Guidelines for Preventing, Recognizing, and Treating Pain in the Hospital Setting

Includes client education resources:
Recognizing Chronic and Acute Pain in Your Pet
& The Responsibilities of Pet Ownership
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Guidelines for Preventing, Recognizing, and Treating Pain in the Hospital Setting

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New Jersey VMA Animal Welfare Task Force
Elizabeth Hunton, DVM
Ann Ascher, DVM
Michael Tokiwa, DVM
Russell Earl, DVM
Anthony Scriffignano, DVM

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Recognizing Pain in the Veterinary Hospital

Although there are guidelines for assessing pain in animals it can be difficult to evaluate animals for pain at times. A combination of behavioral changes, plus physiologic responses, plus anthropomorphism is useful as a combined assessment. Assessing behavior is the most useful method for recognizing pain in animals. Almost any behavioral change may signal pain and the most consistent sign may be a behavior that is abnormal for that patient.

Behavioral Signs in Dogs
- Vocalization: growling, whining, and whimpering.
- Facial Expression: fixed stare, glazed appearance.
- Self Awareness: protecting wound or injury, licking and chewing wounds or a painful area, rubbing affected area.
- Activity: restlessness, restricted movement, trembling, shivering, weak tail wag or low carriage, or any degree of limp.
- Appetite: reduced.
- Attitude: increased aggression, fearfulness.
- Grooming: loss of hair coat sheen.
- Response to Palpation: protective, biting, vocalizing, withdrawing, scratching, escaping.
- Posture: hunched, lying on side, praying position, attempt to rest in abnormal position, head hanging down. Reluctance to lie down.

Behavioral Signs in Cats
- Vocalization: growling, purring.
- Facial Expression: furrowed brow, squinted eyes.
- Self Awareness: protecting wound or injury, licking and chewing wounds or painful area rubbing affected area.
- Activity: restricted movement, repeated meaningless movements, any degree of limp, trembling or shaking.
- Attitude: comfort seeking, hiding, aggression.
- Appetite: reduced.
- Grooming: failure to groom, unkempt appearance, licking, scratching.
- Response to Palpation: protective, biting, vocalizing, withdrawing, scratching, escaping.
- Posture: hunched, lying on side or sternal, attempt to rest in abnormal position.

Physiologic responses to pain are increased heart rate, increased respiration rate, fever, hypertension, dilated pupils, and increased cortisol levels. Physiologic responses may not be an adequate indication by themselves and should not be relied on as a sole indicator.

An anthropomorphic approach should be used if the caregiver has difficulty interpreting behavioral characteristics associated with a situation known to cause pain. This approach involves providing appropriate analgesics for the level of pain likely to be present and providing treatment based on predicted level of pain even if outward signs of pain are not present.

Regardless of the clinical signs demonstrated, if there is any doubt that an animal may be experiencing pain, then a trial treatment with analgesics may be indicated. At times, response to analgesic treatment may be the most reliable gauge of the patient’s pain.

Veterinarians and veterinary technicians should be familiar with normal physiologic values and behaviors and evaluate patients non-interactively and interactively. They should perform serial assessments to document changes in pain status and response to treatment. It may be best if the same person does all assessments to avoid variations between observers. Assess all patients for presence and intensity of pain or distress. Record results in a manner which allows for easy reassessment and follow up. A universal pain score is recommended to facilitate communication between staff members and professionals throughout the veterinary community.
Pain Assessment Scale

0  **No pain.** Normal activity. Sleeps with dreams, normal grooming. Apprehension and anxiety may occur in hospitalized patients, resulting in somewhat different behavior.

1  **Probably no pain.** Patient appears normal but not as obvious.

2  **Mild discomfort.** Normal appetite, sleeps, but may not dream (dreaming animals have REM). Not depressed. May limp slightly. Resists palpation of surgical wound. Respirations may be slightly increased. Dogs may still wag their tails; cats may still purr.

3  **Mild pain.** Patient is limping or guarding the injured site or incision. Abdomen tucked up. Patient looks slightly depressed. Can't get comfortable. May tremble or shake. May eat, but is picky. Respirations may be increased and may be shallow. Cats may still purr and dogs wag their tails during interaction with the caregiver.

4  **Mild to moderate pain.** Patient resists touch of the injured or painful site. May sit or lie in an abnormal position. Does not curl up and relax. May tremble or shake. May start to eat but then stop after a few bites. Respirations may be increased and may be shallow. May whimper or cry plaintively. Depressed in response to caregiver. Cats may not move for prolonged periods of time. Patient may be slow to rise, tail may hang.

5  **Moderate pain.** Patient exhibits progression of above signs. May be reluctant to move, depressed or inappetant. May try to bite caregiver if the painful site is approached. May vocalize if approached or moved. May tremble or shake. May hold head down. Splinting of abdomen is affected. May assume the praying position. Lies down but does not really sleep. Ears may be pulled back. Heart rate and respiration may be increased.

6  **Increased moderate pain.** Progression of level 5 signs. Patient may vocalize or whine frequently without provocation or when moving. Respirations may be increased. There may be an abdominal lift as patient attempts to cry.

7  **Moderate to severe pain.** Patient exhibits all signs from levels 5 and 6. Very depressed. Not concerned with surroundings, but usually responds to direct voice. Patient urinates or defecates without attempting to move. May not vocalize or may continuously whimper. Heart rate and respiration rate may be increased. Patient may be hypertensive.

8  **Severe pain.** All signs from level 7. May vocalize continuously or not at all. May not notice another presence. May remain motionless and is extremely depressed. May intermittently thrash. May scream when approached, especially cats. Hypertension, increased heart rate and increased respiration rate with increased abdominal effort are usually present; these are unreliable parameters if not present.

