ANIMAL HOUSE Inc.

850 S. Lola Lane

Pahrump, Nevada

Emergency Checklist

What To Do First:

In any type of emergency, don't waste time trying to make an accurate diagnosis, just quickly assess the situation. Perform a quick physical exam of your dog. Check:

	Normal *RESTING*	My Dog
Breathing rate	**10 to 30 breaths per minute**	**_____ breaths per min**
Pulse	**60 to 160 beats per minute**	**_____ beats per min.**
Temperature	**101º to 102.5º**	**101º to 102.5º**
Gum refill time	**Less than 2 seconds**	**Less than 2 seconds**

Look for signs of shock:

Early Shock

- Faster than normal breathing
- Faster than normal resting pulse
- Pale or light pink gums
- Restlessness or anxiety
- Lethargy or weakness
- Slow gum refill time – more than 2 seconds
- Normal or just subnormal rectal temperature

Advanced Shock

- Shallow, slow breathing
- Irregular heartbeat
- Very pale or blue gums
- Lack of response
- Extreme weakness or unconsciousness
- Very slow gum refill time – more than 4 seconds
- Very cool body temperature – less than 98º

To check your dog's breathing rate:

While your dog is relaxed, count how many times he breathes in twenty seconds. Count only breaths in or out, not both. And count only regular breathing through the nose with the mouth closed, as in sleep, not with the mouth open and panting. Multiply by three to get the rate per minute. (Small dogs and puppies will breathe faster than large dogs.)

To check your dog's pulse:

While your dog is resting, press your fingertips (not your thumb) into the slight groove on the inside of your dog's rear leg near the groin, where his leg joins his body. Count the heartbeats for twenty seconds. Multiply by three to get the rate per minute. (Large and athletic dogs have slower heart rates than small dogs and puppies, whose rates can be up to 200 beats per minute.)

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To check your dog's gum refill time ("capillary refill time:

Press your finger against your dog's gums. It should take two seconds or less for the gums to return to their previous color (much like pressing on a sunburn). White or pale gums almost always indicate shock.

My Veterinarian's phone number is _____

National Poison Control Center 800-876-4766

National *Animal* Poison Control Center 800-548-2423 (There is a charge for this service.)

(Your dog's system reacts differently to, and has different side effects from, the same medication, chemicals, and even poisons than humans do. Poison Control isn't always aware of these differences in animals.)

Shock

The primary signs of early shock are:

Pale or white gums
Rapid heart rate over 150 beats per minute
Fast breathing over 30 breaths per minute

What You Need To Know:

**** * * Shock is an extremely serious, life-threatening emergency and takes precedence over any other injuries * * ****

Always *be aware and look for signs of shock. Even apparently mild trauma can lead to shock. Untreated shock can lead to loss of consciousness and death, even if the initial injury or trauma itself is not life threatening. Regardless of its cause,* ***shock is the most likely life threatening emergency you will encounter.***

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Signs of Early Shock:

- ***Faster than normal breathing***
- ***Faster than normal resting heart rate***
- ***Pale or light pink gums***
- ***Restlessness or anxiety***
- ***Lethargy or weakness***
- ***Slow capillary (gums) refill time (more than 2 seconds)***
- ***Normal or just subnormal rectal temperature***

Signs of Advanced Shock:

- ***Shallow, slow breathing***
- ***Irregular heartbeat***
- ***Very pale or blue gums***
- ***Lack of response***
- ***Extreme weakness or unconsciousness***
- ***Very slow capillary refill time (more than 4 seconds)***
- ***Very cool body temperature (less than 98°)***

What To Do:

To slow down the potentially catastrophic effects of shock:

1. Place your dog on its side with head extended.
2. Elevate the hindquarters using pillows or towels.
3. Stop any obvious bleeding by applying pressure with a towel, a rag, or an absorbent pad; or by applying a tourniquet if necessary.
4. Prevent loss of body heat by wrapping the dog in a warm blanket.
5. *Transport to the nearest veterinarian immediately.*

- **Do not give your dog anything to eat or drink.**
- **Do not let your dog wander around if he is conscious.**

Heat Stroke

Heat stroke is a critical, life-threatening condition that requires immediate medical attention. Heat stroke can cause irreversible damage to internal organs, including the brain. Heat stroke is an emergency and can be fatal.

