RAISING BABY CHICKENS

handbook
Incubation

Chicken incubating is egg-straordinarily spectacular! Hatching chicken eggs is an amazing process. In just 21 days, chicks pip through the shells and emerge, a bit damp and weary from their endeavour, but within just a few hours, they will be dry, fuzzy and ready to join their hatch-mates in the brooder.

Eggs!

Where can you obtain fertilized eggs for the chicken incubating process? There are three possibilities—from your own flock, from a friend or neighbor’s flock, or from a hatchery/mail order. The best most viable choice, of course, is selecting eggs from your own flock. You know your flock. And, you’ll be able to choose the freshest eggs.

The next best choice is to get eggs from someone you know. Or, if either of these is not an option, because at-home chicken incubating is becoming more common, there are many hatcheries and mail order options. Just google “hatching eggs” and voila...eggs!
Egg Selection

A vital component to chicken incubating is to select clean eggs that are nicely shaped and not too round, too long, or misshapen in any way. The shell should be void of roughness or cracks. If you must use soiled eggs, clean them gently with fine sandpaper or sanitize them with a mixture of bleach and water. Measure out 5 ml bleach and mix into 1L of water that is approximately 38 degrees C. Hold eggs in the mixture for 1-3 minutes, then let them air dry.

You can store collected eggs, large end down, in cartons for up to six days in a cool (10-15 degrees C) dry place (not in the refrigerator!) without harming hatchability, until you have the number of eggs you’d like to hatch. Okay, so now you have your precious fertilized eggs! Let the chicken incubating begin!
Placing Eggs into the Incubator and Turning

Hatchability, during incubation, is directly affected by the positioning of eggs in the incubator. Always place eggs into the incubator with the larger end higher than the pointy end. For those of you who have the benefit of an incubator with an auto turning device then you needn’t worry about turning the eggs. If you will be manually turning your eggs during chicken incubating, mark your eggs with an X on one side and an O on the other side with a pencil. A good rule of thumb in chicken incubating is to turn your eggs first thing in the morning, at midday, and again at bedtime by carefully rolling them a half turn from X to O or vice versa.

Unfortunately, when opening the incubator for turning, some very vital humidity is lost. You can make up for this loss by spraying your eggs with tepid water. Stop turning eggs on day nineteen (seventeen for bantam eggs), when chicks will begin to pip, or peck at the shell with their egg tooth—a tiny pointy part at the end of its upper beak.
Candling and Culling

During the process of chicken incubating, it’s a good idea to cull eggs that are no longer viable because they’re just not fertile or hold already dead embryos. By removing these eggs, you eliminate possible contamination to your chicken incubating process from rotting eggs. **Candling** is simply shining a bright light behind the egg and observing the contents. Candle eggs on day seven. Look for a network of blood vessels encompassing a dark spot-this egg is developing correctly. If you see nothing, a thin bloody looking ring, or cloudy contents, the egg is no longer viable and should be culled.

Candle again prior to stopping turning. This time look for a darkness inside the air cell (the air cell of an egg is the space directly inside the eggshell which grows larger as incubation progresses) and possible movement which indicates that all is well with the chicken incubating process.
Stop Turning Eggs and Pipping

It’s day nineteen, hatch day is rapidly approaching, and this adventure of chicken incubating is getting truly exciting! Stop turning eggs! Any minute now, pipping will begin! Typically, pipping starts three days prior to hatch day. During stage one, the embryo is not able to access adequate oxygen anymore, so it pips into the air cell for help. Stage two requires a bit more effort from the little embryo. Oxygen from the air cell helps it to muster up enough strength to pip through the shell, pip an opening almost all the way around, and finally, to push its new egg-straordinary chick body out! Hatching generally takes a whole day to complete the process.
Cleaning Up from Chicken Incubating

Ah, the little peeps have moved into their brooder and are happily peeping and thriving in their warm cozy new digs. Chicken incubating is complete. So, it’s clean up time. ASAP following hatching, take away any eggs that failed to hatch, unplug the machine, gently clean all surfaces with a clean soft paintbrush, then wash with warm water and soap excluding electrical parts. Let air dry, then sanitize with apple cider vinegar by mixing about 15ml ACV with water in a spray bottle. Let air dry again, then wipe with a cloth dipped in warm water. When completely dry, box it up until you’re ready to begin the egg-citing process of chicken incubating again!
The hatching process is hugely responsible for the biological development of a newborn chick, so try not to let your soft side take over and break that shell open for them! It may look like they’re struggling, but there are very powerful forces at play during this wonderful event. See our following top tips for the hatching process!

Don’t help them out of their egg

The act of breaking out of the hatch is crucial for strengthening and providing the foundations for the chicks’ muscles. If you immediately scramble to crack open their shells at the first sign of life, their physical health will deteriorate quickly as their muscles have not developed as needed.