9  **Severe to excruciating pain.** Signs as in level 8. Patient is hyperesthetic. Trembles involuntarily when any part of the body in proximity to the wound or injury is approached. This level of pain can cause death.

10 **Almost comatose.** May scream piercingly or be nearly comatose. Whole body trembles. Pain is elicited wherever patient is touched. This level of pain can cause death.⁵
Training Staff to Recognize Pain in the Hospital Setting

Animal care facilities should adopt a pain management protocol addressing the following:
- All staff members should be trained in recognizing signs of pain.
- Receptionists are the “first line” and integral to good communication between clients and veterinarians. Training them to recognize signs of pain will help them prioritize appointment times and communicate to the client the possibility that their pet is in pain. They can also communicate to the doctor any behavioral changes casually mentioned on the phone which may be a sign of pain.
- Veterinary technicians need to know for the same reasons mentioned above and also to track and report any changes for hospitalized animals.
- Kennel help and veterinary assistants need to be trained so that they can report any changes to the technician or veterinarian.
- All new hires should receive pain recognition training as part of their orientation.
- Ongoing training to staff as the need arises or as new information is available.

Pain Management: Preventing and Treating Pain and Distress in the Hospital Setting

The benefits of pain management are numerous. First, and foremost, it relieves unnecessary suffering and distress in pets. Medical benefits include: preventing catabolism and negative nitrogen balance, maintaining body weight, promoting normal ventilation and cardiopulmonary function, promoting normal sleep patterns to help in recovery, preventing edema and thrombosis in immobile body parts, preventing urinary retention and constipation, and preventing suppression of the immune system. The benefits of pain management are numerous. First, and foremost, it relieves unnecessary suffering and distress in pets. Medical benefits include: preventing catabolism and negative nitrogen balance, maintaining body weight, promoting normal ventilation and cardiopulmonary function, promoting normal sleep patterns to help in recovery, preventing edema and thrombosis in immobile body parts, preventing urinary retention and constipation, and preventing suppression of the immune system. 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Pain management in the hospital consists of environmental factors, anticipating and pretreating painful events, recognizing pain, and treating pain.

Environmental factors

Preventing pain starts with easing psychological distress in the hospital. Animals are stressed when hospitalized or even brought into the veterinary office for a short procedure. Psychological distress will affect the immune system similarly to physical pain and can decrease healing and increase sensitivity to pain. The following environmental solutions are recommended, if possible in a given facility, to alleviate stress:
- Separate cats from dogs.
- Separate loud barking dogs from other animals.
- Avoid placing cages face to face to decrease visual exposure to hissing cats or barking dogs.
- Consider the use of pheromones to reduce stress.
- Allow fractious or frightened cats a box to hide in or towel to hide under if possible.
- Treat or handle pets in a quiet setting or room.
- Use noise abatement materials such as sound absorbing tiles in kennels and treatment areas.
- Train staff to properly approach and handle fearful or anxious patients.
Preemptive pain management

Anticipating what degree of pain an animal will have is especially important for scheduled procedures. Use of preemptive analgesia will decrease stress, decrease the amount of induction agents needed, decrease the risk of anesthetic overdose, will act as pain relief, and minimize the intensity and duration of post-procedure pain. Preemptive analgesia requires a clear knowledge of the chosen medication’s onset of action and duration of action, plus a guideline for anticipated pain that follows:

**Mild:** Early, resolving or simple involvement of surgical procedure, illness or injury. Example: urine scald, clipper burns or cuts, IV catheterization, full bladder, need to urinate or defecate, anal sac evacuation.

**Mild to Moderate:** In addition to above: ovariohysterectomy (OVH) (young animals), castration (some animals), lump removal, minor ophthalmic and dental procedures, some lacerations, cystitis, otitis, chest drains.

**Moderate:** Cruciate repair, minimally invasive orthopedic procedures (external fixator, tail amputation), laparotomy, (short procedure, minimal tissue manipulation, no inflammation), inguinal or diaphragmatic hernia repair (no organ involvement), mass removal (location, size and structures involved may require upgrade to next pain level), minor soft tissue injuries, urethral obstruction, early or resolving pancreatitis, OVH in older or obese animals, castration (some animals), some dental procedures, enucleation.

**Moderate to Severe and Severe:** (* varies with degree of illness or injury): *osteoarthritis, acute polyarthritis, *intra-articular surgical procedures, *fracture repair, limb amputation, onychectomy, early or resolving stages of soft tissue injuries/inflammation/disease, peritonitis, capsular pain due to organomegaly, (pyelonephritis, splenic torsion), hollow organ distension, torsions, ureteral/urethral/biliary obstructions, post thoracotomy, post laparotomy, pleuritis, traumatic diaphragmatic hernia repair, trauma, thoracolumbar disc disease, total ear canal ablation, saddle thrombosis, hypertrophic osteodystrophy, panosteitis, cancer pain, corneal abrasion/ulceration, glaucoma, uveitis, whelping/queening, mastitis.

