Pet CPR 101

Although unfortunate and scary, a situation may arise where your pet requires cardiopulmonary resuscitation (CPR). CPR can be lifesaving when the need is identified quickly and measures are implemented immediately. CPR is performed on pets when the heart has stopped beating and the pet is no longer breathing. This is classified as cardiopulmonary arrest (CPA).

Less than six percent of dogs and cats that experience CPA in the hospital survive to discharge. To improve this outcome, the American College of Veterinary Emergency and Critical Care and the Critical Care Society recently released guidelines for CPR in dogs and cats. The recommendations can be found at www.veccs.org .

Veterinary CPR was developed through modifications from human CPR.

“In veterinary CPR, basic life support includes the recognition of CPA, administration of chest compressions, airway management and breathing for the pet,” says Dr. Lisa Peters of the Fox Valley Animal Referral Center, Appleton, Wis.

Before CPR is performed on pets, it is necessary to confirm CPA has occurred. “You must first verify the heart is not beating and the pet has stopped breathing,” stresses Dr. Peters.

Once CPA is confirmed, Dr. Peters recommends following the steps below for proper pet CPR.

Chest Compressions

- Chest compressions can be performed with the pet laying on its left or right side.
- Depth of compressions should be one third to one half of chest width.
- 100-120 chest compressions performed per minute.
- Full chest wall recoil between compressions must occur. This means there should not be any leaning on the chest during the recoil phase (the phase in between compressions).

Hand Placement

- For small dogs and cats (less than 22 pounds) compress the chest using the one handed technique by placing the thumb and forefingers around the chest from the underside of the animal behind the front legs. Squeeze the thumb to the forefingers. Begin compressions as described above.
- For medium to large dogs (greater than 22 pounds) place your hands on top of one another and then place them both over the widest part of the chest. Keep your arms straight. Lean over the top of the pet, with the pet's back facing towards you. Begin compressions as described above.

Airway Management and Breathing

- Mouth-to-snout breathing should include 10 breaths per minute.
- As the pet is unconscious, open the mouth, pull the tongue forward and verify there are no foreign objects or material in the airway. This should never be performed in a conscious or seizing animal.
- Hold the pet's mouth tightly closed; place your mouth over the pet's nose making a seal with the snout and blow into the nostrils – give two breaths immediately.
- If there is a single rescuer, 30 chest compressions are continued at the rate of 100-120 per minute followed with a brief interruption and two more breaths. Quickly resume compressions.
- If there is more than one rescuer, have one person perform chest compressions and the other perform mouth-to-snout breathing at the above rate to avoid interruptions in chest compressions as described above.
- Continue this cycle of 30 chest compressions with two breaths for at least two minutes without interruption before changing rescuers.

It is important to make every attempt to transport the pet to a veterinary facility during CPR. However, this poses a challenge as there should be little interruption in CPR efforts.

Special training is recommended before performing CPR on pets. Dr. Peters suggests taking

pet first aid courses through the American Red Cross, which includes CPR training. Veterinarians are also a great resource for finding pet first aid courses.

Dr. Peters advises pet owners to stay calm in all emergency situations.

“The best thing you can do for your pet in any emergency situation is to be prepared, remain calm, and call your veterinarian or a veterinary emergency clinic. Keeping your pets healthy and safe will hopefully prevent the need for life saving measures.”

To learn more about CPR on pets, contact your local WVMA member veterinarian. Find one online at www.wvma.org .

The Specifics of Electrolytes

There is nothing quite like the ability of a sports drink to quench thirst and dehydration after being outside enjoying the summer sun. Sport drinks, such as Gatorade and Powerade, are used by athletes, active travelers and parents, as well as those recovering from a sickness. These drinks are very similar to electrolytes given to animals to prevent and treat dehydration.

“Electrolytes are various salts which have different and important functions in an animal’s body,” says Dr. Barry Kleppe of Waunakee Veterinary Service, SC. “Often, these salts are added to water to make an electrolyte solution, commonly called electrolytes.”

Large animals receive electrolytes to restore and maintain hydration, as well as to correct electrolyte imbalances in the body. Depending on the animal’s age and size, different quantities of electrolytes are given.

“Veterinarians give electrolytes to properly balance an animal’s electrolytes [already] in their body, or to rehydrate the animal,” Dr. Kleppe says.

“Electrolytes contain different salts of sodium, potassium, calcium, magnesium, chloride, and

other elements and compounds," states Dr. Kleppe. These are mixed with water to make solutions of electrolytes. Animal owners can purchase salts as a dry packet and add them to water, or may purchase an electrolyte solution.

According to Dr. Kleppe, electrolytes help maintain health in an animal's body. Electrolytes can be especially helpful when animals are sick or giving birth.

A veterinarian's role is to assist animal owners in making decisions on when and how to use electrolytes.

"Veterinarians provide advice that includes medical treatment, animal husbandry, and nutrition to help keep animals healthy," explains Dr. Kleppe.

Veterinarians and animal owners work together every day to keep their animals healthy, and electrolytes are just one tool to do so. The next time you consume a sports drink, remember that animals may need a similar, rehydrating drink.

To learn more about electrolytes for animals, contact your local WVMA member veterinarian. Find one online at www.wvma.org .