

## Exotic Newcastle Disease and Highly Pathogenic Avian Influenza Reference Chart

	<b>Exotic Newcastle Disease (END)</b>	<b>Highly Pathogenic Avian Influenza (HPAI)</b>
<b>Importance</b>	<b>Highly contagious, often fatal disease</b>	
<b>Organism</b>	<i>Avian paramyxovirus-1</i>	Type A Influenza virus, Orthomyxovirus; Classified by surface antigens H and N
<b>Clinical Signs in Birds</b>	<b>END and HPAI are clinically indistinguishable from each other</b> <b>Respiratory:</b> Coughing, sneezing, nasal discharge <b>Digestive:</b> Watery diarrhea <b>Nervous:</b> Depression, ataxia, torticollis Sudden death without clinical signs, decreased egg production, thin-shelled eggs	
<b>Clinical Signs in Humans</b>	Mild conjunctivitis	Mild to fatal disease
<b>Transmission</b>	Spread by feces and respiratory discharges, direct contact, aerosolization and fomites.	
<b>Differential Diagnosis</b>	<b>Poultry:</b> HPAI, fowl cholera, infectious coryza, fowl pox, avian chlamydiosis, infectious laryngotracheitis, mycoplasmosis, infectious bronchitis, management problems. <b>Psittacines:</b> Avian chlamydiosis, Pacheco's disease, avian influenza, salmonellosis, toxicosis.	END, infectious laryngotracheitis, acute bacterial diseases (eg. fowl cholera and <i>E. coli</i> infections)
<b>Morbidity/ Mortality</b>	Mortality can reach 100%; Morbidity can reach 90%	Mortality can reach 100%; Morbidity can reach 100%
<b>Diagnosis</b>	Virus isolation required for definitive diagnosis	
<b>Sample Collection</b>	<b>Before collecting or sending any samples, the proper authorities should be contacted. Samples should only be sent under secure conditions to authorized laboratories to prevent spread.</b>	
<b>Prefer</b>	Tracheal or cloacal swabs from live or dead birds, as well as feces.	
<b>Notification</b>	<b>State &amp; Federal Veterinarians should be contacted IMMEDIATELY and informed of suspicions</b>	
<b>Quarantine</b>	Suspected animals, areas, farms will be quarantined by the state veterinarian.	
<b>Vaccination</b>	Routine in poultry flocks. Will not prevent infection or virus shedding.	Costly; no cross protection; may result in reassortment viruses. Inactivated H5 vaccine licensed in US for emergency use
<b>Disinfection</b>	Virus killed by extremes of pH, heat, dryness. Phenolics (eg. One Stroke Environ), oxidizing agents (eg. Virkon) and quaternary ammonium compounds (eg. Roccal-D Plus)  Halogens (eg. 6% household bleach) Biguanides (eg. Nolvalsan-S) Ultraviolet and sunlight	Aldehydes in presence of organic matter Dilute acids (eg. paracetic acid)