

# Common Chicken Problems & Diseases

## What to look for and how to prevent them

Chickens are fun, interactive pets to keep but can be prone to disease if not cared for in the correct manner. Unfortunately for their owners, chickens do not tend to show any sign of disease until they are very ill, at which point quite intensive treatment may be required to rectify the problem. The best way to ensure that you recognize illness when it does manifest is to be very familiar with your chickens, so that you notice the slight changes that indicate that they might be feeling a bit under par. Take the time to look carefully at the colour of their combs and what their eyes look like on a daily basis. Get to know the plumage on each chicken, and regularly handle your pets so that you know what the crop (the first part of the stomach, which sits at the bottom of the neck and above the keel bone) normally feels like, and are familiar with what normal feet and skin look like.

It is important to monitor the weight of your pets: the easiest way to do this is to check the prominence of the keel bone, which is the one in the middle of a chicken's chest. The keel bone should not be pointy! There are muscles that lay either side of the keel, so the overall feel of the front of your bird should be relatively flat. If you can feel the keel as pointed and there is a dip either side of it, your bird is underweight; if you can feel bulges either side of a keel bone that is almost impossible to feel, your pet is overweight and needs to go on a diet! It is important that your chickens receive a good quality diet that is appropriate for their lifestyle. For example, if you have chickens producing lots of eggs, they will need a diet that is high in calcium, such as a layers pellet. There are many diets available for chickens, but these will not be discussed in detail here.

Signs that your chicken might not be feeling well include anorexia or a reduction in food intake, and reluctance to drink. One of the first systems to be affected in birds is the nervous system, so tail dropping gives a good indication that something is wrong. If the tail is bobbing up and down as your bird breathes, this is a true emergency and your chicken should be seen by a vet as soon as possible. The comb might become paler than usual, or might become a darker red or purple colour, or even blotchy. Your chicken might lose weight suddenly or over a long period of time, despite eating a normal quantity of food. Your chicken might suddenly develop a large lump on its chest – this is normally a sign that the crop has become blocked, so the area is often very hot and reddened as well. In other diseases, your chicken's eyes might become puffy or have a discharge that might also be coming from the nose. If your chicken has a mite or louse problem, it might peck at its skin or feathers, may pluck its feathers, or other flock members may peck or pluck its feathers. It is common that when a chicken becomes ill, others that are lower in the hierarchy will try to take advantage of the situation to work their way up, so an already sick chicken may become the subject of quite intense and even violent bullying. If you notice that one chicken is suddenly being picked on by the others, there is a high chance that it is ill!

Below is a list of the most common problems which you and your chickens will encounter, and some tips and advice about how to avoid them.

## Moulting

Chickens normally moult once a year. This process uses a huge amount of energy and can be very tiring for your pet. If the moult occurs at the same time as a stressful event, like being put into a new house or a new addition to the flock arriving, your chicken can be at increased risk of disease because their immunity is lowered for the duration of the moult, which typically takes 1 – 2 months. The best treatment for your pet during this process is ensuring a good quality food is available, plenty of vitamin and mineral supplements are used, and stress is kept to a minimum. If you have just bought ex-battery chickens and are worried that they look a bit scruffy and bedraggled, don't panic! Their feathers should grow back in good condition after plenty of good food, TLC and a moult.

## Worms

There are many round and tape worms that can affect your chicken and they can reside not only in the intestines, but also in the stomach and wind pipe. With the latter, your chicken might also be suffering from respiratory disease or might be anorexic, although this is a common finding in any sick bird. Chickens with worms will lose weight over time, and may become anaemic if the worm burden is high enough. Anaemia can usually be seen as a paling of the comb or wattle colour. The loss of nutrients caused by the worms will also result in vitamin and mineral deficiencies in your chickens, which in turn may impact on their egg-laying ability as well as the quality of egg shell. If the shells are too brittle, the egg might break within the chicken and cause egg peritonitis, which can be fatal. Chickens should be wormed at least twice a year to prevent these problems.

## Mites

Mites come in a variety of shapes and sizes, and affect different areas of your chickens.

