

SEXUAL BEHAVIOR



Image courtesy : USDA ARS Image Library



Importance of Sexual Behavior

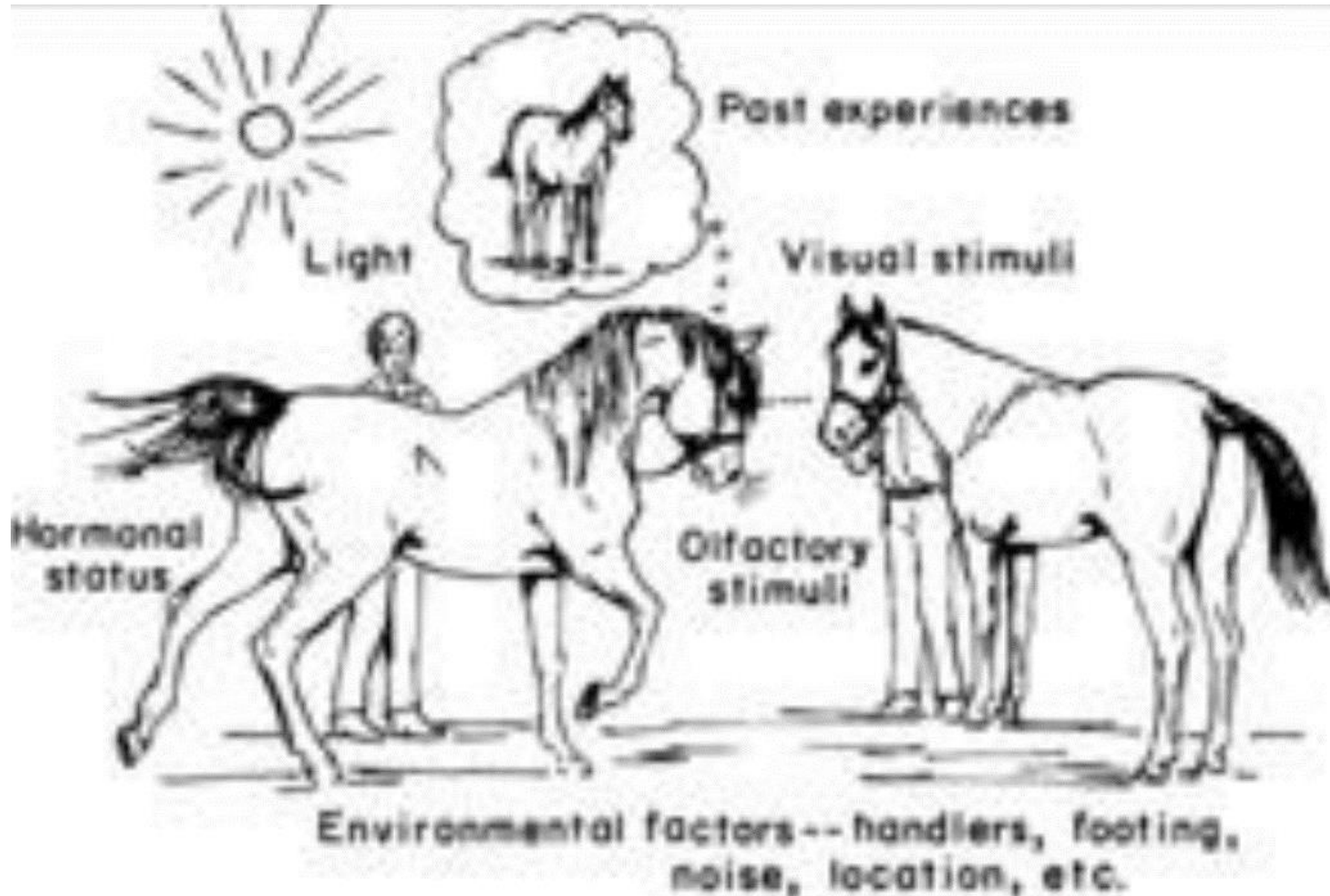
- Without reproduction, life would come to an end!
- In production situations, it is economically important to have “good breeders”.
- We must control both desirable and undesirable sexual behaviors in domestic animals.



