

Pregnancy

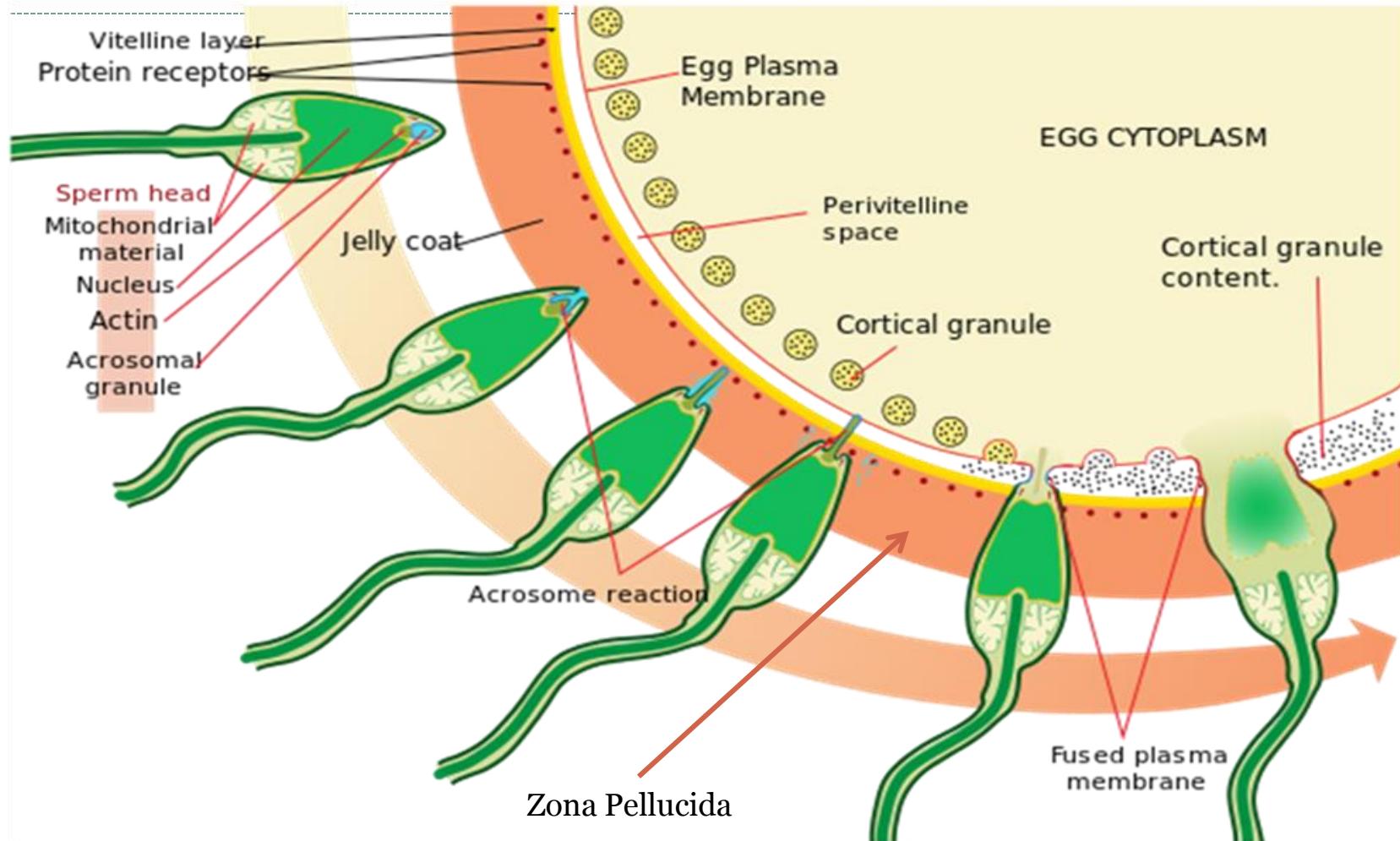


WHAT IS NORMAL,
WHAT CAN GO WRONG, AND HOW
CAN WE ASSIST INFERTILE
COUPLES?
PART 2

