What is canine influenza?
Canine flu is a highly contagious viral infection that causes illness in 80% of exposed dogs. Even seemingly healthy dogs can shed the virus. There are currently two virus subtypes of concern: H3N2 and H3N8. Both subtypes can cause high morbidity and low mortality (~3%-5%). The virus is not known to be a risk to humans, although close contact with any animal infected with an influenza virus is not recommended.

Transmission
Flu virus is spread through direct contact and aerosolized particles that can travel up to 20 feet. Fomites, such as stethoscopes, food bowls, scrubs, and examination tables may retain infectious virus for 24-48 hours. People can also carry the virus on their hands for up to 12 hours. Flu viruses are easily inactivated by disinfectants, such as 1:30 parts bleach to water.

Clinical Signs
Clinical signs include nasal/ocular discharge, coughing, sneezing, lethargy, fever, and anorexia. Some dogs may have more severe clinical signs of pneumonia.

Diagnosis
Canine influenza virus may cause clinical signs similar to other respiratory pathogens, so diagnosis is made on the basis of results of virus isolation, PCR, immunoassays, or serology. Nasal or oropharyngeal swabs or transtracheal wash fluid can be submitted to the University of Tennessee College of Veterinary Medicine, the C.E. Kord Animal Health Diagnostic Laboratory, IDEXX and other commercial diagnostic laboratories. Detection of the virus is more successful early in the course of disease.

Treatment
Treatment consists of supportive care and may include antibiotics, NSAIDs, and fluids, depending on the case. Recovery usually takes two to three weeks.

Prevention
Vaccination may be indicated in dogs that are socially active, being boarded or groomed, or have underlying disease such as heart or respiratory disease. Elderly or immune-compromised dogs may also benefit from vaccination. Virus may be shed for up to 28 days, so four weeks of isolation is recommended for infected dogs. Proper hand washing and biosecurity measures, such as asking clients to stay in their car when they arrive at the clinic, using a side entrance, full body PPE for staff, and disinfecting the room, equipment, hallway, and entrance, can stop flu from spreading.

Cats
Cats have been known to be infected in shelter settings. No vaccine exists for cats at this time. There have been no documented deaths in cats due to canine influenza. Clinical signs include upper respiratory signs, lethargy, lip smacking, and salivation.

Canine flu is not reportable, but all animal disease outbreaks are reportable to the Tennessee Department of Agriculture at (615) 837-5120.