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Human Reproduction

Cortical reaction:

(a) Immediately after the entry of a sperm into the egg, the later shows a cortical reaction to check the entry of more sperms.

(b) In this reaction, the cortical granules present beneath the egg's plasma membrane release chemical substance between the ooplasm and the plasma membrane (vitelline membrane).

(c) These substances raise the vitelline membrane above the egg surface. The elevated vitelline membrane is called fertilization membrane.

(d) The increased space between the ooplasm and the fertilization membrane and the chemical present in it effectively check the entry of other sperm.

(e) If polyspermy occurs, that is more than one sperm enter the secondary oocyte, the resulting cell has too much genetic material to develop normally

- The haploid gametes fuse together to form diploid zygote. As the zygote moves towards the uterus, the mitotic division starts and form cleavage to change into 2, 4,8,16 celled blastomeres.
- The blastomeres with 8 to 16 cells are called morula. Morula divide to change into blastocysts .The blastomeres in the blastocyst are arranged into an outer layer called **trophoblast** and an inner group of cells attached to trophoblast called the **inner cell mass**.The outer layer of blastocyst is called trophoblast that attach with endometrium of uterus, called **implantation** that leads to pregnancy.