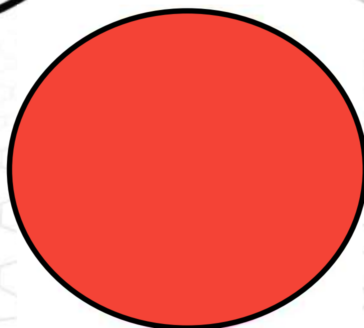
# Sexual Medicine Committee

Newsletter - 3



President FOGSI 2020

Dr. Alpesh Gandhi

Secretary General

Dr. Jaydeep Tank

Vice President Incharge

Dr. Ragini Agrawal

# Sexual Medicine Committee

Chairperson

Dr. Niraj Jadav

National Co-ordinator

Dr. Padmini Prasad

North Zone

Dr. Vani Puri

Dr. Savana Chongtham

west zone

Dr. Archana Shah

South Zone

Dr. Kavitha Gautham

East Zone

Dr. Queen Aditya

Editor in Chief

Dr. Alok Sharma

Sub-Editor

Dr. Shail Kaur

Dr. Hafizur Rahman

# HUMAN SEXUAL RESPONSE

## Female SEXUAL RESPONSE CYCLE

Dr. SEEMA SHARMA,
MBBS, DGO, MD, FICOG, FRCOG
Director- Srishti Fem care
Sr. Consultant, Ob/Gyn @ Apollo cradle
www.Srishtifemcare.com

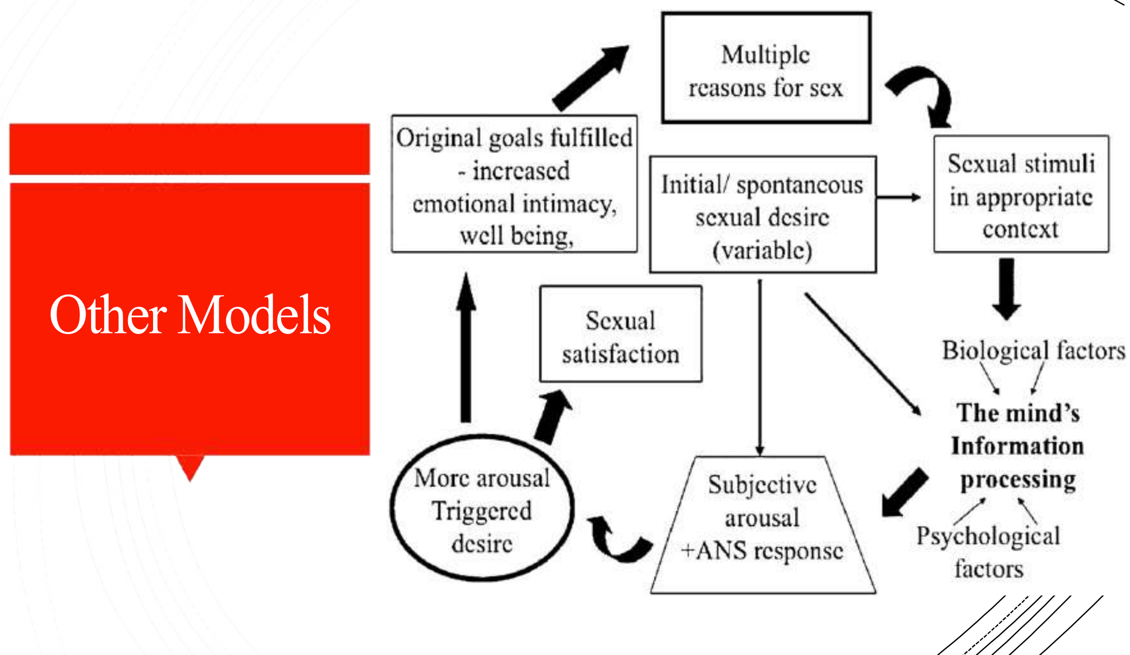
The Sexual response cycle Refers to a series of emotional and physical changes that occur when a person is sexually aroused and participates in sexually stimulating activities, including intercourse and masturbation.

