

Human Sexual Response

Physiology of Human Sexual Intercourse



Introduction

- Sex is an important part of our lives but often much confusion about what is really going on during sex
- Easy for sex to get less exciting, repetitious → understanding biological processes can help find ways to avoid this
- Best way to develop a healthy attitude towards sex is to demystify it → sex is very private but something we all do after a certain age so knowledge can be beneficial

Sexual Arousal

- Erotic stimuli - factors in the environment that are sexually arousing
- What turns one person on may be totally ineffective in another person (certain underwear, certain music, certain food, certain smells)
- Often all associated with past sexual encounter(s)

Sexual Arousal - Cultural Influences

- Differences in perception of what is erotic
 - New Guinea → foreplay = scratching, biting foreplay
 - Samoa → foreplay = romantic singing, reciting poetry
- In US breasts considered erotic but in “topless” cultures not true.
- US thin = sexy, other cultures opposite is true



Sexual Arousal - Individual variation

- Some women like hairy-chested men, others repulsed (same for guys)
- “Boob man”, “ass man”, “butt girl”
- Note: not true that women are less aroused by erotic stimuli, fantasy’s, etc than men

Sexual Arousal - Erogenous Zones

- Erotic stimuli possible by all senses
 - touch, vision, hearing, smell, taste
- Body is most sexually sensitive in certain areas called erogenous zones
 - Some obvious → head of penis, clitoris, mons pubis, vagina, labia, nipples (female)
 - Some less obvious → nipples (male), ear lobes, anus, buttocks (“cheeks”), inner thighs (esp. women) back of knees, soles of feet, eyebrows, lower center of back

Sexual Arousal - Proceptive behavior

- Flattery, flirting, kissing, foreplay (petting), seduction
- MILD pain, gentle biting
- Extremely important start of the sexual response cycle

Human Sexual Response Cycle

- First studied by (William) Masters and (Virginia) Johnson
 - Until then everyone clueless about what went on biologically during intercourse → lots of misinformation
 - Studied 694 people who were able to reach orgasm during sexual intercourse under controlled laboratory conditions
- Divided into four phases (both male, female)
 1. **Excitement** – body begins to show signs of arousal
 2. **Plateau** – sexual arousal increases and maintains level
 3. **Orgasm** – climactic release of sexual tension
 4. **Resolution** – relaxation and return to nonaroused state
- Not really separate phases, flow into one another as a continuous cycle (see Figure 7.1, P. 105 in text)

