

## Lecture 10

### Egg Within An Egg:

An egg within an egg, or a double shelled egg appears when an egg that is nearly ready to be laid reverses direction and gets a new layer of albumen covered by a second shell. Sometimes the reversed egg joins up with the next egg and the two are encased together within a new shell.



© 2004 [Michelle Byerly](#) - All Rights Reserved

Another example:



© Brita Barlow 2004 - All Rights Reserved



© Brita Barlow 2004 - All Rights Reserved

## EXTERNAL EGG ABNORMALITIES

### Odd Shaped Eggs

This happens from time to time and is just an "accident". The long, thin egg below was laid by one of our Barred Rock hens in June, 2004. It is over 2 1/2 inches long and less than 1 1/4 inches across the middle.



© 2004 Poultryhelp.com - All Rights Reserved

### Very Odd Shaped Eggs!:



Hen Produces Spoon-Shaped Egg - from [www.ananova.com](http://www.ananova.com) (UK online news service) 31 January 2005. A spoon-shaped egg, 8.5 centimeters long and 35 grammes in weight.

### Wormy Eggs:

Wormy eggs are extremely rare, occurring only in hens with a high parasite load. Finding a worm in an egg is not only unappetizing, but is a clear indication that you are not doing a good job in keeping your hens healthy and parasite-free.

**Shell Discoloration:**

This is fairly common and occurs most often in brown eggs. The pigment is sometimes deposited on the egg unevenly during production resulting in one end being a light tan and the other a darker brown. The large end usually has the darker colour. The deposit of the pigment rarely forms a recognizable pattern (like seeing shapes in clouds).

**Blood Spots:**

This involves having blood or meat spots in eggs.

**EGG CANDLING**

It is necessary to candle eggs for fertility when you are incubating eggs artificially using an incubator. Infertile or bad eggs can be discarded so that there is no risk of them going bad and exploding inside the incubator, contaminating the other eggs and if you are using a separate incubator or hatcher for the last few days of incubation to hatch your eggs, the extra space can be used for more eggs. Candling does not damage the embryos inside the eggs as long as you don't heat the egg up too much with the heat from the candling device.

Candling gets its name from days gone by when people used to use candles as the light source of course these days, you can buy or make your own candler using a light bulb as the light source. The cheapest way to create a DIY candler is to place a light bulb (low energy light bulbs are best as you can get a very bright bulb that doesn't generate as much heat as a conventional bulb) and light fixture inside a cardboard box. Cut a small, round hole in the top of the box, just big enough to sit the pointed end of your egg into. Place your egg onto this hole and turn the light on. You should be able to see what is inside the egg and with practice you will be able to identify fertile eggs by the spider-like blood veins spreading out much like a spider's legs, bad eggs (sometimes called dead germs) where the embryo starts to develop but later died and infertile eggs that are clear except for the shadow of the yolk.

Dark shelled eggs are much harder to see through so you will need the brightest light source you can get and if you still can't tell, you will have to wait longer until the embryo has developed further and can be seen more easily.

Eggs are normally tested after 5 to 7 days of incubation. The most critical period of incubation during the development of the embryo is the first week so it is best to be patient and only take a look after the first week. You will see more after a week and can be more certain about the fertility. Here are some photos of candling eggs which will help you to know what to look for.



**Candling an Infertile Egg.**

The Yolk can't be seen as it is the opposite side but can sometimes be seen as a dark cloud towards the centre of the egg.



**Candling a Fertile Egg. Day 8.**

The Embryo is the dark patch in the centre, blood vessels can also be seen. Notice the air sack at the top.