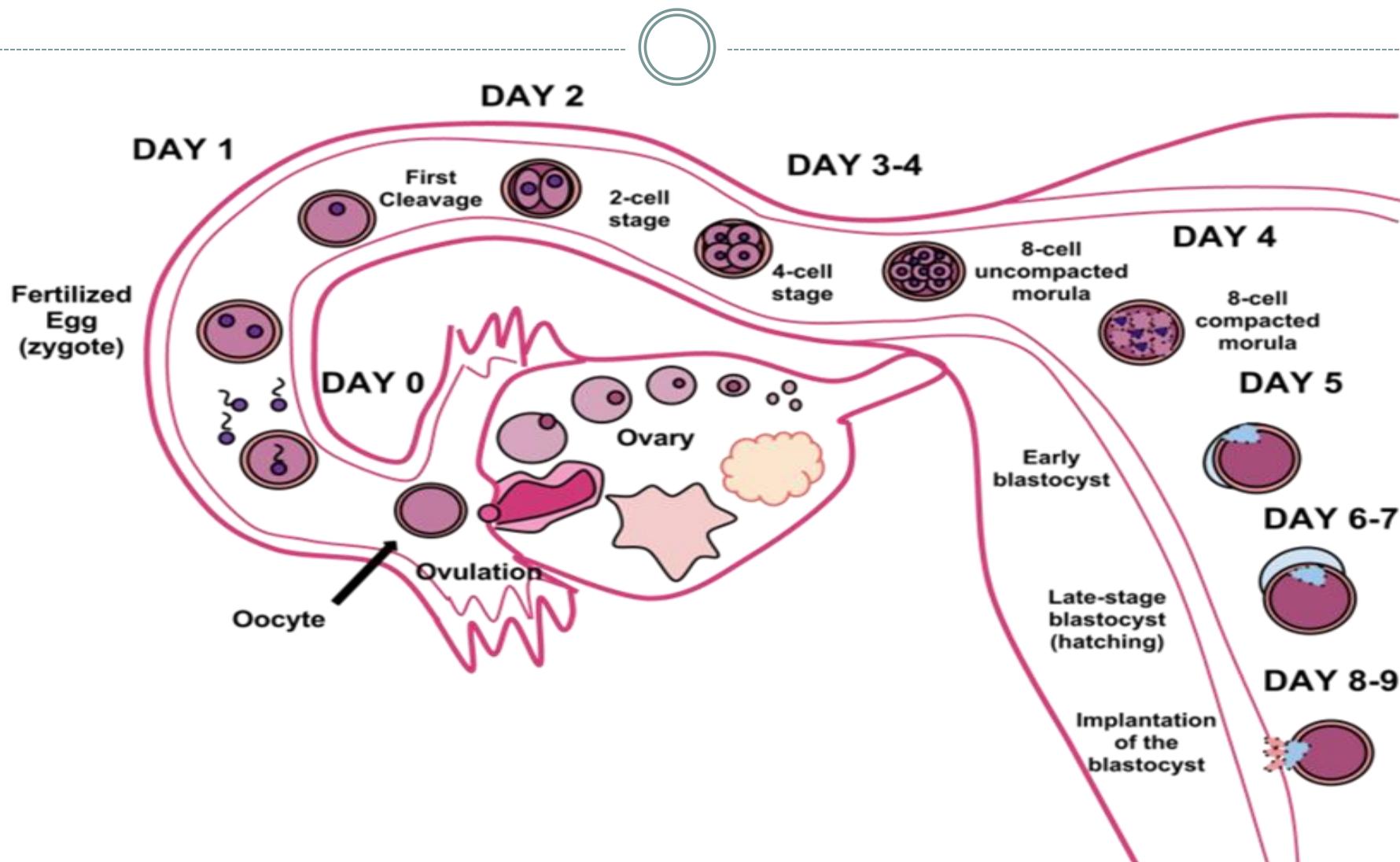


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What Happens When a Human Oocyte and Sperm Meet?



