

# FACT SHEET

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by: Usam Stephen, Agricultural Officer I

## Some Common Health Problems of Poultry

Some common diseases of poultry are Aspergillosis, E. Coli Infection, Gumboro Disease {Infectious Bursal Disease (IBD)}, Newcastle Disease, Coccidiosis, Chronic Respiratory Disease (CRD), Infectious Bronchitis, Malabsorption Syndrome, Blackhead, Botulism, Fowlpox and Worms.

The table below lists these diseases, their causes, signs and prevention/treatment options:

DISEASE	CAUSE/SIGNS	PREVENTION/TREATMENT
<p><b>1. Aspergillosis</b> (affects baby chicks and turkeys of all ages).</p>	<p><b>Cause:</b> A mould, <u>Aspergillus fumigatus</u>. Birds inhale large numbers of spores from mouldy environment, litter and feed. Disease is often spread in the hatchery.</p> <p><b>Signs:</b> Gasping, difficult breathing; lack of appetite, weakness accompanied by high mortality (usually 4-12% in young birds).</p>	<p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• Maintain litter as dry as possible. Brood baby chicks on paper rather than on sawdust.</li> <li>• Spray new litter with diesel two weeks before the chicks arrive. Copper Sulphate can be used one (1) day before arrival.</li> <li>• Store feed and litter properly to avoid musty, mouldy conditions.</li> </ul> <p><b>Treatment:</b> Disease cannot be treated. It can be controlled by removing affected birds from the flock.</p>
<p><b>2. E-Coli Infection</b> (affects all types and ages of poultry. Most infections are in young chickens, turkeys and ducks).</p>	<p><b>Cause:</b> A bacteria, <u>Escherichia coli</u> which is found everywhere in the chickens' environment. It usually enters into the bird's body through the mouth, respiratory system and navel.</p> <p><b>Signs:</b> The signs of infection vary: newly hatched chicks are depressed, sleepy, and cold. Watery droppings may be seen and there is variable mortality.</p>	<p><b>Prevention:</b> Reduce bird density; improve ventilation; practice water and pen sanitation.</p> <p><b>Treatment:</b> Treat with antibiotics during the early phase of infection. This may be of limited value in later stages. <b>Antibiotics should be used after consultation with staff of the Poultry Surveillance Unit.</b></p>
<p><b>3. Gumboro Disease – (Infectious Bursal Disease {IBD})</b> (affects primarily broiler chickens at 3-6 weeks of age).</p>	<p><b>Cause:</b> A virus which is resistant to adverse environmental conditions and most disinfectants.</p> <p>It is transmitted by direct contact with infected birds; and faecal-contaminated feed, water, equipment and personnel.</p> <p><b>Signs:</b></p> <ul style="list-style-type: none"> <li>• Marked depression; lack of appetite; ruffled feathers; trembling; some incoordination; droopy appearance; watery diarrhoea; and dehydration.</li> <li>• Morbidity reaches almost 90%. Mortality may at times reach up to 20%</li> </ul>	<p><b>Prevention:</b> Vaccinate the parent stock to give immunity to their offspring. Vaccinate the chicks also.</p> <p><b>Treatment:</b> There is no treatment. Prevention of chilly conditions and administration of water-soluble vitamins and electrolytes may reduce disease severity.</p>