Image courtesy : USDA ARS Image Library



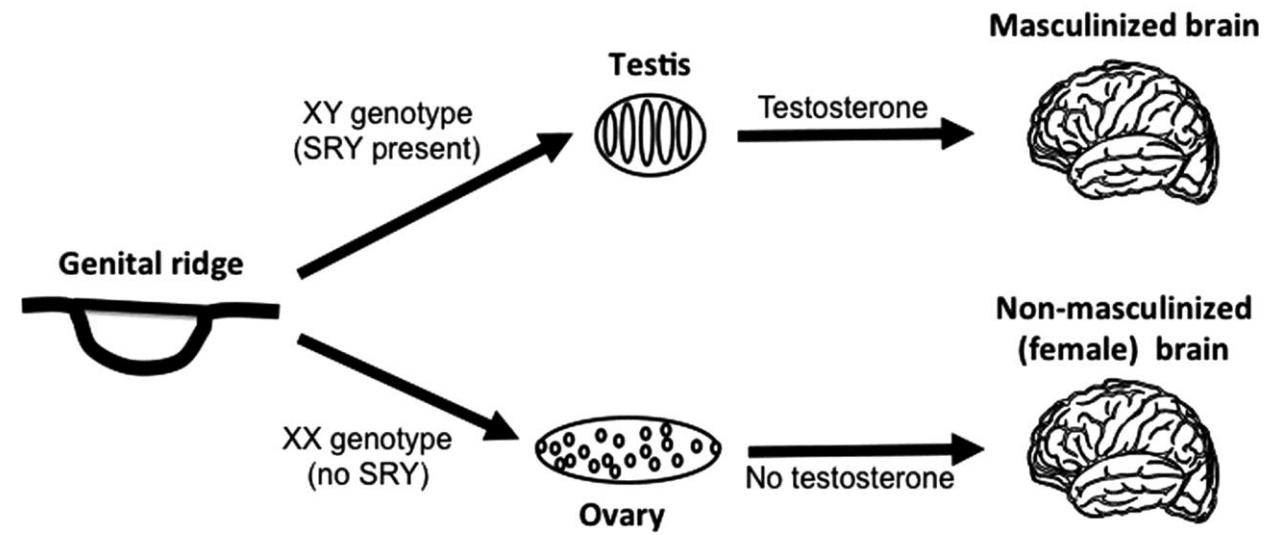
Factors Affecting Sexual Behaviors



Genetic factors

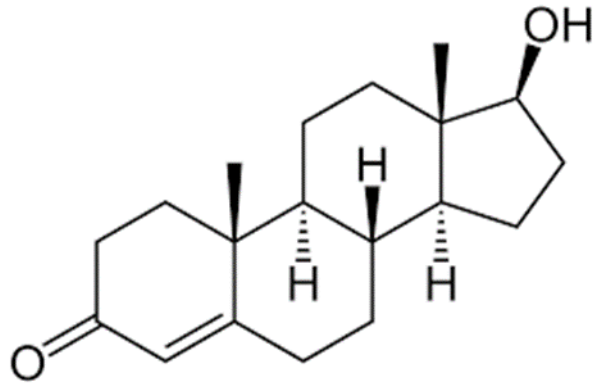
- Sex is Genetically determine
- Mammals: Male- XY
- Mammals: Females –XX
- Birds?
- Without androgenic stimulation
 - Female behavior
 - No male genitalia

Classical theory of brain sexual differentiation

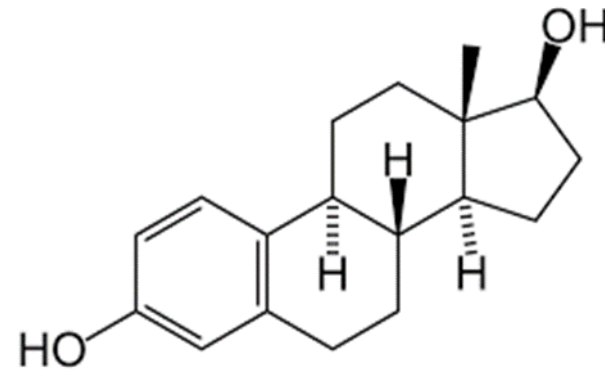


Perinatal hormone influences

- Sex hormones play an important role in sexual behavior
- Neonatal androgens “defeminize” males



Testosterone



Estrogen

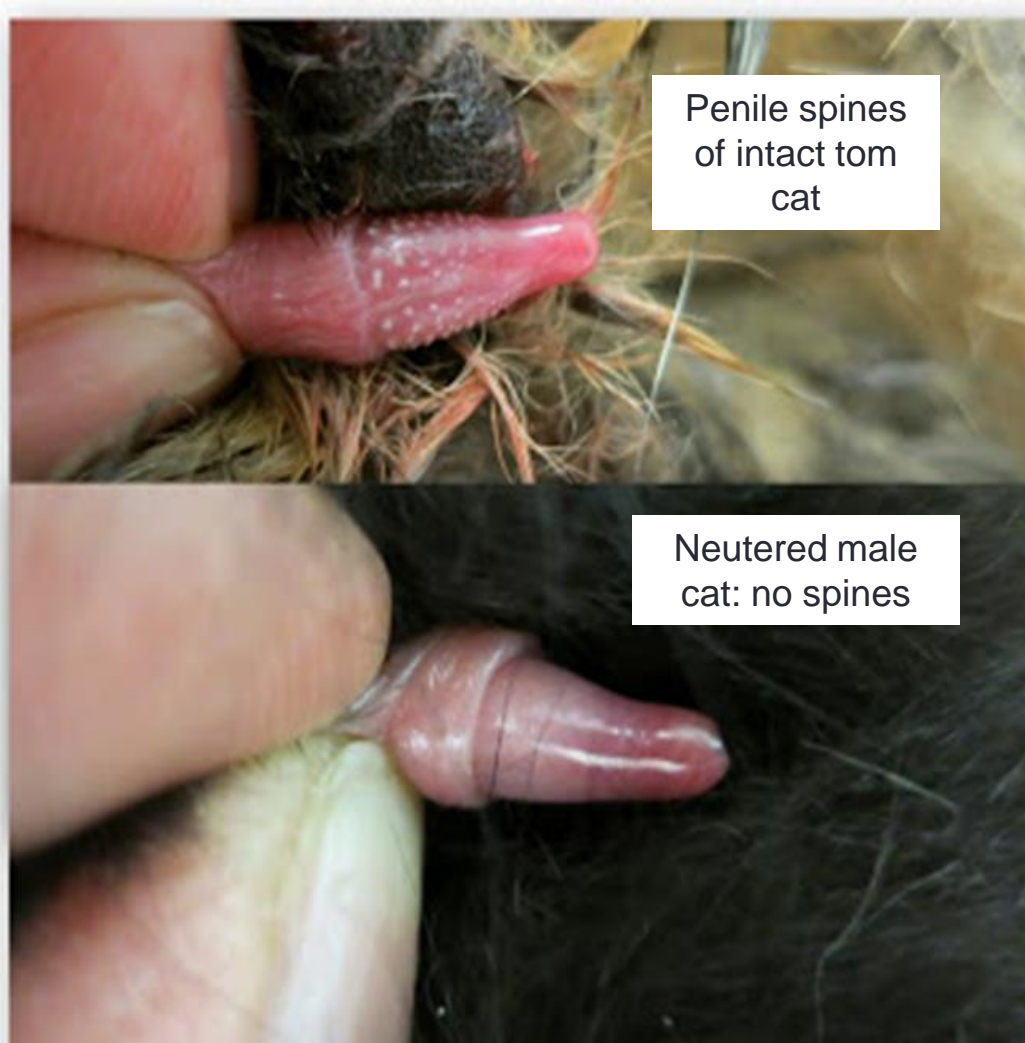


Adult Hormonal Status

- Hormones have a permissive role in adult animals.
- Normal sexual behavior requires a certain level of hormones.
- Varying administrations of estrogen and progesterone will elicit estrous behavior.
- Sexual behaviors can be altered by castration
 - Experience affects castration effects
 - Anatomical problems
 - Inability to mate



