Pet First Aid and CPR

Hosted by The Anti-Cruelty Society
Pet First Aid is the *immediate* and *temporary* care given to an injured animal until it can be taken to a professional veterinarian for more definitive medical care and attention.

The primary goal of pet first aid is to protect both yourself and your pet from further harm or injury.
Be Prepared

• Pet First Aid Kit and Emergency Preparation Supplies
• Red Cross kits www.redcross.org
• Emergency numbers—Veterinarian, local 24 emergency clinic, National Animal Poison Control (1-888-426-4435)
• Identification—Microchip number, tag numbers, current photo of pet with the owner.
• Dr Simuel Hampton 312-644-8338 ext 355
• shampton@anticruelty.org
What’s Normal

- **Pulse Rates (Beats Per Minute)**
  - Cats 160 to 220 BPM
  - Puppy (<1 year old) 120 to 160 BPM
  - Small Dog (<30lbs) 100 to 140 BPM
  - Medium to Large Dog (30 + lbs) 60 to 100 BPM

- **Breathing Rates (Breaths Per Minute)**
  - Dogs: 10 - 30 BPM (up to 200 pants/pm)
  - Cats: 20 - 30 BPM (up to 300 pants/pm)

- **Body Temperatures**
  - Dogs and Cats: 100 to 102.5 Degrees Fahrenheit
What’s Normal

- **Mucous Membrane Color and Capillary refill time**
  - Gums and inner eyelids should be pink, moist, and CRT <2 seconds
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How To Recognize an Emergency

• Know what is normal for your pet
• Get your pet used to being handled and examined by you
• Use your senses and your knowledge of your pet to recognize an emergency
  – No one knows your pet as well as you do!
• Look for:
  – Unusual Noises
  – Unusual Sights
  – Unusual Odors
  – Unusual Behavior
Emergency Action Steps

• CHECK—Check the scene for safety and clues as to what happened.
  – Check the animal only when it is safe!
• CALL—Call your veterinarian, Emergency Animal Hospital, Animal Care and Control or Humane Society
  – DO NOT CALL 911!!!
• CARE—Provide first aid procedures needed to stabilize the animal so that it can be transported to a veterinary hospital or other facility.
Handling and Restraint

• Use caution when approaching a sick or injured animal
• Be familiar with:
  – Capturing techniques
  – Muzzling
  – Restraint techniques
  – Carrying techniques
• Safety is the #1 priority
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ABC’s of CPR

• Airway
  – Is the airway clear?

• Breathing
  – Is the animal breathing?

• Circulation
  – Does the animal have a pulse?
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Conscious Choking

• Sweep the mouth: use caution not to get bitten
• Heimlich maneuver: place one hand in a fist under the last rib, cover your fist with the other hand and give 5 abdominal thrusts, in and up.
• Sweep the mouth again: if the object has not already come out on its own.

REMEMBER: It’s more important to get air in than to get the object out!
Conscious Choking

- Lift and shake: if it is a small dog or cat, lift the animal against your chest with the head hanging down.

- Wheel barrow: for a larger animal, hold the dog's hind legs in the air with the head hanging down.

- Sharp blows: give five sharp blows between the shoulder blades.
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Rescue Breathing

• **Airway:** check for an open airway
• **Breathing:** check for breathing (look, listen and feel for air)
  – Not breathing: close the mouth and place your mouth over the animal’s nose and blow. Give 4 to 5 quick breaths, then check for a pulse.
• **Circulation:** check the pulse.
  – If the animal has a pulse, give rescue breathing only until it is breathing on its own.
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Rescue Breathing Rates

• Small dog or cat (<30 lbs): breathe into the animal once every two to three seconds (20-30 breaths/minute).

• Medium to large dog (30 to 90 lbs): breathe into the animal once every three seconds (20 breaths/minute).

• Giant dog (over 90 lbs): breathe into the animal once every five seconds.
Unconscious Choking

- Airway: check for an open airway
- Breathing: check if the animal is breathing (look, listen and feel for breath)
  - Not breathing: attempt breaths then check the pulse.
- If breath will not go in, place your hands over the animal’s abdominal area and deliver 5 downward thrusts to dislodge the object.
  - Sweep the mouth to see if you can now remove the object.
- Continue thrusts and sweeps until the object comes out or air goes into the lungs.