Development of a Fertilized Primate Oocyte

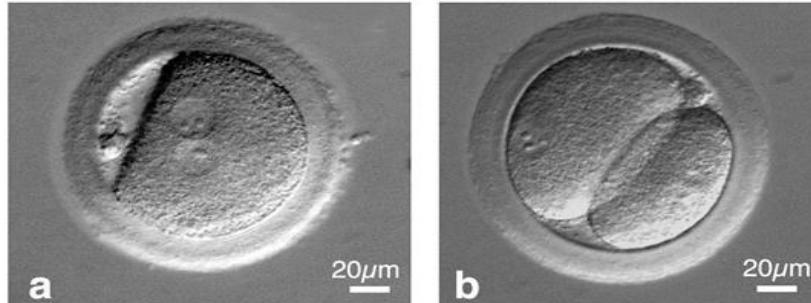


http://en.wikipedia.org/wiki/Human_fertilization#mediaviewer/File:Human_Fertilization.png

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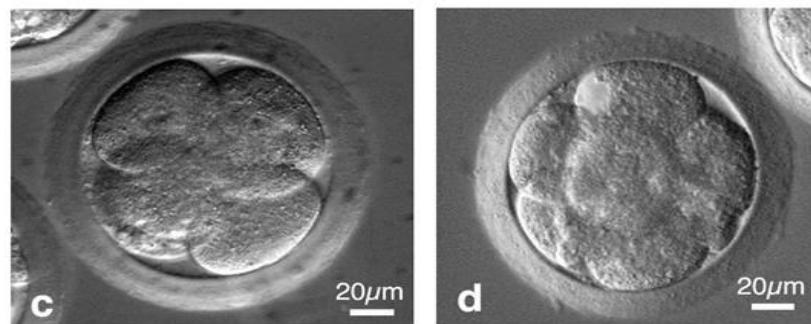
After Fertilization, What Occurs ?

Zygote (fertilization)



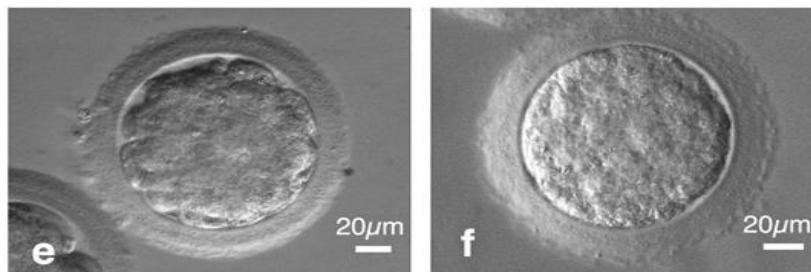
2-cell stage

4-cell stage



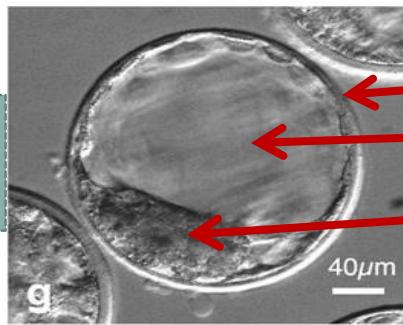
8-cell stage

Morula (12-16 Compacted Cells)