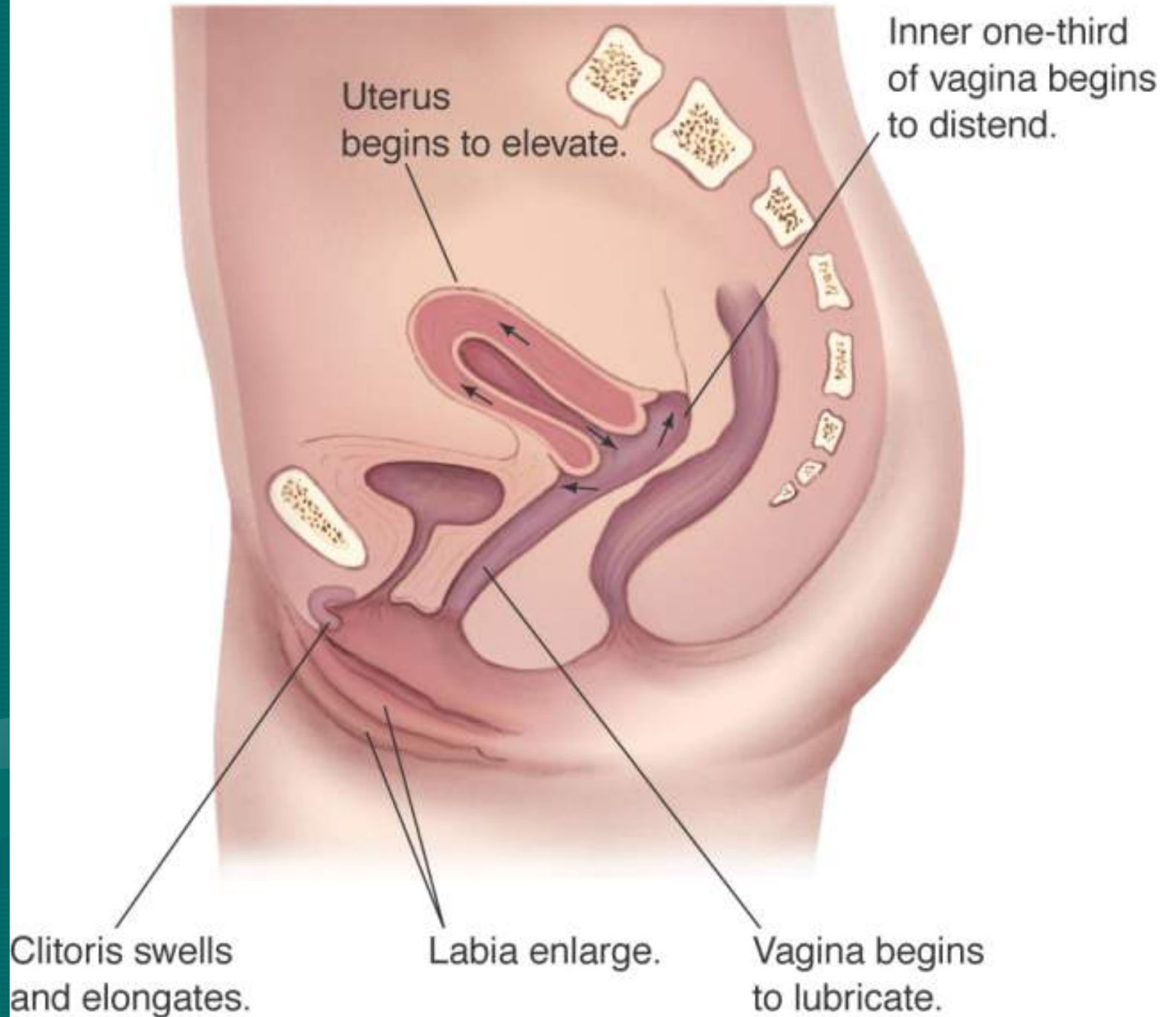
Kaplan Model of Sexual Response

- Similar to Master's and Johnson but only three phases
 1. Desire phase – psychological components of sexual desire
 2. Vasocongestive phase – vasocongestion in pelvic region
 - a. Erection of penis, clitoris, swelling of labia, testicles
 - b. Increased muscular tension in body
 3. Orgasmic-release phase
 - a. Reversal of vasocongestion
 - b. Release of muscular tension

Female Sexual Response Cycle (Excitement phase)

- Initiated by effective erotic stimuli
 - a. Clitoris increases in diameter (not length)
 - b. Lubrication forms on walls of vagina (adds most volume to “wet spot”?)
 - c. Inner two-thirds of vagina increase in length and width
 - d. Uterus elevates, pulls cervix away from vagina, increasing vaginal length
 - e. Heart and breath rate, blood pressure, all begin to increase. Pupils dilate.
 - f. Walls of vagina become engorged with blood → get darker
 - g. Labia minora become engorged with blood, get thicker (puffier)
 - h. Labia major flatten out and pull apart, exposing vulva
 - i. Nipples become erect, areola gets bigger/darker, breasts size increases up to 25%
 - j. Sex flush (rash-like) may appear on abdomen, throat (chest, face)
 - k. Involuntary movement of arms, legs (increase in muscular tension)
 - l. Vocalizing (moaning, groaning, sighing, etc.)

