

CHICKEN CARE: LARGE-BREED

Physiology of Cornish Chickens

The lifespan of a Cornish breed chicken, called “broilers” by the meat industry, is anywhere from six months to three years, but many can live longer happy lives with proper care. Contributing to shortened lifespan are the leg issues that affect most Cornish chickens. These include blown or torn ligaments, joint degeneration, and chronic pressure sores on the hocks and feet, and they are a result of the breed’s predisposition to rapid and excessive weight gain.

These birds have been selectively bred and genetically altered to reach slaughter weight just 42 days after hatching. Industry scientists are striving to shorten this time even further, which will increase the severity and prevalence of health problems among those who live past the typical slaughter age. By the time they reach 42 days, more than 25% of birds from this industry already have leg and joint problems because of overfeeding and their already heavy builds. Fast growth also contributes to heart failure in these birds.

Mature Cornish hens weigh eight to 12 pound, and males weigh 10 to 18 pounds. This applies to birds on a restricted diet who are allowed to live more than the 42-day period they would live normally. If left to eat whatever they choose, these birds would grow to even greater weights or would die from heart failure or need to be euthanized because their legs would break down. The normal body temperature for mature chickens is 106.7 °F, with young chickens ranging from 102 °F to 106 °F.

Nutritional Needs of Large-Breed Chickens

Because this breed requires a very restricted diet and because they will eat any food put in front of them, they should not be housed with other breeds of chickens. If they are, they should not have access to any free feed or extra feed that smaller breeds require.

Water. Clean, fresh water must be available at all times. The use of a poultry fountain is recommended to prevent spillage and to keep water as clean as possible. In warmer weather, check water often throughout the day. During periods of freezing temperatures, the use of a water heater is recommended.

Feed. Chicken feed can be purchased at most farm supply stores. Currently there are feeds on the market that provide complete nutrition for chickens and are free of antibiotics, hormones, and animal bi-products. Because of their rapid growth, we recommend feeding Cornish chickens a layer pellet, such as Layena, in restricted amounts. This food is not ideal, but little is known about their nutritional needs in a sanctuary or companion animal setting, and the foods created for them are designed for rapid weight gain.

Providing one-third to one-half cup of pellets per bird twice a day will ensure adequate nutrition while keeping their weight manageable. Providing less than that, or using feed that does not contain the proper levels of calcium and other nutrients, can cause health problems, such as rickets or softening bones, and can contribute to earlier death.

Providing pasture (i.e., a yard) is also a good way to supplement the diet and keep them active. Weighing these birds monthly will allow you to modify their food intake as needed, cutting back on pelleted feed if they are gaining weight during spring and summer while foraging on plants and bugs.

Feeders. The use of standard poultry feeders is fine for flocks of birds. Feeders can be ordered online from companies such as www.enasco.com or from your local feed store. You must have enough feeders to accommodate all the birds at one time to prevent stronger birds from monopolizing access to the feed and ensure that weaker birds are able to eat enough. This will take a bit of trial and error. There should be enough space along the sides of the feeder(s) to accommodate every bird. If some chickens attempt to push others away from the feed, add another feeder. As the chickens grow larger, increase the number of feeders, but not the total amount of feed for the flock. If you have only a few birds, you can instead use individual bowls to feed them.

Handling Cornish Chickens

Do not attempt to handle Cornish birds unassisted until you are familiar and comfortable with the practice. Herd chickens into a small pen or area to minimize the need to chase them, which in this breed can cause cardiac arrest. Corner birds in as small an area as possible. To pick up a young chicken, place one hand gently but firmly on the chicken's back while putting the other hand in front of the bird's chest to prevent forward movement. Next, move both hands firmly over the wings to limit wing movement and lift the bird. Their wings are very short and stubby and harder to control than those of other chicken breeds, so really be sure you hold their wings against the body so they cannot flap when you lift them.

As Cornish breed chickens grow, they become more uncomfortable with handling and can actually die when they are picked up or restrained. If you must handle a full-grown Cornish chicken, fold your arms and upper body over the wings and back of the chicken, hug firmly, and lift. Stay low to the ground when handling or performing treatments on the bird. Never flip a large-breed chicken on his back. Although this maneuver can be performed safely on layer hens and other smaller-breed chickens, it can cause cardiac arrest or injury in the giant Cornish breeds. Gently lay him on your lap so that he is partially on his side, but do not rest him completely on his side. Always keep a firm grip on the chicken. Pin one wing against your lap and hold the other with your hand to prevent flapping until the bird is calm. If the chicken panics, you must put him down and start over again.

