

# **HUMAN REPRODUCTION**

Life Sciences

# Life Sciences

## Key Points: Human Reproduction

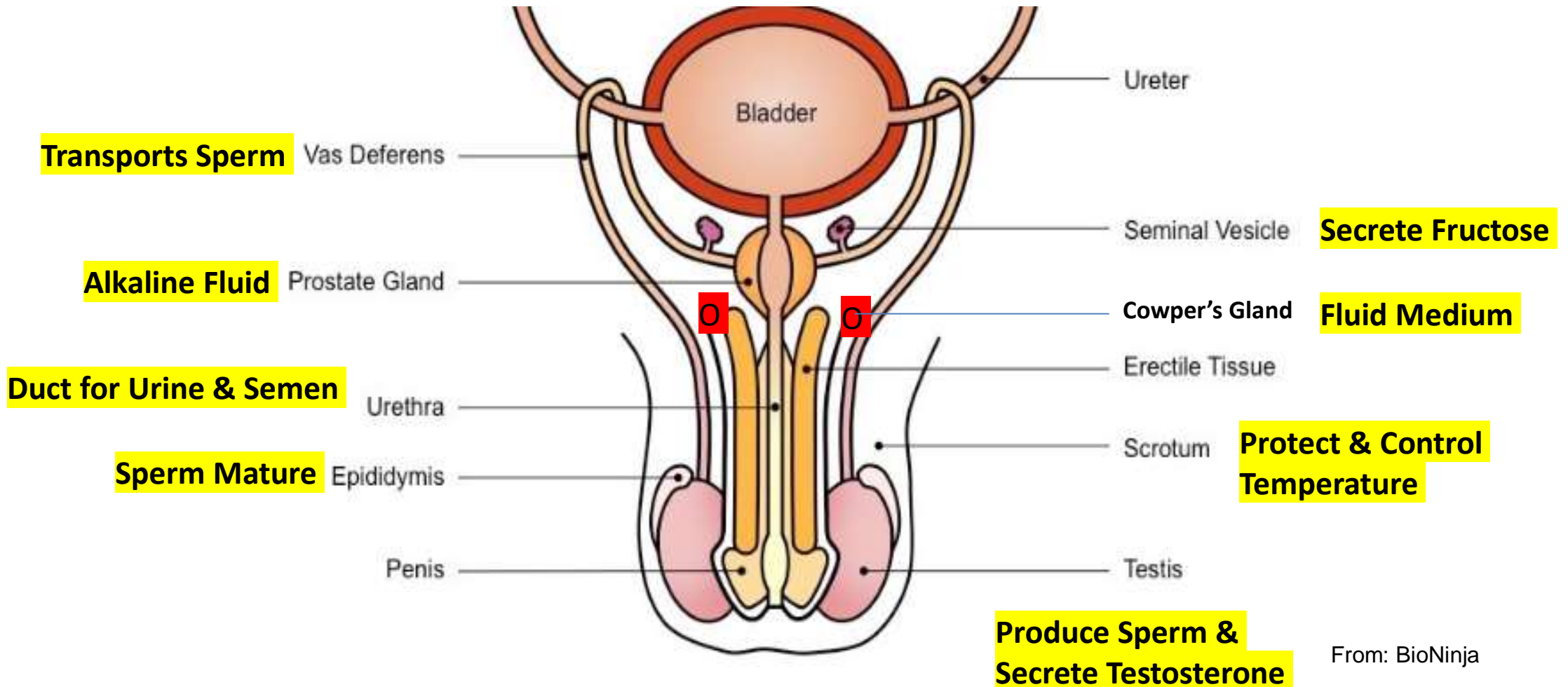
- Role of Meiosis, Fertilisation and Mitosis
- The Male System – Structure and Functions
- Female System – Structure and Functions
- Gametogenesis
- Diagrams of a Sperm cell and Ovum
- The Menstrual Cycle