Morula

Blastocyst
Can implant in uterus

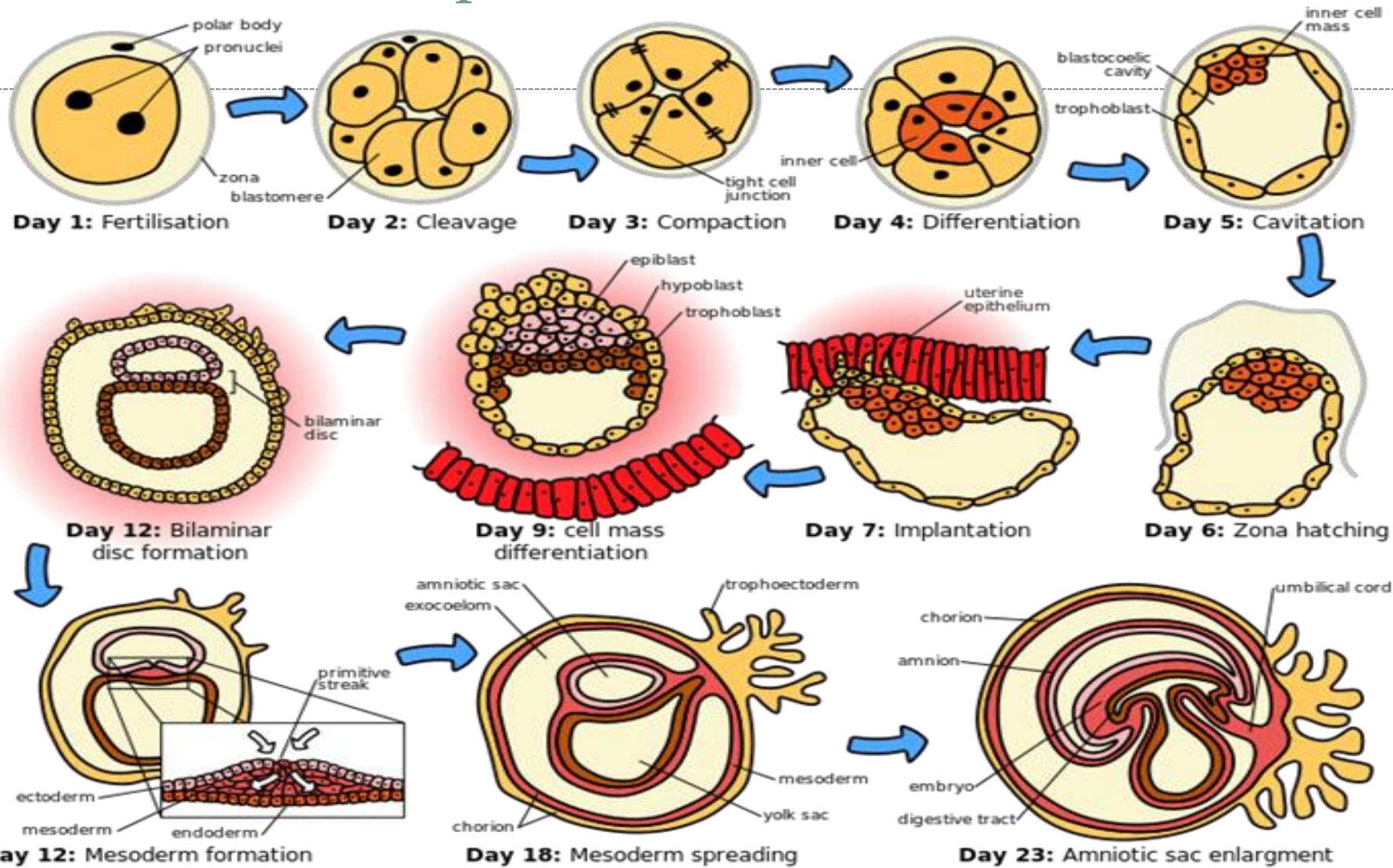


Trophectoderm
Blastocoel
Inner Cell Mass