India is the 5th most sexual countries in the world but the sexual education is by far lagging behind and knowledge of Sexual response cycle may help to pin point the exact cause of sexual issues a couple might be facing. Low sexual desire, painful sex and inability to climax are common complaints in our OPD's.

Scientists have proposed many models of human sexual behavior and one of the pioneers have been Masters and Johnson's model. According to this linear model the sexual response cycle has four phases which progress linearly from one stage to the next. These stages are:

- Excitement/ desire
- Plateau
- Orgasm
- Resolution

Now newer models like the Basson's circular model have tried to fulfill the lacunas of earlier models and incorporate how an earlier pleasant sexual experience and enhance the quality of present experience and vice versa.




## Desire/ Excitement Phase:

In this phase women emotionally want to have sex and the desire may start much before a formal physical foreplay. If she feels wanted or gets the right environment as in a romantic dinner, kissing, sexting etc. the desire gets heightened and if she feels rushed into physical sex, it may cause inhibition of desire and rejection of the male partner and subsequent physical act. This phase prepares a woman for vaginal intercourse.

Changes that may happen in this phase:

Increase in heart rate and respiratory rate. Increased blood supply to most organs including the skin, vagina etc, causing blushing, erection of nipples, increased lubrication of vaginal walls causing wetness in vagina.

Desire disorders mean lack of interest in Sex act per se and socio-cultural factors play a big role in how sex is perceived by a woman. Almost 30-40%women and 15-20% men complain about persistently low desire to their primary physicians but there is no definition of low desire. Most couples have what we call a Desire Discrepancy and one of the partners have a higher sexual appetite as compared to the other and neither have any sexual issues otherwise. Such couples should be encouraged to talk frankly about the whole issue and find a mutually agreeable middle ground. A woman specially should

be encouraged to verbalize her sexual needs and also understand her partner's need to help reduce the gap between expectations and reality.

Desire in women are highly responsive to touch and visual sensory inputs rank high to improve desire in a woman. Also since, a previous pleasant experience can enhance the quality of present sexual encounters, it is important to reduce sexually frustrating encounters to improve libido in both partners.

***Common causes of LOW SEXUAL DESIRE in Women:***

- Sexual rejection
- Lack of emotional connect with their partners
- Health issues
- Stressors like parenting, work pressure, anaphrodisiac medicines like antihypertensives, anti-depressants , hysterectomy, sexual orientation, views about masturbation etc .
- Anxiety about lax vagina/ poor body image
- Worries about ability to please partner
- Depression and stress would release stress hormones esp norepinephrine which cause narrowing of blood vessels and lack of arousal and lubrication. People with desire issues usually complain that THEY DO NOT FEEL LIKE HAVING SEX.

### 2) Arousal phase:

This phase comprises of all the physiological and bodily changes that happen in a body on being sexually excited.
Women with arousal issues may want to have sex but struggle to get their bodies in mood or may get aroused but fail to act on it.

Male and female arousal is similar in terms of blood flow to sex organs but sexual stimuli activate the amygdala and thalami more strongly in men indicating a higher emotional response to arousal.

Changes that happen in this phase are intensification of all previous responses including increased muscle tension, increased blood supply to end organs, increased vaginal secretions and culminates into orgasm. This phase may take longer in women as compared to men.

