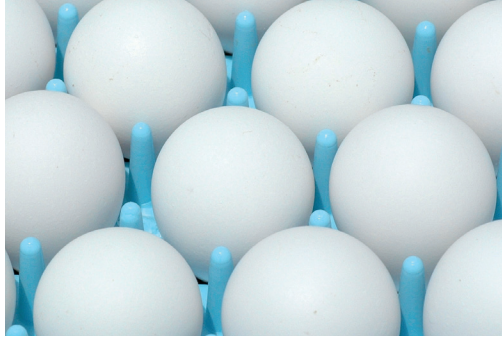
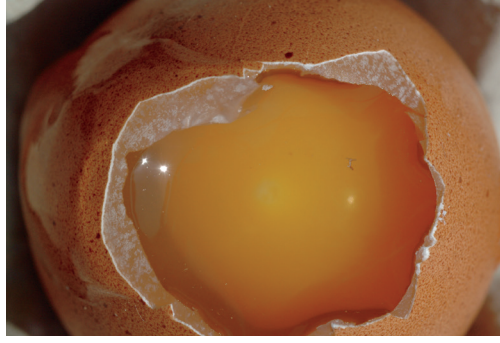


BOBWHITE QUAIL EMBRYO DEVELOPMENT



Hatching eggs.



Infertile, unincubated egg. Blastodisc located on top of yolk appears irregular in shape.



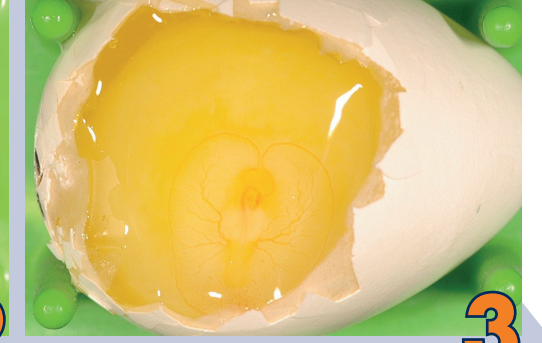
Fertile, unincubated egg. Blastoderm larger, more regular in shape and has a "donut-appearance."



1
Day 1
Blastoderm enlarges in size.



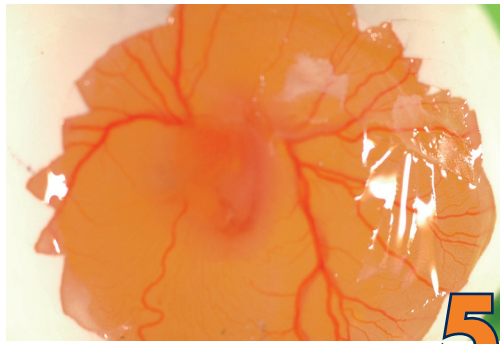
2
Day 2
"Donut-shape" greatly enlarged and embryo lies within the donut ring.



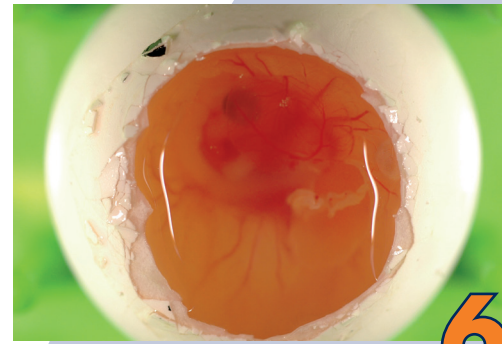
3
Day 3
Beginnings of a circulatory system.



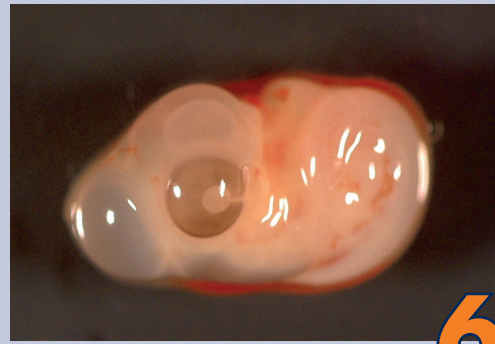
4
Day 4
Circulatory system developing, embryo visible.