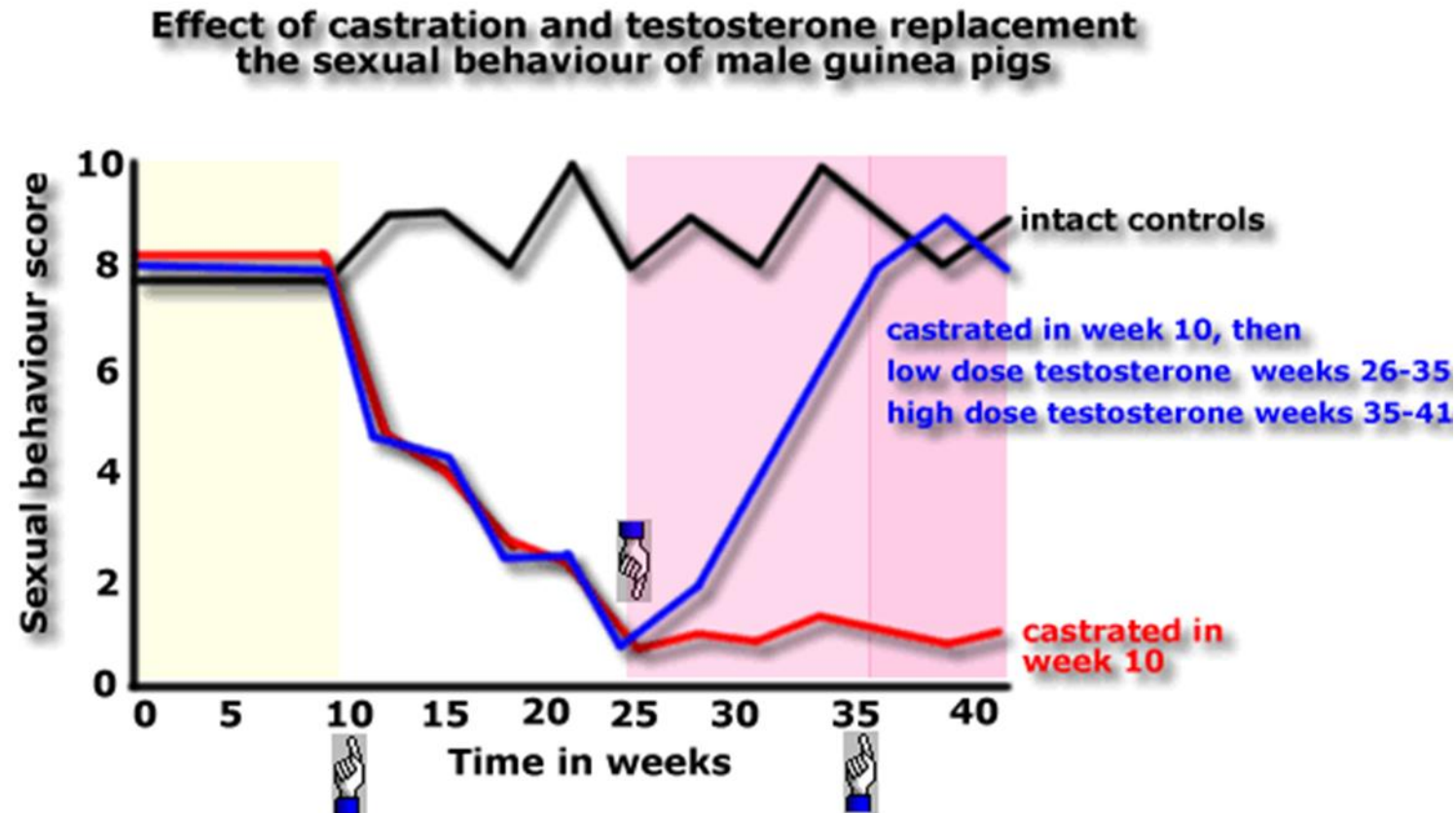
Anatomical Factors



- Absence of spine
 - Inability of intromission
 - Will not induce ovulation



Effects of Castration



Previous Social and Sexual Experience

- Lack of sexual experience can have a greater influence than hormonal imbalance
- Raised in isolation (Lack of socialization)
 - Inhibit sexual behavior
 - Dog do not mount
- No prior experience, excessive experience, homosexual only experience, or very unpleasant experience can all lead to sexual behavior problems.
- External environment
 - High temperature
 - Slippery floor
 - Time of day
 - Stress



Attractiveness of Potential Mate

- Based on innate preferences and past experience
- Direct selection
- Arbitrary mate choice
- Good Genes



Image courtesy : USDA ARS Image Library



Central Nervous System Control of Female Sexual Behavior

- In proestrus, the feedback loop is reversed from negative to positive.
- Increased estrogen is responsible for estrus behavior.
- The resulting LH surge induces ovulation.

