

# Free-range poultry diseases



BVA ANIMAL WELFARE FOUNDATION

Exhibition chickens, hens, ducks, geese, turkeys, ornamental waterfowl, quail, ornamental pheasants, guinea fowl and peacocks

## Common problems and some causes

**Weight loss:** internal parasites, poor nutrition, liver disease, starvation, bullying, avian TB, Northern fowl mite or red mite, poisoning, coccidiosis, kidney disease, lack of water, high levels of ammonia.

**Diarrhoea:** *E. coli*, BWD, coccidia, too much cabbage, hexamita, *Salmonella typhimurium* or *enteritidis*, sudden change of diet. Do not confuse caecal contents (voided 1 in 10) with diarrhoea.

**Missing feathers:** external parasites, moulting, pushing head through fence, hens plucking each other or cockerel (culprit usually has all feathers), claws of male, poor nutrition.

**No eggs:** poor body weight, birds too young, days too short, IB (or other viruses), fright/stress, new home, rats or magpies stealing eggs, birds laying away, laid on floor and buried, eaten by hens, not enough food, too much food Northern fowl mite or red mite.

**Chick discomfort:** noisy when defecating and pasted-up vent: *E. coli* or chilling. Continual cheeping: too cold, hungry, thirsty, one escaped from brooder. Panting: too hot. Huddled together: too cold

**Respiratory noises:** mycoplasma, IB (or other viruses), aspergillosis, high levels of ammonia, gapeworm.

**Eggs: Infertile:** excess males, flea eggs on vent, too many feathers on vent, cock too old. **Not hatching:** not know correct incubation time, not fertile, infected by hen.

**Dead-in-shell:** "banger" (egg explodes in incubator as rotten), too much humidity in setter, not enough humidity in hatcher, sat on by broody before collection, poor nutrition of breeders, poor egg storage, eggs too old (>14 days), old age of hen, drugs at incorrect levels, *Salmonella pullorum*, infection, damaged shell, malposition of embryo, high bacterial load in dirty nests.

## Common diseases by age

**Chicks: Early hatch:** very small bantams, eggs too fresh (<24hours), sat on by broody before collection.

**Unhealed navel:** eggs too old, temperature of incubator too low, too much humidity in setter. **Deformities:** genetic or nutritional, slippery surface for first few days, temperature fluctuations and extremes during incubation.

**Deaths:** salmonellosis, coccidiosis, chilling, smothering.

**Sudden death in adults:** egg peritonitis, heart failure, salmonellosis, stoat/mink/ferret/fox, choked, kidney failure, aspergillosis, botulism, duck viral enteritis, Newcastle Disease.

**Chicks:** deformities (bent toes, crossed beak, splay leg), *E. coli*, BWD (*Salmonella pullorum*), Gumboro, IB, aspergillosis, coccidiosis, starve-outs, feather pecking. Natural rearing includes the previous conditions plus chilling, squashing, vermin.

**Growers (8–26 weeks):** Gumboro, Northern fowl mite/red mite, scaly leg, coccidiosis, mycoplasmosis, swollen sinus, feather pecking, angel wing, perosis, smothering, Marek's, lameness, roach back, wry tail, cow hocks, impacted gizzard, roundworms, breathing difficulty (IB, ILT, other viruses, gapeworm), poisoning, blackhead, aspergillosis, lice.

**Adults and aged:** egg peritonitis, avian TB, Blackhead, Pasteurella, Erysipelas, heart failure, scaly leg, Northern fowl mite/red mite, lice, mycoplasmosis, swollen sinus, ear canal infection, bumblefoot, vent gleet, wet feather, arthritis, choking, sour crop, impacted crop, impacted gizzard, tumours, poisoning, aspergillosis, kidney failure, liver failure.

## Life expectancy

Large fowl, turkeys and guinea fowl: 6–10 years. Bantams, peacocks and pheasants: 8–12 years. Ducks: 6–8 years. Geese: 10–20 years. Quail: 1–2 years.