Photos:
Dr. Shoukhrat Mitalipov, PhD, ONPRC



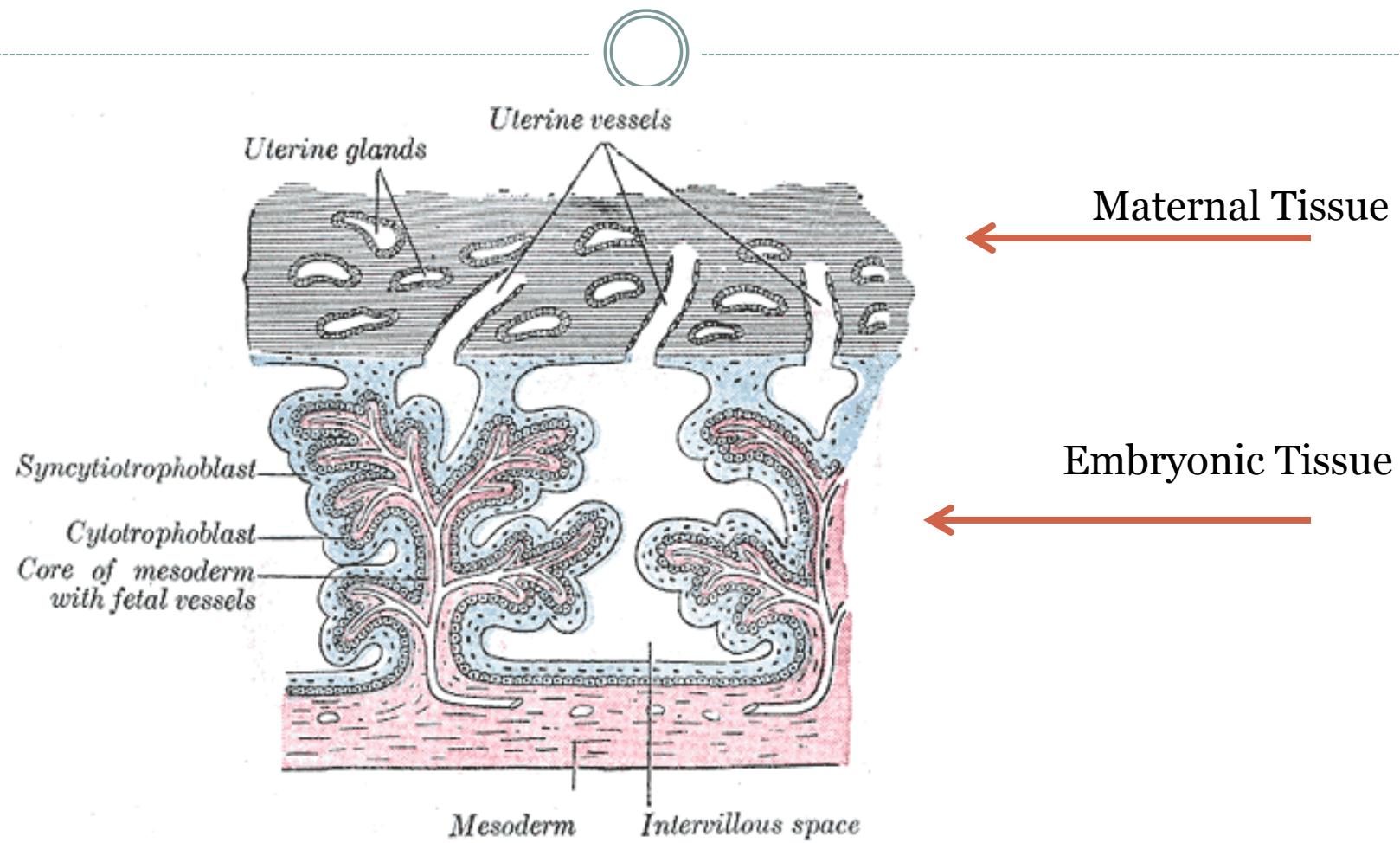
How Does Implantation in the Uterus Occur?