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<p><b>4. Newcastle Disease</b> (affects chickens of all ages).</p>	<p><b>Cause:</b> A virus, which is spread through oral and respiratory discharges and faeces of infected birds; and mechanical vectors, e.g., equipment and personnel.</p> <p><b>Signs:</b> There is variation in morbidity, mortality, signs and lesions. There may be severe respiratory signs (gaspings, coughing, sneezing, nasal discharge); incoordination; paralysis; and greenish diarrhoea, Twisting of the head and neck and falling on the sides are also seen. Mortality will depend on degree of birds' resistance. Young birds are more susceptible.</p>	<p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• Since this is a highly contagious viral disease, a high and rigid standard of sanitation should always be followed to prevent its introduction into a poultry farm.</li> <li>• Depopulation and/or thorough cleaning and disinfection of the premises and a two month rest period are recommended following a diagnosis.</li> <li>• Vaccination programme may be necessary for commercial flocks.</li> <li>• The keeping of backyard chickens, fighting cocks and exotic birds in the household of poultry caretakers is strongly discouraged to prevent possible spread of the disease to the commercial flock.</li> </ul> <p><b>Treatment:</b> There is no effective treatment. Supportive treatment with broad-spectrum antibiotics in feed or water may help to prevent or reduce severity of secondary bacterial infections.</p>
<p><b>5. Coccidiosis</b></p>	<p><b>Cause:</b> <u>Coccidia spp.</u>, which affects all animals. This disease is one of the most economically important diseases in poultry. Besides mortality, the economic loss from loss of production as well as from treatment can be very high.</p> <p>It is transmitted through infection of faeces - contaminated litter, feed or water.</p> <p><b>Signs:</b> Reduced appetite and body weight gain; diarrhoea with mostly watery and sometimes bloody faeces; droopy and depressed birds.</p>	<p><b>Prevention:</b> Anticoccidials are added to the broiler feed to prevent the disease. This is usually done for commercial flocks at the level of the feed producers.</p> <p><b>Treatment:</b> Amprolium and sulphurs are recommended for treating the disease. Start treatment as early as possible in the disease for best results.</p>
<p><b>6. CRD Chronic Respiratory Disease</b> (affects chickens of all ages)</p>	<p><b>Cause:</b> <u>Mycoplasma gallisepticum (MG)</u> The severity of infection with MG is increased when associated with infection by viruses or bacteria that have an affinity for the respiratory tract.</p> <p>Personnel, equipment and infected birds spread the disease through the flock.</p> <p><b>Signs:</b> Coughing; sneezing; rales; snicks; oculonasal discharges; and reduced feed efficiency and growth rate. Mortality may be high. The disease may persist for weeks.</p>	<p><b>Prevention:</b> An all-in, all-out system is best. Infected flock should be removed, followed by thorough cleaning and disinfecting of the pens. Leave pens vacant for 2 - 4 weeks.</p> <p><b>Treatment:</b> Remove or reduce poor management conditions, which may have enhanced severity of infection, such as, ammonia fumes, poor ventilation, dust, high temperature, high bird density and marginal nutrition.</p> <p>Broad-spectrum antibiotics may lower mortality and reduce symptoms, but relapses may occur when treatment is stopped.</p> <p>Supportive vitamins and antibiotics should also be given.</p>

