

Pet Emergencies & First Aid

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Overview

This document is meant to provide general first aid treatment and information regarding animals and emergencies. Always consult with and follow the direction of a veterinarian whenever possible. The information contained in this document is provided as is and there is no guarantee of the accuracy of its contents or the safety to people or pets while applying or utilizing the contents. Use at your own risk.

First Aid: Initial assessment and stabilization of injured animal

Triage: Prioritization of critically ill or injured animals into those requiring immediate treatment

Normal Vital Signs

Temperature

Normal Temp is 100-102.5° F (37.5-39.2 C)

Take with rectal thermometer or animal ear thermometer. Note: rectal temp. may be more accurate

Values of concern: Body temp < 99° f or > 103° F.

Pulse Heart Rate

Normal values vary on age and size of dog.

Large Breeds 60-100 bpm

Small Breeds 100-140 bpm

Puppies to one year 120-160 bpm

Activity level can affect heart rate

Exercise will increase rate

Sleeping animals have lower heart rates

Shock, disease, trauma can affect heart rate

Pulse – Where to take rates

Chest

At the 5th rib

Behind elbow

Femoral

Inner thigh

Close to pelvis

Midway to between front and back leg

Carpal (wrist)

Above middle pad on front foot

Dorsal pedal (ankle)

Top of hind foot below hock joint

Respiratory Rate

Note rate

Watch chest

Note effort

Chest/abdomen, neck extension, elbow position

Note noise

No noise for most animals, exceptions with brachycephalic dogs.

Normal 10-30 breaths per minute

Mucous membrane color

An indication of oxygenation to tissues

Lift lip to observe color of gums, tongue

If dog has black gums, evaluate sclera (whites of eyes)

Normal color is pink

Abnormal colors – brick red, white, blue, yellow, pale or brown

Capillary refill time

Way to evaluate circulation

Lift lip, evaluate color of gums

Press gums to blanch

Count how long until return to normal color

Normal is 1-2 sec or < 1 sec or >3 secs are values of concern

Level of Consciousness (LOC) mentation

Bright alert and responsive

Hydration

Skin tent (back of neck) 1-2 sec.

Mucous membranes – moist

Eye Position

Pain

Assume that if it is painful to human it is painful to animal

Shock

State of decreased tissue perfusion leading to cellular hypoxia and vital organ dysfunction

What does this mean?

The body's plumbing and HVAC system is not getting water, oxygen and nutrients to the tissues, or taking waste products away from the tissues leading to cell/organ dysfunction.

Early Shock

Temp
Low, high, (septic)
Pulse rate/intensity
High/Normal- increase
Resp. Rate
Normal-increase
LOC
Excite to subdued

Middle Shock

Temp
Often Low (may be normal to high)
Pulse rate/intensity
Elevated, irreg. /weak
Resp. Rate
Shallow and Rapid
MM/CRT
Pale/CRT < 2s
LOC
Subdued, Depressed, Weak

Late Shock

Temp.
Low (very)

Pulse Rate/Intensity

Slow. Shallow, difficult to find
Resp. Rate
Slow

MM/CRT

Depressed, Unconscious

First Aid Kit

KY packet (sterile lube 2#)
Bandage Materials
Cotton balls
Q tips 5#
3-4 in. cast padding, 2 rolls
Telfa pad 3X4 in
3-4 in. conform, 2 rolls
4X4 gauze sponge 10#
Zonas Tape
Bandage Scissors
Rectal Thermometer
Splint
Chlorhexiderm scrub 2%, 6 oz.
Curved tip syringe
Eye wash 4oz bottle
Artificial Tears Ointment
Diphenhydramine 25 mg. tabs
Scalpel Blade #11
Kelly or Crile Hemostat, 5 ½ strait
Standard Thumb Forceps, 5 ½
Nye Tourniquet
Exam Gloves
Slip Leash (2)
Muzzle
Hydrogen Peroxide 3%
Small Bowl
Thermal Blanket
Emergency Phone Numbers: Vet, ER, Poison Control

Survey of Emergency Situation

Stay calm and stay safe.
Get help and evaluate ER equipment available
Assess animal from distance
Is animal breathing or moving
Is animal is bleeding
Is there evidence of fractured limb or back?