**OTC and prescription drugs for female arousal** ;

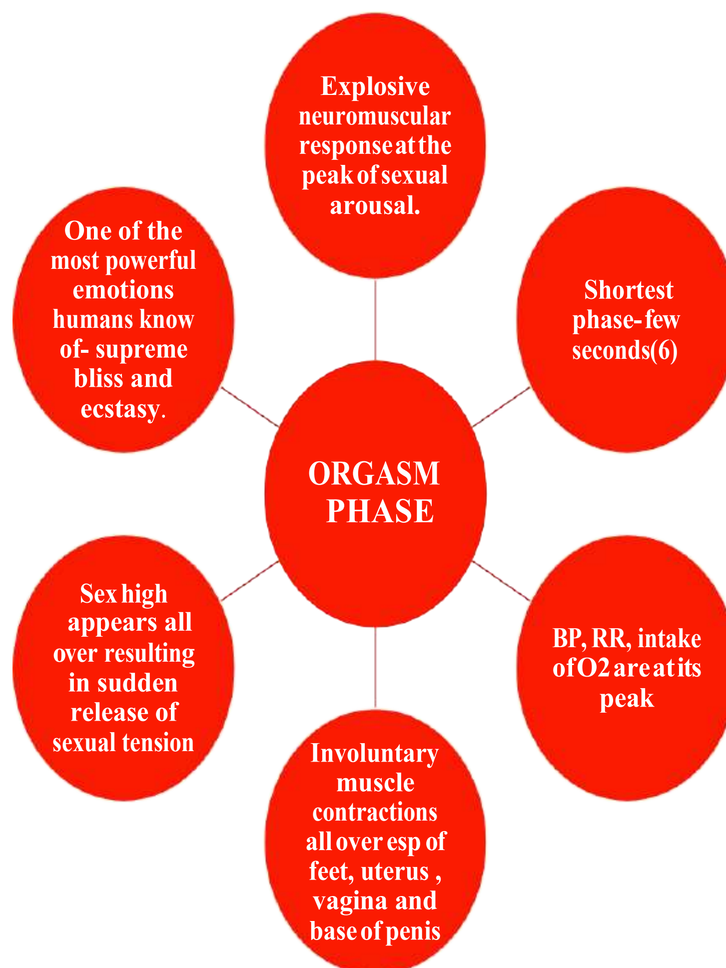
- **Flibanserin** (2015) is a prescription drug, approved by FDA taken orally in OD doses is helpful in some women.
- S-E: dizziness, nausea, dry mouth, tiredness, hypotension and reduced sleep.
- Shouldn't be taken with alcohol
- **Bremelanotide** (2019) FDA approved, self-administered subcutaneous injectable- taken on need basis 45 minutes prior to sexual intercourse.
- S-E: headache, allergic disorders, flushing and nausea.

### 3. Plateau Phase:

This is the third phase of cycle, which extends to the brink of orgasm, include the following;

- The heart rate, breathing, blood pressure continues to increase.
- Muscle tension especially of back and lower limbs increase
- The vagina continues to swell from increased blood flow, and the vaginal wall turns a dark purple in colour and lubrication increases.
- The women vagina's clitoris becomes highly sensitive.
- Muscles spasms may begin in the feet, face, and hands.

### 4.Orgasm Phase



Few more facts about orgasms:

Orgasm is a cerebral response and it is possible to achieve orgasms without vagina or clitoris as is seen in women with genital mutilation. Orgasms start in utero and even infants can achieve orgasms but ejaculation starts only at puberty. Ejaculation or vaginal contractions are not essential to achieving orgasms.

Medical interventions for vaginal laxity, orgasmic shots involving PRP etc. should be advised judiciously after taking proper history and counselling of a woman. They cannot replace a broken relationship.

### Orgasmic dysfunction

- Early Orgasmic response
- Delayed orgasmic response- both are normal variants
- Impaired Orgasmic response -reduced intensity
- Absent orgasmic response

### Causes

- Anxiety and an inability to relax during sexual relations.
- Medical problems such as diabetes, Parkinson's, multiple sclerosis, chemotherapy, pelvic trauma, hormonal imbalances, hysterectomy, spinal cord injury, childbirth trauma, vulvodynia, and cardiovascular disease.
- Medication- 50% cases of situational anorgasmia
  Antidepressants, SSRI's, and alcohol

### Anorgasmia

- Sexual dysfunction where either of the partners cannot achieve orgasm either alone or with partner.
- 10-20%women report not reaching orgasmic levels even on masturbation.
- Aka delayed ejaculation in men
- Myotonia of lower pelvis and buttock muscles is important to reach orgasm.
- Sex therapy and education is required to familiarize them with their own bodies.
- Some women just lie relaxed in bed without any muscle tension. Teaching kegels Exercises would help.
- Achieving orgasm is easier when done alone initially.
- FMS helps to improve orgasmic contraction

- **Resolution Phase**

All the swollen body parts return back to their normal size and color.