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## Male Reproductive System



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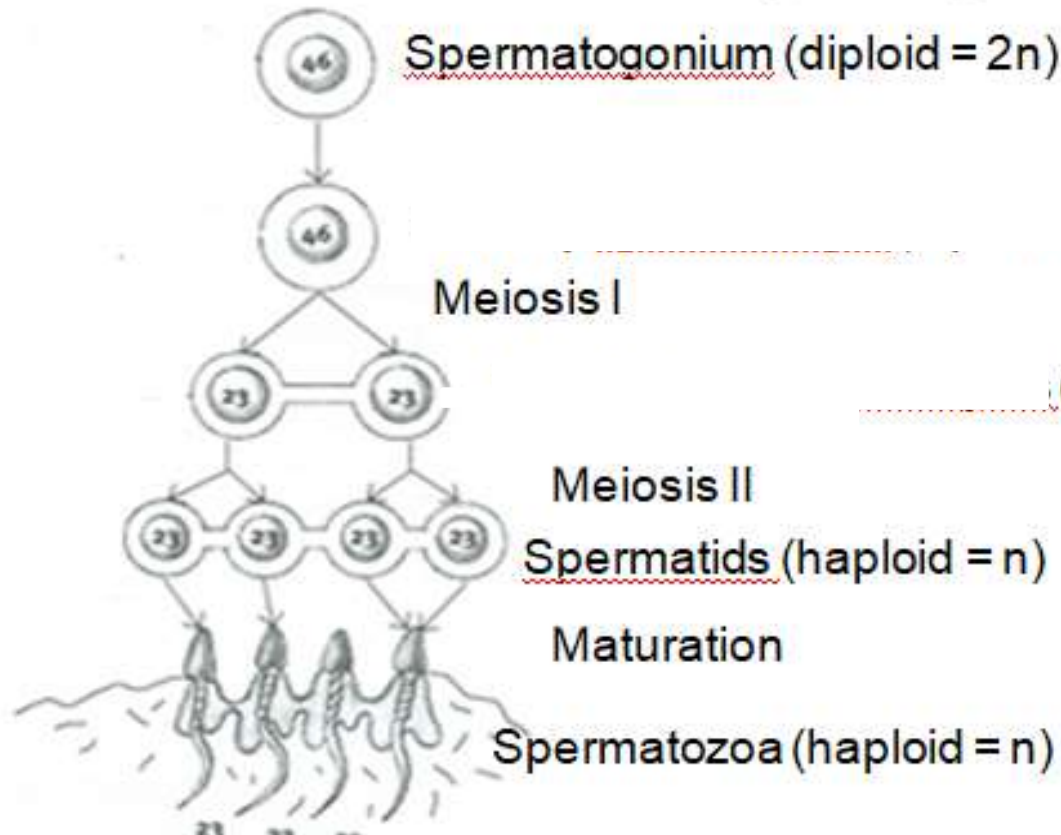
## Male System – What are the Functions of ...?

- Testes
- Epididymis
- Vas Deferens
- Seminal Vesicles
- Prostate Gland
- Cowper's Gland
- Urethra

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## Spermatogenesis

The major function of the testes is to produce sperm in a process called spermatogenesis



