

| Disease States | | Hormone | | | |
|----------------------|-------------------------------------|---------|--------|--------------|-----------|
| classification | example | FSH | LH | Testosterone | Estradiol |
| Male | | | | | |
| Primary Deficiency | Klinefelter's Syndrome | High | High | Low | - |
| Secondary Deficiency | Panhypopituitarism | Low | Low | Low | - |
| Primary Excess | Testicular Tumor | Low | Low | High | - |
| Secondary Excess | Precocious Puberty | High | High | High | - |
| Other | Seminiferous Tubule Failure | High | Normal | Normal | - |
| Other | Partial Androgen Insensitivity | Normal | High | High | - |
| Female | | | | | |
| Primary Deficiency | Menopause | High | High | - | Low |
| Secondary Deficiency | Sheehan's Syndrome | Low | Low | - | Low |
| Primary Excess | Feminizing Ovarian Tumor | Low | Low | - | High |
| Secondary Excess | Gonadotropin Producing Tumor (rare) | High | High | - | High |
| Other | Polycystic Ovarian Syndrome | Normal | High | High | - |
| Other | Masculinizing Ovarian tumor | Low | Low | High | - |