REMEMBER: It’s more important to get air in than to get the object out!
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REMEMBER: IT’S MORE IMPORTANT TO GET AIR IN THAN TO GET THE OBJECT OUT!!!
Cardiac Arrest

• Signals of cardiac arrest:
  – No spontaneous breathing
  – No heartbeat or pulse
  – Grey-colored mucous membranes
  – Pupils are dilated and not responsive to light

• Begin CPR!
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CPR: Small Dogs and Cats

• Lay the animal on its right side.
• Place the palm of one hand over the ribs at the point where the elbow touches the chest.
• Place the other hand underneath the animal’s right side.
• Compress the chest with both hands 1/3 to 1/2 of the width of the chest and allow full recoil of chest wall between compressions.
• Alternate compressions with rescue breaths at a ratio of 30 compression to 2 breaths.
• Check the pulse every few minutes; continue up to 20 mins.
CPR: Medium to Large Dogs 30 to 90 lbs

- Lay the dog on its right side.
- Place both hands over the ribs at the widest point of the chest.
- Compress the chest with both hands 1/3 to 1/2 of the width of the chest and allow full recoil of chest wall between compressions.
- Alternate compressions with rescue breaths at a ratio of 30 compression to 2 breaths.
- Check the pulse every few minutes; continue up to 20 mins.
Types of Wounds

• Abrasions:
  – Scrape in the skin caused by a rough surface.

• Bruise:
  – Bleeding under the skin, inside the body usually resulting from a sharp blow.

• Laceration:
  – A cut or tear in the skin and soft tissue from a sharp object.

• Puncture:
  – From splinters, thorns, nails or animal bite.

• Impaled Object:
  – Wooden stick or tree limb, arrow or knife.
Controlling Bleeding and Bandaging

• Direct pressure will control most bleeding
• Bleeding from an artery can be difficult to stop
  – Apply pressure about two inches above the wound in the case of arterial bleeding
• Tourniquets can be dangerous and should only be used as a last resort.
• Bandaging:
  – Pressure bandage
  – Paw stirrup
  – Ear flap wound
Animal Bites

• Animal bites can look minor but can be very serious beneath the fur and skin.
• Control the bleeding, check ABC’s and check for shock.
• Check rabies vaccination status on the dog or cat that has done the biting.
• If a wild animal bites, don’t attempt to capture it.
• If the animal is dead, wear gloves to place it in a bag, seal the bag and take it to a veterinarian for rabies testing.
• Have the wound checked by a veterinarian.
WOUNDS

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Shock

- Shock is the body’s response to a change in blood flow and oxygen to the internal organs.
- Shock can result from a sudden loss of blood, a traumatic injury, heart failure, severe allergic reaction (anaphylactic shock), organ disease or an infection circulating through the body (septic shock)
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Signals of Shock: Early Shock

• The body attempts to compensate for the decreased flow of fluid and oxygen to the tissues

• Signals of early shock include:
  – Increased heart rate and intensity of pulse.
  – Mucous membranes may look redder than normal. This is common in septic shock.
  – Body temperature may be low, or in the case of septic shock may be elevated.
Signals of Shock: Middle Stage of Shock

• The body begins to have difficulty compensating for the lack of blood flow and oxygen

• Signals of middle stage shock include:
  – Hypothermia: (Low body temperature)
  – Prolonged capillary refill time.
  – Mucous membranes are pale.
  – Depressed mental state.
Signals of Shock: End Stage/Terminal Shock

• Occurs when the body can no longer compensate for the lack of blood flow to its vital organs.

• Signals of end stage/terminal shock include:
  – Slow respiratory rate.
  – Slow heart rate (weak or absent pulse)
  – Depressed mental state or unconsciousness.
  – Prolonged capillary refill time.
  – Cardiopulmonary arrest may soon follow.
First Aid for Shock

• Check ABC’s:
  – Administer rescue breathing or CPR as needed.
• Control bleeding.
• Warm the animal by wrapping a thermal blanket around the body.
• Elevate the hind end of the animals body by placing a blanket beneath it, unless you suspect a head, back or neck injury.
• Transport to a veterinary hospital immediately.
Thermal Burns

- First degree burns: reddening skin, swelling and tenderness.
- Second degree burns: blisters, redness, swelling and tenderness.
- Third degree burns: swelling under the skin, skin not sensitive to the touch, loss of hair and skin.
Thermal Burns

• **How to treat:**
  – Cool all thermal burns; water will help stop the pain and the “cooking effect”.
  – Apply a sterile non-stick pad or clean moist cloth over the burned area.
  – Do not apply ointments or topical medication unless advised by a veterinarian to do so.
Chemical Burns