APPROACH ANIMAL WITH CAUTION ANY ANIMAL IN PAIN, DISTRESS, OR SHOCK MAY BITE

Move slowly, speak in gentle tones
Assess body language of animal
Avoid direct eye contact
Capture animal with leash or towel
Muzzle animal

Basic CPR

Most cardiopulmonary arrest CPA events in animals start with respiratory arrest vs. cardiac arrest as in humans
Remember your ABCs (airway, breathing, circulation.)
Continue CPR until you:
Have spontaneous breathing/circulation or

Reach Veterinary facility or
Have been performing CPR for 20 minutes with no response

Animals that had CPA event need to be seen by a Veterinarian --- Risk of second CPA event.

**DO NOT START CHEST COMPRESSIONS BEFORE YOU CHECK FOR A PULSE
IF ANIMAL IS CONSCIOUS AND RESPONDS TO YOU THE ANIMAL HAS A HEART BEAT**

Basic CPR – Airway

Does the animal have a patent airway?

Extend head and pull tongue forward through teeth

Sweep mouth to remove foreign object/vomit

Note: If the animal is conscious and you sweep the mouth, you may get bit

Is the animal breathing after clearing airway?

Yes let animal assume comfortable position (no neck leashes/restraint)

No begin rescue breathing

Basic CPR – Breathing

If animal is not breathing, begin mouth to mouth/nose breathing (Kiss of Life)

Large dogs hold lips closed

Small animals cover nose/mouth

Cover nose/mouth with your mouth

Initially give 5 forceful breaths and evaluate to see if animal is breathing/pulse

If need to breath for animal give 20 breaths/minute

Basic CPR – Circulation

Does animal have heart beat/pulse?

If no heartbeat, begin chest compressions

Small dog/animals – encircle chest with one or two hands and compress

Large Dogs/animals – lateral recumbency, compress mid-chest with hands clasped and elbows straight,
compress chest about 30%

If working alone give 5 -10 compressions to every breath

If working with 2 people, 2 – 4 compressions to each breath

What's an Emergency?

Trauma

Allergic Reactions

Shock

Snake Bites

Respiratory Distress

Eye Injuries

Seizure (Change in mentation/behavior)

Toxin/poison

Bleeding

Straining to urinate or defecate

Internal/External

Vomiting/diarrhea

Hyperthermia or hypothermia

Fractures/dislocations

Abdominal distension
Trouble giving birth
Fainting
Paralysis

Common Emergency Situations & Response

Animal in Shock

Treatment:

Remain Calm, survey animal

Is animal breathing?

YES: Keep animal calm and transport to clinic

NO: Begin rescue breathing

Does animal have pulse?

YES: Keep animal calm transport to clinic

NO: Begin chest compressions

If animal is bleeding apply compressive bandage

Carry animal in carrier or stretcher/hammock

Place blanket over animal

Transport to clinic

Note: Animal in end stage shock can go into CPA. Prepare to administer CPR.

Respiratory Emergencies – Upper Airways

Clinical signs:

Increased breathing rate/effort, inspiratory noise, unwillingness to exercise, fainting, coughing, pale or cyanotic mucous membranes

Treatment:

Choking – Heimlich maneuver:

Sweep mouth

Lift animal and suspend with head down

Place hands around waist and make fist

Compress abdomen by pushing up fast five times in quick, rapid manner

Perform rescue breaths

Keep animal calm and in cool environment until transport

If the dog enters respiratory arrest – Begin Rescue Breathing

Respiratory Emergencies – Lower Airways

Clinical Signs:

Increased respiratory rate/effort, pale mucous membranes, head/neck, extended, abdominal effort

Causes:

Electrocution, drowning, non-cardiogenic pulmonary edema, pneumonia, heart disease, pulmonary confusions, pneumothorax

Treatment:

Assess if breathing and assist if needed
Keep animal calm and transport to Vet facility

Cardiovascular Emergencies

Clinical Signs:
Syncope (fainting) episodes
Respiratory distress, exercise intolerance, pale mucous membranes
Bloated abdomen
Severe pain or inability to move leg (s) – usually hind legs

Treatment:

Carry animal, treat for shock – Be aware that CPA may occur

Circulation/Bleeding Emergencies

External bleeding:

Clinical Signs:
Bleeding from site.

Treatment:

Apply bandage or direct compression of site. If bleeds through, apply more layers. (Do not remove first layer)
Tourniquet: Only apply for limbs and only apply for 10 minutes before loosening tourniquet for a few seconds.
Keep animal calm, elevate bleeding site if able (limb), seek medical care.

Internal Bleeding:

Clinical Signs:
Bleeding into lungs – respiratory distress, pale mm, bleeding from nose
Bleeding into abdomen – acute collapse, pale mm, distended abdomen

Treatment:

Treat for shock, carry animal, and seek medical care ASAP

Hyperthermia (Heat Stroke)

Causes:
Environmental (heat stroke), exertional, medical, (infection, seizures, cancer), toxins

Clinical Signs:
Panting, elevated body temperature, exercise intolerance, weakness, agitated to depressed LOC, elevated heart rate, brick red mucous membranes, seizures (shock)

Toxin Exposure

Toxins are various: plants, chemicals, medications (Rx, OTC, Street).
Foods/beverages, (chocolate, grapes/raisins, coffee, alcohol, topical products, gas (CO), poisons (rat, gopher).

Clinical Signs:

Varied depending on toxin but include: vomiting, diarrhea, seizures, change in mentation/behavior, ulcers in mouth/skin, red eyes, bleeding.

Questions:

When was the animal exposed?

Has animal vomited?

How long until you can get to Veterinary Facility?

Call Veterinary facility or Poison Control

ASPCA Animal Poison Control -- 888-426-4435 (\$55.00, initial fee)

Pet Poison Helpline – 800-213-6680

Don't Forget about customer/product information hotlines or products

Treatment:

Topical Poisons:

Bathe animal with copious amounts for water, oil based with dishwashing liquid

Flush eyes with saline eye wash or water

Do not let animal groom

Inhaled Poisons:

Move animal to fresh air

Ingested Poison:

Talk to Veterinarian or Animal Poison Control before trying to induce vomiting.

Induce vomiting only if:

Sought advice from Veterinarian/Animal Poison Control

Animal is conscious and has gag reflex

Do not induce vomiting if:

Substance is petroleum based, an acid or caustic substance or sharp object

To induce vomiting:

Use Hydrogen Peroxide 3%

1-2 ml/kg body weight by mouth (1 tsp/10 # body weight)

May repeat dose if no emesis in 15 minutes

Bring product container or list of substance with animal to Veterinary facility

Seizures

Do Not Put Hand In Mouth

Dog may have altered mentation/behavior, be blind, not recognize owner

Should be transported immediately if last > 5 min.

Should be seen if first time seizure

Seizures should stop in about 2-5 minutes

Treatment:

If possible move animal away from stairs and other animals away.