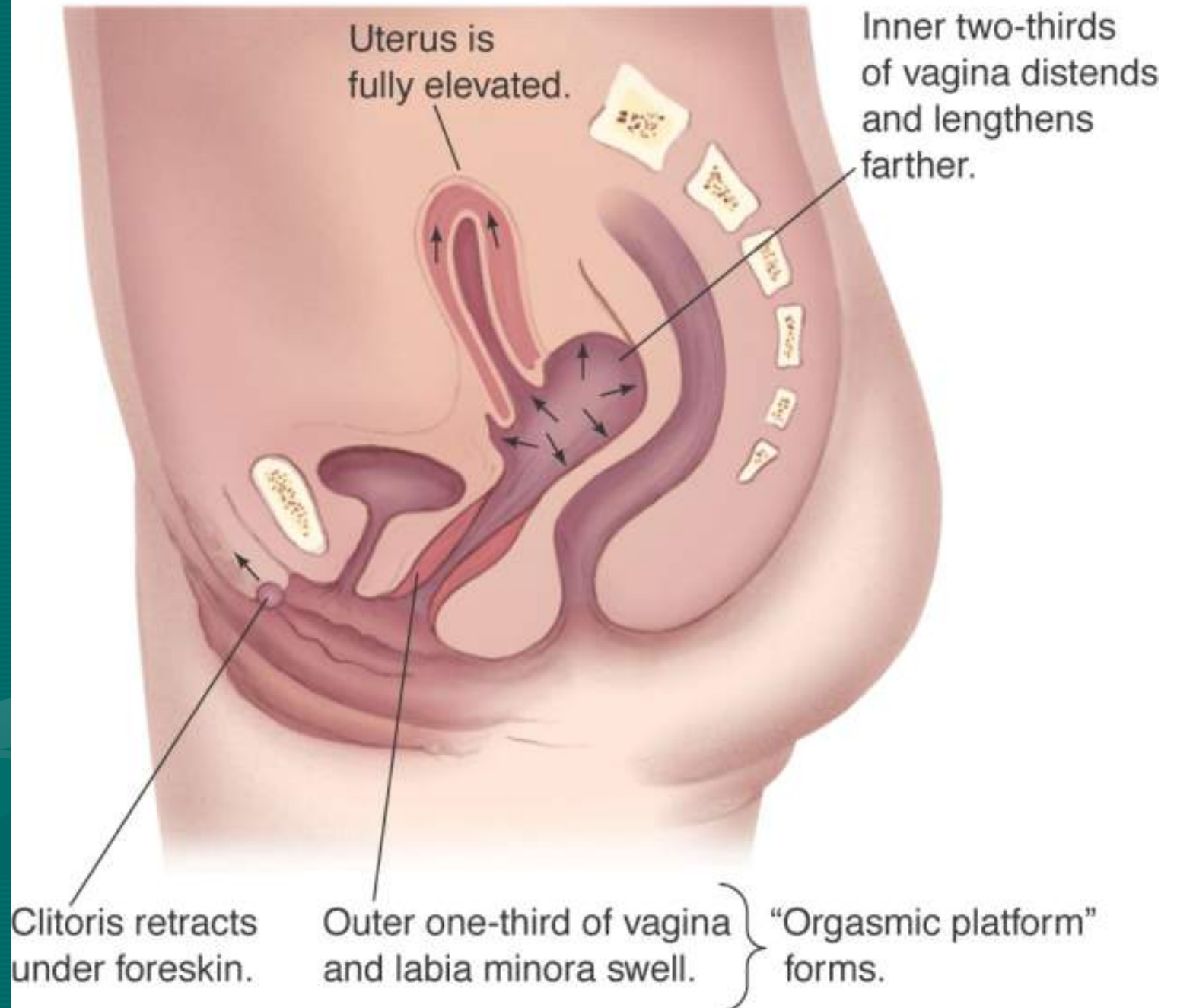
Fig. 07-05
Female
Excitement
Phase



Female Sexual Response Cycle (Plateau phase)

- Move from excitement to plateau if effective erotic stimuli continues
 - a. Labia minora and wall of vagina becomes engorged w/blood → go from pink to reddish and reduces size of vaginal opening (felt by male).
 - b. Clitoris retracts under clitoral hood – > can take more stimulation than before (“ticklish clit” goes away)
 - c. Uterus is completely elevated, experiences weak, quick contractions
 - d. Nipples become more erect and areolas darker → breasts reach maximum size
 - e. If present, sex flush spreads, becomes more intense
 - f. Heart rate, breath rate, blood pressure, increase even more
 - g. More increase in muscular tension
 - h. h. More vocalization, tendency to speak (Don’t stop!!!; Yes, yes!! E.g. Sleepless in Seattle)