• Many household products can cause burns or irritation on an animal's skin, face, or paws.
• Wear rubber gloves, eye protection, and protective clothing when washing a chemical off of an animal.
• To treat:
  – Use mild soap or baby shampoo with cool or warm water.
  – Lather the burned area well, then rinse thoroughly, repeating as many times as necessary.
Electrical Burns (Electrocution)

- Assess the scene; make sure the power is turned off at the source before approaching the animal.
- Check ABC’s: give rescue breathing and CPR as needed.
- Check for shock.
- Electrical burns may be internal: can result in swelling around and inside the mouth and throat, or in the breathing passages to the lungs (pulmonary edema), making it difficult for the animal to breath.
- Always transport the animal to a veterinarian immediately!
Sprains, Strains and Fractures

- **Sprain**: injury involving a ligament.
- **Strain**: is an injury to a muscle.
  - Restrict movement and alternate cold and warm compresses.
- **Open fracture**: bone broken through the skin.
  - Clean with saline solution, cover with dressing and bandage loosely.
- **Do not** splint, unless absolutely necessary!
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Splints

- **Do not** splint unless absolutely necessary!!
  - If done improperly, it can cause pain and more damage than the original injury.
- Rigid splint:
  - Place rigid material on both sides of the limb.
  - Encompass the joint above and below the break.
- Anatomic splint:
  - Use the good limb as a splint for the broken limb.
  - Place material between the limbs to cushion them and wrap loosely.
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Sudden Illness

• Often it is not possible to tell what is wrong with your pet.
• When an animal becomes suddenly ill, it often looks or acts sick and may display some of these common signals:
  – Dizziness
  – Confused or disoriented
  – Breathing difficulties
  – Unexplained excitability or lethargy
  – Loss of appetite
  – Vomiting
  – Diarrhea
  – Seizures
Seizures

- Do not place anything in the mouth.
- Keep your hands away from the mouth.
- Do not attempt to hold the tongue.
- Remove objects from around your pet that may injure it.
- Time the seizures.
- Have the pet examined by a veterinarian immediately.
Vomiting

- Not uncommon in dogs and cats.
- Common causes: change in diet, overeating, hair balls, motion sickness.
- More serious causes: poisoning, disease, parasites, infection.
- If it occurs repeatedly over a short period of time, blood appears in the vomit, it is accompanied by diarrhea or there is a change in the animal’s behavior, take the pet and a sample of the vomit to a vet immediately.
Diarrhea

- Can be caused by change of diet, illness, stress or poisoning.
- Combined with vomiting, dehydration is a concern.
- If blood is present or diarrhea last more than 24 hours, have the pet checked by a vet and take a fresh stool specimen with you.
- Check with your veterinarian before giving any medication to your pet.
Blood Sugar Emergencies

Hypoglycemia: Blood sugar is too low.

- Signals include
  - Loss of appetite
  - Weakness
  - Seizures
  - Shaking
  - Disorientation, wobbly, drunken looking gait.
  - Coma or unconsciousness

- First Aid:
  - Check ABC’s and for shock
  - Rub corn syrup, glucose paste or sugar water on gums, even if the pet is comatose.
  - Transport to vet
Hyperglycemia: Blood sugar is too high.
• Signals include:
  • Loss of appetite
  • Weakness
  • Change in behavior
  • Sweet smelling breath
  • Vomiting
  • Increased breathing rate
  • Dehydration
  • Shock and death can ensue
• First Aid:
  • Check ABC’s and for shock
**Bloat and Torsion**

- **Bloat:** the stomach fills up with air and food, often within hours after a meal.
- **Torsion:** the stomach turns around on itself cutting off the blood supply to the stomach and spleen.
- **Most often occurs in deep-chested and giant dogs, and is an extremely life-threatening emergency.**
- **Signals Include:**
  - Drooling or salivation
  - Restlessness and pacing
  - Nonproductive retching or vomiting
  - Enlargement of the stomach area
  - Shock
- **Transport immediately to the vet!**
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Snake Bite

• If you suspect a bite by a poisonous snake, attempt to identify the snake but don’t get close enough to get bitten.
• Check the ABC’s
• Check for signs of shock
• Keep the animal calm and still; movement can cause the toxin to spread more quickly.
• Wear rubber gloves, wash the wound with water and mild soap.
• Do not:
  • cut open the wound or attempt to suck out the venom.
  • place ice on the area or use a tourniquet.
• Transport immediately to a vet!
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Insect Bites