Some birds have no trouble being handled and will sit in your lap when you work on them. Others will become so stressed that they cannot breathe properly. The key is to monitor the chickens while you are working with them and to stop treatment on any birds who show signs of stress. If they breathe with open mouths or their color becomes dark purple or even darker red, put them down and allow them to calm down.

Shelter Requirements for Cornish Chickens

Building. A garage or shed makes a fine home for Cornish chickens, but, because these are such large birds, make sure that you have a slip-resistant floor. A good size shelter for a flock of about 25 birds is 10 feet wide by 12 feet long and high enough for you to be able to walk comfortably inside so that you can easily clean the area. The shelter must be waterproof, predator-proof, and well ventilated. For this breed, make sure there is a stable ramp that the chickens can use to get in and out of the shed because jumping between levels is difficult for them and hard on their joints.

Plenty of clean, dry straw or wood shavings should always be provided for bedding, and wet and soiled bedding should be removed daily. Remove any eggs the hens lay so they are not broken and eaten raw. We recommend that you clean the entire building on a weekly basis (i.e., scrub floors, walls, etc.). These birds are much harder to clean up after than other smaller breeds. Because they are down so much due to their size, they tend to get very dirty if their bedding is soiled.

For protection from predators, chickens must be kept in their shelter at night. The shelter should be equipped with areas where the chickens can perch. Because Cornish chickens are too large and heavy to use the sort of perches appropriate for other breeds, you must provide straw bales or other stable structures where they can sleep elevated above the floor. These structures must be slip-proof, have bedding on the top to prevent keel or other pressure sores, and be cleaned daily. Most Cornish chickens have trouble perching as they age and become heavier. Birds who can no longer jump onto perches should be given a deep straw bedding area on which to sleep. Without this, they are at risk for severe pressure sores on their keels, feet, and hocks because they are so heavy.

If you have freezing winters in your area, provide a heat source that is safe to use around straw, such as a ceramic element brooder lamp. When temperatures are extremely hot, provide fans. Cornish chickens are prone to heat stroke when exposed to temperatures of 80 °F and above. In regions where such conditions occur, the flock must have an area where birds can stay cool.

Make sure all of your birds are safely in their predator-proof homes before dark and not let out too early because many wild animals hunt in the early morning hours. All chickens are vulnerable to predators.

Fencing. Fencing is necessary to keep predators out and chickens in. A 4- or 5-foot-high woven wire “no climb” fence with 2-inch by 4-inch mesh is recommended. If you are planning to construct a fence, shop around for the best buy because prices and styles of fencing vary greatly. You will need a tightly woven fence to keep chickens in, and this can be more expensive. Do not use chicken wire alone as fencing. It is too flimsy, and predators can easily break through it. For areas with foxes or other digging predators, we recommend using a fence that is taller than needed to contain the birds so that the excess inches can be bent and buried to prevent digging; alternately, you can dig a trench and sink the fence. Make sure there are no sharp edges sticking out because these birds have thin skin, which can tear easily.

Health Care for Chickens

Maintenance. For chickens, as for all animals, sanitary housing, clean pasture, nutritious food, and plenty of sunshine will greatly reduce health problems. Make sure the flock's outside area does not get too muddy. If mud is a problem, you must provide a dry back-up area for the chickens because, if their feet are chronically wet, they become susceptible to foot problems and infections.

It is important to perform individual health exams on all of your birds every few weeks to ensure you are not missing any hidden health problems. Cornish birds are susceptible to some conditions that are not apparent without a complete exam. These conditions may be too far advanced to correct by the time symptoms become obvious from casual observation.

During your daily contact with your birds, always be on the lookout for any physical or behavioral changes. In particular, watch for bloody or watery diarrhea, sandy white discharge from the vent, listlessness, pale coloring, loss of appetite, limping, gurgling sounds, and coughing or sneezing. If you notice any of these symptoms and do not know how to treat the bird, consult with your veterinarian. It can be difficult to find a veterinarian who is willing to treat chickens, but they do exist. Your best bet is finding someone who works with "exotic" birds and other non-traditional companion animals.

Many conditions, such as respiratory problems and parasites, can affect the whole flock. Water treatments are often used in these cases, especially if the number of birds you are caring for makes individual treatment impossible. There are many antibiotics and anti-parasite treatments designed to be mixed with drinking water. Many of these treatments require a veterinary prescription, so it is important to establish a relationship with a vet in your area who can work with your birds.