**Severe to Excruciating:** neuropathic pain, nerve entrapment, intervertebral disc (IVD) herniation, inflammation, central nervous system (CNS) infarction/tumors, meningitis, extensive inflammation (peritonitis, fasciitis), post surgical pain associated with extensive tissue injury or inflammation, multiple fracture repair with extensive soft tissue injury, necroting pancreatitis or cholecystitis, pathological fractures, bone cancer (especially after biopsy). 2, 3

Treating pain

Treating pain can vary from physical rehabilitation to complex medical therapy. Generally, a pain management protocol starts with simple physical rehabilitation plus one category of pain medication such as a non steroidal anti-inflammatory drug (NSAID). As the severity increases additional treatments are added and a multi-modality approach is devised based on the individual patient’s needs and physical status. There are two major categories of pain: acute and chronic. Acute pain is associated with trauma and surgery while chronic pain is associated with things like arthritis, dental disease, chronic eye or skin conditions, and cancer.
**Acute pain treatments**
- NSAIDS (ex: carprofen, meloxicam, ketoprofen, etodolac, deracoxib)
- Steroids (dexamethasone, prednisone)
- Local anesthetics (lidocaine, bupivacaine)
- Opiates and their derivatives (morphine, butorphanol, tramadol, fentanyl patches, buprephenone)
- Alpha-2 agonist (xylazine, medetomidine)
- NMDA antagonist (ketamine, amantadine)
- Others (gabapentin)
- Acupuncture
- Ice packing surgical site the first 24 hours. (Especially suitable for orthopedic procedures such as cruciate repair)
- Heated cage or warm blankets to prevent trembling and muscle tension
- Plenty of comfortable bedding and a quiet area for recovery
- Splinting or support of fractured legs
- Urinary catheterization for animals unable to move or urinate normally
- General nursing care including cleaning, grooming, and petting
- Physical rehabilitation

**Chronic pain treatments**
- NSAIDS (ex: carprofen, meloxicam, ketoprofen, etodolac, deracoxib)
- Steroids (dexamethasone, prednisone)
- Opiates and their derivatives (morphine, butorphanol, tramadol, fentanyl patches, buprephenone)
- Tricyclic antidepressants (amitryptilline, monoamine oxidase inhibitors, benzodiazepines)
- Antihistamines
- NMDA antagonist (amantadine)
- Neuropathic pain modulators (gabapentin)
- Joint lubricants (polysulfated glycosaminoglycans)
- Omega 6 and omega 3 fatty acids
- Neurectomy or therapeutic surgery
- Radiation therapy (cancer)
- Physical rehabilitation (massage, range of motion exercises, etc.)
- Nutraceuticals (glucosamine, S-Adenosyl Methionine-SAMe)
- Acupuncture
- Doxycycline
- Heat or cold packs
- Limited low-impact exercise when appropriate
- Comfortable bedding with plenty of support
- General nursing care including cleaning, grooming, and petting
- Eliminating need to use stairs (carry dog if capable, move litter box)
- Weight management for obese animals with arthritis

Delivery of pain medication in the hospital setting depends on the drug and includes, but is not limited to, the following: intravenous, CRI (constant rate infusion), subcutaneous, intramuscular, orally, intra-articularly, peripheral nerve block, epidural, or transdermal patch. Medications for home care or chronic pain or usually given orally or as a transdermal patch.

Veterinarians should reference current professional texts and journals for guidelines on dosage, duration of action, onset of action, species and breed idiosyncrasies, prescreening (ex: blood panel/electrocardiogram, radiographs, urinalysis) and post therapeutic monitoring.
Recognizing Animal Abuse

Animal abuse ranges from neglect to torture and is a national problem crossing all socio-economic levels. Neglect/abandonment is the most frequent form of abuse and accounts for 29% of the reported cases nationwide. It is followed by shooting (13%), mutilation/torture (11%), beating (9%), and so on.\(^{28}\) Not only is animal abuse abhorrent in and of itself, but animal abuse is closely linked to domestic violence: 21% of intentional animal abuse cases also involved other forms of family violence; 60% of pet-owning households under investigation for child abuse and neglect also had abused or neglected pets; and 40% of battered women are unable to leave abusive relationships out of fear for harm or neglect of their animals.\(^{27}\)

It is clear that veterinarians, as a caring professional group, want to help in animal abuse cases: 78.9% of veterinarians have observed animal abuse among their patients, 93.6% believe they have an ethical responsibility to report suspicions of abuse, and 44.5% believe this responsibility should be mandated by law.\(^{26}\) Identified risk factors should cause veterinarians to be suspicious and to consider that injuries or maltreatment might be the result of abusive behavior or neglect.

Environmental indicators of animal abuse

- Discrepant histories.
- Client utilizes several hospitals in attempt to evade detection.
- Multiple fractures of different ages in same animal.
- Injuries to multiple animals in household.
- Repetitive history of accidents, deaths, or turnovers in household.
- Age as a risk factor: dogs and cats <2 years old are at greater risk.
- Breed as a risk factor: Pit Bulls and related breeds are at greater risk.
- Gender as a risk factor: male dogs are at a greater risk than female dogs. Overwhelmingly, human perpetrators of violence are male.
- Low socioeconomic status and substance abuse may be risk factors.
- Animal exhibits unusual behavioral signs.
- Munchausen Syndrome by proxy.\(^{32, 33, 34, 35, 36}\)

Diagnostic indicators of animal abuse

- Poor physical condition, absence of food, abandonment, collar too tight, lack of medical care, dehydration, excessive matting, parasitic infestation.
- General lack of sanitation, overcrowding, presence of dead animals, inadequate ventilation/lighting, excessive number of animals, presence of feces/urine.
- Physical bruising, fractures, repetitive injuries, lesions, burns and scalds, ocular lesions, internal injuries, administration of recreational drugs, poison, gunshot wounds, malnutrition, drowning, asphyxiation, untreated diseases.
- Owner unable to afford human or animal food, owner lives in isolation, evidence of animal fighting, bestiality or ritualistic sacrifices.\(^{32, 33, 34, 35, 36}\)
**Reporting Animal Abuse**

Oregon veterinarians are required to report suspected cases of aggravated animal abuse to local law enforcement, with a penalty up to $1,000 for failure to do so. In the context of this statute, a law enforcement agency is: any city or municipal police department, any county sheriff’s office, The Oregon State Police, a law enforcement division of a humane society in Oregon that employs special agents authorized under ORS 131.805, or a law enforcement division of a county or municipal animal control agency that employs sworn officers.

