

COLLEGE LIFE

Most irritating moment >>>Morning Alarm Most Dreadful journey >>>Way to class **Most Tragic moments** >>>>Surprise Test Most Wonderful News >>>Teacher is ABSENT



CLEAVAGE

Divisions in zygote, increases the numbers of cells.

Called blastomeres.

Loosely arranged until the eight-cell stage,

After the third cleavage, forms a compact ball of cells held together by

TIGHT JUNCTIONS.

- 3 days after
- The cells of the compacted embryo divide again to form a 16-cell morula.

- Inner cells of the morula constitute the inner cell mass >>>>>>> Embryo
- And surrounding cells
- The outer cell mass >>>>> Trophoblast

BLASTOCYST FORMATION

- About the time the morula enters the uterine cavity, fluid begins to penetrate through the zona pellucida forming a single cavity,
- The blastocele ----->>>>>> Blastocyst.

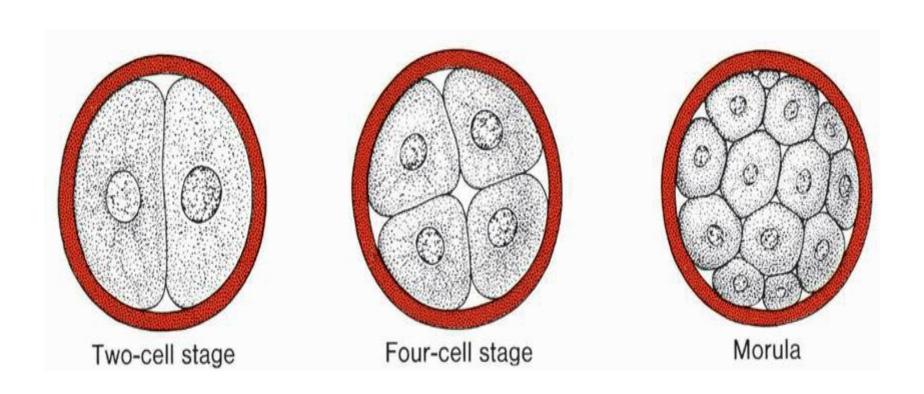
 By the end of the first week, the zygote has passed through the morula and blastocyst stages and has begun implantation in the uterine mucosa.

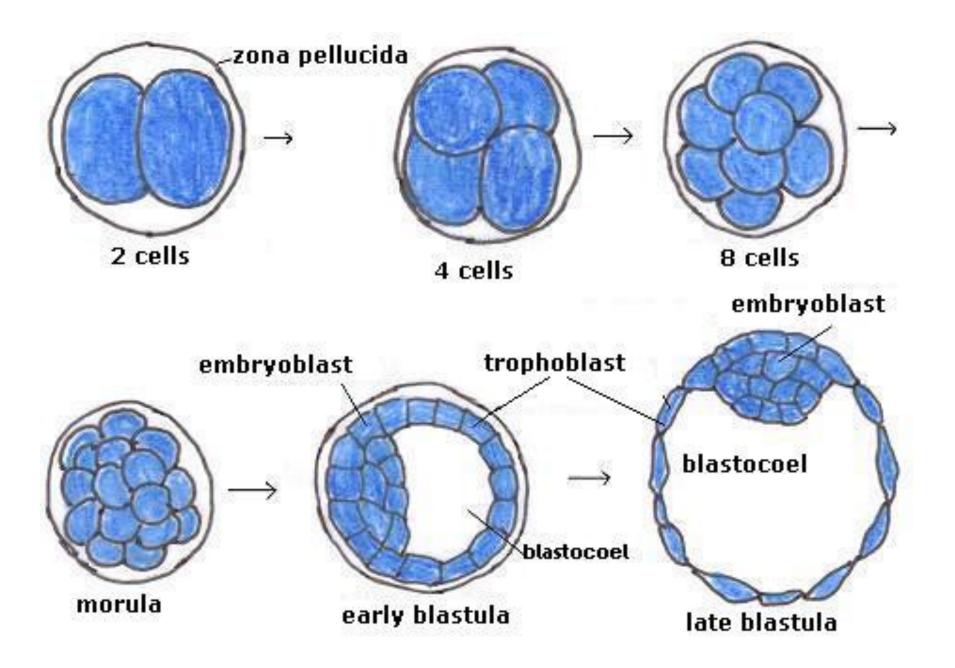
- Cleavage results in an increase in cells, the Blastomeres
- After three divisions, blastomeres undergo compaction to become a tightly grouped ball of cells with inner and outer layers.