Also, it’s crucial that the chick has absorbed all the blood that’s stored in the membrane of the shell, otherwise they are at risk of serious health issues – think hemorrhaging, ruptured blood vessels, nasty problems that will seriously impede the chicks life (and possibly shorten it). Best to limit involvement to cheering on the sidelines instead.
Don’t remove the egg shell

Chicks must consume the membrane found in the egg shell in order to get the nutrients they need to kick start their healthy lives. If you remove the shells before they are able to consume the eggs, this will do severe damage to the chick and their immune system. Breakfast is the most important meal of their first day!

Don’t worry if it loses a tooth

If your alarmed by the fact that all your newborn chicks seem to be dropping teeth like flies, don’t be – this is a very normal post-hatching mechanism. This is simply the egg-tooth, the little white nub that sits on the end of the chick’s beak. It’s used for initially cracking open the shell and giving the chick its first taste of freedom! It will always drop off a few hours after birth as it is no longer has a purpose.
Don’t feed the empty shells to your hens

It might be tempting to throw the shells in with the scraps for your hens to gobble up like normal, but this is definitely a sure fire way to end up in the vet surgery. The recently vacated shells contain a wealth of bad bacteria, and can make your older flock extremely sick if they manage to consume them. Dispose of the shells out of reach from all beaks and feathers, and make sure you scrub your own hands squeaky clean!

Don’t panic!

Hatching is a complex process in which a whirlwind of wonderful, essential things need to happen to give your chicks the best start. Don’t start to fret if things aren’t moving along as fast as you’d anticipated – the process is complex and therefore can be quite a lengthy one. A normal hatch takes around 24 hours, but large babies and breeds can take up to 48. Keep calm and hatch some chickens.
“Peep, peep! Cheap, cheap!” Welcome to the wonderfully egg-citing world of fuzzy little baby chicks! Falling in love at first sight may be just a cliché or something that only happens in the movies, until you take your first peak at your new baby chicks. When you hold their feather light fuzzy little bodies in your hands for the first time, you feel as if you’re holding the world in your hands, because time stands still! Nothing else seems to matter at the moment, but the miracle of new life peeping away in your hands. So, go ahead, and get clucky for baby chicks! Sing, and shout, and do the chicken dance – celebrate the beauty and splendour that is the wonderful world of baby chicks!
Brooder babies

The very first step in caring for your newly hatched baby chicks is to ready their brooder before they've hatched, you've picked them up, or they've arrived via post. A brooder can be as simple as a large cardboard box or plastic tub/container, or you can purchase a commercial chick brooder. Most importantly, you want to be assured that everything is in working order well before you need. So, several days prior to hatching/arrival, set up the brooder, clip on the heat lamp and plug it in. Be sure to locate the heat lamp on the side of the brooder and not directly over the centre, so as to offer your chicks an easy egg-scape if they become too warm. Set a thermometer inside and after a while, check to see that the temperature has risen to 32-35 degrees Celsius. If so, turn off the lamp.

On the morning of hatch day, set up your brooder with bedding, feed, water, thermostat and plug in the lamp. Feed chicks a commercial chick starter, which is available as medicated or non-medicated up until 8 weeks of age. One word of warning though, if you had your chicks vaccinated against Coccidiosis, feed them unmedicated starter because the medicated starter will cancel out the vaccine. Bedding for chicks can be as simple as paper towel, shredded newspaper, or our favourite, hemp bedding, but whatever type you choose, make sure to replace the bedding as often as necessary. A clean brooder = happier, healthier chicks! Then, bring on the fluffs!
Settling your new chicks into their brooder home may elicit a tear or two but this is just the beginning of an eggstraordinary journey! Before you set each chick down into the brooder, gently dip their beaks into the waterer and watch them swallow as you place them in the brooder. Water is vital to chickens from the wee ones to the old mother hens! They should naturally find their way to the feeder. If not, gently scatter some chick starter onto the bedding near their feeder and that should get the ball rolling!

Now let’s talk about brooder basics. As mentioned above, beginning brooder temperature should be approximately 35 degrees Celsius. Reduce this about 5 degrees each week as your young ones grow and mature. And, do they ever! Treasure every single moment with these little ones, because in the mere blink of an eye, fuzzy becomes feathery and soon they’ll be anxious to fly from the motherly brooder to the coop and egg-splore the great outdoors!

Anyway, back to the basics. Pay close attention to how your chicks behave. If they’re all crowded together directly under the heat source, they’re cold. Lower the heat lamp or add another one. If they’re around the edges of the brooder, avoiding the heat and each other like the plague, they’re too hot! Raise the heat lamp. A happy flock will happily be exploring all around the brooder. You’ll easily know if the brooder is much too warm or too cold!
Simply watching the everyday goings on inside the brooder, is GREAT FUN and will keep you abreast of your babies’ comfort level. So, what does a typical chick look like and how does it behave? For the first day or two, baby chicks are much like human newborns – they sleep, eat, and peep and poop! Sleepy chicks are often quite hilarious as they can fall asleep in the blink of an eye, literally-they just flop down wherever they are and they’re asleep. They can even fall asleep, wait for it…standing up, although they do look a bit a wobbly! You may even spy a bit of feather popping out here and there, depending on the breed, as some breeds do mature more quickly than others. Hold on to your hat though, because these quiet sleepy days are over!

