Signs of Common Diseases in Classroom Animals

An animal cannot complain when it does not feel well; therefore, one must learn to look for signs of illness. There are many possible signs of illness, and these differ widely among species and even among individuals.

Whenever possible, obtain animals from sources with a known history of having disease-free animals. It is important to be knowledgeable about the normal appearance and behavior of the species of animal, since a change in these characteristics is key to recognizing that an animal is ill. Animals should be observed daily by responsible individuals who should be aware of and note subtle changes that could be easily missed in the animal's behavior, physical appearance, or daily activity.

The signs of disease, pain, and distress are often similar in animals. If an animal has a changed appearance or behavior, then consider the possibility that the animal may either have a disease or be in pain or distress. It is important that such an animal be examined and treated by a veterinarian. If the animal is to receive treatment in the classroom, under the direction of a veterinarian, then a teacher should oversee medical administrations and make daily observations of the animal.

The conditions described below are potential indicators of disease in animals. Signs of disease, pain, and distress may overlap, and these conditions are also reviewed in the AALAS fact sheet "Signs of Pain and Distress in Rodents and Other Classroom Animals."

Alopecia (hair loss): Usually associated with a skin disease, fighting, parasites, or over-grooming. An individual animal may groom a body part excessively if there is pain or abnormal sensation. When multiple animals are caged together, a dominant animal may chew off patches of hair; this is another form of over-grooming common in mice and guinea pigs.

Anemia: Normally pink areas of skin and mucous membranes (gums, tissues around the eyeball) are pale. Gums that normally are pink may appear almost white in an anemic animal. This is usually associated with excess internal or external blood loss or reduced numbers of circulating erythrocytes (red blood cells). Anemia may indicate some types of parasitism.

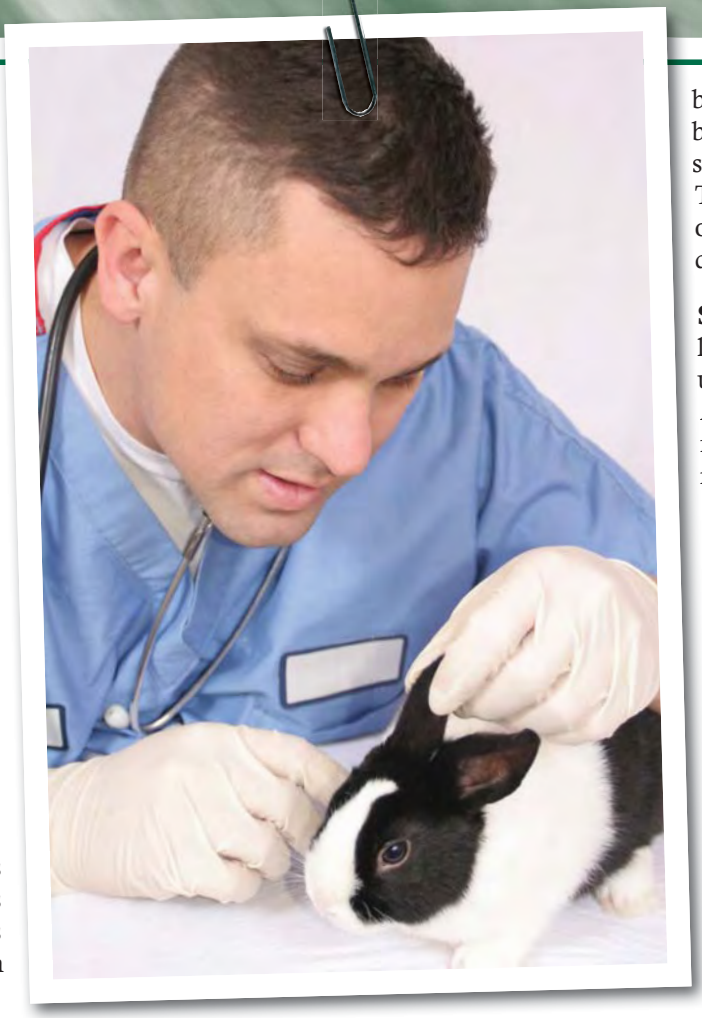
Anorexia: The animal is not eating. An animal that is ill or in pain may decrease its food intake. Anorexia is often noted when animals are not drinking due to an empty bowl or bottle or to an inaccessible, broken, or disconnected source of water. It is extremely important to always check to be sure an animal can get enough clean water.

Behavioral change: This is often the only indication that something is wrong with the animal. An animal that suddenly becomes aggressive, quiet, or loses interest in its surroundings is often sick or in pain or distress.