<http://commons.wikimedia.org/wiki/File:HumanEmbryogenesis.svg>

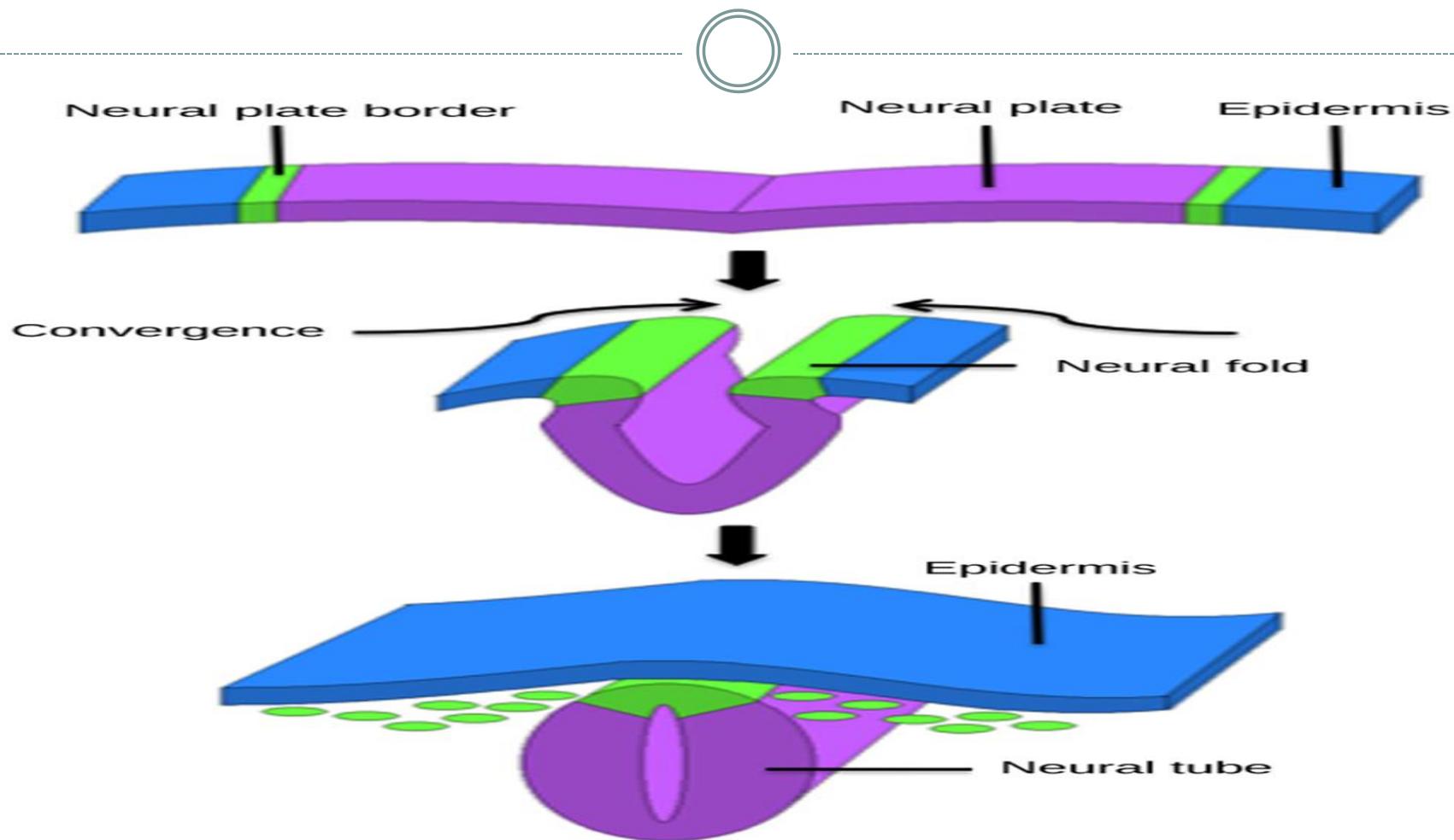
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How Does the Placenta Form?