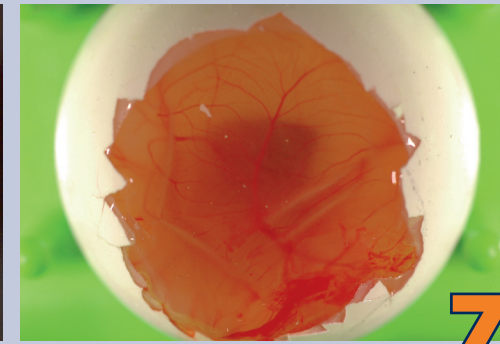
5
Day 5
Circulatory system well developed. Formation of appendages.



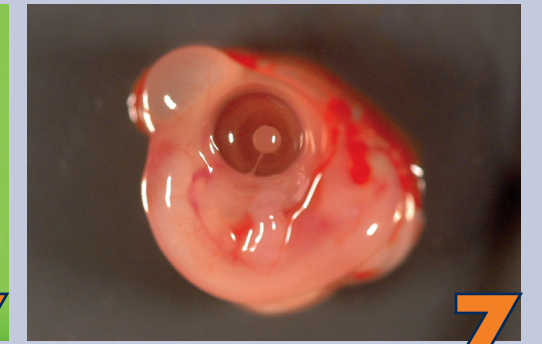
6
Day 6
Embryo in shell.



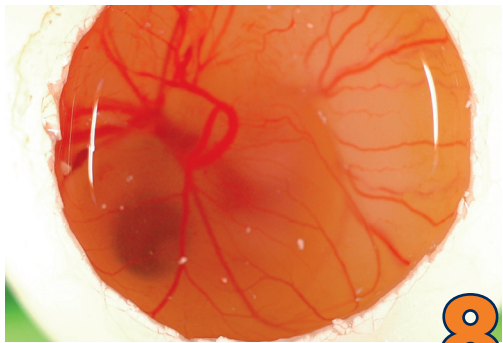
6
Day 6
Notice brain to body size relationship.



7
Day 7
Embryo in shell.



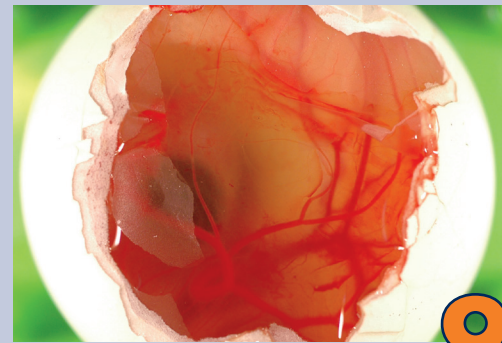
7
Day 7
Brain continues to develop at rapid rate.



8
Day 8
Embryo in shell.



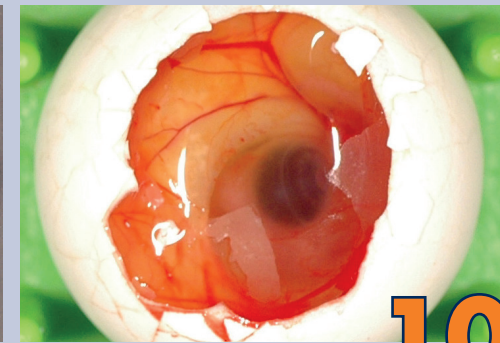
8
Day 8
Limb development evident.



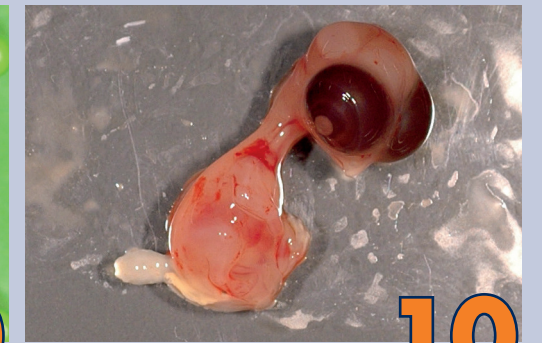
9
Day 9
Embryo in shell.



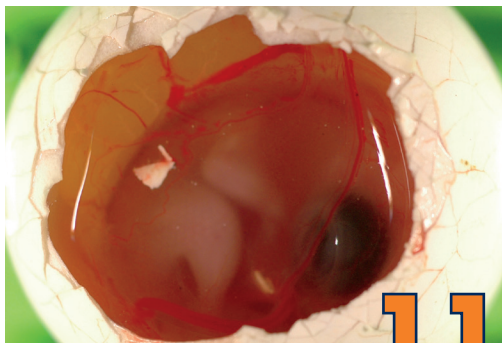
9
Day 9
Wing development rapid. Development of egg tooth begins.