- *Dermanyssus gallinae*, or **red mite**, is the most common by far and is notoriously difficult to eradicate from the housing. Red mites only come out at night and are blood-sucking mites, so can cause significant anaemia and can cause death. They are also very annoying, as you might imagine, and can therefore cause stress-related illness as well. Both the chickens and their housing need to be treated (with dusting powders) for red mites – this includes all the furniture in the housing because the mites hide under this during the day. In addition to the dusting powders, it is essential that a lighted blow torch be run over all the corners and all the joints between the house and perches to eliminate larvae. Neither of these methods works alone, but red mites will crop up anywhere that chickens are kept for any length of time, so do need to be used in conjunction with each other in the event of infestation. In severe cases, it may be best to burn the affected house and purchase a new one.
- *Ornythonyssus sylviarum* is also known as the **Northern fowl mite**, is black and can cause scaling on the face, comb and wattles. Again, discomfort and anaemia along with scabby skin are the hallmarks of these mites. The feathers are also affected at the base where they grow, and can look as though they have been chewed at. These mites, unlike red mite, are rare, but are almost impossible to get rid of. Again, the housing needs to be treated as well as the chickens, but often it is better to burn the housing and purchase a new one if these mites do take up residence.
- *Cnemidocoptes mutans* is commonly called the **scaly leg mite**, and unsurprisingly manifests as a chicken with scaly legs! The mite burrows between the scales and causes so much discomfort that your pet may have difficulty walking. This mite usually starts in an older bird but if any one of your pets is affected, the others are in danger of contracting it. The first step is to soak off the dead skin in warm water and Epsom salts, but care must be taken to avoid bleeding because the mites are easily spread like this, and your pet will need to be isolated if bleeding occurs. Once the damaged skin has gone, cover the legs in petroleum jelly to suffocate the mites. This problem is usually associated with damp conditions, so it is important to check that your chickens' housing has adequate ventilation.

## Lice

Lice in chickens do not suck blood: they simply eat dead feather and skin debris. However, they can still cause intense irritation because they inhabit the growing base of the feather, the follicle, and remain there for their entire life. Lice are very easy to treat but you need to check your pets regularly to see whether treatment is needed. Hold your chicken by the legs and check the vent – where the eggs and droppings come out – as this is the most common site that lice will inhabit. Normal chickens will have healthy skin and dry feathers around the vent, but chickens with lice may have reddened skin around the vent, and there may be white crystals that look like sugar or icing powder around the feathers. In some cases you may even see the lice! In this case, your chicken will need to be treated with lice powder or cold ash from a wood fire.

## Coccidiosis

Coccidiosis is traditionally associated with intensive farming of chickens and does not tend to be a major problem for the average backyard chicken flock. However, many chickens coming out of the production industry may be carriers of *Coccidia* without showing any signs, and this can cause problems when these chickens are introduced to established flocks, or when a chicken carrying the disease becomes unwell with another illness. General things to look out for include blood in the droppings, emaciation and anorexia, lethargy and a reduction in the number of eggs laid, or sudden fatalities in the flock. *Coccidia* are spread through dirty bedding and contaminated clothing, shoes and equipment, so good hygiene will prevent most potential cases.

## Feather pecking and bullying

Feather pecking can be a result of bullying, which can be due to problems with the housing, illness, or from being bottom of the hierarchy! Unfortunately, there will always be a chicken at the bottom of the pecking order. However, if enough food, space, perches and nesting spaces are provided that the chickens do not need to compete for these commodities, bullying can be reduced to a minimum. Your chickens are also at risk of having their feathers pecked if they get an injury: any sign of redness or blood in a flock of listless chickens will result in ruthless pecking of the injured bird, often resulting in catastrophic injuries or death. The answer to this problem is to ensure that your chickens have plenty to keep them occupied and to check your pets every day for injuries and illness. Although beak trimming is performed in some commercial flocks, this is not an appropriate course for backyard chickens that should have plenty of stimulation: it is both an unethical practise and an incredibly painful one for your pet chicken.

## Cockerel behaviour

Cockerels are beautiful birds and are very protective of female chickens, so can be handy to have around in a pinch; they also ensure a constant supply of fertile eggs if you wish to breed, and can be very friendly. However, their violent tendencies are not always purely angled at animal threats! With some exceptions, cockerels will fight each other over the flock, if the flock is either not big enough to provide enough females for the number of cockerels present, or if the breed produces very violent males. In this case, they may also attack the hand that

feeds them – you! When selecting your chickens, it is advisable to choose a breed that has not been used for cock fighting in the past: selective breeding for violence over the years has made these cockerels frequently difficult to handle, and their spurs can inflict some real damage if you are caught by them. It is just as important to handle and tame your cockerel as it is your hens: not only will you be able to detect illness more readily in the males, but your chances of being mistaken for an enemy are much reduced. Spurs are found on the inside of the legs of both male and female chickens, but are much larger in males. They are removed in some countries to reduce injuries, but this is similar to removing all the claws of a cat and is considered both unethical and a mutilation in this country. In any case, there is a large artery that runs through the spur, so removal should be discouraged! However, spurs can be trimmed every other year using claw clippers, and can also be filed down to prevent damage to your hens.