1. Under Influence of Testosterone

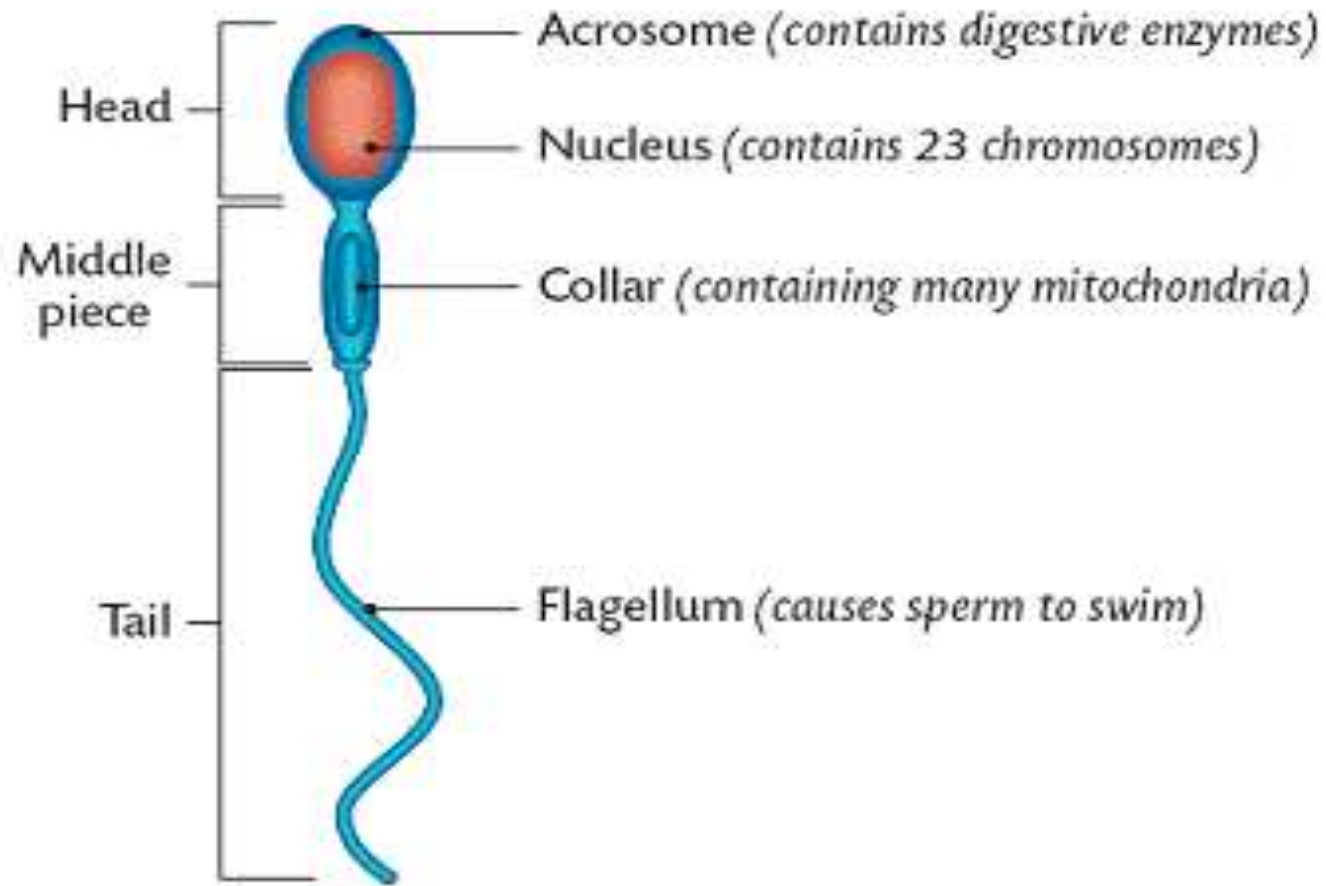
2. Diploid Cells in Seminiferous Tubes

3. Undergo Meiosis

4. To Form Haploid Sperm Cells

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## Human Sperm Cell

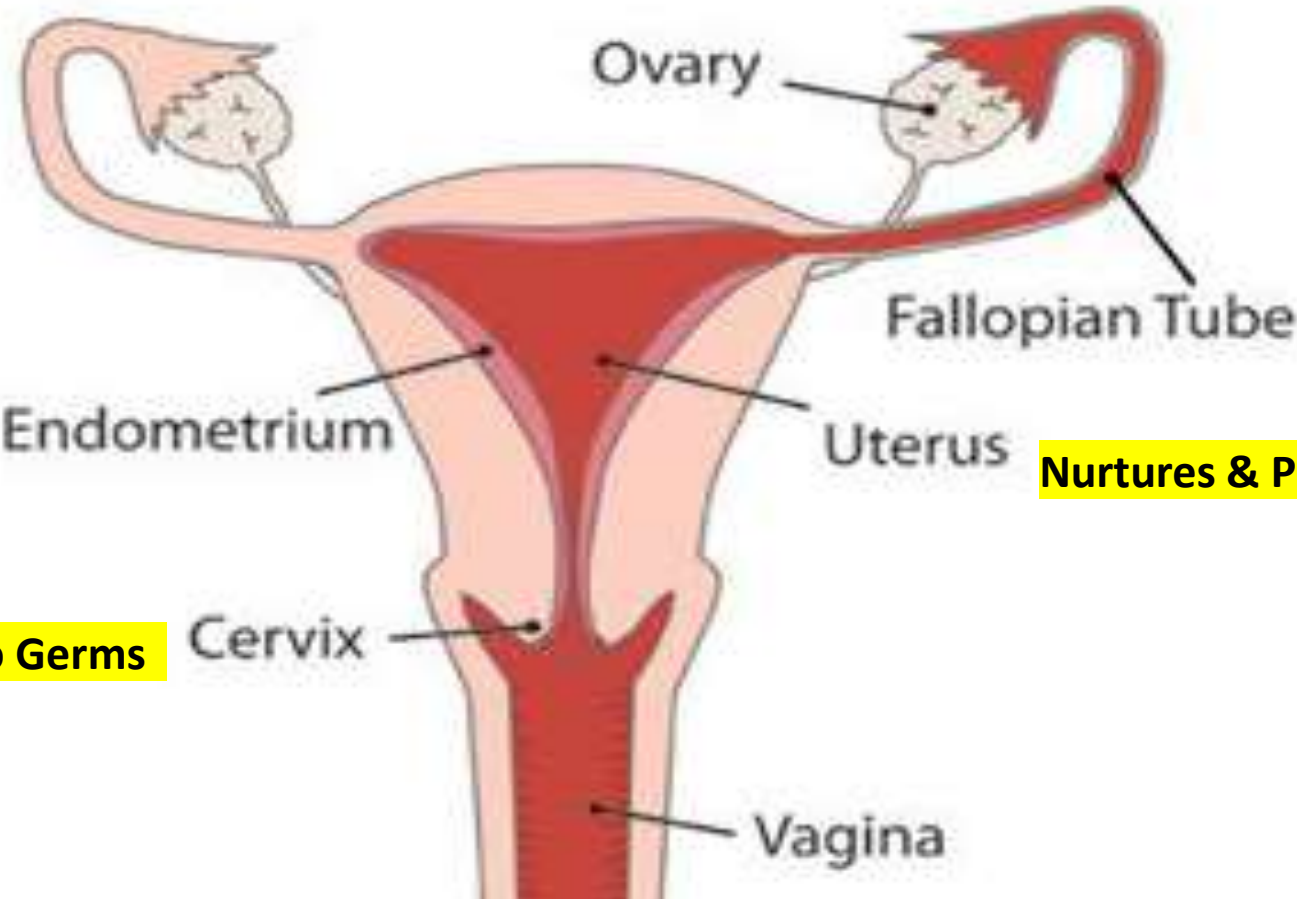




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## Female Reproductive System