What causes Heat Stroke: Dogs don't sweat, and can only cool themselves by panting. If the temperature in the dog's environment is too high or is too close to the dog's own body temperature, panting quickly becomes ineffective

and his temperature rises rapidly. Collapse, seizures, coma and death can quickly follow if the dog's body temperature is not immediately reduced.

Other things that can cause or contribute to heatstroke include being left in a car, even with the windows down; exercising in hot or humid weather; heart or lung disease that interferes with efficient breathing; being muzzled on a hot day; high fever; seizures; being confined to concrete or asphalt surfaces or without shade in hot weather; and having a history of heatstroke.

Although many things can cause a high fever, you should be concerned anytime your dog's temperature rises above 104º for any reason. Notice any other symptoms, and call your veterinarian for advice.

Symptoms:

- Temperature may be near normal
- Gums may at first be bright red
- Rapid respiration
- Increased heart rate
- Dizziness
- Nausea
- Weakness

What to do:

- Get the dog out of the hot environment
- Take his temperature
- Wrap him in wet, cool sheets or towels
- Watch for signs of shock
- Keep the dog quiet, monitor him closely, and call your veterinarian *as soon as possible*

Symptoms:

- Heavy panting, inability to catch his breath
- Rapid heart rate
- Temperature over 104º
- Excessive salivation
- Dilated pupils
- Weakness
- Diarrhea
- Vomiting
- Lethargy or depression
- Agitation

What to do:

- Get the dog out of the hot environment
- Hose him down, put him in a bath of cool (*not cold!*) water, or run a cool shower over him
- Take his temperature every 5-10 minutes
- Treat for shock if necessary
- Let him have cool water to drink if he wants it
- Continue until his temperature is below 103º
- ***Transport to your veterinarian or emergency animal hospital as soon as possible***

Symptoms:

- Gray, blue, or white gums
- Disorientation
- Inability to stand
- Collapse
- Non-responsive

What to do:

- *Reduce body heat immediately*
- *Give CPR if necessary*
- ***See a veterinarian IMMEDIATELY***

Complications from heatstroke can include shock, kidney failure, spontaneous bleeding, cardiac arrhythmia's, and seizures. These complications can occur hours or even days later.

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To transport your dog:

- Wrap him in wet, cool sheets or towels
- Place an ice pack or package of frozen vegetables on his head. (The brain can swell, causing further problems.) You can also place ice packs under his arm and leg pits.
- It's OK to roll the windows down or run the air conditioner, but not directly on the dog. Monitor his temperature and if it falls below 103º, stop the cooling process. Further cooling can cause complications or shock.

Hip Dysplasia

Hip dysplasia is defined as a deformity of the coxofemoral (hip) joint that occurs during the growth period. Hip dysplasia is a hereditary condition that creates a poorly fitting hip joint. As the dog walks on this joint, arthritis will eventually develop, causing pain in the joint. The degree of lameness that occurs is usually dependent upon the extent of arthritic changes in the hip joint.

Most breeds of dogs can be affected with hip dysplasia although it is predominantly seen in the larger breeds of dogs, such as the German Shepherd, St. Bernard, Labrador Retriever, Pointers, and Setters. There is equal distribution of the disease between male and female dogs.

The typical clinical signs of hip dysplasia are rear leg pain, incoordination, and a reluctance to rise. Wasting of the large muscle groups in the rear limbs may eventually develop. Most owners report that the dog has had difficulty in rising from a lying position for a period of weeks or months; lameness and pain subsequently develop. Again, the severity of signs and progression of the disease usually correlate with the extent of arthritis in the joint. Clinical signs can occur as early as 4-6 weeks of age, but most dogs manifest the disease as a lameness around one to two years of age. Dogs with mild hip dysplasia and minimal arthritis may not experience pain and lameness until they reach 6-10 years of age.

Tentative diagnosis of hip dysplasia is made on the basis of history, breed, and clinical signs. A large breed dog that has been slow to rise for several months and now is lame is highly suspect for hip dysplasia; a dog which refuses to rise should also be considered a candidate. Because the clinical signs may mimic other diseases, final diagnosis of hip dysplasia can only be made on the basis of specific radiographic (x-ray) findings. To obtain the proper radiographs, dogs must be carefully positioned on the radiographic table. This procedure requires the use of a short-acting anesthetic. The radiographs are evaluated for abnormal shape of the hip joint and for degenerative changes (arthritis).

