

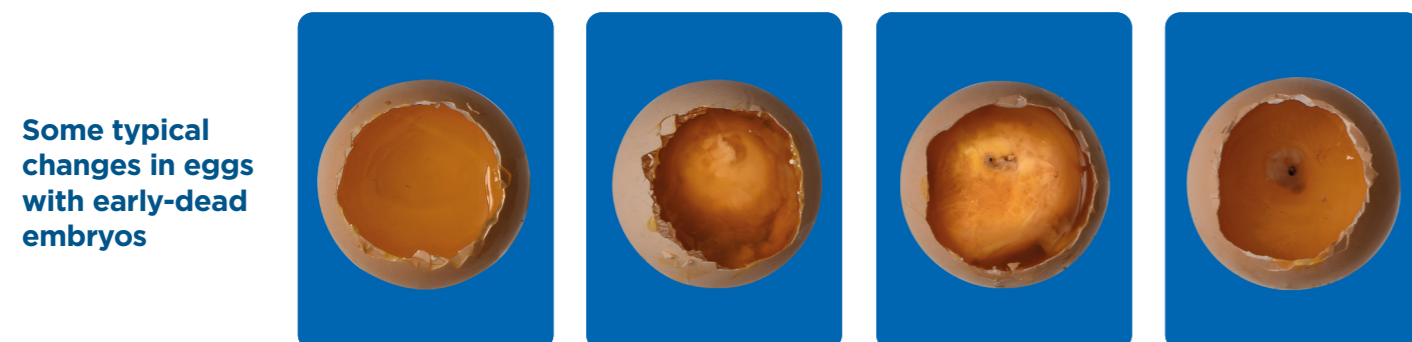
# EMBRYO BREAKOUT AND DEVELOPMENT

## INFERTILE VS. EARLY DEAD 0-2 DAYS

	Infertile	Fertilized, no development	Early dead (24 hours)	Early dead (48 hours)
Appearance after 2 days of incubation				
Appearance after 10-12 days of incubation				
Appearance after 18-21 days of incubation				

It is recommended to candle between days 10-12, as the embryo becomes more difficult to evaluate at 21 days due to major changes in appearance.

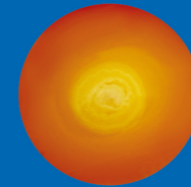
## EMBRYO CHANGES OVER TIME DURING INCUBATION



## EARLY EMBRYOS 0-7 DAYS

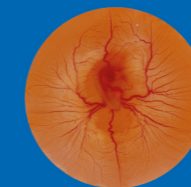
### 0-2 days

Only membrane growth occurs.



### 3-4 days

Blood vessels appear on the yolk surface.



### 5-7 days

The small embryo has an eye visible at the head end. Toe bones are visible by day 7. The digestive tract grows outside the body.



## MID-TERM EMBRYOS 8-17 DAYS



### 8 days

The egg tooth is clearly visible, and digits start to separate.



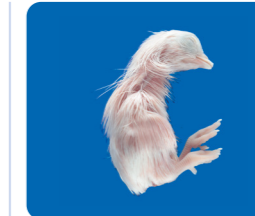
### 10 days

The feather tracts appear, the toes are clearly separated, and the body is longer than the head.



### 12 days

Obvious down cover is visible, and eyelids are formed and closed.



### 16 days

The intestines start to be drawn into the abdominal cavity.

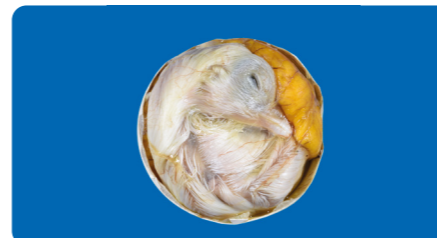


### 17 days

Intestines are fully inside the body cavity. The embryo doesn't quite fill the eggshell.

*Yolk sac and intestines removed from pictures*

## LATE EMBRYOS 18-20 DAYS



### 18 days

The embryo completely fills the space below the air cell. It moves from having the tail toward the small end of the egg with the head between the thighs to the hatching position.



### 19 days

Residual yolk starts to be pulled into the body cavity; the process is complete by day 20. After internal pipping, the embryo fills the whole of the egg.



### 20 days

The embryo breaks through the shell using the egg tooth. High pipping caused by low moisture loss prevents hatching.