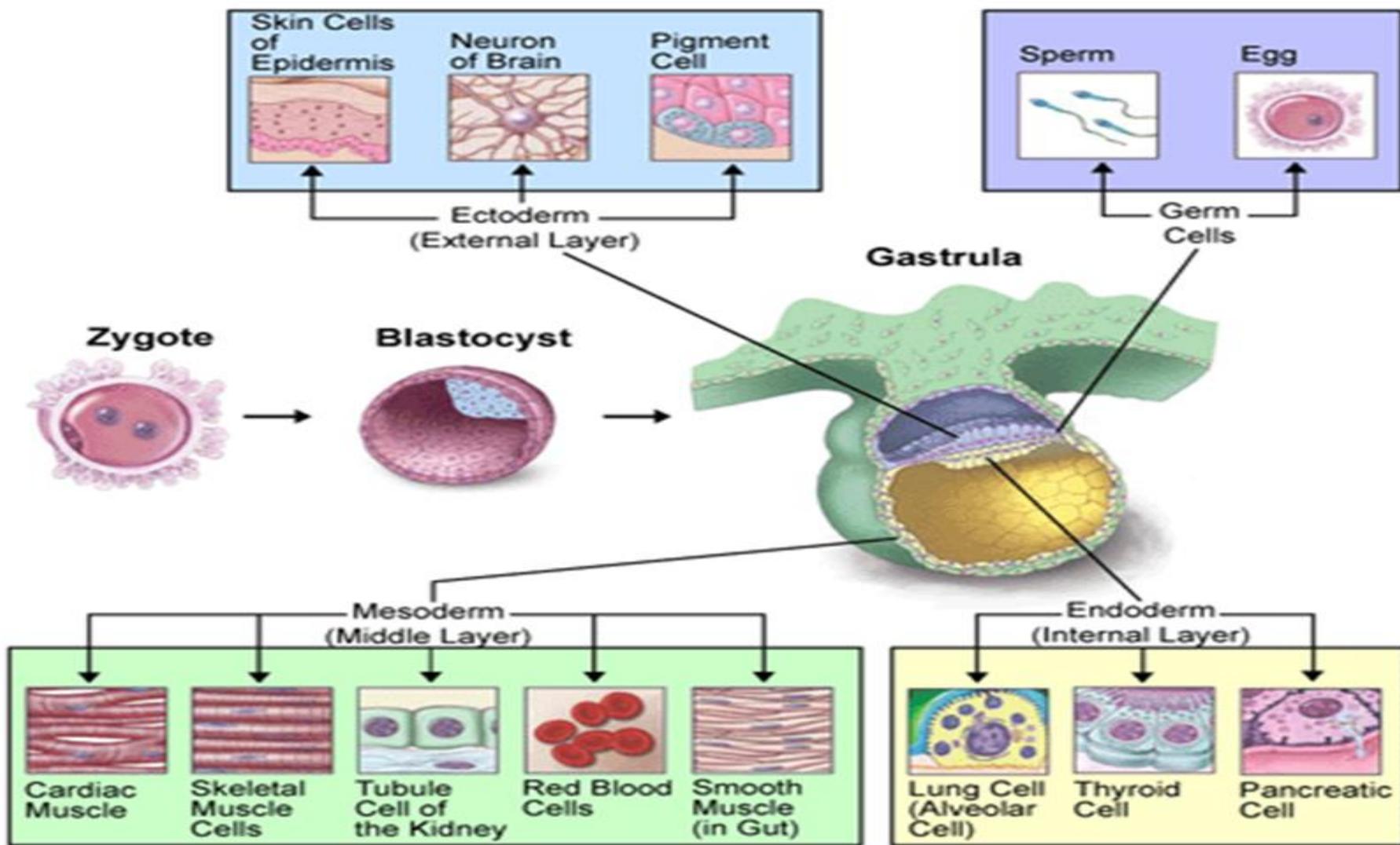
What Occurs as the Epiblast Becomes an Embryo?