• Bee stings and spider bites are most common, and usually occur on the nose and feet.
• Use a fingernail or credit card, not tweezers, to remove a stinger.
• If the pet begins to display difficulty breathing or other unusual behavior, it may be suffering from anaphylactic shock, which is a life-threatening allergic reaction.
• Transport immediately to a vet!
Allergic Reaction

http://arbl.cvmbs.colostate.edu/hbooks/pathphys/endocrine/otherendo/histamine.html
SKIN ALLERGIES

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Poisoning

• There are many potential sources for poisoning around the home
• Three types:
  – Contact poisoning
  – Ingested
  – Inhaled
• See the National Animal Poison Control Center web page for lists of poisonous plants and other poison dangers: www.aspca.org/apcc
Contact Poisons

• Call your veterinarian or the National Animal Poison Control Center for information about the specific poison involved.
• Wash the animal with large volumes of water
• If your pet is having a reaction to a flea control product, mild soap or baby shampoo can be used.
• For oil based toxins, use dish washing liquid.
• If the poison is in the eye, flush the eye with large volumes of water or sterile eye wash.
Inhaled Poisons

- Take the animal into fresh air as quickly as possible.
- Check ABCs and administer rescue breathing and CPR as needed.
- Check for shock.
Ingested Poisons

• It may be appropriate to induce vomiting but do not do so until you have spoken with your veterinarian or poison control.

• Do not induce vomiting in the following circumstances:
  – The animal is having difficulty breathing.
  – The animal is seizing, or is showing a change in its mental state.
  – The animal is unconscious.
  – The toxin is a caustic substance such as drain cleaner, battery acid or petroleum based products.
  – The animals heart rate is low.
  – The object eaten was sharp or pointed.
  – There is a history of bloat.
  – When the poison container says not to.
How and When to Induce Vomiting

• If your veterinarian or the National Animal Poison Control Center advises you to induce vomiting, give household (3%) hydrogen peroxide orally.
  – One teaspoon per ten pounds of body weight.
  – This can be repeated every 15-20 minutes up to three times.

• Ipecac syrup can be dangerous for dogs and cats and should not be used to induce vomiting.
Body parts most susceptible are the tail, tips of the ears and pads of the feet.

Apply warm compresses.

Do not rub or apply pressure to the area.

Transport to the veterinary hospital.
Hypothermia

- Anything less than 99 degrees Fahrenheit body temperature is considered low.
- True hypothermia is usually less than 96 degrees Fahrenheit body temperature.
- Dry the animal and warm SLOWLY.
- Wrap with blankets and apply warm water bottles.
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Heatstroke

• This is a life-threatening condition!
• Because dogs and cats do not have sweat glands, they can only dispel heat by panting and through the pads of the feet.
• Heatstroke occurs when the body temperature is over 104 degrees Fahrenheit.
• Spray the animal down with cool water immediately.
• Place water soaked towels on head, neck, feet, chest and abdomen making sure not to cover the mouth or nose.
• Take the animal to the vet immediately!
Danger of Parked Car
Car or Motion Sickness

• To prevent:
  – Don’t feed your pet a large meal before a trip.
  – Offer ice chips as a source of water.
  – Stop frequently and let your pet walk around if possible.

• Ask your vet or a behavior specialist about desensitization training and current medications for motion sickness.
Prepare for Disaster

• **Get a kit**—In addition to a first aid kit, have an emergency preparedness kit available containing items for both your pets and your family.

• **Make a plan**—If you must evacuate, take your pets with you. Public shelters cannot take pets, so plan in advance for places that you and your pets can stay.

• **Be informed**—Congratulations you have just completed your pet first aid training! For information on classes in human first aid and CPR and disaster preparation contact the American Red Cross of Greater Chicago at (312) 729-6100 or visit their website www.chicagoredcross.org.
• During your Sunday morning jog on the beach with your 5 year old lab Sparky you notice he has started limping. You go to examine his paws and when you get to the front right paw he begins to whine. As you inspect the paw you notice a linear cut on his pad that has started to bleed. Luckily you have a fanny pack with your pet first aid kit in it.
  • What equipment will you want to grab from your first aid kit to treat this injury?
    • Fresh water or other cleansing solution, muzzle, gauze pad or other wound dressing, roll cotton, vetrap, adhesive tape, and scissors
  • Now that you have all your equipment ready what do we do next….?
There is 4 feet of snow outside and work is cancelled so you decide to spend the day marathon watching shows on Netflix. Your 3 year old cat Winston elects to join you. He’s found a nice warm spot on your radiator while you sit on the couch and you both fall asleep..... You wake up to a loud scream that sounds like Winston. You look over at his resting spot and he’s gone. You find him huddled underneath your bed licking at his side. As you try to grab him he starts hissing and lashing his tail and his fur is standing on end.....

