

BIOS 256
WEEK 6 CASE
STUDY
ESPINOZA

Discussion Questions:

1. How can hormonal imbalances, such as low testosterone or dysregulated estrogen/progesterone levels, impact fertility in individuals AMAB and AFAB?

Both partners would have issues with fertility due to the hormone imbalances and possibly be unable to organically conceive a fetus.

2. Describe the path of sperm from production to ejaculation, including the glands that contribute to seminal fluid.

The sperm and testosterone are produced in the testes, then they move to the epididymis where they are stored until maturation, they are transported via the vas deferens, and out the penis as ejaculate. The vesicles, prostate, and bulbourethral glands create seminal fluid.

3. How can anabolic steroid use interfere with the HPG axis, and what are the effects on the testes and spermatogenesis?

Anabolic steroids can interfere with the HPG axis by creating a negative feedback loop because the hypothalamus can think there is an abundance of testosterone causing the body to stop creating it. It also causes the body to decrease levels of FSH, LH, and GnRH. The effect it can have is decreased testosterone production and decreased sperm count.

4. Describe the movement of the ovum from the ovary through the reproductive tract, and where fertilization typically occurs.

The ovaries produce sex hormones and create a follicle which matures into an egg, the egg moves through the fallopian tubes and into the uterus. Fertilization