Formation of the Neural Tube



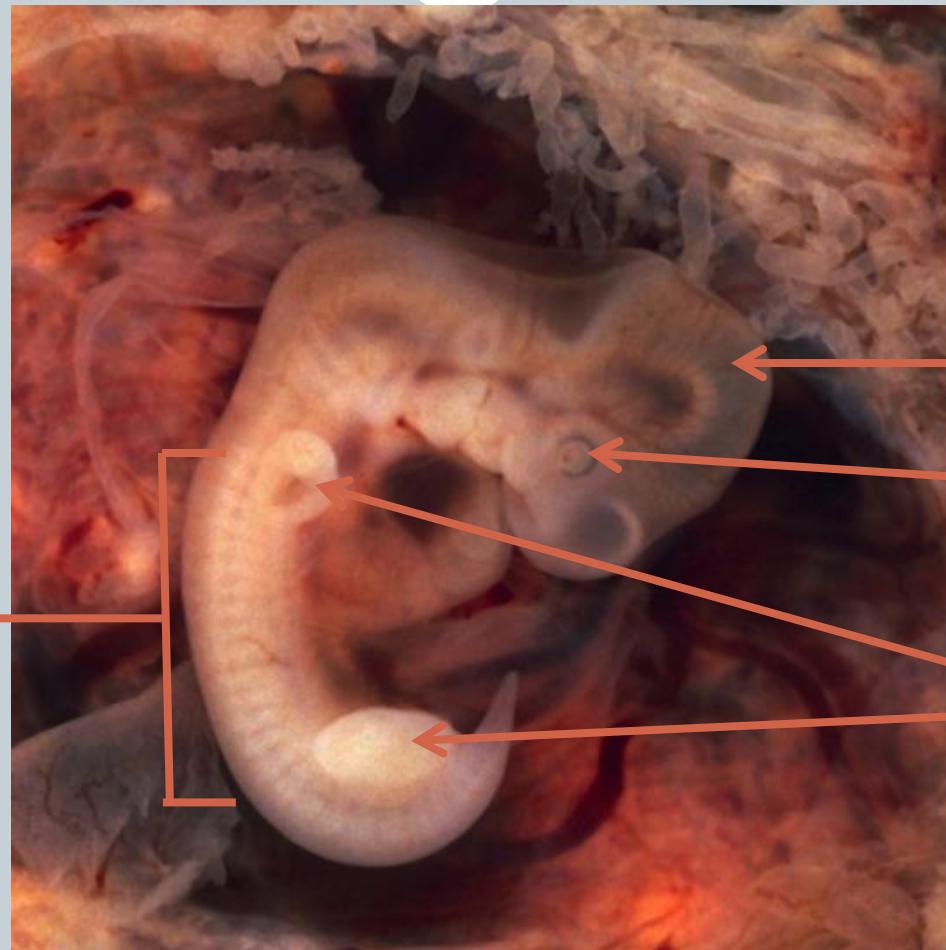
<https://www.boundless.com/biology/textbooks/boundless-biology-textbook/gene-expression-16/development-on-the-cellular-level-117/establishing-the-body-axes-and-patterns-466-13122/images/neural-tube-formation/> <http://creativecommons.org/licenses/by-sa/4.0/> No changes have been made.

Development of Human Embryonic Tissue



What Changes Happen in the Embryo as It Develops?

Five Week Old
(35 days)
Human Embryo



<https://www.boundless.com/biology/textbooks/boundless-biology-textbook/gene-expression-16/development-on-the-cellular-level-117/genes-provide-positional-information-468-13123/>

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When Does the Embryo Become a Fetus?



http://en.wikipedia.org/wiki/File:Human_fetus_10_weeks_with_amniotic_sac_-_therapeutic_abortion.jpg

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