Symptoms	Disease	Cause	Treatment	Bird species
Listless, head sunk in neck, white diarrhoea, maybe blood in faeces	Coccidiosis	Coccidia parasite	Baycox, Coxi Plus or Coxoid* in water for five days. Keep litter dry. Paracox oral vaccine, one drop, day-old chick only, lifelong protection†	All birds from three weeks
Listless, head sunk in neck, yellow diarrhoea	Blackhead (Histomoniasis)	Parasite carried by heterakis worm	Metronidazole* 5mg/ml oral solution, 30mg/kg q 12hrs for five days. Worm hens with Flubenvet to remove vector	Turkeys, pheasants, guinea fowl, uncommon in hens, chronic in peafowl
White diarrhoea, thirst, sudden death	Bacillary White Diarrhoea (BWD)	<i>Salmonella pullorum</i>	Blood test to find and cull carriers	Chicks 0–3 weeks, adults as carriers
Listless, greenish diarrhoea, gaping, waterfowl lame	Parasitic worms	Up to six different types round, tape, capillaria	Flubenvet mixed into feed for seven days, 10g to 8kg feed	All poultry
Visible parasites around vent, listless, blood spots on shell, dirty crest	Lice or mites	Four types louse, two types mite	Pyrethrum-based louse powder all over bird, spray housing with Barricade or avermectin* drops on skin	All poultry. Care with avermectins in geese.
Sneezing, nasal discharge, foam in eye, rattly breathing, swollen sinus	Mycoplasmosis	Mycoplasma	Tylan 200* injection, 0.5ml per adult in breast muscle, 1ml turkeys. Repeat once, 48hrs, cull if no improvement. Tylan Soluble suitable for chicks	Hens, turkeys, peacocks, pheasants, ducks
Swollen sinus in waterfowl	Mycoplasmosis or Pseudomonas	Mycoplasma or Pseudomonas	Lance, flush with Baytril 2.5%, 5ml teal, 30ml swan, daily for five days. Spray fomites with Virkon or F10	Waterfowl
Raised, encrusted scales on legs	Scaly leg	Mite	Dunk legs in surgical spirit weekly for three weeks or avermectin* drops on skin. Scales take one year to grow back properly	Any bird
Blood	Wounds	Featherpecking: heat stress, overcrowding	Remove red colour, spray coloured antiseptic, put Stockholm tar on area. Isolate until healed	Any bird
Brown diarrhoea, slow growth, slow feathering	Enteritis	<i>E. coli</i> , stress, dirty litter, chilling, nutrition	Terramycin, Apralan or Chlorsol in water	Young stock from five days
Noxious smell, scabby vent	Vent gleet	Herpes virus	Acyclovir* may help, but best to cull	Birds over one year
Purple comb when normally bright red	Heart failure, nitrate poisoning	Age, disease, deformity	ACEi plus frusemide to weight, methylene blue if nitrate poisoning	Hens
Swelling on underside of foot	Bumblefoot	Staph bacteria, wound	Surgical intervention, Sulphur/Silicea homeopathic tablets or consider euthanasia	Old, heavy birds, perches too high
Top beak overgrown, long claws	Overgrowth	Deformity, soft ground	Trim to shape	All birds
Female flank, no feathers or bleeding	Bareback	Sharp claws or spurs	Trim to shape, use saddle for breeding or remove cockerel	Soft-feathered hens, turkeys
Unusual behaviour	Stress	Disturbance or change	Vitamin powder, probiotics	Any bird
Lameness (if waterfowl, also see worms)	Injury, tumour	Kidney disease, tumour, arthritis, perosis	Isolate, Symptomatic treatment, NSAIDs*. For perosis, cull	Any bird
Paralysis, same side leg and wing	Marek's disease	Herpes virus	Vaccinate new stock, cull affected birds. Keep chicks and adults separate	Hens up to the point of lay, cockerels
Weight loss, but still feeding and alert	Avian TB	<i>Mycobacterium avium</i>	No treatment. Cull affected birds. Wild birds are carriers	Birds over one year
Respiratory distress, loss egg quality	Infectious Bronchitis	Coronavirus	Vaccinate. Carrier adults (40% chick mortality)	Hens, pheasants, guinea fowl
Respiratory distress, gasping, death	Aspergillosis	Fungus	Cull, remove damp litter, fog with F10	Chicks 0–4 weeks, turkeys, waterfowl, pheasants, plus any adults
Pendulous crop	Cropbound	Fibrous grass, poor muscle tone	Isolate with only water 48hrs. Surgery if impacted. Add grit to diet as prevention	Old hens or birds on long grass
Sudden chick deaths, rest recover	Gumboro (IBD)	Birnavirus	Vaccinate, antibiotic cover useful	Hens 1–16 weeks
Cheesy substance in ear canal	Ear infection	Bacteria or mites	Surolan*, Leo Yellow tube*, Aurizon*	Any bird
Cheesy substance in mouth and throat	Canker	Trichomonas	Metronidazole as for Blackhead or nystatin which must coat the area. Vitamin A	Any bird
Listless, straining	Egg bound	Low available calcium	Cull if egg peritonitis. Warmth, remove egg, give Calcivet	Any female bird
Waterfowl wing droops then sticks out	Angel wing	High protein diet	Drop protein, tape wing in natural position for three days, do again if necessary	Growing waterfowl
Waterfowl no longer waterproof	Wet feather	Shaft lice, excess preening, tree mould	Keep off water until next moult, de-louse, if mould, wash in detergent	Waterfowl
Sudden death breeding waterfowl	Duck viral enteritis	Herpes virus	Vaccinate. Remove wild mallard	Waterfowl

## Useful tips for clients

- Protect from vermin and wild birds
- Take advice on housing and nutrition
- Use high-quality feed specific for age and species
- Always seek prompt veterinary attention
- Buy new birds from a single source
- Take care in introducing new birds

## Defra

- Useful information on biosecurity for keepers can be found at [www.defra.gov.uk](http://www.defra.gov.uk)

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\*Not licenced for poultry. The BVA AWF recommends that veterinarians seek advice from the manufacturer when using such products off label. eggs must be withheld from human consumption during treatment and for seven days afterwards. †Available in small doses from The Poultry Club.

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