**ORS 686.455 Duty to report aggravated animal abuse.**

1. A veterinarian who has reasonable cause to believe that an animal with which the veterinarian has come in contact has suffered aggravated animal abuse, or that any person with whom the veterinarian has come in contact has committed aggravated animal abuse, shall immediately report the suspected aggravated animal abuse in the manner prescribed in subsection (2) of this section.

2. A report of suspected aggravated animal abuse required under subsection (1) of this section shall be made to a law enforcement agency, either orally or in writing, and shall include, if known:
   a. The name and description of each animal involved;
   b. The address and telephone number of the owner or person responsible for the care of the animal;
   c. The nature and extent of the suspected aggravated animal abuse;
   d. Any evidence of previous aggravated animal abuse;
   e. Any explanation given for the suspected aggravated animal abuse;
   f. Any other information that the person making the report believes may be helpful in establishing the cause of the suspected aggravated animal abuse or the identity of the person causing the aggravated animal abuse.

**ORS 167.322 Aggravated animal abuse in the first degree.**

1. A person commits the crime of aggravated animal abuse in the first degree if the person:
   a. Maliciously kills an animal; or
   b. Intentionally or knowingly tortures an animal.

2. Aggravated animal abuse in the first degree is a Class C felony.

3. As used in this section:
   a. Maliciously means intentionally acting with a depravity of mind and reckless and wanton disregard of life.
   b. Torture means an action taken for the primary purpose of inflicting pain.

**The veterinary forensic process**

- Complete a thorough examination to make a diagnosis of abuse.
- Report the abuse to authorities while finding a way to protect the animal from additional mistreatment.
- Conduct the forensic medical examination, which consists of taking appropriate samples, photographs, and radiographs. (See table on page 1-8.)
- Establish a chain of custody for the evidence: tag all evidence (include date, time, description, and signature), keep samples and data in a secured location, maintain an evidence log, and document all samples were shipped.
- Analyze data from the crime scene if necessary.
- Complete a written report.
- Testify in court.

**How veterinarians can assist community violence prevention programs**

- Participate in multidisciplinary community response teams.
- Provide foster care for pets of battered women.
- Provide medical care for abused pets.
- Assist in educational or therapeutic support programs for at-risk youth or offenders.
- Serve as expert witness in cruelty prosecutions.
- Assist animal shelters with investigation, documentation, pathology and necropsies in abuse cases.
- Provide cross-training for humane and human services agencies.
- Alert staff to be watchful for all forms of family violence.
- Discuss welfare concerns with clients. When such discussions fail to resolve matters, or when such discussions increase rather than allay concerns, refer cases of suspected abuse to appropriate authorities.
## Patterns on Non-Accidental Injury

<table>
<thead>
<tr>
<th>Type of Injury</th>
<th>Examine For:</th>
<th>Diagnostic Process or Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Trauma</td>
<td>Asymmetry from contusions or fractures. Petechiae. Ruptured tympanic membranes.</td>
<td>Radiographs&lt;br&gt;Inner ear exam</td>
</tr>
<tr>
<td>Abrasions or Bruising</td>
<td>Evidence of healing bruises or cuts (indicative of repetitive abuse) Embedded debris in skin or fur that can indicate dragging or throwing Fractured bones or ribs, including evidence of past injuries</td>
<td>Radiographs&lt;br&gt;Note location, size, and shape to connect to potential weapon</td>
</tr>
<tr>
<td>Feet Injuries</td>
<td>Frayed nails&lt;br&gt;Torn pads&lt;br&gt;Debris caught between pads and fur, or within frayed nail</td>
<td>Swipe feet across paper to preserve trace evidence in deceased animals, remove nail DNA</td>
</tr>
<tr>
<td>Burns</td>
<td>Smell wound for accelerants, oils or chemicals</td>
<td>Swab the wound before and after treatment for analysis of chemical&lt;br&gt;Photograph burn patterns</td>
</tr>
<tr>
<td>Starvation</td>
<td>Evidence of pica&lt;br&gt;Gastric ulcers&lt;br&gt;Occult fecal blood&lt;br&gt;Melena</td>
<td>Bone marrow fat analysis&lt;br&gt;Routine profile&lt;br&gt;Examine stomach content and feces</td>
</tr>
<tr>
<td>Embedded Collar</td>
<td>Visible signs of trauma&lt;br&gt;Foul odor from infection and necrosis</td>
<td>Take pictures before and after shaving&lt;br&gt;Measure width and depth of wound&lt;br&gt;Save the collar</td>
</tr>
<tr>
<td>Dog Fighting</td>
<td>Characteristic puncture wounds on face, neck and front legs Evidence of starvation and beatings Evidence of heavy chain used as collar.</td>
<td>Test for use of steroids, analgesics, hormones or diuretics</td>
</tr>
<tr>
<td>Gunshot Wounds</td>
<td>Fur forced in or out at entrance and exit wounds Singed fur or coat Abrasion rings Gunshot residue on or inside the wound</td>
<td>Remove bullets with fingers or cotton-wrapped forceps&lt;br&gt;Photograph each wound before and after cleaning&lt;br&gt;Shave and note powder patterns</td>
</tr>
<tr>
<td>Ligature Injuries</td>
<td>Crushing injury to skin, blood vessels and tissue Surrounding tissue may be inflamed and infected.</td>
<td>Characteristic bruising pattern&lt;br&gt;Trace evidence</td>
</tr>
<tr>
<td>Knife Wounds</td>
<td>Length and type of blade Note tapers on one or both ends of wound</td>
<td>Measure external wounds&lt;br&gt;Measure wound depth&lt;br&gt;Swab for DNA, both human and animal.</td>
</tr>
</tbody>
</table>

Source: Melinda Merck, DVM 29
Recognizing Chronic and Acute Pain in Your Pet

Sometimes it is obvious when your pet is in pain. For example, when he cuts his pad and holds up his paw, he hurts! At other times it can be difficult to recognize pain in your pet because there are few evolutionary advantages to displaying pain and signs of pain can be very subtle.