Bleeding: Blood can be lost externally, such as from a torn nail, a bite wound, or a cut on the mouth or skin. Blood can also be lost internally, such as from the urinary bladder, the bowel, or the uterus. You may see fresh blood in the cage but not on the animal, or you may see blood in the urine. Blood in the feces may be red, if passed near the end of the gastrointestinal tract, or it may be black and tarry, if digested.

Bloating: Swelling or filling with gas, typically in the gastrointestinal tract (stomach, intestines). This is most common in dogs, ruminants (e.g., cattle, sheep, goats), and horses.

Circling or head tilt: An abnormal behavior where an animal walks in a circle (usually in one direction) or tends to hold its head to one side. This often indicates an infection of the middle or inner ear or a brain lesion. Circling and head tilt may be recognized in affected rodents when held gently by the tail; these animals will attempt to spin in a circle.



Constipation: There are no feces being passed. This can be caused by a lack of feed or water, infections, and a number of other disease problems.

Diarrhea: The passage of watery or loosely formed feces. Often the animal will have feces staining its perineum or tail region. Infections of the bowel or parasites of the intestinal tract can cause diarrhea.

Discharge: The secretion of a wet material from a body opening such as the nose, eye, vagina, or ear. It is often associated with infection involving internal organs.

Dyspnea: Means difficult breathing. Labored or rapid breathing are common signs of pneumonia.

Listlessness: A lack of alertness in an animal. The animal seems tired compared to other animals in the cage. Animals that are in pain also often seem listless.

Paralysis: Inability to move all or part of the body. Paralysis may be due to nerve damage of an affected limb or tail or a disease affecting the central nervous system. Paralysis of a limb or tail may be confused with bone fractures of these body parts.

Prolapse: An organ within the body is forced externally. Rectal or vaginal prolapses are most commonly seen, often due to straining during abnormal defecation (bowel movement) or parturition (giving birth).

Pruritus: Constant or frequent scratching is usually due to an irritation of the skin because of external parasites or skin infection. The skin often appears scaly or reddened. Mammals often get infestations of mites (microscopic arachnids) in the ears, which is associated with severe pruritus. Animals with ear mites may tilt an ear or scratch one or both ears. The itching can be so severe that the animal can injure itself from its own scratching.

Rough hair coat: A change from the normal smooth, shiny hair to fur with a ruffled and dull appearance. A rough hair coat can indicate many problems, including vitamin deficiencies, external parasites, internal parasites, and severe infections. This sign is one of the most reliable indications that an animal is ill or in pain or distress.

Seizure: Involuntary muscular movement of the body, such as twitches or shaking that result from abnormal activity in the brain or spinal cord. Many gerbils tend to have epileptic-type seizures when they are startled. They may freeze in place, twitch, or kick. This situation in gerbils does not require treatment.

Sneezing: A rapid, forced expelling of air through the nose is usually a sign of nasal irritation. An occasional sneeze is not abnormal, but animals that sneeze repeatedly may have an infection of the nasal passages and sinuses. These infections are much more severe than a human cold: they can seriously affect the animal's health and even be fatal. Respiratory infections require veterinary attention.

Stunted: When animals appear much smaller than most animals of the same age. Stunting can be due to genetics, infections, parasites, or poor husbandry. So long as stunted animals have been treated for any health-related problems and provided with good husbandry, these animals can have healthy lives.

Swelling: An abnormal protuberance or localized enlargement. Localized swellings under the skin may be due to infections (abscesses), cysts, hemorrhage, tumors, and occasionally parasites. Swelling may also be generalized to the whole body or major regions of the body, which is indicative of a serious disease.

Tumor: An abnormal growth, swelling, or lump that may be cancerous.

Vomiting: The passage of gastric and intestinal contents from the mouth. This usually indicates that the animal has an irritation in the throat or upper gastrointestinal tract. Vomiting is common in cats, dogs, ruminants, and swine. Rodents, rabbits, and horses do not generally vomit.

Weight loss: A decrease of an adult animal's body weight or a lack of normal growth in a juvenile animal. This is best determined by weighing the animal and comparing to a previous weight or to a known normal weight range. Weight loss may also be qualitatively recognized by evaluating the amount of fat over particular areas of the body (for example, the ribcage for carnivores and hip areas for rodents.) Weight loss is often associated with anorexia due to a serious disease. Rodents that are deprived of water lose body weight due to dehydration.

Some of this material has been adapted from the ALAT Training Manual*, American Association for Laboratory Animal Science, Memphis, TN.*