- General sense of well-being, love and greater intimacy.
- Women are capable of multiple orgasms simultaneously while men need a refractory period before penis can get erect again

## Take home messages from sexual response models

- Sexual pleasure and satisfaction aren't reliant on orgasm, though orgasm may certainly be a nice bonus.
- Sexual desire doesn't always have to come before sexual activity or arousal...sometimes getting physical and experiencing arousal will elicit desire.
- External factors such as relationship dynamics, intimacy, and weighing rewards and costs of sexual experience may play an important role in sexual response.
- Try not to focus on what is normal…everyone is different

**It is important to address sexual issues and encourage discussion on these by keeping a non-judgmental attitude**

# MALE SEXUAL RESPONSE

**DR HAFIZUR RAHMAN**
DNB, DGO, FICOG, MNAMS, FMAS, MAMS, Dip in MAS (Germany)
Professor of Obstetrics & Gynecology
Sikkim Manipal Institute of Medical Sciences, Gangtok

**The sexual response cycle** refers to the sequence of physical and emotional changes that occur as a person becomes sexually aroused and participates in sexually stimulating activities, including intercourse and masturbation. The **human sexual response cycle** is a four-stage model of physiological responses to sexual stimulation which, in order of their occurrence, are the ***excitement, plateau, orgasmic, and resolution phases***. This physiological response model was first formulated by William H. Masters and Virginia E. Johnson, in their 1966 book ***Human Sexual Response.***

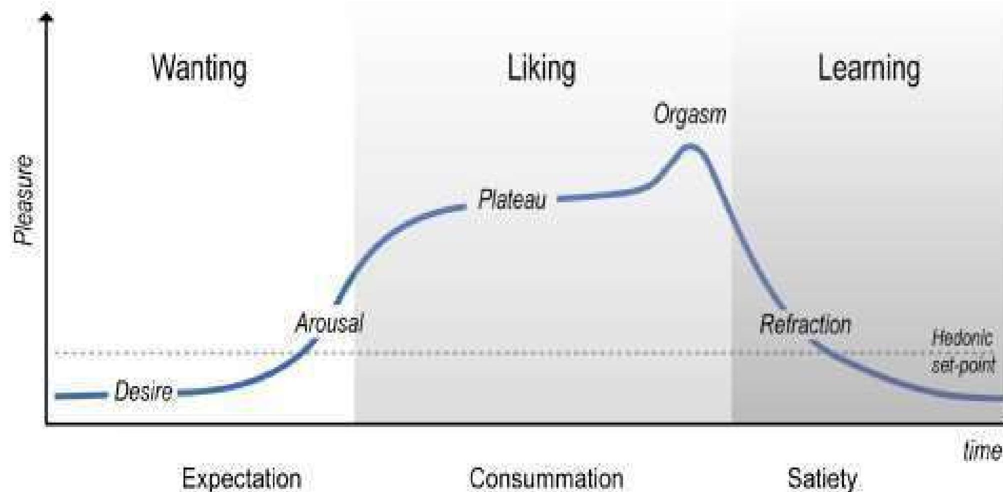



Fig 1: Sexual Response cycle

**Phase 1: Excitement Phase**

The **excitement phase** (also known as the **arousal phase** or **initial excitement phase**) is the first stage of the human sexual response cycle, which occurs as a result of physical or mental erotic stimuli, such as kissing, making out, or viewing erotic images, that leads to sexual arousal. During this stage, the body prepares for sexual intercourse, initially leading to the plateau phase.There is wide socio-cultural variation regarding preferences for the length of foreplay and the stimulation methods used.Physical and emotional interaction and stimulation of the erogenous zones during foreplay usually establishes at least some initial arousal.

General characteristics of this phase, which can last from a few minutes to several hours, include the following in males.