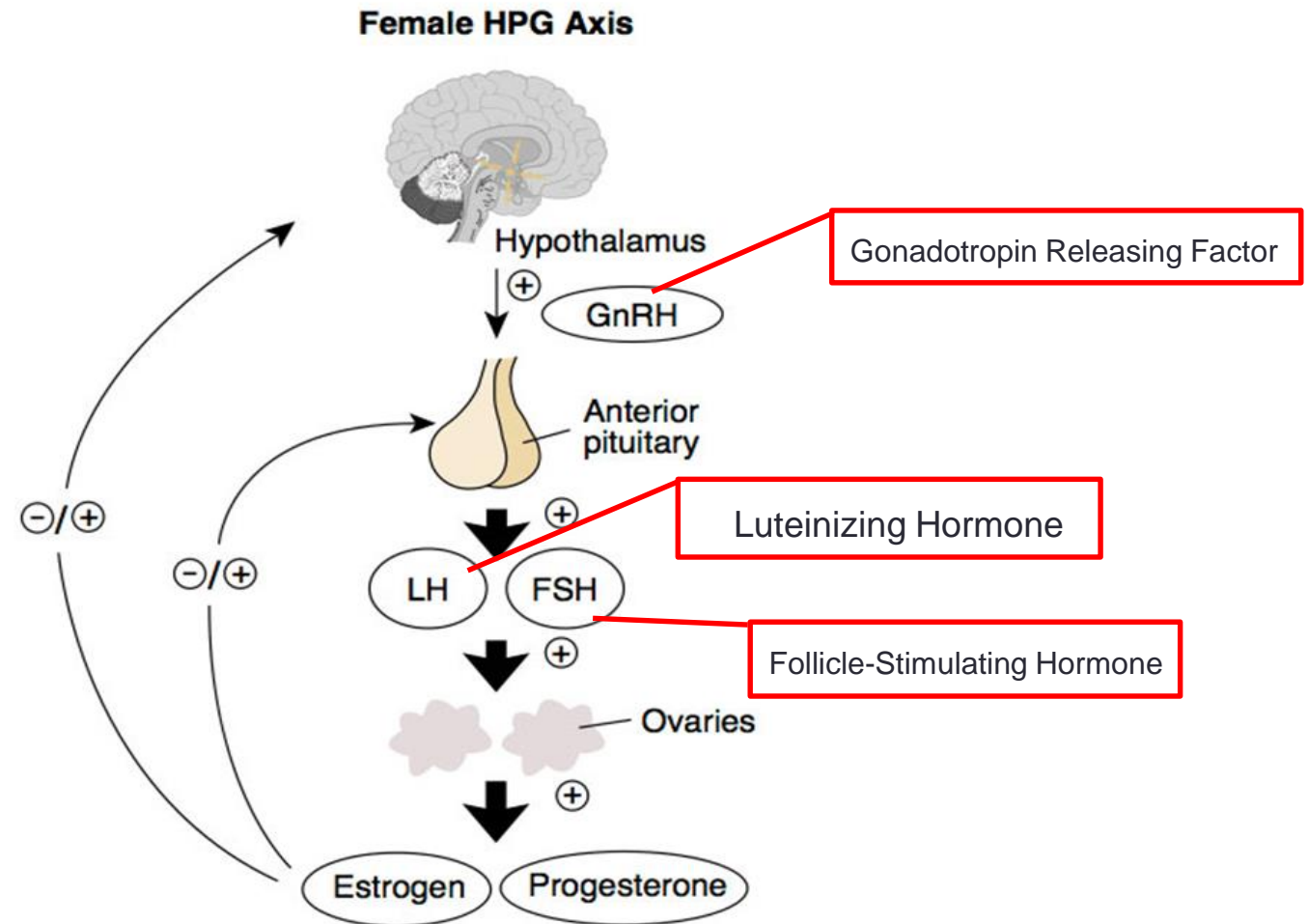


Photo courtesy: <https://embryology.med.unsw.edu.au>



Central Nervous System Control of Male Sexual Behavior

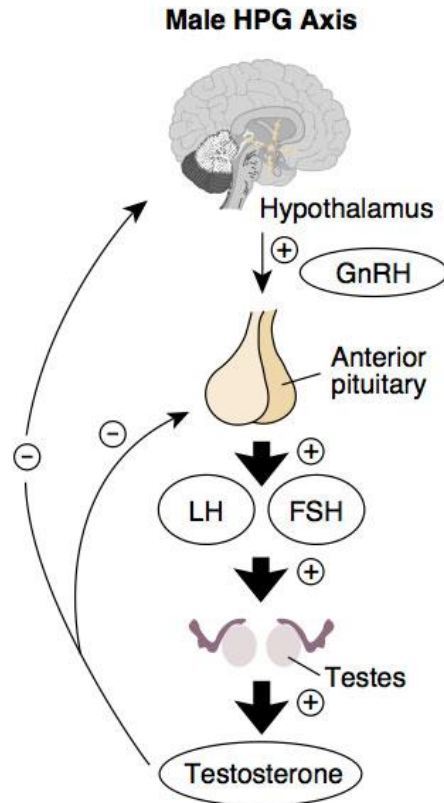


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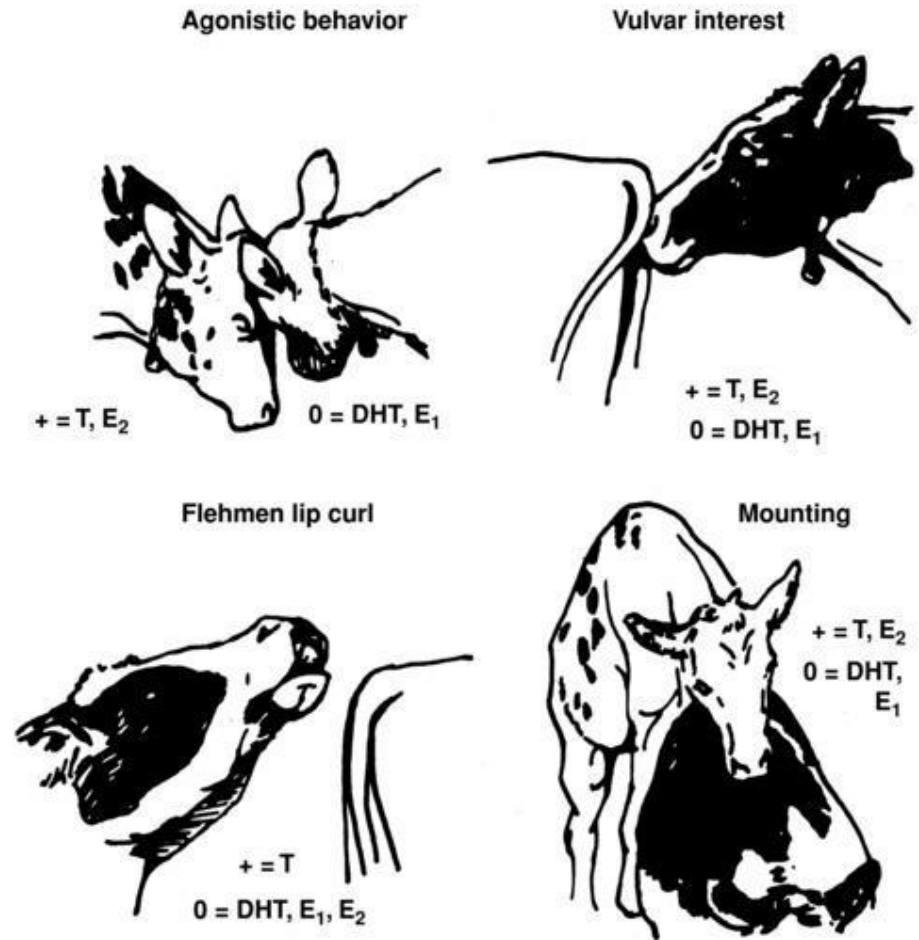