When your veterinarian examines your pet for any problem the very first part of the exam is listening to the owner describe any changes at home. We call that “history” in the medical field and its importance can not be overstated. Since our four legged friends can’t talk, it is necessary for their owners to observe any behavioral changes at home and communicate any problems to their veterinarian.

First, let’s dispel a few myths:
• If my pet is in pain, he will stop eating. Not true! Pets will eat in the face of extreme pain and anorexia cannot be relied on as the sole determinant of pain. Pets have individual responses to pain and can stop eating with mild pain from dermatitis or can eat in the face of a serious pelvic fracture.
• My pet is not crying so he can’t be in pain. Just like anorexia, this is an insensitive sign of pain.
• My dog’s leg can’t hurt because he is still running around like crazy. Yes, but he’s running on 3 legs so the fourth one hurts.
• My cat is purring so she must be fine. Maybe not! Purring usually means that a cat is content, but cats also purr when afraid, distressed, or in pain.

Recognizing pain in your pet is recognizing a change in behavior. Some examples follow, but remember any change in behavior may indicate a problem:
• Changes in personality or attitude. Example: a normally quiet and docile pet becomes suddenly aggressive or grumpy; an active pet becomes quiet, withdrawn or unresponsive.
• Abnormal vocalization, especially when a painful area is felt or your pet is forced to move. Example: dogs whine, whimper or growl; cats hiss, growl, or purr.
• Licking, biting, scratching or shaking of a painful area. If excessive, these behaviors can lead to self-mutilation.
• Changes in the appearance of the hair coat. Example: ruffled fur, loss of sheen, a greasy coat, unkempt, lack of grooming, and piloerection (hair stands up).
• Changes in body posture. Example: tensing of abdominal and back muscles to produce a tucked up appearance, hunched appearance, prayer position (hind legs up and down on elbows in front), laying flat onside in dogs, resting sternally (upright on his chest like a Sphinx) instead of curled up in a ball, and asymmetric sitting position (one leg held out away from body instead of tucked under as normal).
• Changes in ambulation. Example: limping or carrying a leg, head bob when walking, shifting of the body weight forward to front legs or shifting weight from front legs to back leg away from painful limbs, and difficulty rising or sitting.
• Changes in activity level. Your pet may become restless and pace or repetitively lie down, get up, and lie down again. In contrast, your pet may be recumbent and lethargic or reluctant to move with guarding of the painful area. Cats tend to hide or separate themselves from other cats and people.
• Changes in appetite.
• Changes in facial expression. Eyes become dull, fixed stare, glazed appearance, and pupils may be dilated. Pinning of the ears, creasing or furrowing of the forehead, grimacing, and a sleepy or photophobic (avoids bright light) appearance may be evident.
• Panting, shivering, increased respirations.
• Teeth grinding is frequently heard in rabbits and is sometimes noticed in cats as a sign of pain.
• Changes in bowel movements or urination, such as diarrhea with soiling of the rectal area, straining to urinate or defecate.
• Unusual posture of the body or head. Example: head tilt, reluctance to put head down to eat, or extended neck.
• Changes in training. Example: no longer wants to do stairs, may want to go up but not down or the reverse; stops on walks; refuses to go down certain streets or paths; not jumping on furniture; not using the litter box; or urinary accidents. 20, 21, 22, 23, 24
Selecting and Caring for a Pet: The Responsibilities of Pet Ownership

Pet owners and potential pet owners need to understand the responsibilities, cost, and time involved in owning a companion animal. Many dogs and cats are relinquished to shelters or abandoned because people purchase on impulse or without full knowledge of what they are really committing to. Abandonment and neglect are the leading category of animal abuse in the United States, accounting for 29% of reported cases nationwide.

Is a pet right for you?
Before adopting a pet, spend time evaluating the reasons why you want a pet. Adopting a pet should never be an impulse decision. No matter what kind of pet you adopt they will require daily disposal of their waste and cleaning of their environment, daily feeding, and daily walking or exercise for their entire life. Their needs range from taking a new puppy outside for training every two hours to helping a big dog with stairs in its senior years. Cats need attention too! To prevent boredom, obesity and behavioral problems they need playtime and attention from their owners.

Selecting a pet should be a family project with everyone’s needs, concerns, fears, and medical history considered. Discuss what kind of animal you want, the amount of time anticipated spending with it, and the amount of responsibility each person is willing to assume. Be realistic. Promises from some family members, particularly children, may not be fulfilled.7

If after evaluating your situation you decide that a pet is not right for you consider other ways to enjoy the love pets bring us: foster a pet through a rescue group on a temporary basis, volunteer at a shelter to walk dogs and pet cats, rear a Seeing Eye Dog or service dog puppy, offer to walk your friend’s or neighbor’s dog when they are away or spending a long day at the office.

