

Infectious Laryngotracheitis (ILT)

What is ILT?

Infectious Laryngotracheitis (ILT) is an acute respiratory disease of chickens and occasionally, pheasants and peafowl, that often leads to severe losses in the poultry industry. ILT is caused by a herpes virus that usually kills 10 to 20% of infected birds, although mortality can run as high as 70% in some cases.

Where does ILT come from?

ILT can be found in most areas where chickens are raised. Infected chickens serve as the primary source of infection when they shed the virus and transmit it to other chickens through respiratory secretions, and airborne particles (from coughing and sneezing). People who work with ILT-infected poultry can spread the virus through contaminated hands, footwear, clothing, equipment, vehicles, litter, and other mechanical vectors. Improperly disposed chickens that die from ILT can serve as a source of infection, especially through scavengers like domestic dogs and wild animals. Recovered and vaccinated chickens can also serve as carriers of ILT and can shed the virus when they are subjected to stressful conditions.

How long does it take for chickens to get sick after exposure to ILT virus?

Clinical signs (as described below) usually appear 6 to 12 days after exposure to ILT virus. This time interval is called the *incubation period* and will vary according to the amount of virus and other factors such as the immune status of the chicken, environmental conditions (such as high levels of dust and ammonia), and concurrent infection with other bacteria and viruses.

How do I know if my chickens have ILT?

Chickens suffering from a mild form of ILT usually have swollen, watery eyes (conjunctivitis), swollen sinuses, and a persistent watery or mucoid nasal discharge (Figure 1). These clinical signs are similar to other respiratory diseases of poultry. Chickens with a severe form of ILT exhibit labored, open-mouth breathing (Figure 2), frequent sneezing, and violent coughing, often accompanied by bloody mucus. These chickens will usually shake their heads to clear the mucus from their nose and mouth, resulting in bloodstained mucus on their feathers and on the walls of the chicken house or shed.



Figure 1. Swollen, watery eyes



Figure 2. Open-mouth breathing

How long does ILT last?

The course of the disease ranges from 10 to 14 days but depends largely on the severity of clinical signs and lesions. Chickens that exhibit open-mouth breathing and coughing of bloody mucus usually die within a few days, but those with mild clinical signs are more likely to recover.

Will my birds die from ILT?

Again, the severity of the clinical signs and lesions is related to the mortality seen in flocks with ILT. Mild forms of the disease result in very low mortality (0.1-2%). Severe forms of the disease result in variable mortality (5-70%), with the average being 10-20%.

How is ILT diagnosed?

In ILT infections, clinical signs alone should make you highly suspicious of ILT. Even so, as with any disease, you should submit birds to the diagnostic laboratory in your area for confirmation of the diagnosis. A post-mortem examination of affected birds will generally reveal blood in the bird's airway. The trachea or windpipe is often very bloody and may be partially clogged with mucus and blood (Figure 3). Swabs of the trachea will be used to attempt to grow the virus. Other diagnostic tests may be performed to confirm that your flock has ILT.



Figure 3. Trachea filled with blood and mucus

What happens if my flock has ILT?

If you live in Maryland, where ILT is a reportable disease to the State Veterinarian, your non-commercial poultry farm may be placed under a "Hold Order" by the MDA especially if there is a high risk of the disease spreading from your farm. A "Hold Order" means, among other things, that you cannot move birds onto or off your farm until the "Hold Order" is lifted.

Can people get ILT?

No. Humans are not affected by ILT.

Is it safe to eat meat and eggs from birds with ILT?

Yes, because humans are not affected by ILT and, because the virus is destroyed by cooking, it is safe to eat poultry products from infected birds.

How can I prevent ILT from infecting my flock?

Preventing the introduction of ILT and other diseases onto your farm should be the goal of all producers. Preventing the introduction of ILT into your flock is not difficult to do if you follow some common sense guidelines.

- **Avoid moving any birds onto or off your farm during an ILT outbreak.**
- **Do not visit other poultry farms, fairs, auctions, or exhibitions during an ILT outbreak.**

Dr. Bob Hillman, Executive Director of the Texas Animal Health Commission recommends simple biosecurity measures that can be taken to help protect flocks:

1. **“Keep a spare pair.”** Buy a pair of inexpensive rubber boots, and wear them only on your own premises, to avoid ‘tracking in’ disease.
2. **“Give germs the brush off!”** Use a long-handled brush to scrape off manure, mud or debris from tires, equipment or boots, then disinfect.
3. **“Disinfection prevents infection!”** Mix a solution of three parts bleach to two parts water, and use it liberally to clean rubber boots and equipment brought onto your farm. If visitors don’t want their vehicle tires sprayed with disinfectant, ask them to park outside your gate.
4. **“Make visitors take cover.”** Don’t be shy about asking visitors to disinfect their footwear—or better yet, provide guests with disposable shoe covers, or footwear worn only on your place.

Can I vaccinate my flock for ILT?

There are different types of vaccines that can be used to control ILT. Owners should consider the tissue culture origin (TCO) vaccine, which is administered by simple eye drop. Administration of this vaccine should occur at least 30 days prior to shows and fairs. As with all available vaccines, the labeled directions for use and administration must be strictly followed.

If you live in Maryland and suspect that your flock has ILT, call the nearest MDA Animal Health Laboratory for a risk assessment and possible testing:

MDA Regional Animal Health Office/Diagnostic Laboratories		
County	Facility	Phone
Allegany and Garrett	Oakland Lab	301-334-2185
Anne Arundel, Calvert, Charles and St. Mary’s	MDA Annapolis	410-841-5810
Baltimore, Harford, Howard and Prince George’s	College Park Lab	301-314-1870
Caroline, Cecil, Kent, Queen Anne’s and Talbot	Centreville Lab	410-758-0846
Carroll, Frederick, Montgomery and Washington	Frederick Lab	301-600-1548
Dorchester, Somerset, Wicomico and Worcester	Salisbury Lab	410-543-6610

This fact sheet has been adopted from a North Carolina State University Fact Sheet entitled “Infectious Laryngotracheitis Virus (ILT)” by Donna K. Carver, DVM, PhD, ACPV.

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