dog will be involved in fieldwork. The reader is advised to consult current guidelines (e.g. RCVS website).

Additional recommendations

Some caution should be exercised when dispensing medication to young animals and the drug manufacturer's recommendations should be followed explicitly. Also, it is generally unwise to try and treat a number of different

things at the same time. Initial vaccination, treatment for ectoparasites and worm infections, together with a change in a dietary regime, may result in the animal becoming unwell, without the clinician being able to know exactly why.

It is well known that clients remember few of the facts that they are told during a consultation. As this consultation has to cover a wide range of topics, much of the advice should be presented in a practice handout, so that the client can digest the information at home. However, advice should always be given confidently and preferably with a specific recommendation. Although there is a basic tenet that owners should be given all the facts so that they can make informed decisions, the clinician is in the unique position of having received considerable training and should therefore be able to suggest the most suitable course of action; the clinician should not shy away from this responsibility.