1. Produce Ova & Female Hormones – Oestrogen & Progesterone



Where Fertilisation Occurs

Implantation of Embryo

Nurtures & Protects the Foetus

Barrier to Germs



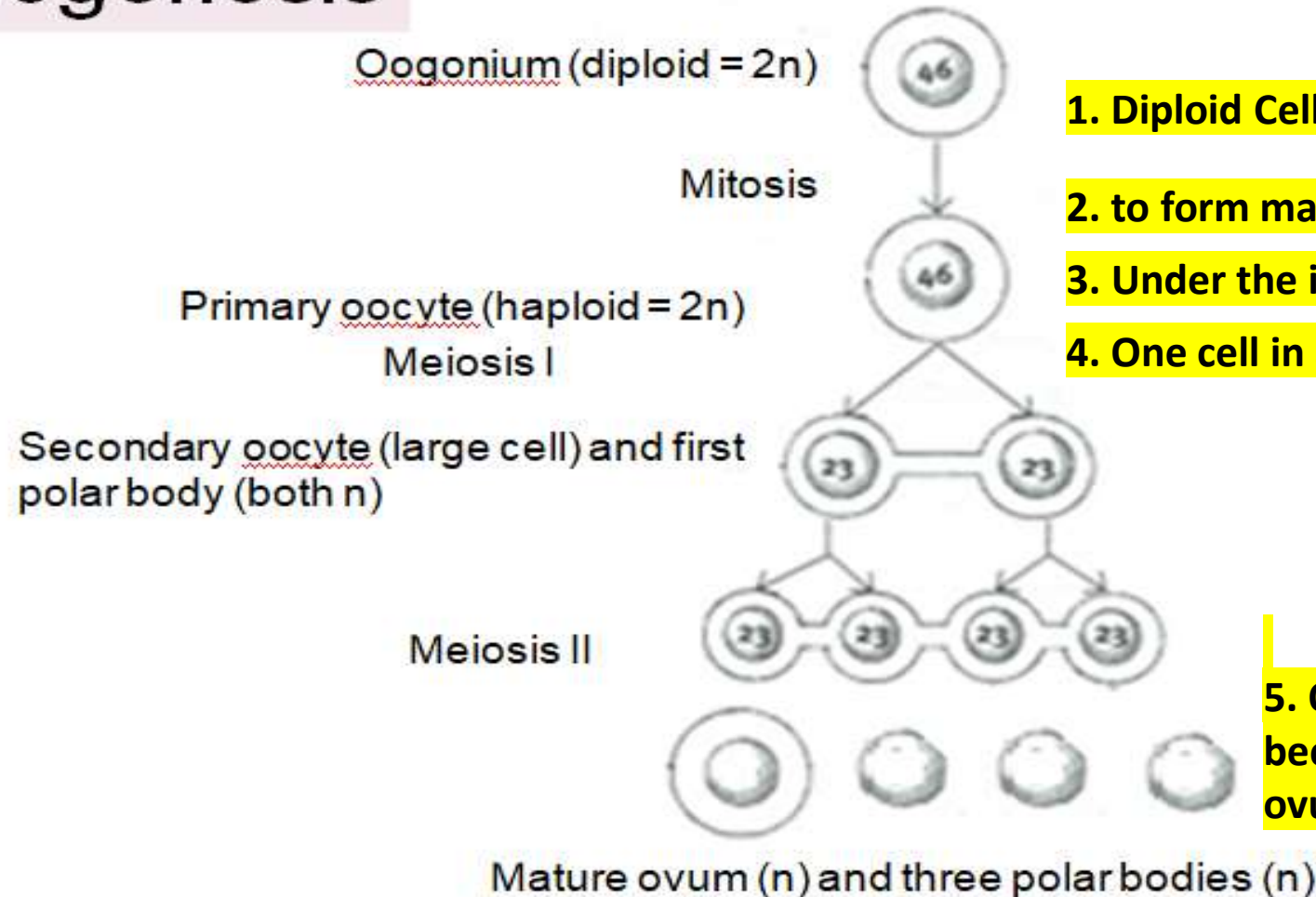
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## Female System – What are the Functions of ...?