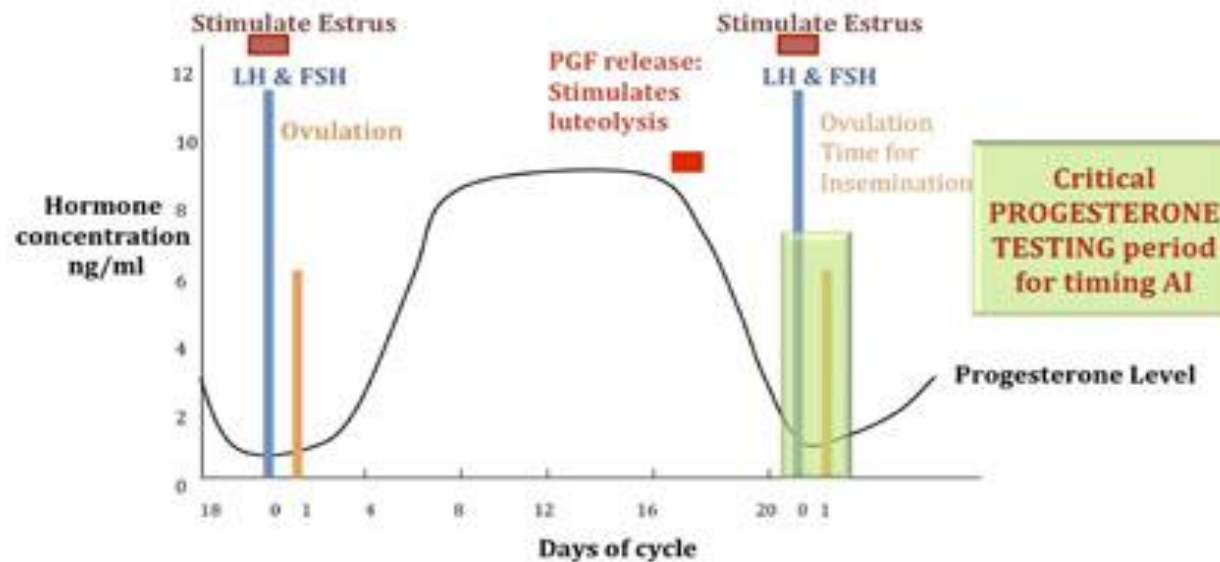


Figure 4.3

Estrous Cycle Variations

- Spontaneous ovulators: Ovulation occurs on a regular cycle (bitch, ewe, mare, sow, cow)
- Induced ovulators: Vaginal stimulation is required for ovulation (queen, rabbit)

Bovine Estrus cycle:



Cattle

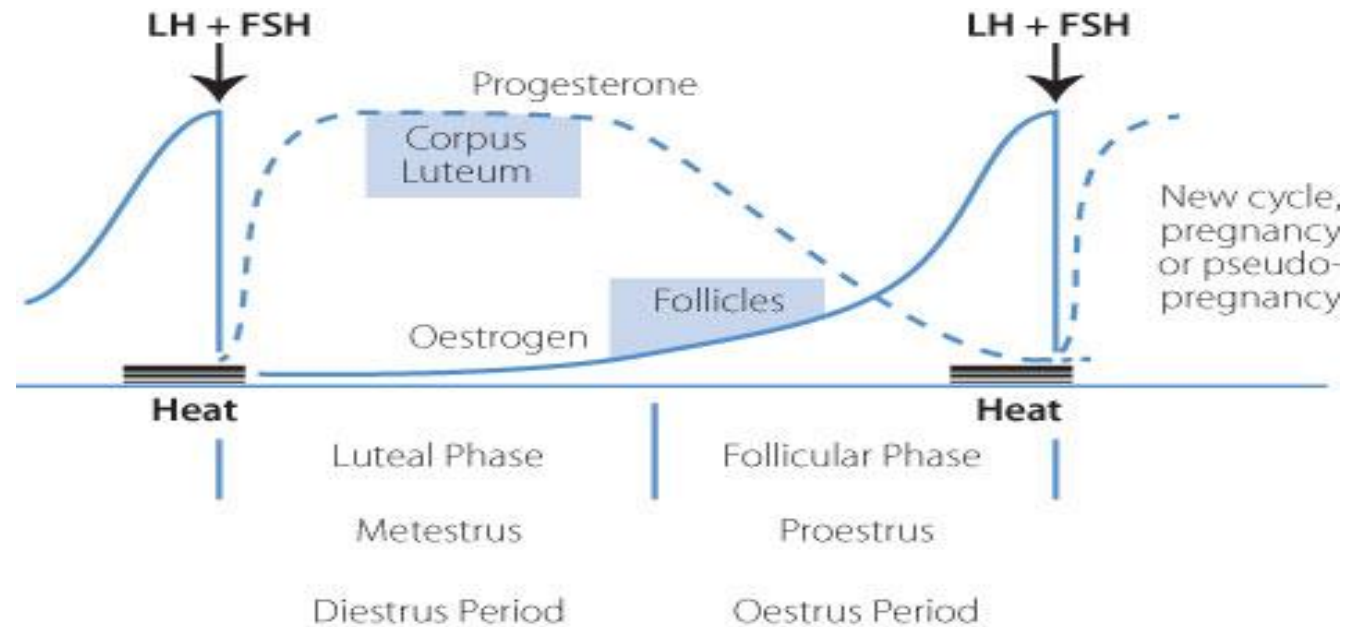


- Intact males = bulls
- Castrated males = steers
- Intact, breeding female = cow
- Pre-pubertal female = heifer



The Cow: Estrous Cycle

- The cow is a non-seasonal, continuously cycling breeder.
- Puberty typically occurs between 6 and 18 months.
- The estrous cycle is 18 to 24 days in length.



Cow: sexual behavior

- Increase in activity
- Increase vocalization
- Decrease food intake
- Flehmen, rubbing, leaking
- Chin resting
- Mounting
- Approach the bull



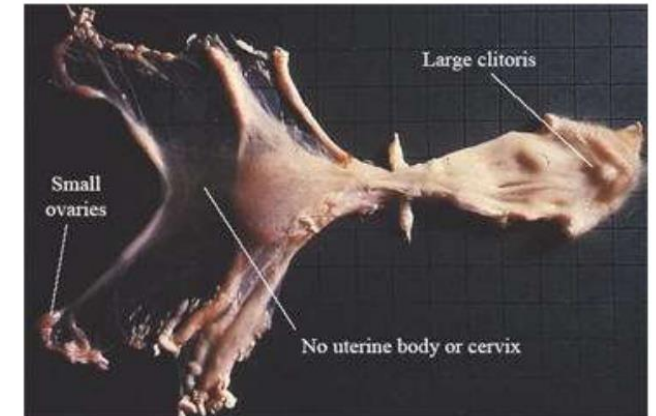
Heat detection

- Pedometer
- Heat patch
- Behavior observation
 - Vaginal secretion
 - Vulva relaxation
 - Mounting



Clinical Problems of Cattle

- Silent heats
- Nymphomania
- Freemartin
- Buller Steer Syndrome



Bull sexual behavior

- Courtship
 - Grazing with cow
 - Guarding the cow
 - Liking sow vulva
 - Mounting (no intromission)
 - Head on the back
 - Ejaculation within seconds after intromission
- Masturbation