10
Day 10
Embryo in shell.



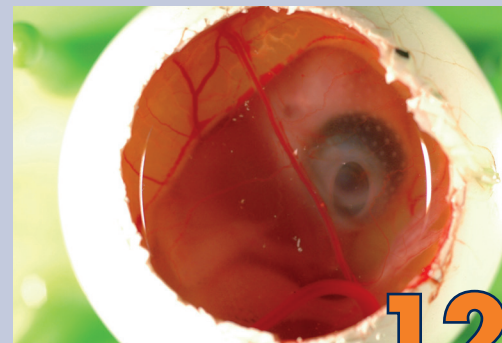
10
Day 10
Egg tooth seen on tip of beak. Eyes very conspicuous.



11
Day 11
Embryo in shell.



11
Day 11
Continued limb development.



12
Day 12
Embryo in shell.



12
Day 12
Beginnings of feather development.



13
Day 13
Rapid wing development.



14
Day 14
Feather tracts seen on the back. Wings, feet, toes well developed.



15
Day 15
Increased formation of feathers.



16
Day 16
Hardening of beak and egg tooth continues.



17
Day 17
Eyelids have overgrown eyes.



18-21
Day 18-21
Calcification of bone started. Toenails and down feathers on neck, thighs and wings present. Embryo enlarges. Remaining yolk sac enters the body cavity.

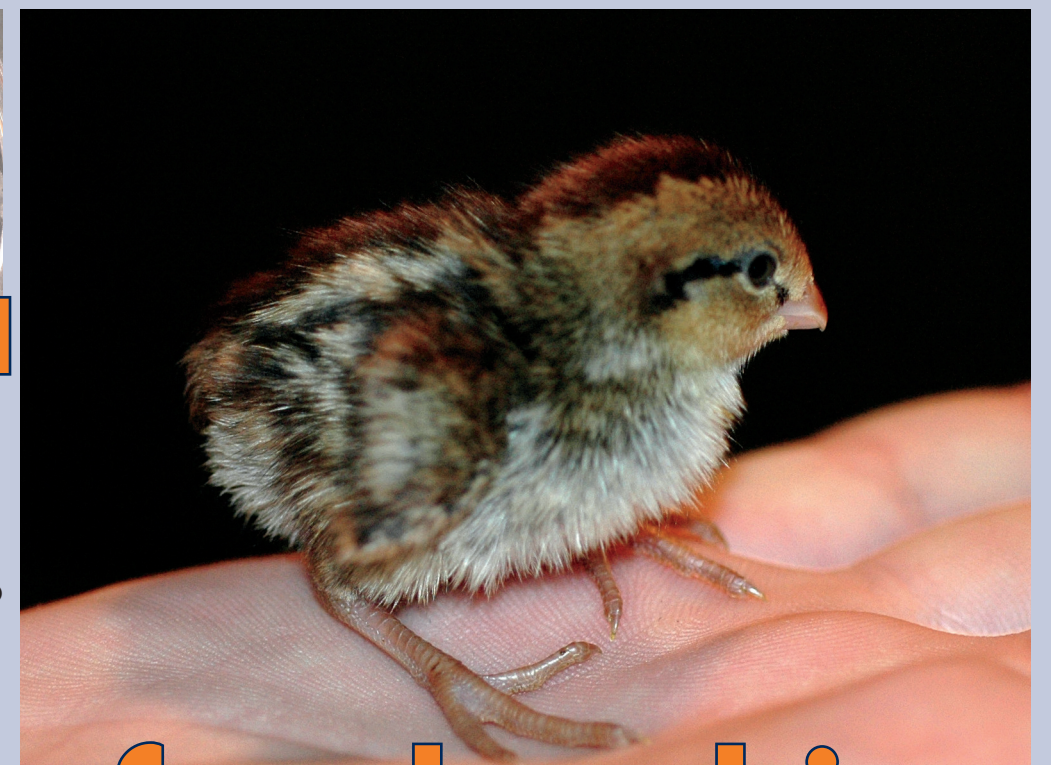


22
Pipping
Chick pips into the air cell and begins pulmonary breathing. Chick begins pipping through the shell.



23
Hatching
Chick hatches and dries.

Twelve hours after hatching



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