## Crop impaction and stasis

These are fatal conditions if untreated and the sooner they are picked up, the better the outcome is likely to be. Crop stasis is also called 'sour crop' because of the smell that goes with it – if you smell an affected chicken's breath, it will smell something like sour milk or yoghurt. Often owners don't realize that their chicken isn't eating because the crop always seems to be full. Indeed, the crop continues to grow if the chicken is still trying to eat but nothing is getting through! If your chicken is suffering from crop stasis, it is also very likely to be suffering from something else: crop stasis is rarely a primary problem but is a result of other disease processes. If your chicken has a crop impaction, the crop will continue to grow as your pet eats, becoming very hot, red and heavy – so much so that it can be difficult for your chicken to stand. These problems demonstrate why it is so important to feel the keel and surrounding muscles regularly: these chickens will be starving with a full crop. Whilst you are watching your chickens eat, take the time to check that they are actually eating the grains, not just pecking around in the dirt! The only effective treatment is surgery for these cases, although medical management can be attempted if a crop stasis is caught early and before an impaction builds up.

## Egg peritonitis

Unfortunately, this is a common disease in ex-battery chickens and carries a very poor prognosis. Battery chickens have a very difficult life and their living conditions are manipulated to maximise their egg production. Unfortunately, this usually involves eliminating the natural resting period that chickens have between laying clutches of eggs by altering the light cycle, leaving the chicken no time to recover or to replace calcium losses from her bones (which is where the calcium for the egg shells comes from). When loving owners take on these stressed, immuno-compromised and nutritionally deficient chickens, it may be that the disease process for egg peritonitis has already started but is not apparent. This is no reason to be discouraged from re-homing these chickens! They need all the TLC they can get! However, it is not only ex-battery chickens that suffer from this condition: any chicken that is low in calcium or vitamins, or has difficulty laying at any time can be a victim of this disease. The eggs burst inside the chicken, leaving a perfect growing environment for bacteria, which take rapid advantage of the situation. It is essential to catch this process early so that medical or surgical intervention can be taken, so if you are even slightly concerned about your chicken's laying or egg production, or if your chicken seems 'a bit down', bring her in for a check-up!

## Scald

Scald is when the skin on the legs, and particularly the feet of your chickens, turns a very red raw colour and becomes painful for the chicken. This is a condition brought about purely through housing problems – wet bedding and flooring results in the ammonia in the droppings literally burning through the skin. If you have ever burnt your hand on the oven, scale this up to your whole foot and imagine walking on it – scald is excruciatingly painful and requires treatment! However, scald is also easily prevented by cleaning out the housing regularly, moving runs around, and providing plenty of space. Good ventilation is also essential because ammonia also gives off vapours that are toxic to the lungs, so can cause breathing difficulties.

## Prolapse

Unlike mammals, birds do not have a separate anus and birth canal. Instead, the eggs and droppings come from their different tubes inside the body to be delivered through the same vent, although not at the same time! Therefore, in order to lay an egg and prevent contamination with droppings, birds have a clever system of inverting their oviduct – the tube that the egg comes from – until the egg is out, leaving it completely untouched by droppings. In a normal bird, this system works perfectly. However, if your chicken is deficient in calcium or vitamins, or has not had time to recuperate after laying each clutch of eggs, or if she has a muscle weakness, the tube may continue to come out. This is known as a prolapse and you will recognize it as a very pink to red structure visible at the vent. If this becomes contaminated with droppings, gets damaged or gets progressively bigger, the prognosis for your chicken might become very guarded because infection can easily take hold, or the chicken might become so ill that surgery becomes very dangerous. It is therefore important to keep a close eye on your chickens throughout their laying period and bring them to the vets if you see a prolapse. In some chickens, the prolapse may correct itself. Prolapse is usually a sign that the chicken is starting to become significantly deficient in vitamins and minerals, so she should still be brought in for an injection of these in addition to

providing oral supplements because these cannot be processed quickly enough to help during the rest of the lay. If the prolapse does not correct itself, surgery is necessary to replace it. In some cases, if the prolapse is very large and damaged or if your chicken has recurrent prolapse, it may be necessary to spay your chicken. Although this will be the end of her egg laying days, she will still be a fun, lively and integral part of your pet flock!