Clinical Problems of Bulls

- Inadequate libido
- Bulling



Image courtesy: <http://gpvec.unl.edu>



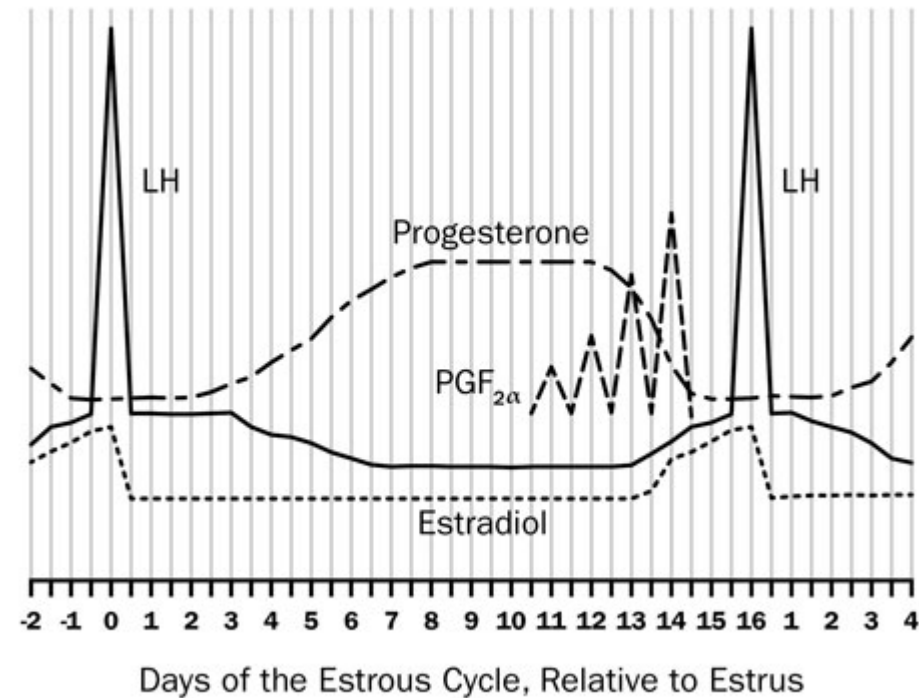


Sheep



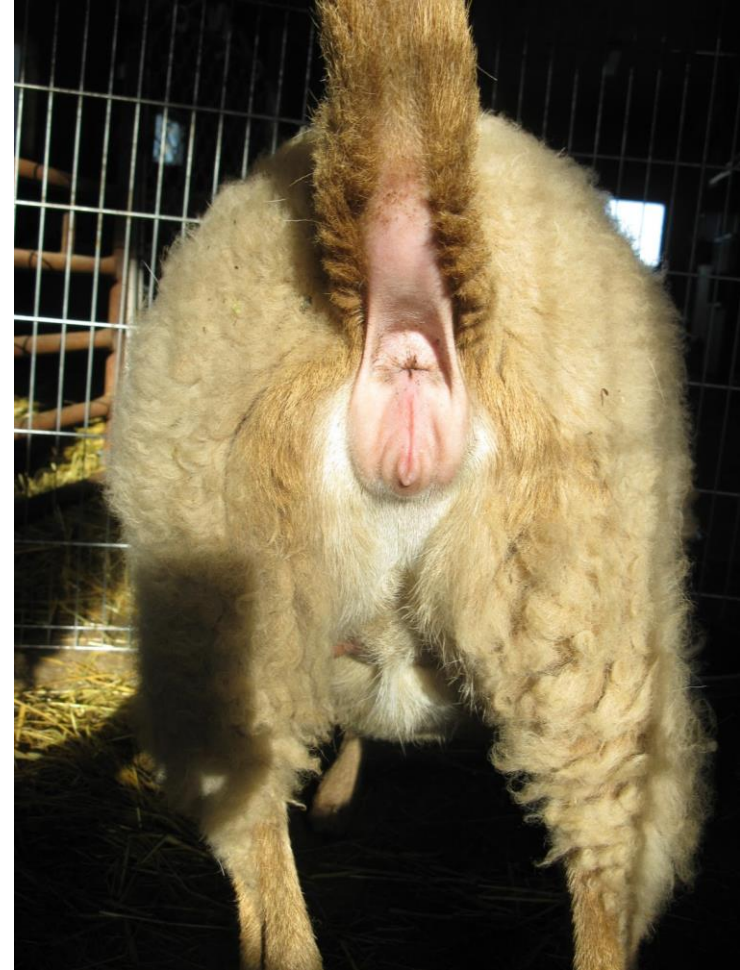
Ewe sexual behavior

- Poly-estrus seasonal breeders
- Cycle is every 16 days
- Estrus 30 hours
- Puberty 4 month
- Tropical areas
- **Ram effect**



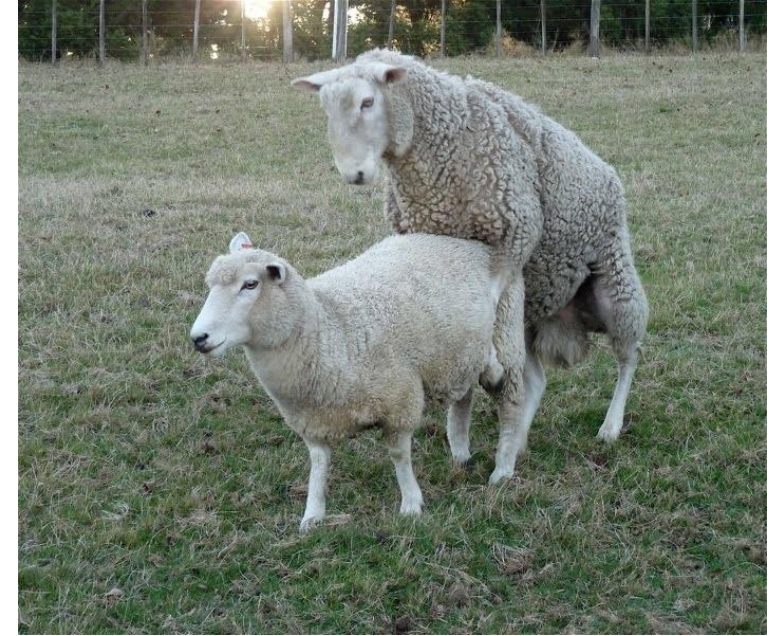
Ewe sexual behavior

- Starts the courtship
- Following the ram
- Sniffing males' body and genitals
- **Standing heat and tail waging**
- Occurs at night
- Preference for a Ram



Ram sexual behavior

- Social determine
- Sniffing females genitals, Flehmen
- Ritualize kicking
- [Ejaculation](#) occurs immediately after intromission
- Urination





Goats



Doe sexual behavior

- Short day breeders
- Tale wagging
- Vocalization
- Urination
- Male effect



Buck sexual behavior

- Kicking
- Vocalization
- Enurination
- [Tail straight](#)



Horses

- Intact males = stallions
- Castrated males = geldings
- Post-pubertal females = mares
- Pre-pubertal females= Filly



