Masters and Johnson divided the sexual response cycle into four phases:

- Excitement
- Plateau
- Orgasm
- Resolution
Sexual Response

• Males and females experience vasocongestion and myotonia early in the response cycle.

• Vasocongestion: is the swelling of the genital tissues with blood, which causes erection of the penis and engorgement of the area surrounding the vaginal opening.

• The testes, nipples and even earlobes become engorged as blood vessels in these areas dilate.

• Myotonia: refers to muscle tension and causes voluntary and involuntary muscle contractions...facial grimaces, spasms in the hands and feet...eventually, the spasms of orgasm.
Man's Genitals During Sexual Response Cycle

Excitement
- Full erection of penis
- Partial erection
- Unstimulated state
- Testes elevate toward perineum
- Skin of scrotum tenses, thickens, and elevates

Plateau
- Color of penile glans deepens
- Cowper's gland secretion
- Testes increase in size and are fully elevated
- Scrotum thickens
- Cowper's gland
- Prostate enlarges
Man's Genitals During Sexual Response Cycle

Orgasm:
- Vas deferens contracts
- Prostate gland contracts
- Urethral contractions
- Seminal vesicle contracts
- Anal sphincter contracts
- Internal sphincter of bladder contracts

Resolution:
- Erection disappears
- Testes descend
- Scrotum thins and folds return
- Unstimulated state
- Loss of testicular congestion
Mediated by PS to relax arterioles entering clitoris, uterus and vagina.

Orgasm and ejaculation mediated by S and somatic stim. to ducts, glands, uterus and surrounding skeletal muscles.

Mediated by S to ducts and glands.

Uterus elevates and increases in size.

Inner two-thirds of vagina expands and lengthens.

Outer third of vagina forms orgasmic platform.

Uterus contracts.

Orgasmic platform contracts.

Rectal sphincter contracts.

Clitoris descends to unaroused position.

Cervix drops to its unaroused position.

Vagina returns to its unaroused position.

Uterus shrinks, returns to its normal position.

Mediated by S to constrict arterioles entering clitoris, uterus and vagina.
Breast Response to Sexual Stimulation (F)

**Excitement**
- Size increases
- Nipple becomes erect
- Superficial veins become more visible

**Plateau and orgasm**
- Further size increase
- Areolar engorgement (may partially hide nipple)
- Superficial veins become more visible

**Resolution**
- Breasts return to unaroused size in five to ten minutes
- Rapid disappearance of sex flush
- Rapid loss of tumescence in nipples and areolae
Excitement Phase - Male

- In younger men, vasocongestion during the excitement phase produces penile erection as early as 3 to 8 seconds after stimulation begins.
- The scrotal skin thickens, losing its baggy appearance.
- The testes increase in size & the testes and scrotum become elevated.
Excitement Phase - Female

- In the female, vaginal lubrication may start 10 to 30 seconds after stimulation begins.
- Vasocongestion swells the clitoris, flattens the labia majora and spreads them apart, and increases the size of the labia minora.
- The vaginal walls thicken and because of the inflow of blood, turn from their normal pink to a deeper hue.
- The uterus become engorged and elevated.
- The breasts enlarge and blood vessels near the surface become more prominent.
- The skin may taken on a rosy sex flush late in this phase.
- The nipples become erect (in both sexes)..increased blood pressure and heart rate.
Plateau Phase-Men

- The level of arousal remains somewhat constant during this phase.
- An advanced state of arousal that precedes orgasm.
- Men in this phase show a slight increase in the circumference of the coronal ridge of the penis.
- The penile glans turns a purplish hue, a sign of vasocongestion.
- The testes are elevated further into position for ejaculation and may reach one and one-half time their unaroused size.
Plateau Phase-Female

• In women, vasocongestion swells the tissues of the outer third of the vagina, contracting the vaginal opening (preparing to grasp the penis) and building the orgasmic platform.
• The inner part of the vagina expands and the uterus becomes fully elevated.
• The clitoris withdraws beneath the clitoral hood and shortens.
• “The clitoris may appear to have been lost”
• Coloration of the labia minora appears, which is referred to as the sex skin...”reddening”.
• Engorgement of the areolas of the breasts may make it seem that the nipples have lost part of their erection.
• Consists of two stages of muscular contractions.
  • 1st Stage: Contractions of the vas deferens, the seminal vesicles, the ejaculatory duct, and the prostate gland cause seminal fluid to collect in the urethral bulb at the base of the penis.
  • The bulb expands to accommodate the fluid.
  • The internal sphincter of the urinary bladder contracts, preventing seminal fluid from entering the bladder in a backward, retrograde ejaculation.
  • The collection of semen in the urethral bulb produces feelings of ejaculatory inevitability – the sensation that nothing will stop the ejaculate from “coming”…the sensation lasts for about 2 or 3 seconds.
Orgasmic Phase - Male

- 2\textsuperscript{nd} Stage: The external sphincter of the bladder relaxes, allowing the passage of semen.
- Contractions of muscles surrounding the urethra and urethral bulb and the base of the penis propel the ejaculate through the urethra and out of the body.
- Sensations of pleasure tend to be related to the strength of the contractions and the amount of seminal fluid.
- The first three or four contractions are generally more intense and occur at .8-second intervals.
Orgasm in the female is manifested by 3 to 15 contractions of the pelvic muscles that surround the vaginal barrel. The contractions first occur at .8-second intervals, producing, as in the male, a release of sexual tension. Another three to six weaker and slower contractions follow. The uterus and the anal sphincter also contract rhythmically. The heart beat increases to 180 times per minute and 40 breaths per minute.
Resolution Phase-Male

• The period following orgasm, in which the body returns to its prearoused state.
• Following ejaculation, the man loses his erection in two phases.
  • The first occurs in about one minute.
  • Half the volume of the erection is lost as blood empties into the other part of the body.
  • The second stage occurs over a period of several minutes. The testes and scrotum return to normal size and the scrotum regains its wrinkled appearance.
  • Refractory Period: men are physiologically incapable of experiencing another orgasm or ejaculation.
Resolution Phase-Female

• Orgasm also triggers the release of blood from engorged areas.
• The swelling of the areolas decreases and the nipple return to their normal size.
• The sex flush lightens rapidly.
• In about five to ten seconds, the clitoris descends to its normal position.
• The clitoris, vaginal barrel, uterus, and labia gradually shrink to their prearoused sizes.