• What are some good methods of capturing and restraining Winston so you can examine him?
  • Wrapping him in a towel or blanket. Scruff & Sit. Pillow case.
• You’re able to scruff him and take a look at him. On his right side you notice the skin is reddened, warm to the touch and blistered. What is the likely cause of this injury
  • Thermal burn from sleeping on the radiator
• What care can we give to make him more comfortable before taking him to the vet?
  • Cool water on burn. Cool towel placed over injury. Apply clean dressing to wound.
Lola, your 6 month old pit bull puppy, has been running around chasing her tennis ball all afternoon while you are trying to watch the Bulls game. During the fourth quarter you haven’t noticed her running around or heard her crash into anything in a few minutes so you decide to investigate. You walk into the kitchen to find her on her side on the kitchen floor....

What are the first things you should do?
- Emergency action steps (Check Call Care). ABC’s of CPR. Check her airway, see if she is breathing, check for a pulse.
- You find her tennis ball lodged in her throat. She isn’t breathing. You remove the tennis ball, but she still isn’t breathing and you can’t feel a pulse. What now?
  - Start CPR
- After 30 seconds of CPR you see that Lola is breathing on her own and you feel a strong femoral pulse. What should be our next step?
  - Pet to vet!!
Baxter, your 75 pound Rottweiler has been in the backyard for most of the day. When you go out to the back porch to check on him you call his name, but he doesn’t come. That’s pretty unusual so you go looking for him and find him laying down behind the old oak tree panting heavily. His water bucket has been knocked over and is bone dry. While examining him you begin to sweat and when you check your phone you notice a extreme weather alert noting temperatures well above 100 degrees!!

What is the most likely cause of Baxter’s distress?
- Heat exhaustion/heat stroke

What are some methods we have of lowering his body temperature and treating his heat stroke at home?
- Cool towel, water hose, fresh cool water to drink, ice packs wrapped in towels.

After 30 minutes of cooling him off Baxter is up with good mucous membrane color and normal temperature. Are there any concerns for him now that he appears to be recovered?
- Yes, some systemic signs of heat stroke may not appear right away. Would benefit from a visit to a veterinarian for further evaluation.
After a long day at work you come home ready to relax and have dinner. As you walk into the kitchen you see that the cabinet under the sink is open and your cleaning supplies are all over the floor. Of special concern is the bottle of Dirt Destroyer, a mild cleaning product, that has been chewed open. Not too far away, Moose, your 4 year old lab, is hunched and salivating with a pool of neon green vomit nearby...

• What likely happened?
  • Ingestion of cleaning chemicals.

• What are some initial steps to be taken?
  • Call poison control. Call veterinarian. Collect the container that the cleaner was in to take to veterinarian. Provide drinking water.

• Your veterinarian wants you to induce vomiting right away. What common household product can we use to induce vomiting in Moose?
  • 3% Hydrogen peroxide at a dose of 1 teaspoon per ten pounds
The Polar Vortex strikes while you’re at work and between the snow, ice, and terrible traffic it takes an extra 3 hours to get home from work. When you get home you hurry to let Sugar, you’re Boston Terrier outside to use the bathroom. You decide to hop in the shower to warm up while Sugar is running around enjoying the snow. You let her back in and she seems a little off. She’s walking gingerly and seems a little lethargic. You check on her 20 minutes later and she hasn’t moved and feels cold to the touch....

What condition should we be concerned about and what should we check?
  • Hypothermia/Frostbite. Check temperature

You check her temp and it’s 95 degrees. When you handle her paws she appears painful. What can we do to help bring her body temp up?
  • Warm towels, warm water bags, socks filled with rice and warmed up.
The annual family camping trip is going great! As you hike through the woods Spunky, your rat terrier, runs ahead after a squirrel. You lose sight of him and suddenly you hear a ear piercing yelp. As you catch up to Spunky you notice him limping and not bearing weight on his back leg. You carry Spunky back to the campsite where your first aid kit is and start to do an examination. You notice large swelling in the area of her knee....

What kinds of injuries should we be concerned about?

- Fractures, sprain, strains, ligament rupture (cruciate injury), animal bite.

Since it was the last day of the trip you decide to leave a little early. The campsite is a half mile away from the car with no roads in between. Looks like you’ll be walking. What are some carrying methods we could use to get Spunky to the car?

- Carrier if one is available, carrying in your arms if she tolerates it. In a blanket or on a flat board if you have help.
References

• American Red Cross
• AVMA
• VIN
References

• ACVECC RECOVER