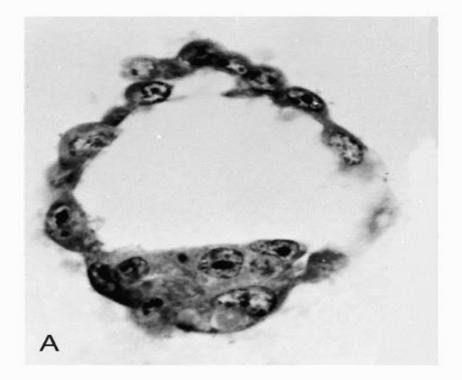
 Compacted blastomeres divide to form a 16-cell morula. Morula enters the uterus on the third or fourth day after fertilization,

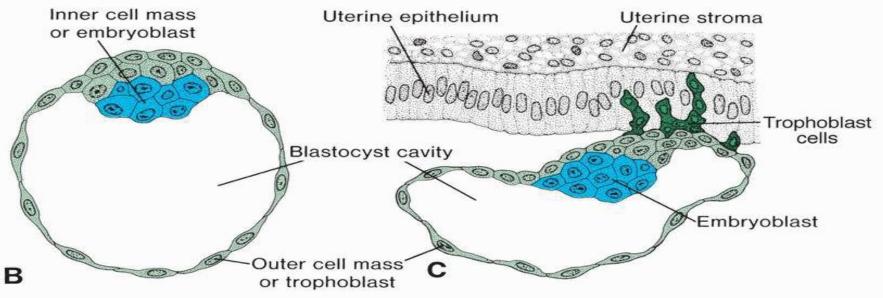
- Cavity appear, and the blastocyst forms.
- The inner cell mass, which is formed at the time of compaction
- Will develop into the embryo proper at one pole of the blastocyst.
- The outer cell mass, which surrounds the inner will form the trophoblast.

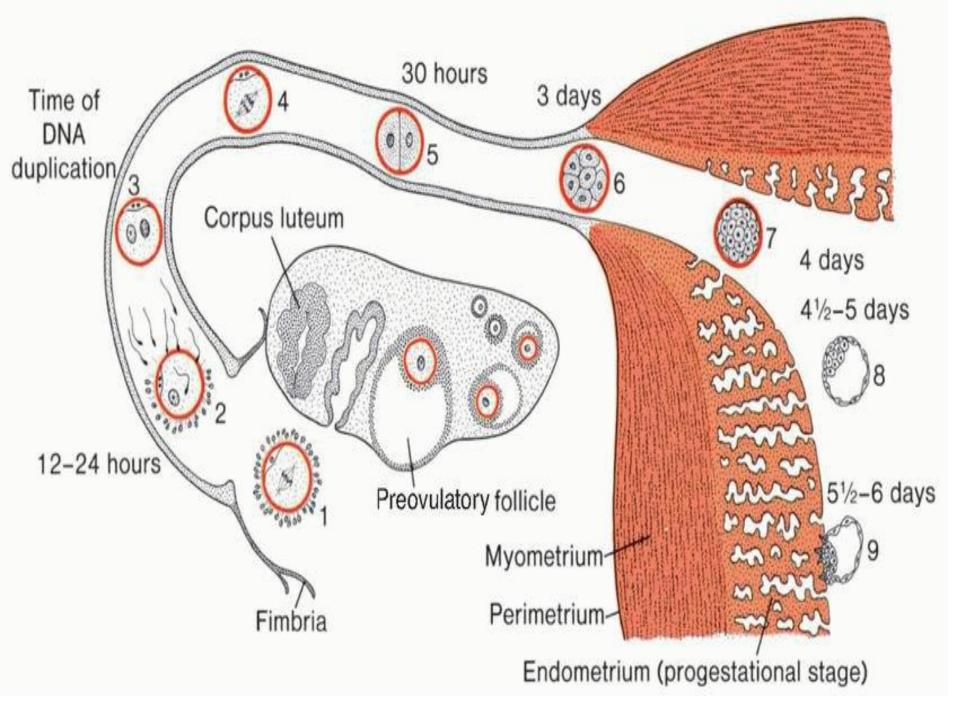
Biology:
The only science
where
multiplication
and division
mean the same thing.

