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MATRIC NO: 17/MHS07/008

DEPARTMENT: PHARMACOLOGY

COURSE CODE: PHA 304

## ASSIGNMENT

1. write on estrogens and progestins
2. Drugs used as anti-fertility drug.

### ANSWERS

1) ESTROGENS; Estrogen is a hormone that plays various roles in the body. In females, it helps develop and maintain both the reproductive system and female characteristics, such as breasts and pubic hair.

Estrogen contributes to cognitive health, bone health, the function of the cardiovascular system, and other essential bodily processes. However, most people know it for its role alongside progesterone in female sexual and reproductive health.

The ovaries, adrenal glands, and fat tissues produce estrogen.

Both female and male bodies have this hormone, but females create more of it.

## TYPES OF ESTROGENS;

There are different types of estrogen:

### **Estrone**

This type of estrogen is present in the body after menopause. It is a weaker form of estrogen and one that the body can convert to other forms of estrogen, as necessary.

### **Estradiol**

Both males and females produce estradiol, and it is the most common type of estrogen in females during their reproductive years.

Too much estradiol may result in acne, loss of sex drive, osteoporosis, and depression.

Very high levels can increase the risk of uterine and breast cancer.

However, low levels can result in weight gain and cardiovascular disease.

# **Estriol**

Levels of estriol rise during pregnancy, as it helps the uterus grow and prepares the body for delivery. Estriol levels peak just before birth.

## **FUNCTIONS;**

Estrogen enables the following organs to function:

**Ovaries:** Estrogen helps stimulate the growth of the egg follicle.

**Vagina:** In the vagina, estrogen maintains the thickness of the vaginal wall and promotes lubrication.

**Uterus:** Estrogen enhances and maintains the mucous membrane that lines the uterus. It also regulates the flow and thickness of uterine mucus secretions.

**Breasts:** The body uses estrogen in the formation of breast tissue. This hormone also helps stop the flow of milk after weaning.

## **B)PROGESTINS;**

Progestins are synthetic forms of the body's naturally-occurring hormone progesterone.

Progestins were designed to interact with progesterone receptors in the body in order to cause progesterone-like effects. This means that they do some of what the body's natural progesterone does. For instance, progestins can cause changes to the endometrium (the lining of the uterus) that prevent it from proliferating (building up) too much, and that can help it support implantation and the continuation of an early pregnancy.

Progestins were originally developed because natural progesterone isn't absorbed well when taken as a pill by mouth and is metabolized (processed) by the body too quickly to have much effect. Now progesterone is available in a micronized (smaller particle) form that is absorbed

easier and lasts longer in the body, but only progestins—not micronized progesterone—are used in birth control.

Progestins are present in all forms of hormonal birth control, either alone in progestin-only methods (like the implant, hormonal IUDs, injection, or mini-pill) or with an estrogen in combined hormonal birth control (like most pills, patch, vaginal ring, and some injections).

Progestins prevent pregnancy by inhibiting ovulation and reducing the amount and stretchiness of cervical mucus, making it unfriendly to sperm that are trying to enter the uterus.

Q2)

The following are some infertility drugs;

1) Bravalle (follicle stimulating hormone)

2) Cetrotide (gonadotropin-releasing hormone antagonist)

- 3) Clomid (Clomiphene citrate)
- 4) Crinone (progesterone)
- 5) Dostinex (prolactin reducing)
- 6) Factivel (gonadotropin-releasing hormone)
- 7) Femara (Letrozole)
- 8) Follistim (Follicle stimulating hormone)
- 9) Gonal-F (Follicle stimulating hormone)
- 10) Menopur (human menopausal gonadotropin)