- Ovaries
- Fallopian Tubes
- Uterus
- Endometrium
- Cervix

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## oogenesis



1. Diploid Cells in Ovary Undergo Mitosis

2. to form many follicles during puberty

3. Under the influence of FSH

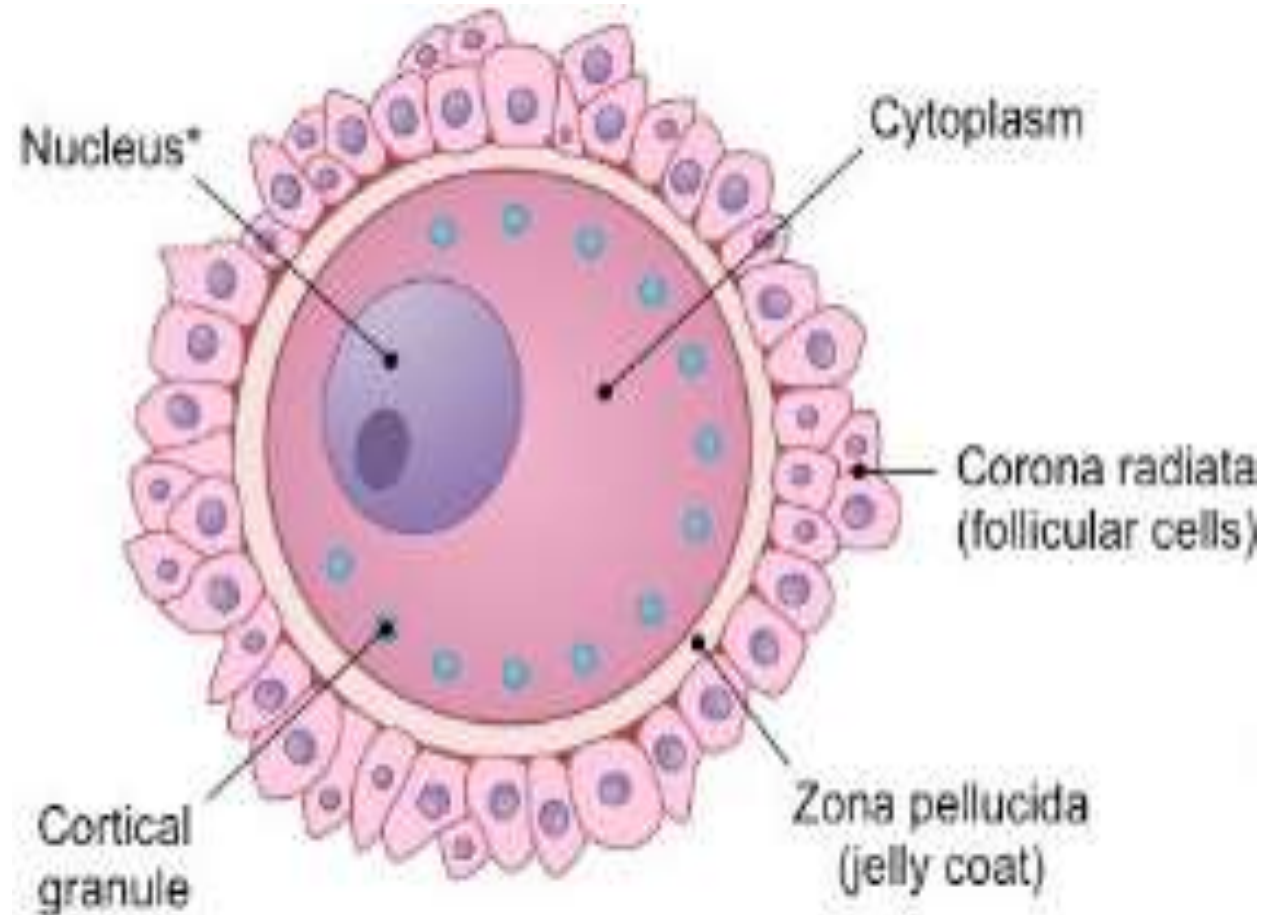
4. One cell in a follicle undergoes Meiosis