Common Health Issues of Chickens

Coccidiosis/Other Parasites. Coccidia are protozoan parasites. Symptoms of coccidiosis (the disease caused by coccidian infection) include bloody diarrhea and listlessness. Keeping the bedding clean and dry will help control this disease because wet bedding and muddy outdoor areas are some of the predisposing factors to coccidia infestation. If you suspect your chicken has coccidiosis, consult your veterinarian immediately.

We recommend having a fecal sample analyzed by a lab when birds first arrive and every three to six months thereafter. If parasites are detected, you will need to administer a worming medication. Wormers can be purchased at farm supply stores in easy-to-use formulas that are added to the birds' drinking water. The type of parasite present will determine which wormer is appropriate. Coccidia is very hard to eliminate completely, especially in this breed, so treatments may need to be done often.

Lice and Mites. Lice infestations can be discouraged by providing your chickens with an area of dirt for "dust baths" (throwing dirt on themselves); this area must be kept clean and dry. Check your chickens regularly for lice (they look like small, moving yellow or clear dots on the birds' skin, and they usually congregate around the vent area). Lice

powders are available at farm supply stores. Flea spray or diatomaceous earth powder (available at garden stores) may also be used. For larger infestations, the birds may need multiple treatments, and the premises may need to be treated as well. When Cornish birds are fully grown, they have more trouble grooming themselves because they often cannot reach all the way to their vent or preen gland area, and therefore they should be checked more often. Mite infestations are much harder to treat. These are tiny black bugs, about the size of pepper, that leave dirty, greasy-looking areas in patches on the birds. They are usually found at the back of the legs under the feathers, the tail bone area, and neck. These parasites are far more difficult to eradicate because they can live in the environment for weeks without a host, and therefore their living area must be treated as well. Mites can also cause damage to the tissue of the bird and severe anemia, which, if left untreated, can be fatal.

Molting. Chickens will molt (lose feathers) annually, generally during the spring or fall. During their molting period, the birds may lose a large portion of their feathers. This natural process lasts between four and ten weeks. Among Cornish birds, it is common for a large area on the chest all the way to their vent area to be bare of feathers year-round because of their size and tendency to spend more time lying down than do chickens of other breeds. During a molt, birds will often act “off” or sick, so keep in mind that this may be related to molting.

Keel/Hock Sores. Because of their large size and leg issues, Cornish chickens tend to be down much of the time and are far less active than other breeds of chickens. They are therefore prone to sores on their keels and hocks as well as on the backs of their feet. These sores are easier to treat when caught early. If not treated early, however, they can lead to infections, especially of the keel, which then spread to the bone and will require surgery. Monitoring helps to prevent these problems, but it is also important to supply heavy bedding and to use dirt floors or cover flooring with rubber mats.

Bumblefoot. Bumblefoot is indicated by the presence of a scab on the foot. When the scab is removed, there is usually thick yellow pus; bloody, serum-like pus; or white discharge present. There are multiple treatments for this type of bumblefoot. A vet should culture the area and perform a sensitivity test in order to determine the proper medication for treatment. The foot will also need to be wrapped. The wraps must remain dry, so keeping the bird inside is essential. If the infection is severe, oral or injectable antibiotics may also be necessary. In the case of a mild infection, topical antibiotic creams may suffice.

Due to the pressure of their excessive body weight, older Cornish birds often develop a type of bumblefoot that is more like a pressure sore on the footpad. If left untreated, these sores can admit bacteria, leading to infection. Dry wraps or wraps with silver sulfadiazine ointment seem to be the best treatments for this type of foot problem. A proper wrap includes applying a 2-inch by 2-inch sterile gauze pad directly on the scab, with or without medication, and then wrapping stretch gauze around the foot. This is then covered with Vetwrap or Co-flex, which keeps the gauze in place. If you have never done

a foot wrap, make sure a vet or someone with a great deal of experience teaches you because an improperly administered wrap can cause permanent damage to the foot. Never wrap a foot too tightly.

Because of larger-breed chickens' excess weight, bumblefoot can be quite painful for these birds, and often a pain medication is necessary. This will require a vet prescription.

Heat Exhaustion. Heat exhaustion is common in Cornish birds, so watch them closely in hot weather and ensure that their barns have proper ventilation and cooling equipment. Signs of heat exhaustion include excessive panting, drooping, dark-colored head, and collapse. At first sign of heat exhaustion, get the chicken inside immediately, put a fan on low, mist the bird lightly with cool water or water mixed with rubbing alcohol (avoiding the face) — and, if the condition appears dire, contact your veterinarian. Keep the bird quiet and calm and handle no more than necessary.