Type of pet
Dogs and cats are the most common type of pet, but pocket pets (hamsters, guinea pigs, gerbils, mice, rats), birds, ferrets, and rabbits are examples of other wonderful pets. One of the differences between types is life expectancy which may be important in your decision. Pocket pets (hamsters, gerbils, mice and rats) have the shortest life expectancy, in the 2-4 year range. Guinea pigs live on average 5-8 years. Birds live from 10 to 50 years depending on the species. Ferrets live until 8-11 years old on average and rabbits until 6-10 years old depending on the breed. A dog’s life expectancy depends on the breed and ranges from 8 for giant breeds to 15 for small and toy breeds. The average life span of a cat is 14-18 years.31

The needs of different species vary also. All pets need a clean cage, food and water every day in addition to attention and toys to enrich their environment. Some pocket pets, like Chinchillas, are nocturnal and may not be a good choice if you need to keep the cage in a bedroom. Ferrets are wonderful playful pets, but have a distinctive odor that some people object to. Dogs need to be walked to relieve themselves often through the day and may not be the best choice for someone with a busy work schedule. Ask a veterinarian about specific requirements for pets before deciding on a pet type.

Size of pet
The biggest difference in size occurs in dog breeds and one should consider the size of your dog at adulthood before adopting a puppy or adult. Breed standards can be very helpful with this information. If adopting a mix breed the size of the parents can usually predict the size at adulthood. Some hotels, rental units, and condominium associations have restrictions on dog size and should be taken into consideration.8 Large dogs cost more to feed and care for. Medications for large dogs are considerably more costly than for small ones because all medications are dosed by weight. Boarding and grooming charges will increase with large dogs also. Due to public health issues dog owners need to discard their dog's feces when walking on the road, parks, or other properties. If you are squeamish about this consider the size difference in waste produced by a large breed dog as it is becoming a standard regulatory practice.8 And finally, a large breed dog would be inappropriate for a frail or weak person to adopt.
**Activity of pet**
All pets need exercise and this includes pocket pets, ferrets, cats, rabbits and birds. The biggest difference in need, however, occurs in dog breeds. The activity level can be predicted based on the original work the breed was designed for. In general, breeds originally bred for herding (Border Collie) and hunting (Springer Spaniel) will require more exercise than other dogs. Ask a veterinarian about specific breeds or mix breed activity levels if you are not sure. It is important not to underestimate the amount of daily exercise dogs need.

**Specific needs**
Long haired cats and dogs will need more frequent grooming to prevent knotting and tangles. Consider the time investment or the cost of professional grooming before deciding on a long haired breed. Some breeds (Bulldogs, Pugs, Shar Peis, to name a few) have redundant skin folds that need to be cleaned daily. Contact a veterinarian about special needs before adopting a breed or type of pet.

**Your needs**
Do you want a cuddly pet to keep you company in the house or a working dog that will go for long walks with you? Some working dogs have a different focus and may not want to be carried around and cuddled for hours. Some breeds are not able to exercise for prolonged periods of time (Bulldogs, etc.) and would be inappropriate for an active owner. What is your tolerance for shedding which can vary considerably from breed to breed? And finally, unfortunately breed bias exists in the public domain and may be an issue when going to dog parks and play areas (Pit Bulls/Rottweilers).

**Anticipated changes**
Puppies require a large investment of time to train properly. Recommendations for house breaking are to take your puppy outside every two hours in the first weeks. This intensity will decrease until about 6 months old when your puppy should be trained. As your puppy ages he will need lots of exercise, then less as he gets into his middle years. Older dogs may need more frequent trips to the bathroom or may need help with stairs as their function decreases. Kittens are very playful, can climb curtains, and knock objects off tables. As they turn into adults they are less active and mischievous; adult cats sleep most of the day.

**Financial expectations**
A study done in 1991 by AAHA estimated that in the first year of a puppy’s or kitten’s life the average client will spend between $900 and $1500. This did not include the purchase price of a breeding-quality purebred pet, but did include the following: adoption fees or non-breeder purchase, vaccinations, neutering, license fees, fecal examinations, preventive care, food, and the expense of one major illness. The average annual expenditure for veterinary care in the US in 1996 was $200 for dogs; and $150 for cats. In 2001, the average annual expenditure for veterinary care was $261 for dogs and $157 for cats.

**Zoonosis responsibility**
Responsible pet ownership means knowing some rare risks of zoonotic infections. A zoonotic infection is one that is spread from animals to people and is much more likely in immunocompromised people, the elderly and children. Special consideration should be taken if bringing a pet in to the home of such an individual or if visiting nursing homes or hospitals as part of a therapy pet program. Cats can transmit cat scratch fever with a scratch and Toxoplasmosis in their feces. Both dogs and cats can pass roundworms and hookworms in their feces and should not be allowed to defecate where children play or in public areas. It is now common courtesy to pick up after your dog and increasingly it is becoming required by law. Dogs and cats with severe diarrhea can also transmit Campylobacter, Salmonella, Cryptosporidiosis, and Giardia in their feces. Seeking veterinary care for signs of diarrhea in your pet, routine preventative de-worming, routine fecal exams, and consultation with your veterinarian and physician if pregnant or immune-compromised will prevent the rare occurrence of zoonotic infections.
Wildlife responsibility
Many breeds are used for legitimate and licensed hunting in the state. Other than for this use dog owners should do their part in protecting wildlife, especially endangered species. When walking your dog on trails, wildlife areas, or the shore restrain him from harassing wildlife. Even what appears to be an innocent chase can make a bird, such as a Piping Plover, go off its nest. There are over 73 million cats in the United States with recent polls showing approximately 35% are kept exclusively indoors. Estimates of homeless cats range from 60-100 million in the US. Combined with estimates of captured prey it is estimated that cats kill between 6 and 8 billion native species per year of which 1.5-2 billion are songbirds.11,12 Bells placed on cats do not prevent predation and in one study belled cats showed a higher kill rate!13 If your cat goes outside keep him inside when birds are fledging. Do not allow your cat to have access to bird feeder areas because of the ease with which cats kill birds at these stations.14 Conversely, kittens, cats and small dogs can be attacked and killed by hawks, owls, coyotes, and bears. If cornered, groundhogs, possum, and raccoons can cause serious injury to your pet.