5. Of 4 cells produced, 1 becomes a mature haploid ovum

6. This occurs in a monthly cycle

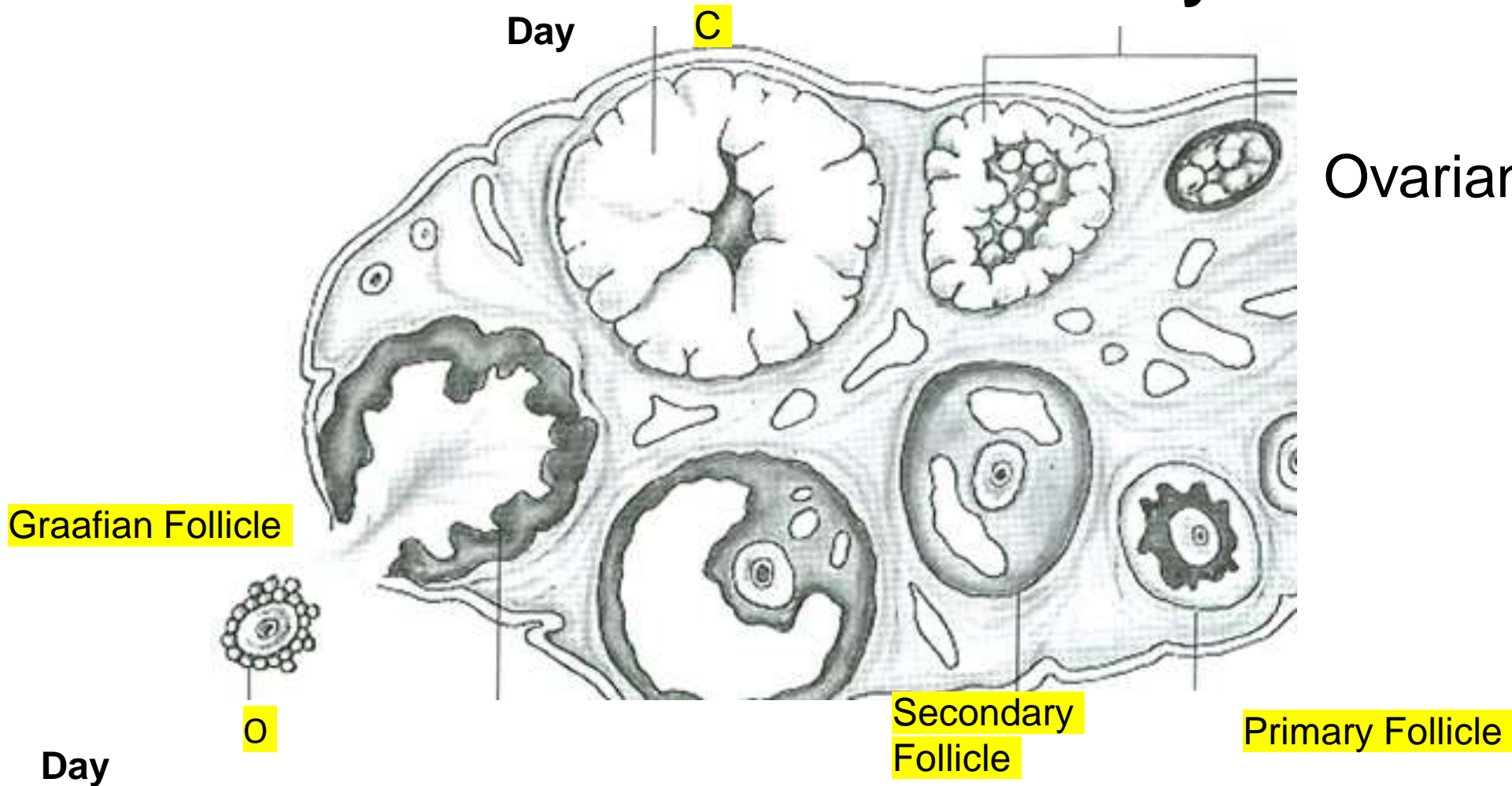
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## Human Ovum



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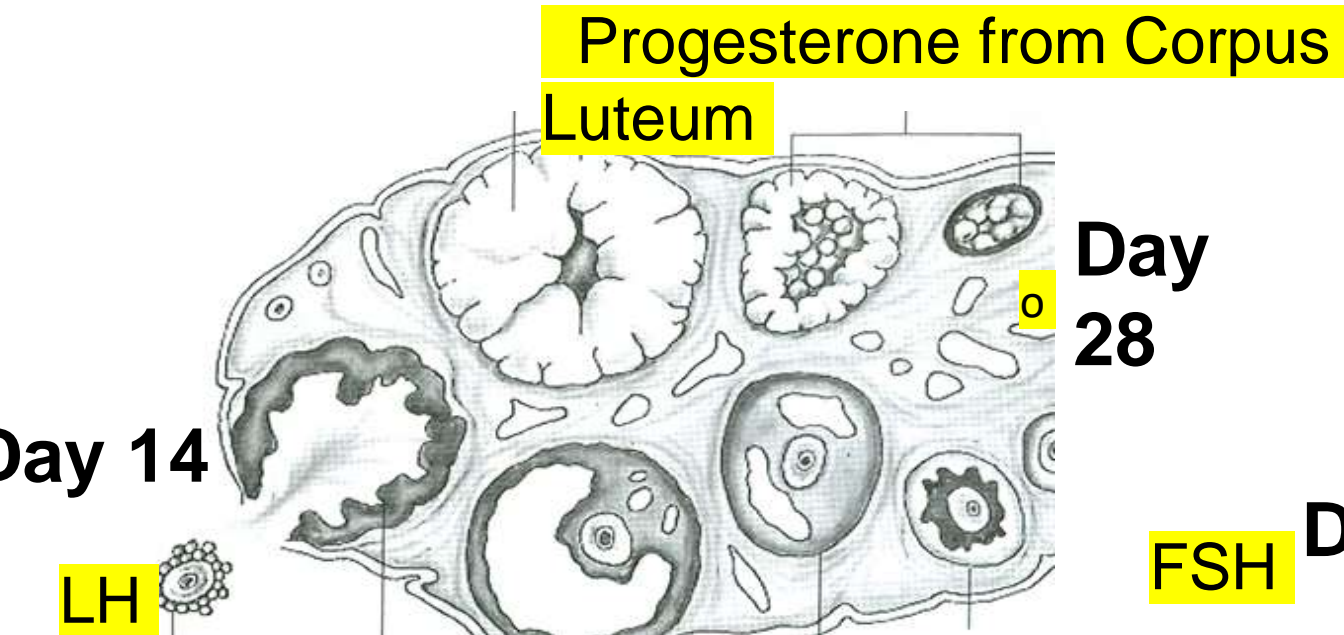
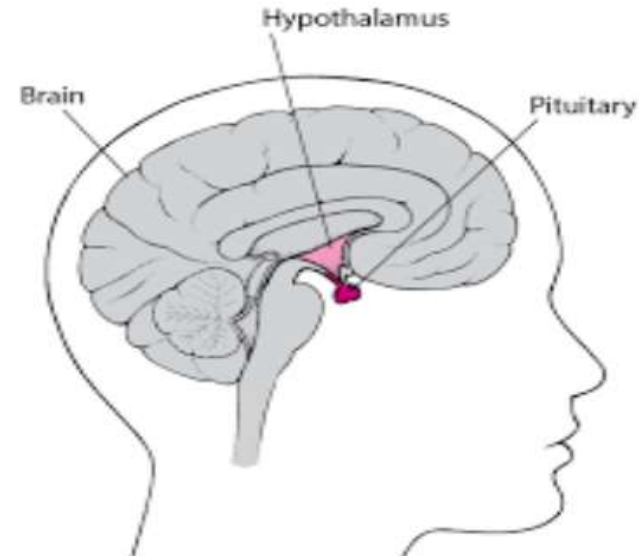
## Internal structure of an Ovary