- Increase in heart rate, breathing rate, and a rise in blood pressure.
- Muscle tension increases.

- Skin may become flushed (blotches of redness appear on the chest and back)
- In beginning of the excitement phase the penis becomes partially or fully erect, often after only a few seconds of erotic stimulation. The erection may be partially lost and regained repeatedly during an extended excitement phase.
- Penile tumescence and erection
- The veins in the penis may become more prominent
- Tightening and/or retraction of the foreskin often exposing the glans penis
- Emission of pre-ejaculatory fluid
- Swelling of the testes
- Ascension of the testes
- Tensing and thickening of the scrotum
- Pupil dilation
- Both testicles become drawn upward toward the perineum, notably in circumcised males where less skin is available to accommodate the erection. Also, the scrotum can tense and thicken during the erection process.

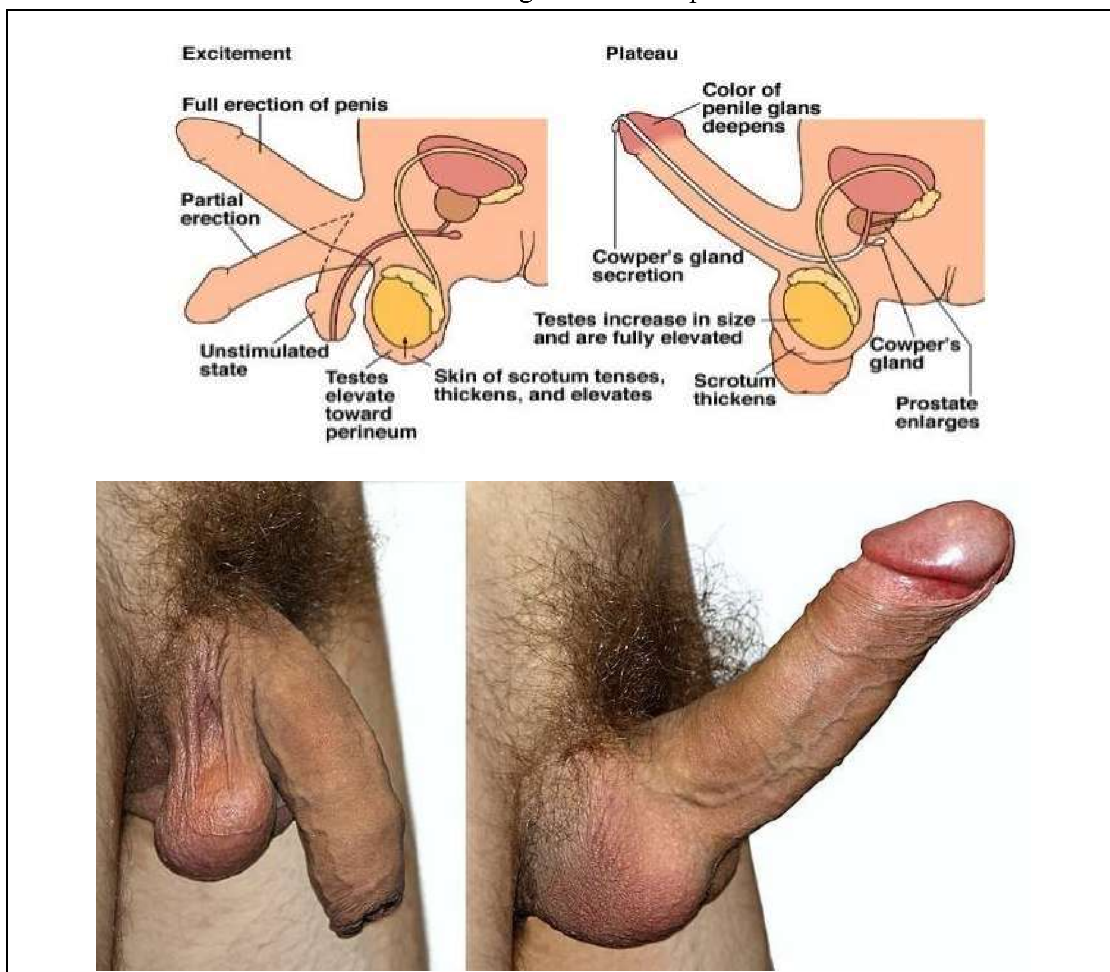



Fig 2: Male sexual response cycle. On the left the male genitalia are in regular, flaccid state; on the right the male is sexually aroused and his penis has become erect. There are prominent veins, retraction of the foreskin and ascension of the testes