The degree of clinical signs and arthritic changes in the joints determine the specific approach to therapy. Treatment of hip dysplasia may involve the use of drugs or surgery, or both. The options are as follows:

l. **Anti-inflammatory drugs**. Several drugs will give relief from pain. Aspirin or acetaminophen may work well in some dogs. Other steroidal (cortisone) and non-steroidal drugs may also be used. Most have some side-effects and most require administration once or twice daily. Many dogs have severe stomach irritation to ibuprofen, so this drug is not recommended. Unfortunately, it is not possible to predict which dog will respond to which drug. Therefore, a series of trials may be needed to find the most effective one for your dog.
Extreme caution is advised when these drugs are given to dogs with a history of kidney disease or with marginal kidney function. Many of these drugs have an adverse effect on blood flow to the kidneys and can lead to kidney failure. This

does not appear to be a concern if kidney function is normal. As alluded to above, dogs with a history of ulcers are also at risk for complications. Your veterinarian can determine the risk for your dog.

Anti-inflammatory drug therapy is most often used in older dogs, in dogs that did not get good relief from surgery, or in dogs for which surgery is not feasible.

2. **Surgery**: There are four main procedures: pectineal myotomy (muscle cutting surgery), femoral head ostectomy (ball removal), triple osteotomy, and hip joint replacement.

> **Pectineal myotomy** is a relatively minor procedure that involves cutting a small muscle that puts pressure on the hip joint. It results in no loss of leg function and gives good to excellent relief in 80-90% of dogs. If both hips are abnormal, both hips may be operated on at the same time. The dog recovers from surgery in one to two days. However, this procedure does not stabilize the hip joint or prevent progression of arthritic changes. Within a few months to several years, pain and lameness will return. This procedure is especially recommended in older dogs.
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> **Femoral head ostectomy** (FHO) is another choice. The hip joint is a ball and socket joint. FHO is the removal of the ball part of the joint. This gives excellent results in small dogs because a functional "false joint" forms. However, some large dogs may not form this "false joint" very well. This procedure is usually used in large dogs if arthritis is very severe, if the hip dislocates, or if the expense of the other procedures is prohibitive.
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> **Triple osteotomy** is a procedure in which the pelvis is cut in three places around the hip joint. The bone is rotated to create better alignment with the femoral head (the ball). It is reattached so that the joint functions in a more normal fashion without looseness and pain. This should only be performed in a dog with no arthritic changes in the joint. It is an expensive procedure.
> **Hip joint replacement** is possible, as is done in humans. A stainless steel ball and socket are attached to the pelvis and femur in place of the abnormal ones. It is another expensive procedure, but it may give many years of pain-free use of the hips. Although the intent is for the transplant to be permanent, the new joint may loosen after a period of time.

Research has shown that the cause of hip dysplasia is related to a combination of genetic and environmental factors. The disease is known to be an inherited condition and the genetics of hip dysplasia are extremely complicated. In addition, environmental factors such as overfeeding and excessive exercise can predispose a dog (especially growing puppies) to developing hip dysplasia. Because the inheritance of the disease is so complicated, many questions remain regarding eradication of the disease.

Here are some practical suggestions:

1. Feed your dog a dry food designed for slow growth (i.e., “Large Breed Puppy Food) . There is a growing body of evidence indicating that dogs that grow very rapidly are more likely to have hip dysplasia. Many authorities recommend feeding an adult-type food to puppies of high risk breeds so their growth is slower. They will still reach their full genetic body size, but just not as rapidly. Some dog food manufacturers are now making puppy foods for large breed dogs. This is essentially the same approach as feeding an adult food because these puppy foods are formulated for slower growth.

2. Avoid excessive exercise in a growing puppy. Any abnormality in the structure of the hip joint is magnified if excessive running and jumping occur. It is not necessary to treat your puppy as it were handicapped, but long sessions of running or chasing thrown objects can be detrimental to joints.

3. Have your dog X-rayed before breeding to be sure the hips are normal. If they are not, this dog should not be bred.

The Orthopedic Foundation for Animals (O.F.A.) is an organization established for the purpose of standardizing the evaluation process of canine hip radiographs. The O.F.A. consists of a board of certified veterinary radiologists who are skilled in detecting hip dysplasia. If the radiographs submitted to the O.F.A. are declared normal, the dog is issued an O.F.A. certificate number indicating that it has normal hip confirmation. The O.F.A. requires that dogs must be a minimum of two years of age to be certified. Many breeders require that a dog must have an O.F.A. certificate before breeding is allowed.

