

An *infectious disease* is one caused by the presence in or on an animal body of a living foreign organism, which by its presence creates a disturbance leading to the development of symptoms.

A *contagious disease* is one that may be transmitted from one animal to another by direct or indirect contact. All contagious diseases are also infectious, but it does not follow that all infectious diseases are contagious. For example, tetanus, caused by organisms which live in the soil is infectious but not contagious since it is not transmitted directly from one animal to another.

Some infectious diseases are highly contagious. Some are slightly contagious and a few are not contagious at all. How contagious a disease is depends upon how the disease organisms are eliminated from the body of the diseased animal, their opportunity for reaching others and their ability to produce disease in the new hosts.

Disease-causing organisms vary greatly in their ability to produce disease. When the ability to produce disease is great, the organisms are referred to as *virulent*.

Animals also vary in their ability to resist or repel disease-producing organisms. An animal's ability to resist a particular organism is known as *immunity*. The immunity of an animal may vary from *slight* to *absolute*.

Sometimes animals develop disease-resisting properties within their bloodstream. These properties repel the invading organism. Sometimes these properties are strong enough to remain for the life of the animal (permanent immunity). Other times they pass in a few months or a year (temporary immunity). Vaccination is a means of artificially stimulating the immunity of the animal without giving it actual disease. To do this the virulence of organisms is lowered until it no longer possesses the ability to actively cause disease but can stimulate the development of immune properties in the body of the host animal. These live but attenuated organisms are known as a *vaccine*. Other times the organisms are completely killed and the products of their growth used to stimulate immunity. This preparation is known as a *bacterin*.

Because disease-producing organisms reach a host animal does not always mean that the animal will develop disease. Sometimes the animal's resistance is high enough or the virulence low enough that the organisms are destroyed by the host. This process is continually going on as organisms capable of producing disease are constantly present. If something happens to lower the resistance of the animal or to raise the virulence of the organism, then a disease process can start. If the host and invading organisms reach a standoff, the infection makes little or no headway but persists for a long time. This is known as a *chronic infection*.

If the invading organisms rapidly overcome the resistance of the animal, then death usually ensues unless rapid resistance to the organism is developed by the host or suitable treatment

is received. These cases are known as *acute*.

During the course of any disease many organisms escape from the host. Sometimes they are eliminated with blood, or from an abscess. Sometimes they are passed out with droplets of moisture which accompany a cough or a sneeze as in respiratory infections. Sometimes the organisms are eliminated through fecal material or urine as in intestinal or urinary infections. (The virus of rabies is eliminated through the salivary glands and usually enters the body of the new host through a bite or wound and is not normally spread otherwise.)

Occasionally an animal and the infected organism will reach the point where the organism is unable to cause serious damage to the host, yet the host is unable to eliminate the organism. This situation may continue throughout the lifetime of the animal. Such animals are capable of shedding organisms causing disease in contact animals. We refer to these animals as *carriers*. Carriers may not show symptoms of disease but are a source of great danger to others who lack the same amount of resistance. The carrier is one of the great problems of control of many infectious diseases. Animals that are obviously diseased may be recognized, but there is no simple way of recognizing carriers.

There are many sources of infection for your animals. We usually think of direct contact with the diseased individual.

Disease may also occur when inanimate objects carry infection from one animal to another. This can occur in a trailer, a railroad stock car or trunk contaminated with the fecal material and not properly cleaned and disinfected.

Contact with apparently healthy disease carriers is a major hazard. These carriers may infect others directly or indirectly as readily as the obviously diseased animal.

*Infection from soil.* Certain organisms live in the soil and are able to produce disease in animals if chance carries them to the tissues (example: tetanus).

Disease may be contracted from food and water that has been contaminated by a diseased animal (example: leptospirosis).

Air-borne infections occur when droplets of moisture are sneezed or coughed into the air (example: strangles or respiratory infections).

Some infections are carried by bloodsucking insects (example: Equine encephalitis or sleeping sickness).

*Disease Prevention.* Most contagious diseases can be prevented by: (1) avoiding contact with sick animals, (2) preventing indirect contact by using clean trucks. Insist on new grain sacks for purchased feed. Keep visitors from other stables with manure or dirty clothing from contacting your animal, his feed or water supply. Use private water pail at fairs or shows, etc. (3) Raise your animal's resistance by good feeding, sensible use and care and vaccination when indicated. Normal use of the animal prevents completely isolated or

100% protection from exposure. Therefore you should strive to raise the resistance of your animal by keeping him well nourished and in a good state of health. Do not allow an animal to become too tired or to chill. Chilling might occur from riding for long distances in cold, windy, uncovered trucks or being tied in a cold rainstorm. Such stresses greatly lower an animal's resistance to disease.

Always provide clean drinking water, and when horses are gathered in large groups, water your horse from an individual bucket, drawing the water directly from the tap, not dipping it from the trough. Many people go to the bother of

providing their own water bucket at fairs or shows then make the mistake of filling the bucket from a common trough.

Vaccination will raise an animal's resistance to many diseases. Strangles (or distemper), tetanus (or lockjaw) are examples. Your veterinarian can advise you as to diseases common in your area that can be prevented by vaccination.

General information concerning common diseases of horses is presented in table 1.

For additional information of diseases of horses, contact your Veterinarian.

### COMMON EQUINE DISEASES

Disease	Outstanding Symptoms	Treatment or Control
Equine Encephalitis (Sleeping Sickness)	Fever, impaired vision, irregular gait, incoordination, yawning, grinding of teeth, drowsiness, inability to swallow, inability to rise when down, paralysis and death.	Annual vaccination is recommended in areas where the disease is prevalent. No specific agent is available for treatment and treatment consists of supportive measures and good nursing. Consult your veterinarian.
Strangles (Distemper)	High temperature, increased respiration, depression, nasal discharge after 2nd or 3rd day, swelling of lymph nodes which usually abscess.	Antiserum and bacterin are available. Provide complete rest. Avoid stresses of cold, drafts, or moisture. Fresh drinking water at all times. Encourage eating. Consult your veterinarian for systemic treatment and care of abscesses.
Tetanus (Lockjaw)	Follows infection of deep puncture wound, incubation period from 1 week to several months. First symptoms stiffness and third eyelid may draw over the eye when excited. Spasms occur after 24 hours, reflexes increased, animal frightened or excited. Spasms of neck and back muscles cause extension of the head and neck.	This disease requires professional treatment. Mortality is high. Disease is widespread and it is recommended that all animals receive prophylactic vaccination. This is particularly desirable in brood mares because of the added danger of infection at foaling.
Azoturia (Monday Morning Sickness)	Occurs soon after being put to work, stiffness, sweating, affected muscles, swollen, tense, may assume sitting dog position.	Decrease grain feeding and allow exercise when animals are off work. Careful, slow warm-up after rest. Animal stopped immediately after beginning of symptoms have a good chance to recover. Do not move the animal any distance. Blanket the animal to keep it warm and quiet. Call your veterinarian for systemic treatment.
Laminitis (Founder)	May be acute or chronic, follows feeding of excessive grain or lush pasture, fast work on hard roads, large amount of cold water while animal is hot, toxemias following pneumonia or metritis, acute case shows inflammation of sensitive laminae on one or more feet, feet warm, sensitive to touch, very lame, pain on standing, temperature to 106°, sweating, chronic cases hoof becomes distorted, anterior hoof wall concave, wall becomes corrugated (rings parallel to hair line).	Acute case, apply cold pack to feet. Call veterinarian. Chronic founder, trim feet - shoe to protect sole. Prognosis not good.

## NOTES

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