Public safety responsibility
Approximately 334,000 people are admitted to US emergency departments annually with dog bite associated injuries, and another 466,000 are seen in other medical settings. An unknown number of other people are bitten but do not seek medical attention. Almost half of victims are children under 12; people more than 70 years old comprise 10% of those bitten and 20% of those killed.15 Intact male dogs are responsible for 70-76% of reported dog bite incidents. Responsible dog owners keep their dogs leashed when outside and, if anxious or aggressive, isolated from visitors in the house to prevent these unfortunate events. If your dog becomes anxious or aggressive in certain situations take this seriously and immediately seek a veterinary consultation on your dog’s behavior. Males should be neutered if they are still intact. When walking on public paths or in parks, dogs should be leashed. Remember, you are sharing a public space with other citizens and even though you may have a well behaved dog you should respect the rights of other people who may be afraid or just don’t want a dog coming up to them.

Stray animal, shelter issues
Adopting a pet is a commitment to that pet for its entire life. Abandoning your pet to the shelter or leaving them to fend for themselves is inhumane and often deadly to the pet. Cats abandoned outdoors are left defenseless and if they survive will form feral cat colonies contributing to the massive feral cat problem in the United States. There are an estimated 60-100 million stray/feral cats in the US who live short, miserable lives. Neutering your pet saves lives, many lives.

Breeding responsibility
Pets should be spayed or neutered. Spaying a female and neutering a male saves lives by allowing more pets to be adopted out of the shelter before being euthanized. The benefits of neutering a cat include decreased roaming, fighting, urine marking, spraying, and strong urine smell. Neutered cats are at a lower risk for Feline Immunodeficiency Virus (FIV), Feline Leukemia Virus (Feleuk), and serious infections from fighting; neutered male cats live longer. Spayed female cats are less likely to spray and urine mark, and are at a lower risk for FIV and Feleuk. In addition, spaying eliminates the loud and boisterous heat cycle which can cause their owners sleepless nights. Neutered male dogs are less aggressive, roam less, and urine mark less. Neutered dogs are at a lower risk for prostate disease, hernias, and perianal and testicular cancer. Spaying a female dog eliminates the risk of pyometra (toxic uterus) and virtually eliminates the risk of mammary cancer. Spaying also prevents heats, which in dogs is three weeks of vaginal bleeding.

If you feel you have a pet that is worth breeding, realize the responsibilities of breeding pets. First, make sure you have homes for any potential size litter. Second, do research for your particular breed on genetic disorders; your veterinarian can answer all these questions. Many breeds need special testing such as blood work, x-rays, or eye certification before breeding. It is certainly inhumane to bring a litter of puppies into the world with debilitating or chronically painful conditions.
Food
Pets should be fed a reputable and appropriately balance diet labeled for their consumption. Read the food label as a starting guideline when estimating how much to feed your pet. Because there is great variability based on the activity of your pet and your pet's metabolic rate, evaluating your pet's body score is the best approach. An ideal body score is described as: 1) The ribs can be felt without excess subcutaneous fat (fat under the skin), but you can not see the ribs. 2) The abdomen is tucked slightly when viewed from the side and the waist is visible from above just behind ribs.\textsuperscript{16} If the lumbar vertebrae (back bone in front of hips) and pelvic bones are visible your pet is too thin.\textsuperscript{16} If you can not palpate his ribs and there is excess subcutaneous fat along the ribs, over the shoulders or over his hips he is too obese. See the dog and cat weight charts on pages 3-1 and 3-2 (courtesy of Purina).

If your pet is too thin and does not put on weight with an increase in food you should have your pet examined by a veterinarian. Conversely, obesity is just as debilitating to your pet by increasing the incidence of arthritis, heart and lung problems, diabetes, and hygiene issues. In a recent study, dogs fed to an ideal body score lived on average 1.7 years longer than their obese pairs.\textsuperscript{17}

Water
All animals should have free access to water. Outside pets need special attention in the winter to assure free access to unfrozen water and provision of extra water during the hot summer months.

Weather
Most dogs can tolerate temperatures between 45 and 65 degrees. Their tolerance depends on their size, body condition score, and specific needs. In general, large dogs can tolerate cold more than small dogs, thin dogs are less tolerant of cold, obese dogs are less tolerant of heat, and brachycephalic breeds are less tolerant of heat.\textsuperscript{16}

Outside pets should have access to shade. A dry shelter should be provided to protect them from wind, rain, and cold with an elevated platform with straw or bedding to prevent heat loss. The shelter should be oriented to shield the pet from the prevailing winter winds.

Hygiene/grooming
The amount of grooming needed varies tremendously with breed. Your pet should be kept clean, the hair should be easily brushed or combed and free of mats. The nails should not touch the floor or barely touch the floor. Collar, if present, should fit comfortably allowing 2 fingers to pass under the collar.\textsuperscript{16}

Preventive medicine
Pets should be examined yearly and receive preventive vaccines recommended by your veterinarian. They should receive routine de-wormings to prevent parasitic infections and zoonotic spread of disease. Appropriate and safe flea and tick prevention, as recommended by your veterinarian, is important to your pet's comfort.

End of life care
While we don't like to think about our pets falling ill, or dying, it is important to know that, in many cases, a pet's end-of-life care is the responsibility of the owner. This can mean anything from administering shots or medication to observing your pet's condition closely and providing comfort. Sometimes, it also means making the decision to euthanize the pet. There are pet loss resources and support groups to help pet owners through this difficult time.