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<p><b>7. Infectious Bronchitis</b> (affects chickens of all ages)</p>	<p><b>Cause:</b> A virus which is transmitted by direct contact with aerosol excretions of infected birds in contaminated premises. Some recovered birds may remain virus carriers for several months. The virus induces an overall low productive performance.</p> <p>Mortality is not marked, unless complicated by bacterial or other viral infections.</p> <p><b>Signs:</b> Depression; nasal and eye discharges; sneezing, coughing and rales. Morbidity is high.</p>	<p><b>Prevention:</b> Vaccinate to prevent the disease from occurring in accordance to vaccination programme.</p> <p><b>Treatment:</b> There is no cure as is the case with all viral illnesses. Broad-spectrum antibiotics may be used only for the control or prevention of secondary bacterial complications. Reduce any stressful conditions and keep affected birds as comfortable as possible.</p>
<p><b>8. Malabsorption Syndrome</b></p>	<p><b>Cause:</b> Several related reoviruses. Disease is spread through direct contact with faeces and airborne discharges.</p> <p><b>Signs:</b> Increased young chick mortality; stunted growth; abnormal feathering, paleness of skin; high incidence of leg weakness; and diarrhoea in birds 1 - 4 weeks old.</p>	<p><b>Prevention:</b> As soon as clinical signs are seen, use a soluble polyvitamin supplement in the drinking water for about five (5) days. This should significantly reduce the severity and duration of the syndrome.</p> <p><b>Treatment:</b> There is no specific treatment.</p>
<p><b>9. Black Head</b> (mostly affects young turkeys and poultry up to 12 weeks of age).</p>	<p><b>Cause:</b> A protozoan <b><u>Histomonas meleagridis</u></b>. Transmitted by ingestion of feed and water supplies contaminated with embryonated eggs of the caecal worm found in common poultry. It can also be transmitted in earthworms which feed on the embryonated caecal worm.</p> <p><b>Signs:</b> Depression; decreased appetite; watery sulphur-covered faeces; high morbidity and mortality. The disease runs a chronic course resulting in marked emaciation of birds. (Head of infected birds is not dark).</p>	<p><b>Prevention:</b> The disease can be transmitted directly or indirectly. Young birds must not be reared near older birds or on the ground previously used by older chickens or turkeys.</p> <p><b>Treatment:</b> Drugs recommended for treatment include dimetridazole and ronidazole. Water - soluble treatments are more satisfactory.</p> <p>Worm turkey flocks with phenothiazine.</p>
<p><b>10. Botulism</b> (affects all wild and domestic birds especially ducks)</p>	<p><b>Cause:</b> Ingestion of exotoxins produced by the spore - forming bacterium <b><u>Clostridium botulinum</u></b>.</p> <p>The disease is non-contagious. Birds eat spoiled feeds, decayed vegetation, and decayed meats from dead poultry or toxin containing fly maggots. Highest incidence occurs during the dry season.</p> <p><b>Signs:</b> The birds become very weak; sleepy; have difficulty in swallowing and have progressive paralysis of legs, wing and neck. Birds are unable to lift their heads off the ground. Feathers are loose and are pulled out easily.</p>	<p><b>Prevention:</b> Ensure that birds do not have access to spoiled food or decaying carcasses. Use a disposal pit. Maggots of the blue bottle fly, which feed on carcasses, are dangerous as they may contain the botulinus toxin and are often eaten by poultry. When botulism is encountered, get rid of the source of infection quickly.</p> <p>To treat valuable birds (e.g. breeder drakes etc.), give a laxative in the drinking water (1 pt. of molasses in 5 gals of water) for 4 hours and then remove the laxative.</p> <p>Flush the crop with warm water administered through a funnel and rubber tube.</p> <p>Keep birds in a cool, shady place. Wash hands carefully after handling botulism affected birds.</p>

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<p><b>11. Fowl Pox</b> (affects especially turkeys of all ages but chickens also)</p>	<p><b>Cause:</b> A virus which is transmitted by direct contact with infected birds. The virus enters the skin through minor abrasions.</p> <p><b>Signs:</b> Reduction in appetite; weight loss and low egg production. The flock may not show any disease signs until wounds are seen on the skin. Mortality is variable but may be as high as 40%.</p>	<p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• Vaccinate turkeys within the first week using the thigh-stick method, that is, on the skin between the thigh and abdomen.</li> <li>• Since disease spreads slowly, vaccinate unaffected birds in the flock by wing web methods using the fowl pox strain.</li> <li>• Broad-spectrum antibiotics in feed or water are advisable to prevent aggravating secondary bacterial infections.</li> </ul> <p><b>Treatment:</b> There is no treatment for affected birds.</p>
<p><b>12. Worms</b> (tape worms and roundworms occur in both chickens and turkeys).</p>	<p><b>Cause:</b> Worms parasitize poultry. Environment plays a great part in the occurrence of both kinds and numbers of worms in poultry. Worms cause a drop in egg production and retards growth. In addition, it places a stress on the normal physiological processes of the birds. This tends to make them less resistant to other types of infection, or to other stress factors. Worms are spread directly through the droppings of the birds. The eggs of the parasites may remain alive in litter or soil for many months.</p> <p><b>Signs:</b> Droopiness, paleness and diarrhoea.</p>	<p><b>Prevention:</b> Proper management of the litter is required to prevent these infestations.</p> <p><b>Treatment:</b> Worm the birds living in locations known for worm infestation according to manufacturer's recommendations. Use <b>piperazine</b> compounds for roundworms. Use <b>mebendazole</b> compounds for tapeworms. <b>(Do not feed to layers).</b></p>

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**For further information and advice consult a Veterinarian or the Poultry Surveillance Unit or contact your Extension Officer**