## Marek's disease

Marek's disease is a nasty illness caused by an alpha-herpes virus that infects the immune system, causing nervous signs and tumours, usually in birds less than 5 months old. Commercial chickens are vaccinated against it routinely, but because the vaccine is only effective when the birds are very young, it is not possible to vaccinate your chicken once it is an adult. Silkies and Sebrights are particularly prone to this disease. This disease is very contagious and is spread through feather dust. Signs to look out for include paralysis, usually of one wing (resulting in a dropped wing) and leg, a head tilt, and changes in the droppings because the digestive tract can be affected. Unfortunately, there is no cure for Marek's disease and euthanasia of the affected bird should be performed both on welfare grounds and for the health of the remaining flock. If you are purchasing your chickens from a breeder, it is worth asking them to vaccinate your chicks before you collect them (the vaccine needs to be given at 1 day of age, then again 2 weeks later). If you are getting ex-industry chickens, it is worth finding out if they have already been vaccinated. If you intend to breed your own chickens, make sure you are prepared and have ordered the vaccine in advance of the hatching date!

## Mycoplasma

*Mycoplasma gallisepticum* is a common, highly infectious disease that causes severe breathing difficulties in chickens and can take weeks of antibiotics to resolve. *Mycoplasma* species are, however, notoriously difficult to completely eradicate and may recrudescence later in time. Classical signs of a chicken suffering from this malady include a clear discharge from the nose and eyes; sneezing may or may not accompany other signs. The eyes become very puffy, and the whole head may look swollen – this is because the sinuses are all full. If you have ever had sinusitis, you will understand just how unpleasant the sensation can be! Unfortunately, this sensation is magnified with *Mycoplasma* because all of the sinuses are usually involved. Affected chickens are therefore also very lethargic, often anorexic, and may seem mentally depressed. Frequently the comb might fall to one side, which is a result of dehydration, and may also become much paler than usual. Sadly, many cases are not picked up until the chicken exhibits all of the above signs, at which point the bird might be too weak to be able to respond to treatment, and euthanasia is advisable at this stage for welfare reasons. However, if caught early, this disease can be effectively treated with an appropriate antibiotic. This antibiotic will need to be provided for the whole flock because all of your birds will have been exposed to the pathogen, and will last for several weeks. However, individual medication is usually only necessary in the affected birds: the remainder of the flock can frequently have their water medicated instead. It is very important to finish the course of antibiotics even if your pets seem to have made a full recovery: *Mycoplasma* lives inside cells so can hide away very effectively, and unless the antibiotic course is finished, the infection can come back very quickly.

## Osteomyelitis

The word 'osteo' means 'bone', and 'itis' means inflammation, so osteomyelitis is an inflammation of the bone. The most common place for this to occur is on the keel because there is only a very thin layer of skin covering this bone. Therefore, if your chicken is weak due to another disease process or has difficulty raising itself off the ground (which can be difficult to spot when brooding), the keel is always in contact with the floor. This causes abrasion to the overlying skin until sores develop. Once this happens, infection enters the wound and can very quickly take up residence in the damaged bone. Sometimes the skin can heal again over the keel, but the infection has already been trapped inside and might not become apparent for several days to weeks later. As with any bacterial infection that takes hold, your chicken will develop a fever, leading her to become lethargic, anorexic and not want to drink. She might have visible sores or scars over her keel area, or on her feet if the infection is secondary to scald. Although osteomyelitis is usually secondary to damage to another part of the body, it can also be contracted without any external damage. Bone infections are incredibly painful and can also be challenging to treat, so the earlier this is caught, the better the prognosis. Once again, this highlights the need to check your chickens on a regular basis to prevent infections being able to access the bones.

