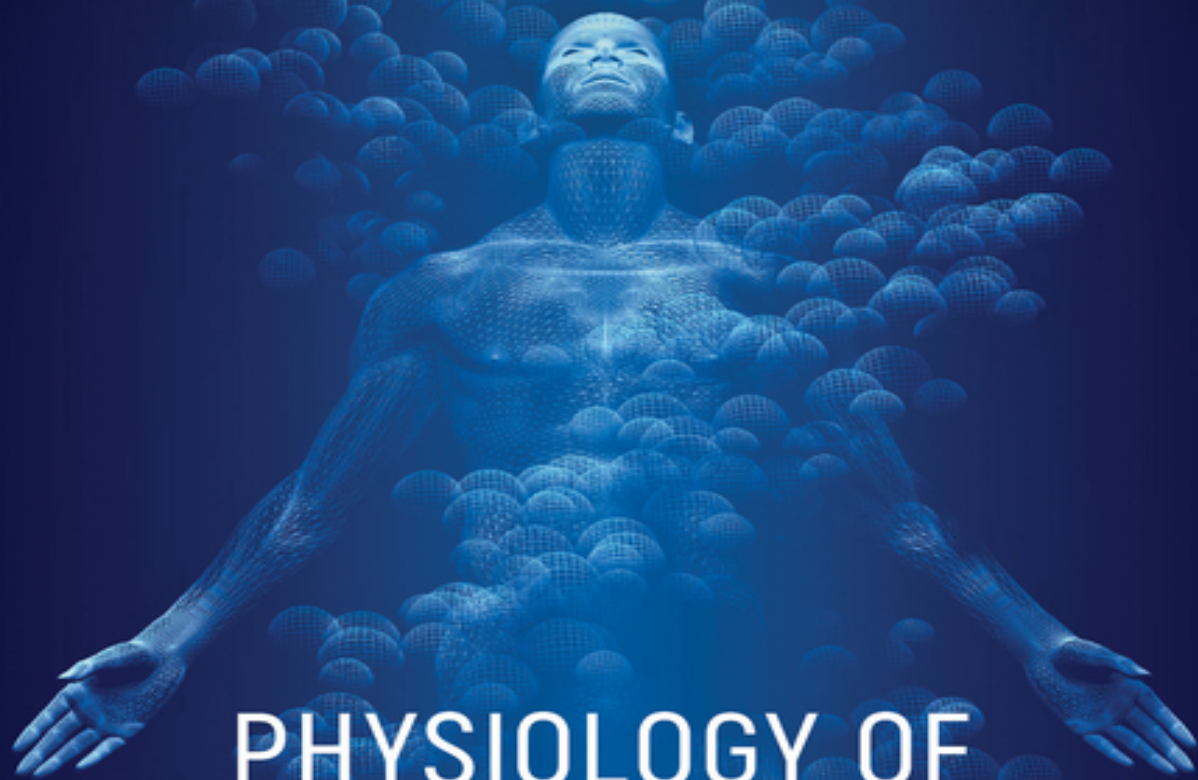


GEORGE OSOL



PHYSIOLOGY OF
**HUMAN
REPRODUCTION**

NOTES FOR STUDENTS

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Physiology of Human Reproduction

Notes for Students

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Key Concepts and Terms

Chapter 1: The Adult Male

1. Three basic requirements for male fertility
2. GnRH
3. LH and FSH
4. Pulsatile release
5. First vs. second messengers
6. Leydig cells
7. Action of LH
8. Testosterone
9. Sertoli cells
10. Three main types of sex steroids
11. Aromatization
12. Conversion of testosterone into estrogen
13. Action of FSH
14. Inhibin
15. Sertoli cell functions
16. The blood-testis barrier
17. Spatial relationships in males vs. females
18. Diverse actions of testosterone
19. Actions of testosterone *in utero*
20. Sexual differentiation
21. Androgens during puberty
22. DHT
23. 5 α -reductase
24. Androgen insensitivity syndrome (AIS)

25. Sperm count
26. Seminiferous tubules
27. Spermatogonia
28. Primary spermatocytes
29. Secondary spermatocytes
30. Alignment of maternal and paternal chromosomes; genetic diversity
31. Spermatids
32. Acrosome
33. Axoneme
34. Spermiogenesis
35. Gymnosperm (X) vs. androspERM (Y)
36. Epididymal passage and decapacitation
37. Prostatic secretions
38. Secretions of the seminal vesicle
39. Clotting/de-clotting of semen
40. Process of liquefaction
41. Testicular thermoregulation
42. Cryptorchidism
43. Cremaster (mechanism 1)
44. Sweat glands (mechanism 2)
45. Countercurrent heat exchange (mechanism 3)
46. Pampiniform plexus
47. Varicocele
48. Asymmetry in vascular anatomy
49. Erectile tissue

- 50. Neurovascular mechanism of erection:
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- 51. cGMP is the intracellular second messenger in
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- 52. Filling phase
- 53. Tumescence phase
- 54. PDE-5 inhibitors
- 55. Ejaculatory reflex
- 56. Emission phase
- 57. Ejaculatory phase
- 58. Other muscular events during ejaculation
- 59. Male orgasm
- 60. Male infertility
- 61. Low sperm count
- 62. Semen analysis
- 63. WHO parameters for semen analysis
- 64. Hypospadias
- 65. Erectile dysfunction (ED)
- 66. Impotence vs. infertility

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- 68. Menstrual cycle length
- 69. Hypothalamic pulse generator encoding
- 70. Mullerian and Wolffian ducts
- 71. Germinal epithelium
- 72. Oogonia
- 73. Primary oocytes
- 74. Process of attrition
- 75. Secondary oocyte
- 76. Arrest in metaphase
- 77. Ovum
- 78. Polar body
- 79. Granulosa cell precursors
- 80. Unilaminar or primordial follicle
- 81. Primary follicle
- 82. Follicular recruitment
- 83. Zona pellucida
- 84. Secondary follicle
- 85. Liquor folliculi
- 86. Tertiary (= dominant, vesicular, mature or Graafian) follicle
- 87. Follicular phase
- 88. Length of follicular vs. luteal phases