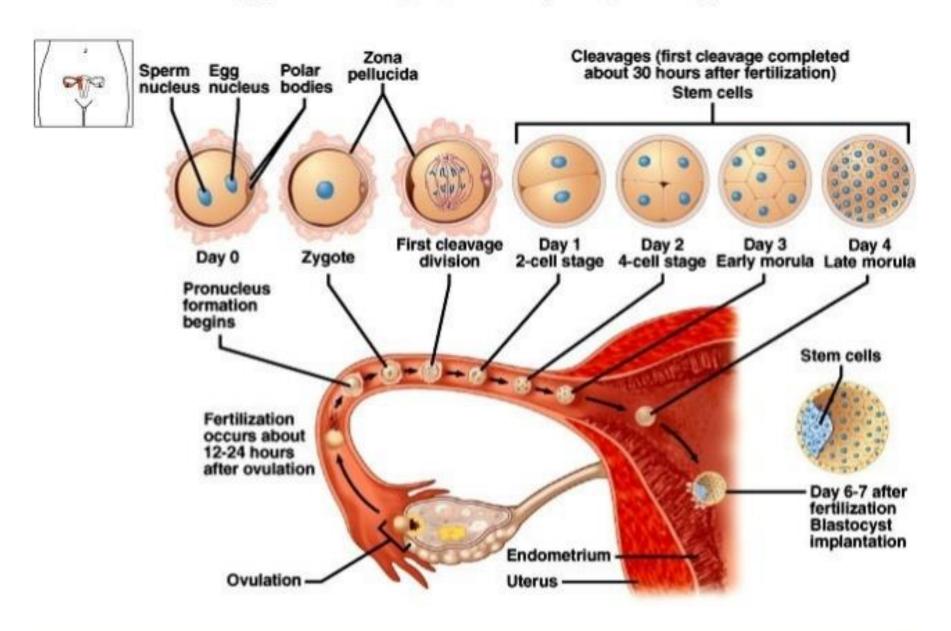


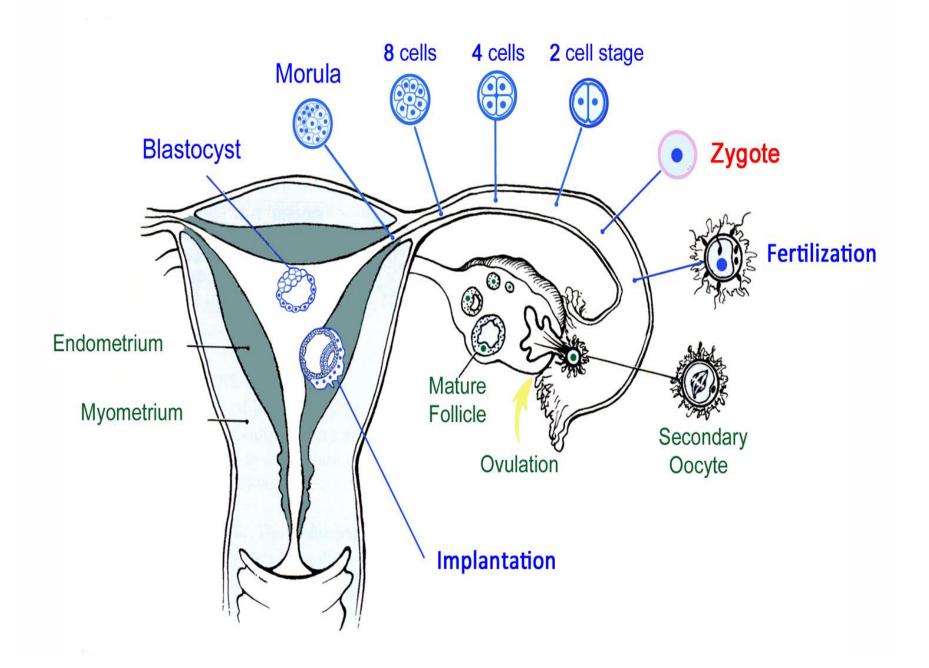












Clinical Correlates

Embryonic Stem Cells

 Derived from the inner cell mass of the embryo. Pluripotent and can form virtually any cell or tissue type, they have the potential for curing a variety of diseases. Embryonic Stem Cells may be obtained from embryo after in vitro fertilization, a process called reproductive cloning.

Oocytes are stimulated to differentiate into blastocysts, and Embryonic Stem cells are harvested.

Abnormal Zygotes

 The exact number of abnormal zygotes formed is unknown because they are usually lost within 2 to 3 weeks of fertilization, before the woman realizes she is pregnant.



If A Single Teacher Can't
Teach Us All The Subjects,
Then..
How Could You Expect
A Single Student To

Learn All Subjects??