Animal care resources
The Oregon Veterinary Medical Association's Web site at www.oregonvma.org is a resource for animal health care information on topics ranging from preventative medicine to disease control to dealing with the loss of your pet.
Quality of life

“Quality of Life” (QOL) has no clear definition in the human or animal care fields. It is closely related and may be equivalent to a number of concepts such as well-being, welfare, happiness and contentment. McMillan breaks QOL into 5 areas: social, mental, health, food, and stress.19

**Social relationships:** There is ample research to show that companion animals like all animals require social interaction with other pets or with humans. To cite one study, 10% of singly housed dogs developed stereotypical behavior vs. none in group housed dogs.18

**Mental stimulation:** Deprived, monotonous, unchanging environments provide insufficient mental stimulation and lead to boredom. Lack of mental stimulation will increase behavioral issues such as self mutilation and destructive behavior. Providing stimulation through play and exercise and changing the environment alleviates boredom and abnormal behavior.

**Health:** Medical conditions impact quality of life with the pain and distress they bring. Nausea, pain, weakness, pruritus (itching), and hypoxia (lack of oxygen) are examples of symptoms that greatly reduce quality of life.19

**Food consumption:** Pets should not be subjected to prolonged periods of hunger unless medically indicated for their well being. Animals that are anorexic have a poor quality of life.

**Stress:** Stress in itself is not always bad and, in fact, can increase a pet’s quality of life (for example, hiding food in a Kong toy to mimic prey activity). Pets should be free from prolonged fear, anxiety, loneliness, boredom, and anger.4 Examples of methods to alleviate stress: giving a cat a high perch to escape the cat, dog, or person she fears or allowing a dog to go to seek a crate or separate room if fearful of children or certain people.
**Body Condition System**

1. **Too Thin**
   - Ribs, lumbar vertebrae, pelvic bones and all bony prominences evident from a distance. No discernible body fat. Obvious loss of muscle mass.
   - [Diagram of a dog in this condition]

2. **Too Thin**
   - Ribs, lumbar vertebrae and pelvic bones easily visible. No palpable fat. Some evidence of other bony prominence. Minimal loss of muscle mass.
   - [Diagram of a dog in this condition]

3. **Too Thin**
   - Ribs easily palpated and may be visible with no palpable fat. Tops of lumbar vertebrae visible. Pelvic bones becoming prominent. Obvious waist and abdominal tuck.
   - [Diagram of a dog in this condition]

4. **Ideal**
   - Ribs easily palpable, with minimal fat covering. Waist easily noted, viewed from above. Abdominal tuck evident.
   - [Diagram of a dog in this condition]

5. **Ideal**
   - Ribs palpable without excess fat covering. Waist observed behind ribs when viewed from above. Abdomen tucked up when viewed from side.
   - [Diagram of a dog in this condition]

6. **Too Heavy**
   - Ribs palpable with slight excess fat covering. Waist is discernible viewed from above but is not prominent. Abdominal tuck apparent.
   - [Diagram of a dog in this condition]

7. **Too Heavy**
   - Ribs palpable with difficulty; heavy fat cover. Noticeable fat deposits over lumbar area and base of tail. Waist absent or barely visible. Abdominal tuck may be present.
   - [Diagram of a dog in this condition]

8. **Too Heavy**
   - Ribs not palpable under very heavy fat cover, or palpable only with significant pressure. Heavy fat deposits over lumbar area and base of tail. Waist absent. No abdominal tuck. Obvious abdominal distention may be present.
   - [Diagram of a dog in this condition]

9. **Too Heavy**
   - [Diagram of a dog in this condition]

The **Body Condition System** was developed at the Nestlé Purina Pet Care Center and has been validated as documented in the following publications:

- Laflamme DP. *Development and Validation of a Body Condition Score System for Dogs.* Canine Practice July/August 1997, 22:10-15
- Keesey, et al. *Effects of Diet Restriction on Life Span and Age-Related Changes in Dogs.* JAVMA 2002; 220:1315-1320

Call 1-800-222-VETS (8387), weekdays, 8:00 a.m. to 4:30 p.m. CT
**Body Condition System**

1. Ribs visible on shorthaired cats; no palpable fat; severe abdominal tuck; lumbar vertebrae and wings of ilia easily palpated.

2. Ribs easily visible on shorthaired cats; lumbar vertebrae obvious with minimal muscle mass; pronounced abdominal tuck; no palpable fat.

3. Ribs easily palpable with minimal fat covering; lumbar vertebrae obvious; obvious waist behind ribs; minimal abdominal fat.

4. Ribs palpable with minimal fat covering; noticeable waist behind ribs; slight abdominal tuck; abdominal fat pad absent.

5. **Ideal**
   Well-proportioned; observe waist behind ribs; ribs palpable with slight fat covering; abdominal fat pad minimal.

6. Ribs palpable with slight excess fat covering; waist and abdominal fat pad distinguishable but not obvious; abdominal tuck absent.

7. Ribs not easily palpated with moderate fat covering; waist poorly discernible; obvious rounding of abdomen; moderate abdominal fat pad.

8. Ribs not palpable with excess fat covering; waist absent; obvious rounding of abdomen with prominent abdominal fat pad; fat deposits present over lumbar area.

9. Ribs not palpable under heavy fat cover; heavy fat deposits over lumbar area, face and limbs; distention of abdomen with no waist; extensive abdominal fat deposits.

Call 1-800-222-VETS (8387), weekdays, 8:00 a.m. to 4:30 p.m. CT
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