If puppy, place small amount corn syrup (Karo Syrup) on gums (possible Hypoglycemia)

If known diabetic and animal is alert, offer food, if not put corn syrup on gums. If post-partum, likely caused by low blood calcium

Vestibular Disease

Causes: Include idiopathic, inner ear infection, cerebrovascular infarction, hypertension, neoplasia

Treatment:

Keep animal away from hazards, support/carry animal
Recommend evaluation by Veterinarian

Ocular

Treatment:

Ocular exposure to irritant, flush eye with saline solution or water
Proptosed eye (eye out of socket)
Keep animal calm
Place artificial tears ointment on eye
Do not let animal paw at eye
Transport to Veterinary facility

Allergic Reactions

Allergic reactions caused by many things
Insects (bees, ants, spiders)
Drug
Vaccines
Food
Inhalant allergies

Clinical Signs: Facial swelling, hives, vomiting

Treatment:

Diphenhydramine (Benadryl), 2 mg/kg by mouth
May or may not help
Night need intravenous drugs or fluids

Snake Bites

Onset of clinical signs can take several hours

Clinical Signs: Pain, swelling, weakness, nausea, puncture

Severity Depends on:
Species, size
Location of bite
Excitability of victim
Type/age of snake

Treatment:

Keep Animal Calm
Keep Bite Site Below Heart Level if Possible
Transport to Veterinary Facility

Things to avoid:

Ice Pack
Incision and Suction
Tourniquet
Hot Pack

Acute Abdomen

Clinical Signs – Gastrointestinal: Vomiting, retching, regurgitation, diarrhea, painful defecation
Clinical Signs – Cardio respiratory: Panting, lethargy, collapse
Clinical Signs – Urogenital: Difficult/painful urination or No urination
Clinical Signs – Abdominal: Distention, pain, bruising
Clinical Signs – Miscellaneous: Fever (can be hypothermic if shock worsens), anorexia, icterus

Treatment:

Stabilize for Shock
Transport to Veterinary Facility ASAP
Causes are medical and/or surgical emergencies

Bloat/GDV

Large breed dogs more commonly affected
Can happen in any age, but more frequent in middle age to older dogs

Clinical Signs: Non-productive vomiting, abdominal distension

Treatment:

Stabilize for Shock
Transport to Veterinary Facility ASAP
Causes are medical and/or surgical emergencies

Hemoabdomen

Causes: Trauma, mass (spleen, liver) rupture

Treatment:

Stabilize for Shock
Transport to Veterinary Facility ASAP
Causes are medical and/or surgical emergencies

Peritonitis

Treatment:

Stabilize for Shock
Transport to Veterinary Facility ASAP
Causes are medical and/or surgical emergencies

Pancreatitis

Causes: Perforation in gastrointestinal tract, urethral obstruction/uroabdomen, prostatitis or pyometra

Treatment:

Stabilize for Shock
Transport to Veterinary Facility ASAP
Causes are medical and/or surgical emergencies

Trauma

Causes: Include hit by car, animal attack, penetrating chest/abdominal wounds, falling

Treatment:

Approach animal cautiously
Do not remove foreign body from chest/abdomen
Muzzle animal before moving
Carry animal or put on back board
Penetrating chest wounds – put puncture side down
Impaled foreign bodies in chest/abdomen – place with foreign body side up.
Assess for ABC` s, Shock
Is animal alert/responsive?
Is animal walking, or did animal stand after trauma?
Did the animal lose consciousness?

Obvious Fractures/Dislocations

Fractures of limbs

Treatment:

Splint limb; you must immobilize a joint above and below fracture
If you can't stabilize above and below fracture – DO NOT SPLINT
Take to vet

Fractures of back

Treatment:

Place animal in carrier if small dog or on back board/hammock if large dog
Take to vet

Preventing Emergencies

Provide good nutrition and plenty of fresh water
Regular veterinary checkups
Provide safe environment – Home, Car
Identification (collar/tags, microchip)
Exercise, socialize and train
Know your pet (medical conditions, behavior, anxieties)
Seek veterinary care/advice in a timely manner
Know phone numbers and location for your Vet, ER Facility, Animal Poison Control

The information provided in this document is from a hand out, given to those attending a Seminar given by Dr. Laura Ruff, DVM, Director, Emergency Services, at Alameda East Veterinary Hospital in Denver, Colorado.