Growing chicks are busy, busy, busy! They are egg-straordinary multi-taskers! They can peep, poop, flap, and run all at the same time! Simply amazing, isn’t it? These curious babies want to egg-splore, egg-splore, egg-splore!
Chirpy and healthy chicks

Well, now that we know what a typical healthy chick looks like and how it behaves, what are some signs and symptoms that we should be on the lookout for in a not so healthy baby chick? Since healthy chicks are busy chicks, chicks that are feeling under the weather will most likely not be busy. Signs of an ill chick are inactivity, watery eyes, watery poop (more than usual) and not eating or drinking. Chickens’ respiratory systems are quite sensitive; therefore it is essential to keep their brooder as clean as possible. Soiled bedding is a breeding ground for illness, as chicks tend to peck at their own poop.

A common malady that effects young chicks is called “pasting up”. Pasting up occurs when a chick’s droppings stick to it’s fuzzy little chick vent. If you notice this, simply apply a moist warm cloth or paper towel to the chick’s bottom and wipe gently. If left untreated, it can cause more serious complications as the poor baby cannot pass droppings. So, keep a watchful eye on your flock and they should develop normally and grow like crazy!
Making friends

Gently handling your chicks will help them to get accustomed to human touch. Some will be more apt to interact with you than others, and that’s perfectly normal. Encourage the shy ones with feed from your hand, or offer them treats such as mealworms, cracked corn or greens. Chickens are very, very, very motivated by food! So, be patient and they’re sure to come around. An egg-cellent way to encourage socialization is to host a family sleepover with the chicks! If your brooder is set up in a spare room, wonderful, camp out right there. However, if not, just move the brooder temporarily to the family room, sunroom, or playroom and let the FUN begin!

Hold your chicks, brainstorm names for the new feathery family members, quietly whistle to them...they'll literally stop whatever they’re doing, yes they’ll even cease peeping to listen, read chicken keeping books and quiz each other, cuddle with your chicks, make up chicken riddles, talk to your chicks, do a chicken find-a-word, sing to your chicks and mostly just love those sweet little baby chicks!

If you’re not afraid of a little poop, then let them out of the brooder to wander around and get their “coop legs” so to speak, and they will inevitably climb all over you and your family! The point is to savor these first few days and weeks with your fuzzy chicks, because they practically “fly” by.
Roost-a-rama!

At three weeks old your young flock is ready for, wait for it...roosting practice! Yay! This is just such fun to watch! You can easily make a homemade roost by drilling a hole in two wooden blocks and inserting a dowel between so that the roost is approximately 5cm off the brooder floor. It’s time for roosting practice! Your chicks will be cautious at first, yet intrigued by this newfangled piece of furniture that just appeared out of nowhere inside their cozy abode. They will peck at it egg-cessively, but eventually, curiosity will get the better of them and they’ll hop on up. Be prepared though, because chances are these young trainees will topple over peeping all the way. You can help them to get back on again by gently setting them above the mini-roost until their little feet grip. When your chicks outgrow this roost, you can replace it with a higher one. Here’s to happy training sessions!
Out and about!

Next, on your young flock’s agenda, are field trips to the yard. These first outings are such fun. On a lovely warm sunny day, transport the brooder outside for a little taste of egg-straordinary adventures yet to come! Let them out into the fresh grass and sit back and watch your egg-static little ones leap and flap, peep and poop, run and chase and just have the grandest time living as nature intended. They can run fast! So be sure to stay close, or put them in an area where they can’t escape through a fence. When they’ve had enough of the good life take your eggs-hausted little ones back inside for some much needed naps.

So, your fuzzy little babies are literally growing by leaps and bounds! Wonderful! It is absolutely egg-straordinary how quickly these young ones do grow. Ah, but alas, these sweet babies are now maturing young pullets, feathers have replaced most of the fluff, they’ve grown quite tall and gawky, and they’re well on their way to becoming lovely young hens. Growth and development zip along at a fast pace from day two or three on up to about three months of age as your chicks undergo their biggest transformation from baby to young chook.
It’s always enjoyable to be able to look back on our past chick eggs-periences and reminisce about the journey you had with your family as you watched the chicks grow! As your young chooks continue to grow and mature some telltale signs that they are doing so will be the changes in their combs and wattles- these will grow larger and become a brighter red color. Young roosters-to-be may even begin to crow about their egg-speriences at around 12-16 weeks of age!

Eventually, it will be moving day! At about 6 – 8 weeks of age, your fully feathered friends will be ready to move to their outdoor coop and let nature continue the course you so lovingly began. So, what began just a couple of short months ago, will always continue in your heart! Have an eggs-traordinarily flap-happy journey!
Need to know more about raising baby chickens? Have a little peck at our Learning Centre!