Another hip evaluation program is called the PennHip method. Radiographs are made of the anesthetized dog in such a manner as to place outward force on the hip joints. This can reveal looseness in the joints that may elude detection by the more standard radiographic methods. It is also useful in identifying hip dysplasia in puppies as young as four months of age. Although any veterinarian can make the appropriate radiographs and submit them for O.F.A. certification, the PennHip method must be performed by a veterinarian specifically trained and certified in this procedure.

The radiographs must be imprinted with identification information about your dog at the time they are made and developed. This procedure creates a permanent mark on the radiograph. In addition, OFA now requires that certified dogs be permanently marked with either a tattoo or a microchip implant. The implant process is simple and very effective. A tiny microchip is implanted under your dog's skin through a special injection needle. A special scanner can detect these chips through the skin. They can identify the dog and its owner through its code number and a registry system. This is also an excellent means of getting lost dogs back home because the registry system is national in scope.

Pancreatitis

The pancreas is a vital organ which lies on the right side of the abdomen. It has two functions:

1) To produce enzymes which help in digestion of food and,
2) To produce hormones, such as insulin.

When the pancreas becomes inflamed, the disorder is called pancreatitis. It is a disease process that is seen commonly in the dog. There is no age, sex, or breed predisposition.

There are two main forms of acute (sudden onset) pancreatitis: 1) the mild, edematous form and, 2) the more severe, hemorrhagic form. A few dogs that recover from an acute episode of pancreatitis may continue to have recurrent bouts of the acute disease, known as chronic, relapsing pancreatitis. The associated inflammation allows digestive enzymes to spill into the abdominal cavity; this may result in secondary damage to surrounding organs, such as the liver, bile ducts, gall bladder, and intestines.

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The cause of pancreatitis is not known; however, there may be several contributory factors. It is often associated with a rich, fatty meal. In some cases, it may be associated with the administration of cortisone; however, some dogs with pancreatitis do not have exposure to either.

Under normal conditions, digestive enzymes produced by the pancreas are activated when they reach the small intestines. In pancreatitis, these enzymes are activated prematurely in the pancreas instead of in the small intestines. This results in digestion of the pancreas itself. The clinical signs of pancreatitis are often variable, and the intensity of the disease will depend on the quantity of enzymes that are prematurely activated.

The diagnosis of pancreatitis is based on three criteria: clinical signs, laboratory tests, and radiographs (x-rays) and/or ultrasound examination. The disease is typically manifested by nausea, vomiting, fever, abdominal pain, and diarrhea. If the attack is severe, acute shock, depression, and death may occur. Laboratory tests usually reveal an elevated white blood cell count; however, an elevated white blood cell count may also be caused by many other things besides pancreatitis. The elevation of pancreatic enzymes in the blood is probably the most helpful criteria in detecting pancreatic disease, but some dogs with pancreatitis will have normal levels. Radiographs and ultrasound studies may show an area of inflammation in the location of the pancreas. Unfortunately, many dogs with pancreatitis will elude detection with any of these tests. Consequently, the diagnosis of pancreatitis may be tentative in some cases.

The successful management of pancreatitis will depend on early diagnosis and prompt medical therapy. The mild form of the disease is best treated by resting the pancreas from its role in digestion. The only way to "turn off" the pancreas is to withhold all oral fluids and food. This approach is accompanied by intravenous fluids to maintain normal fluid and electrolyte balance. In addition, anti-inflammatory drugs are sometimes administered. The presence of shock necessitates the immediate and intense use of intravenous fluids. Antibiotics are also indicated in many cases.

The prognosis depends on the extent of the disease when presented and a favorable response to initial therapy. Dogs that present with shock and depression have a very guarded prognosis. Most of the mild forms of pancreatitis have a good prognosis.

There are three possible long-term complications that may follow severe or repeated pancreatitis. If a significant number of cells that produce digestive enzymes are destroyed, a lack of proper food digestion may follow. This is known as pancreatic insufficiency and can be treated with daily administration of enzyme tablets or powder in the food. If a significant number of cells that produce insulin are destroyed, diabetes mellitus can result and insulin therapy may be needed. In rare cases, adhesions between the abdominal organs may occur as a consequence of pancreatitis. However, most dogs recover with no long-term effects.