Crop Stasis/Impacted Crop. Industrial Cornish chickens are bred to have extraordinary appetites and will eat compulsively unless access to food is restricted. Even when feeding is regulated, however, the birds may go to extremes to keep eating, even consuming their own or others' feathers, fecal material, straw bedding, grass, and anything else they can swallow. This behavior can cause the crop to become distended and stop functioning properly. In such cases, the crop must be emptied to see if it will go back down to its normal size. Because improper crop draining can lead to death of the bird or damage to the throat and lungs, it is best to let a veterinarian perform the procedure. If you anticipate handling this procedure yourself, ask your vet to show you how. With Cornish birds, it requires at least two people to drain the crop safely.

If the crop still cannot function after it is emptied and any medications your vet prescribed have been administered, surgery may be necessary. This operation is expensive and invasive. If you cannot afford the procedure or believe that you will not be able to perform the special post-operation treatments required, you may need to consider euthanizing the bird. A chicken with a non-functioning crop cannot absorb nutrients from his food and will starve to death.

Joint Problems. In many birds, bacteria that enter the system through digestion, openings in the skin, or through the respiratory tract can end up in the hocks (leg joints). This seems to be especially common in Cornish chickens and commercial-breed turkeys. If left untreated, the infection can eat through the joints and destroy them, so quick diagnosis and treatment are imperative. Symptoms include difficulty walking; warm, swollen, or red joints; and an opening or scab on the joint. Often there is a drainable fluid that can be cultured by a veterinarian in order to determine the appropriate treatment. Joint infections are difficult to treat, so checking for them frequently is the best defense. Often fluid in the joints is actually joint fluid from a rupture capsule in the joint, so culture is important to determine what you are dealing with.

Blown Ligaments. Many of the larger birds in your flock may stop walking and start sitting on their hocks or may start walking with one leg out to the side. Such symptoms

often indicate a blown ligament. Because of the size of Cornish birds and the frailty of their skeletal systems and joints, surgery is not a viable solution to this ailment. If one of your birds does stop walking or starts walking on his hocks or with a bit of a splay, have him examined by a vet immediately to rule out fractures and infection and to be sure that you are dealing with ligament damage. Your vet should be able to determine if the condition is treatable, but, because it is not in most cases, euthanasia may be the only humane option.

Incoming Bird Procedures

When birds arrive, they must be isolated in a strict quarantine area, and caretakers should wear ISO suits and boot covers. If animals are in really bad shape, do not spread their straw on your existing pastures; instead, pile it in a separate area on farm until any required testing is done. If birds have signs of mouth or facial sores, nasal discharge, or respiratory disease, use rubber gloves when handling anything they come into contact with. If you are aware that birds will be coming to the shelter, they must be tested prior to arrival and accompanied by proper paperwork. It is illegal to bring animals across state lines without proper testing.

- If a bird (or birds) is dropped off and you have no idea of his or her origin, the bird should be taken immediately to a quarantine area and kept away from all other birds and not allowed even beak-to-beak contact.
- Birds should have a complete health check performed using all isolation procedures, including coveralls, boots, and rubber gloves.
- If animals are sick, they should be diagnosed by a vet and immediately started on treatment. If contagious diseases are present, be aware that many must be reported. You may need to adjust your cleaning procedures so you are not taking dirty cleaning tools into areas with healthy birds, which could further spread disease.
- If the animals seem healthy, conduct full body checks and send in a fecal sample.
- Check for lice and mites. If the birds are healthy enough to withstand treatment, use injectable Ivomec and either lice dust or spray, depending on the temperature. Do not wet down a bird during cold weather.
- All birds must remain in quarantine for at least 30 days and until all necessary blood work and fecal exams come back and are negative in order to ensure your resident flock is not exposed to health issues.
- If birds are laying eggs, the eggs must be composted with their straw/bedding until you are sure that the animals are not sick.

Resources for Cornish Chicken Care

Please note: Many of the catalogs listed contain products commonly used in animal agriculture. Unfortunately, there are no farm catalogs that list only cruelty-free items. Omaha Vaccine Company: PO Box 7228, Omaha, NE 68107; phone: 800-367-4444
Nasco Farm & Ranch: 901 Janesville Ave., Fort Atkinson, WI 53538-0901; phone: 800-558-9595

Valley Vet Supply: PO Box 504, Marysville, KS 66508; phone: 800-468-0059