Ovarian Cycle – 28 days

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## Female Hormones during the Ovarian Cycle



FSH Day 1

Progesterone

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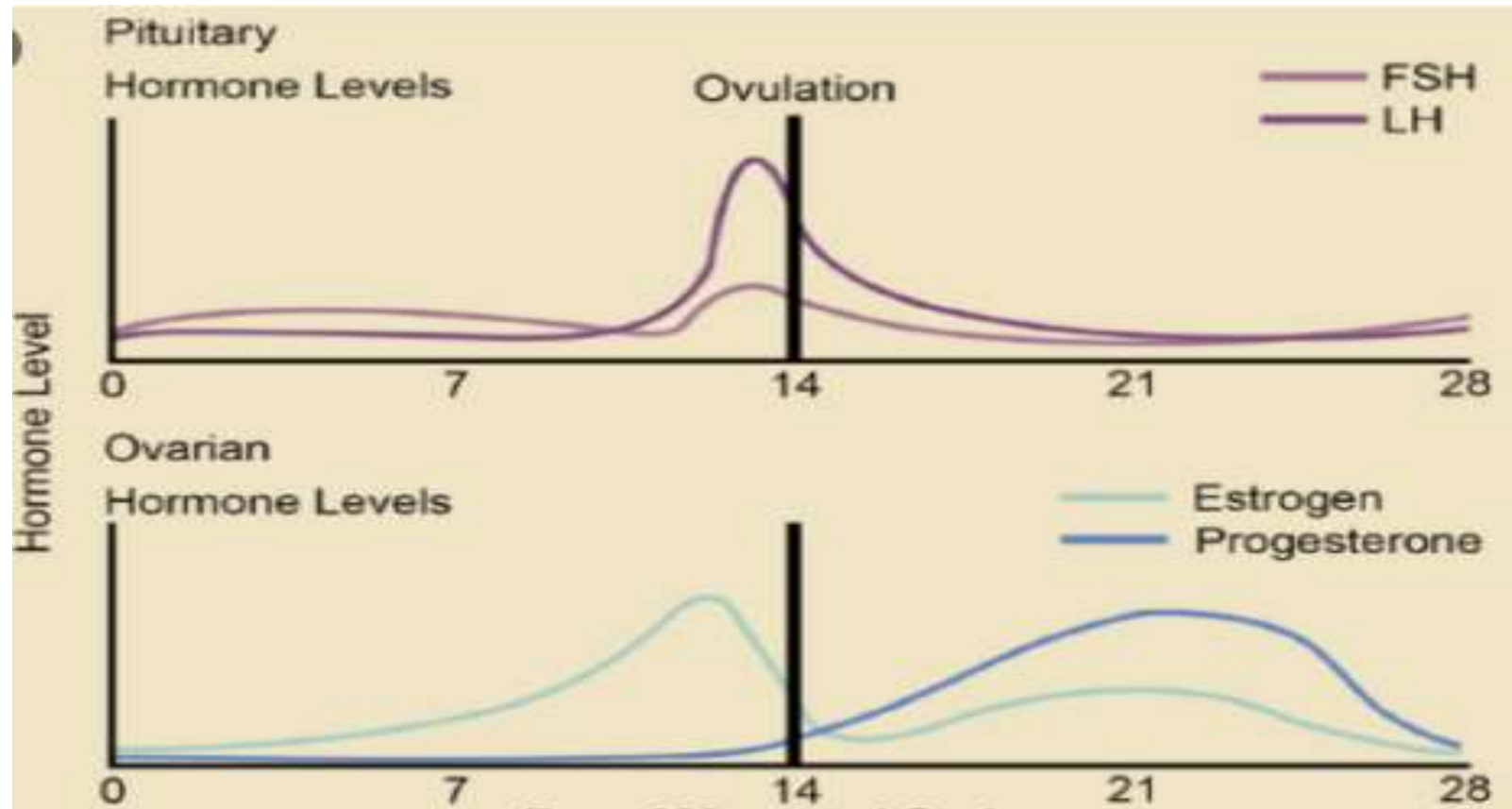
Menstrual Cycle: The effect of Oestrogen and Progesterone on the Uterus every 28 days