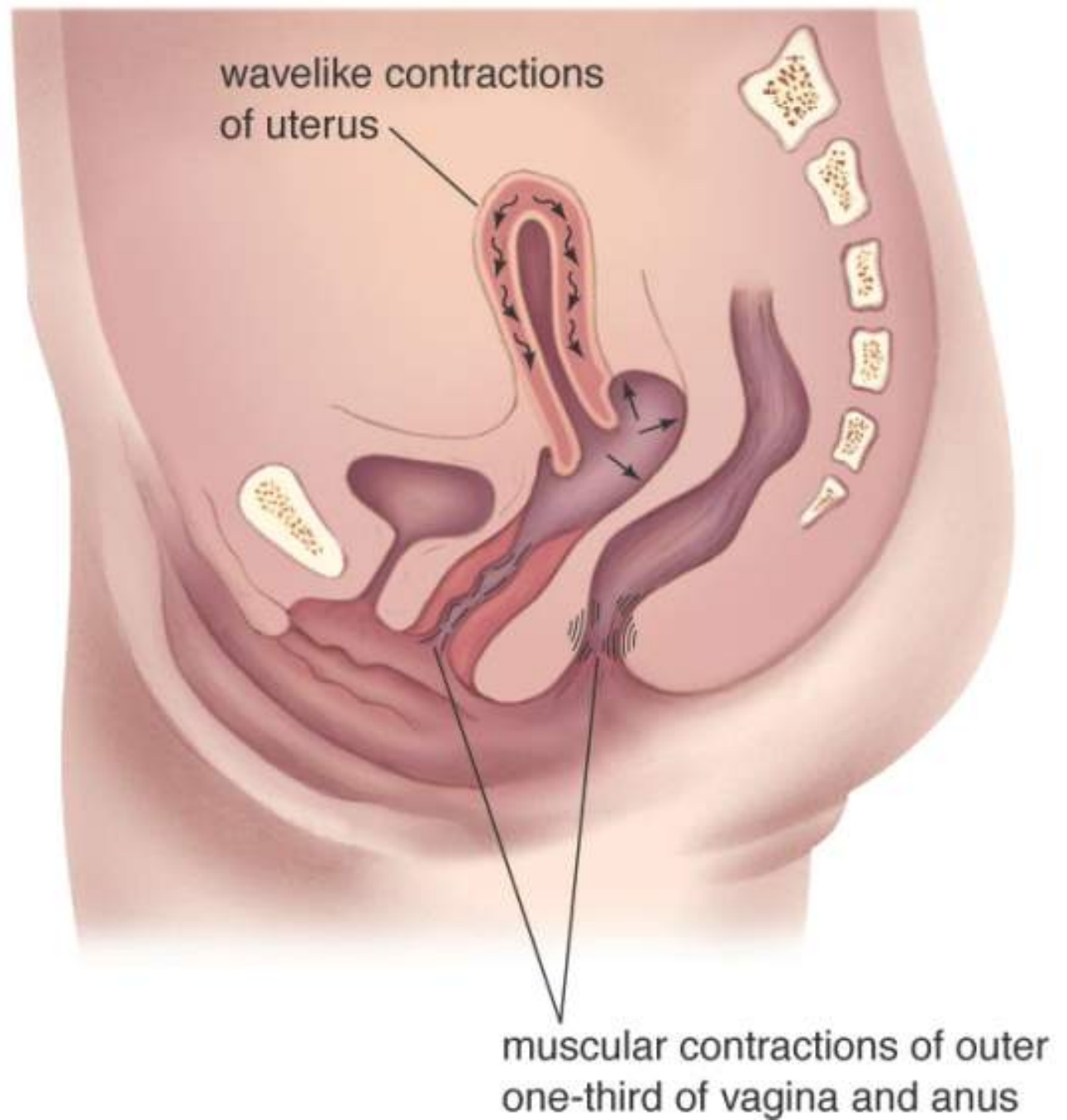
Fig. 07-06
Female
Plateau
Phase



Female Sexual Response Cycle - Orgasm

- from the Greek “to swell” or “be lustful”
 - a. In women usually takes 10 to 20 min *after* penetration if depend on penis alone
 - b. One of the most intense and pleasurable human experiences (male and female)
→ nature's bribe to perpetuate species?
 - c. Can be graded (more or less intense, prolonged –*status orgasmus* - sustained orgasm up to 1 min)
 - d. Release of oxytocin from pituitary (so uses brain) causing next three responses
 - e. Strong muscular contractions occur in outer 1/3 of vagina (strong 2-4 second 1st contraction followed by 3-15 rhythmic contractions about 0.8 seconds apart). Note: rectum contracts at the same time.
 - f. Rhythmic contractions of uterus
 - g. Nipples become intensely erect and hard (cannot be faked)
 - h. Sex flush peaks in intensity and area of distribution
 - i. Heart rate, breathing, etc peak
 - j. Strong involuntary muscle contractions, clutching/clawing of hands and feet
 - k. Strong (loud) vocalizations (screaming, yelling, crying) or silence
 - l. Some women ($\approx 14\%$) can easily experience multiple orgasms → later orgasms often more intense. Most other women capable but rarely do so.

Fig. 07-07
Female
Orgasmic
Phase



Female Sexual Response Cycle - Resolution

- **Body returns to non-excited state**
- **Clitoris becomes smaller and “unretracted”**
(can get “ticklish” again)
- **Some become talkative**
- **Others fall asleep**

Summary

Help your partner hit all phases and he/she will be happy

If partner is happy → *you* will be happy

Next lecture: Male Sexual Response