## Aspergillosis

This disease is caused by a fungus called *Aspergillus fumigatus* that is found everywhere in the environment. It is therefore reasonable to suppose that all birds are exposed to it! However, if you have ever spoken to a falconer, you will probably have heard tales of doom where aspergillosis is concerned. *Aspergillus* species love to grow on mouldy grains, so poor quality foods hold a very heavy load of fungus – far more than the immune system is used to dealing with, and mouldy seeds are a large cause of disease. However, aspergillosis is far more commonly seen as a sequel to other disease processes: when a bird is fighting an infection, its immune system focuses everything on that infection. This leaves your pet vulnerable to attack from other infective causes, and as mentioned, *Aspergillus* is found everywhere. If your pet is suffering from a long-term debilitating disease, you should certainly be aware of the signs of aspergillosis. The fungus affects the respiratory system, and cumulates in

the air sacs of birds. Although birds have lungs, they do not act in the same way that ours do, and gas exchange – the process that ensures that oxygen is transferred to the blood – actually occurs in the air sacs, not the lungs. Birds have an incredibly efficient mechanism for breathing such that any air breathed in is circulated twice before it is breathed out, so there are twice as many opportunities to take oxygen into the body. However, this also gives *Aspergillus* species twice as many opportunities to take up residence in the air sacs! Once in the air sacs, the fungus forms plaques that are very adhesive and thick, so are difficult to remove and difficult to treat. Birds suffering from aspergillosis may bob their tails in later disease, but before that might have a change of tone in their voice, or may lose their voice altogether. This is almost diagnostic for aspergillosis and should not be ignored! Your pet may be more lethargic than usual and might not come to feed as quickly as usual, or might hang back from the group. You might notice an increase in the effort that is needed to breathe – you might see the chest rising and falling, or even the abdomen being used to breathe. This disease is fatal in chicks and is very serious in adults, so it is important to seek advice for any disease to prevent aspergillosis subsequently. Treatment can be prolonged and intensive, and requires large quantities of TLC on the side! The best way to avoid aspergillosis is to ensure clean housing is provided at all times with plenty of ventilation. Avoid alternating wet and dry conditions: this is perfect for the formation of fungal spores during the wet patches, and dispersal of them during the dry. Just think of the conditions in autumn when the toadstools arrive – this is what you want to avoid! *Aspergillus* can also rarely affect people, particularly very young or elderly people, or those undergoing treatment with strong drugs such as anti-cancer treatments. If anyone in your family fits into those categories, it is advisable to prevent them from coming into contact with the chickens or their housing. In some cases, affected birds may need to be euthanized to protect other members of the family or for welfare reasons.

## Avian influenza

The first thing to mention about avian 'flu is that you are very unlikely to get it! People and birds do not have the same receptors (places that the virus attaches to) within the body, and the receptors present even sit in different anatomical places, so the virus would have to undergo many, many mutations and probable cross-replication with 'flu from another species in order for you to catch it. However, it can be a serious disease for your pets, depending on which strain they catch. There are many different strains of influenza and most are relatively harmless: your birds will be exposed to them on an almost daily basis, the same way that you are exposed to human influenza on most days. The only strain that has been associated with human disease is the H1N1 strain, originally from Asia. This strain is also Notifiable, which means that if you or your vet suspects this disease to be present, DEFRA must be contacted by law and an investigation carried out. Some signs to look out for include the comb and wattle turning blue and becoming swollen, difficulty breathing, your chicken having a swollen head or neck, lack of co-ordination, and anorexia with excessive thirst. Influenza should also be considered if several birds die within 2 days of each other without any indication that a predator might have been present or of another disease process being present. However, remember that this strain is very rare and there is no need to panic unnecessarily! The most common source of influenza is passing wild birds – they are usually attracted to your pets' food and water sources, so putting these somewhere out of sight such as under a shelter can help to deter them. However, the area does need to be fully ventilated so avoid closing your chickens in to feed them! Most birds with a touch of 'flu will recover in the same way that most people with a touch of 'flu recover. Even if your bird does catch a nasty strain of influenza and has difficulty recovering, it is unlikely to have the H1N1 virus!

## Salmonellosis

*Salmonella* is a bacterium found in the intestines of most birds, but is carried in much higher numbers in chickens than in other species. *Salmonella* species do not normally cause a problem for your chickens, but will cause you or your family a problem if undercooked, affected eggs are eaten, or if food is eaten with contaminated hands. The best way to avoid salmonellosis, which can cause symptoms of food poisoning or breathing difficulties in people and chickens, is to ensure good hand hygiene. Always wash your hands thoroughly in warm soapy water after handling your chickens, their eggs or their bedding. Resist the temptation to feed your chickens scraps from your kitchen as treats: this is both illegal and one of the best ways to set up a *Salmonella* infection in your chickens! Most pet chickens will not have a significant load of *Salmonella*, but if you are at all worried that your chickens or eggs might be affected, contact the vets to get a faecal sample sent to a laboratory for analysis. If your chickens are suffering from salmonellosis, they can be treated with antibiotics successfully, but be aware that it can be months before they are declared *Salmonella*-free.