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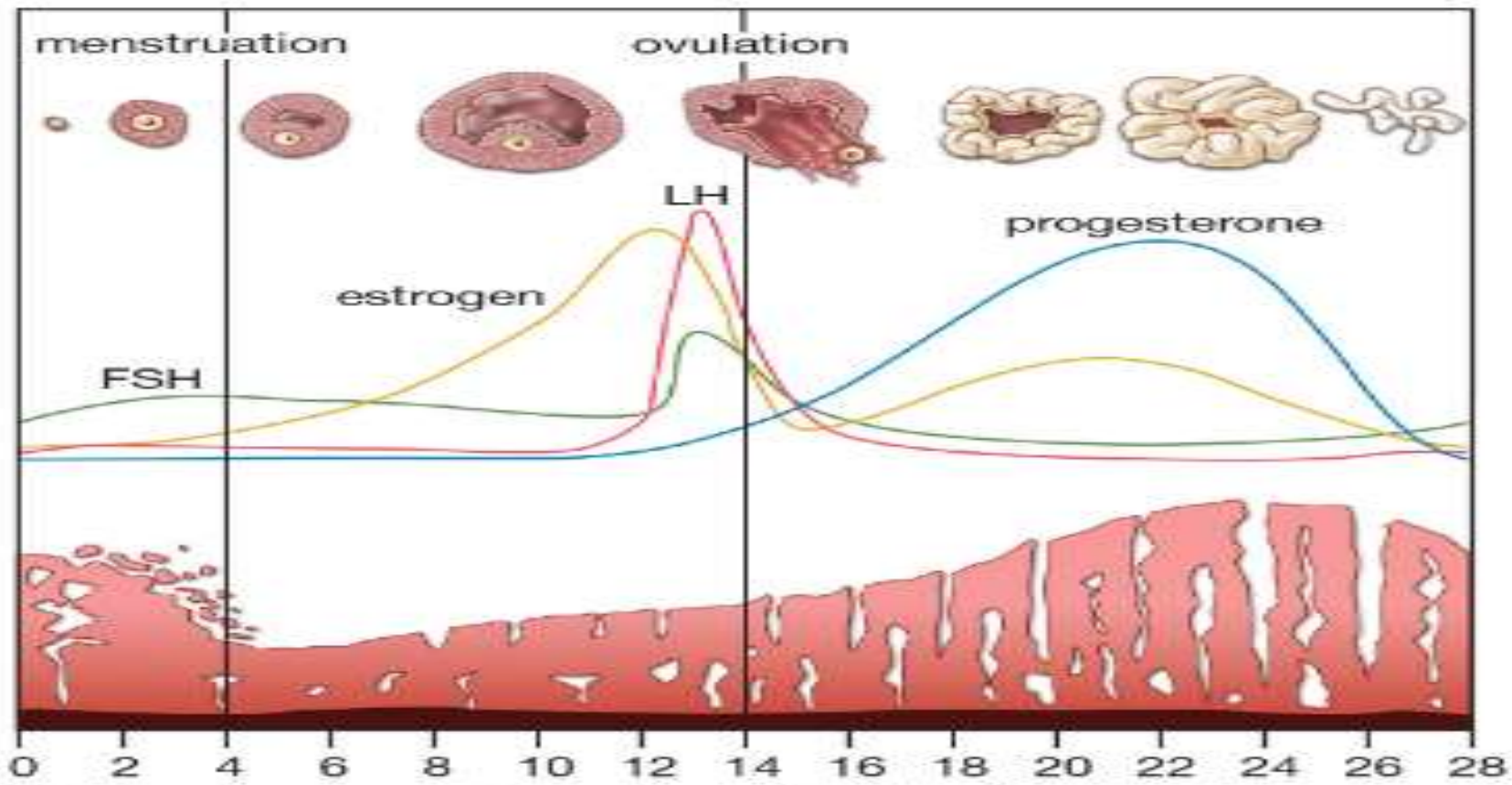
## Hormone Levels of the - 28 day - Menstrual Cycle





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## Hormone Levels of the - 28 day - Menstrual Cycle



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