**Phase 2: Plateau Phase**

The **plateau phase** is the period of sexual excitement prior to orgasm. The phase is characterised by

- The changes begun in phase 1 are intensified.
- An increased circulation and heart rate, increased sexual pleasure with increased stimulation and further increased muscle tension.
- Also, respiration continues at an elevated level. Person may also begin to vocalize involuntarily at this stage.
- The male urethral sphincter contracts (so as to prevent urine from mixing with semen, and to guard against retrograde ejaculation) and muscles at the base of the penis begin a steady rhythmic contraction.
- Males may start to secrete seminal fluid or pre-ejaculatory fluid and the testicles rise closer to the body.
- Prolonged time in the plateau phase without progression to the orgasmic phase may result in sexual frustration.

**Phase 3: Orgasm Phase**

Orgasm is the conclusion of the plateau phase of the sexual response cycle in males.It is the shortest of the phases and generally lasts only a few seconds. It is accompanied by quick cycles of muscle contraction in the lower pelvic muscles, which surround both the anus and the primary sexual organs. General characteristics of this phase include the following:

- Involuntary muscle contractions begin.
- Blood pressure, heart rate and breathing are at their highest rates, with a rapid intake of oxygen.
- Muscles in the feet spasm.
- There is a sudden, forceful release of sexual tension.
- In males, orgasm is usually associated with ejaculation. Each ejection is accompanied with continuous pulses of sexual pleasure, especially in the penis and loins.Other sensations may be felt strongly among the lower spine or lower back. The first and second contractions are usually the most intense in sensation and produce the greatest quantity of semen. Thereafter, each contraction is associated with a diminishing volume of semen and a milder sensation of pleasure
- Orgasms are often associated with other involuntary actions, including vocalizations and muscular spasms in other areas of the body and a generally euphoric sensation.

**Phase 4: Resolution phase**

The **resolution phase** occurs after orgasm and allows the muscles to relax, blood pressure to drop and the body to slow down from its excited state.The refractory period, which is part of the resolution phase, is the time frame in which usually a man is unable to orgasm again.

Masters and Johnson described the *two-stage detumescence* of the penis: In the first stage, the penis decreases from its erect state to about 50 percent larger than its flaccid state. This occurs during the refractory period. In the second stage (and after the refractory period is finished), the penis decreases in size and returns to being flaccid.It is generally impossible for

men to achieve orgasm during the refractory period. Masters and Johnson argue that this period must end before men can become aroused again.

- During this phase, the body slowly returns to its normal level of functioning, and swelled and erect body parts return to their previous size and colour.
- This phase is marked by a general sense of well-being and, often, fatigue.
- The duration of the refractory period varies among men and changes with age.

**Nonarousal-Related Erection**

The relationship between erection and arousal is not one-to-one. Some men older than age 40 report that they do not always have an erection when sexually aroused. A male erection can occur during sleep (nocturnal penile tumescence) without conscious sexual arousal or due to mechanical stimulation (e.g. rubbing against a bed sheet) alone. A young man or one with a strong sexual drive may experience enough sexual arousal for an erection with a passing thought or just the sight of a passer-by. Once erect, his penis may gain enough stimulation from contact with the inside of his clothing to maintain the erection for more time.

**Hormonal Responses**

Several hormones affect sexual arousal, including testosterone, cortisol, and estradiol. However, the specific roles of these hormones are not clear. Testosterone is the most commonly-studied hormone involved with sexuality, and it plays a key role in sexual arousal in males, with strong effects on central arousal mechanisms.