Cardiopulmonary Resuscitation (CPR) for the Pet Owner

Emergency and Critical Care Service
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In the event that your pet is not breathing, CPR and mouth-to-snout resuscitation can be used to try to save your pet’s life until professional medical treatment can be administered.

It is important to immediately start compressions and artificial respirations if you feel your pet has arrested. Any delay in starting CPR could prevent successful return to spontaneous circulation (heart beat). Indications that your pet is experiencing a pending death may include a combination of the following signs:

- Absence or irregular breathing pattern
- Dilated pupils
- Cyanotic (blue) or pale (white) mucous membranes
- Loss of consciousness
- Lack of control of body systems (urination or defecation)

Taking the time to feel for a heart beat or pulses could cause extra delay and is not recommended. Minimal damage can be done by performing compressions on a heart that may still be slightly beating.

In order to correctly perform CPR it is recommended to follow the “ABC’s” to help remember all the steps involved.

AIRWAY

Gently open your pet’s mouth, pull out the tongue to help facilitate an open airway and to make sure nothing obvious appears to be obstructing the airway.

*Warning: Even an unresponsive pet may bite by instinct, be very careful!*

If you feel there is an object obstructing the airway, then an Animal Heimlich Maneuver can be performed by turning the animal upside down with its back against your chest. Use your fists (or for a cat one hand) and place them at the backend of the rib cage. Give 3-5 sharp thrusts to the abdomen. Stop after the thrusts and check to see if the object is visible in the airway, if so, remove and give two mouth-to-nose rescue breaths and continue on to “Breathing” step.

BREATHING

After assessment of the airway and clarification that there is no obstruction, make sure the neck is reasonably straight; try to bring the head in line with the neck.

*Warning: Do not over-straighten the neck in cases where there may be neck/head trauma.*
To perform mouth-to-snout respirations - hold the dog’s mouth closed by grasping your hand around the muzzle and breath directly into your pet’s nares with a constant pressure. The chest should expand (blow harder for large dogs, gently for cats and small dogs).

Breath rates of 10 - 12 breaths per minute or 1 breath every 5 - 6 seconds until your pet breathes on his/her own.

**CIRCULATION**

Good quality compressions have been determined to be the most valuable component of CPR. Compressions help augment blood flow which has been associated with more successful resuscitation for our veterinary patients. Ideally, if there are 2 people (or even more) available to perform CPR, make sure people rotate or take turns performing good quality compressions and to prevent fatigue. Ideally, compressor should rotate once every 1 - 2 minutes.

Lay your pet down on its side on a flat surface.

For medium and large dogs:
- Extend arms at the elbows
- Place one hand on top of the other over the widest portion of the rib cage, not the heart
- Keeping your arms straight push down on the rib cage about 1/2 of the chest width
- Make sure that after giving a good “down” compression that you allow complete chest recoil or “up” motion (de-compression) by allowing the chest to completely expand back to normal position before starting the next compression

For small dogs and cats:
- Place your hand on the rib cage over the heart, which is right behind the elbows when they are slightly bent where the chest comes together at the narrowest point
- Compressions can be delivered with one hand on each side of the chest at the level of the heart - or -
- Using one hand to squeeze the heart area by having the fingers on one side and the palm on the other side
- Compress the chest 1/3 of its width
- Allow time for adequate de-compression (or complete recoil) before starting another compression

Compress the chest 100 - 120 beats per minute. It is helpful to perform chest compressions in sync with the beat of the song by the Bee Gees, *Staying Alive* (so appropriately named). This song’s beat will allow the
perfect number of compressions for your pet. Perform 30 compressions and then give 2 breaths (30 compressions; 2 breaths) until visible respirations are noted or a heart beat is appreciated during your compressions.

**FINAL COMMENTS**

During an emergency it is very important that you remain calm. Animals can sense your unease, but cannot understand what is happening and you can’t tell them. This also includes humans in the area; the calmer you are the more efficient the CPR will occur and the more likely there will be successful resuscitation of your pet.

When you determine that you either have corrected the life-threatening problem, or are unable to stabilize your pet, you should transport them to the nearest emergency veterinary hospital.

The University of Minnesota Veterinary Medical Center is open 24/7/365 and take emergent patients on a walk-in basis. Please do not hesitate to call with any questions or concerns with your pet at any time.