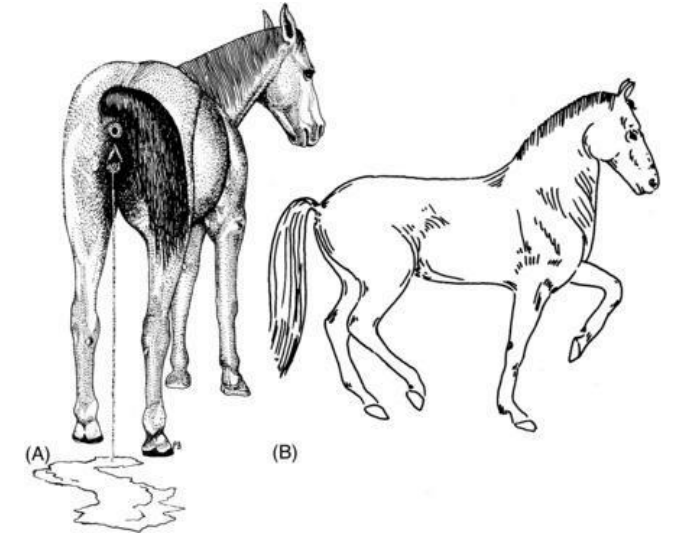
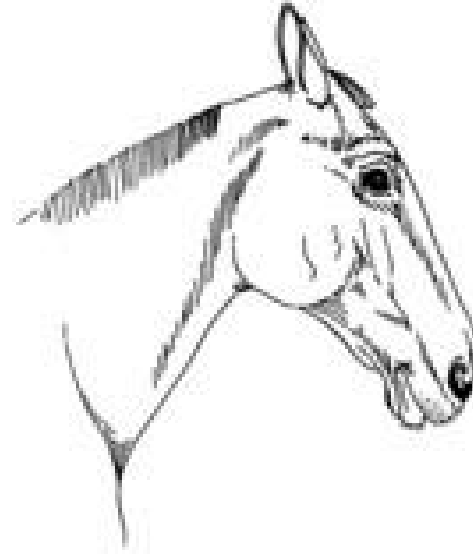
Mare sexual behavior

- Long day breeders
- Cycle 21-24
- Heat last 6 days
- Foal heat



Mare sexual behavior

- Ears back
- Urination
- Winking
- Have preference for a Stallion



Clinical Problems of Mares

- Estrus can be split or prolonged.
- Anestrus
 - Physiological
 - Behavioral
- Nymphomania



Stallion Sexual behavior

- 2-3 month
- Biting and nuzzling
- Flehmen
- Vocalizations
- Copulation last less than 45 seconds



Clinical Problems of Stallions

- Absence of libido
 - Lack of experience
 - Overuse
 - Used as teaser but not bred
 - Improper handling
- Injury
 - From mare
 - Self mutilation



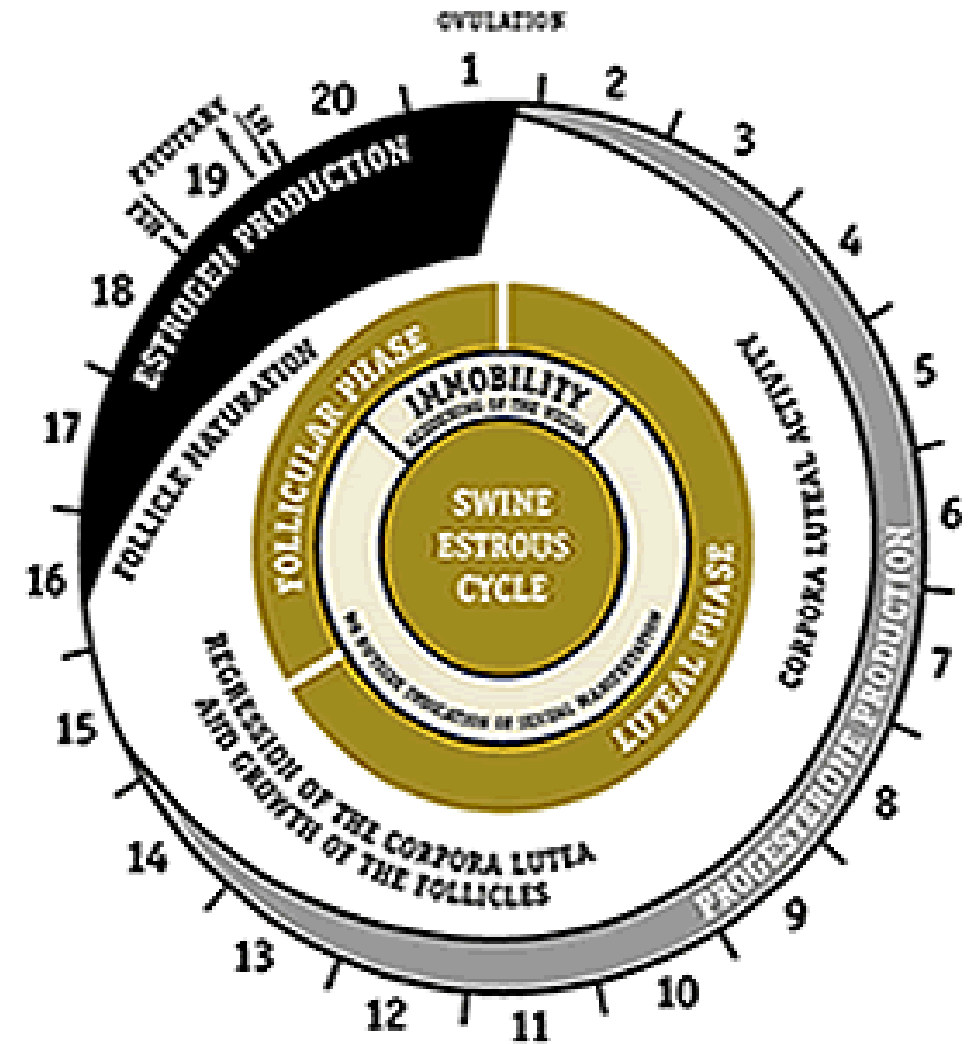
Swine

- Intact males = boars
- Castrated males = barrows
- Intact, breeding females = sows
- Pre-pubertal females= gilts



The Sow: Estrous Cycle

- No seasonal breeders
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- 21 days cycle
- 5-8 month
- Boar effect
- Olfaction and auditory stimulus



Picture courtesy: <http://www.matrix-swine.com/SwineEstrousCycle.asp>

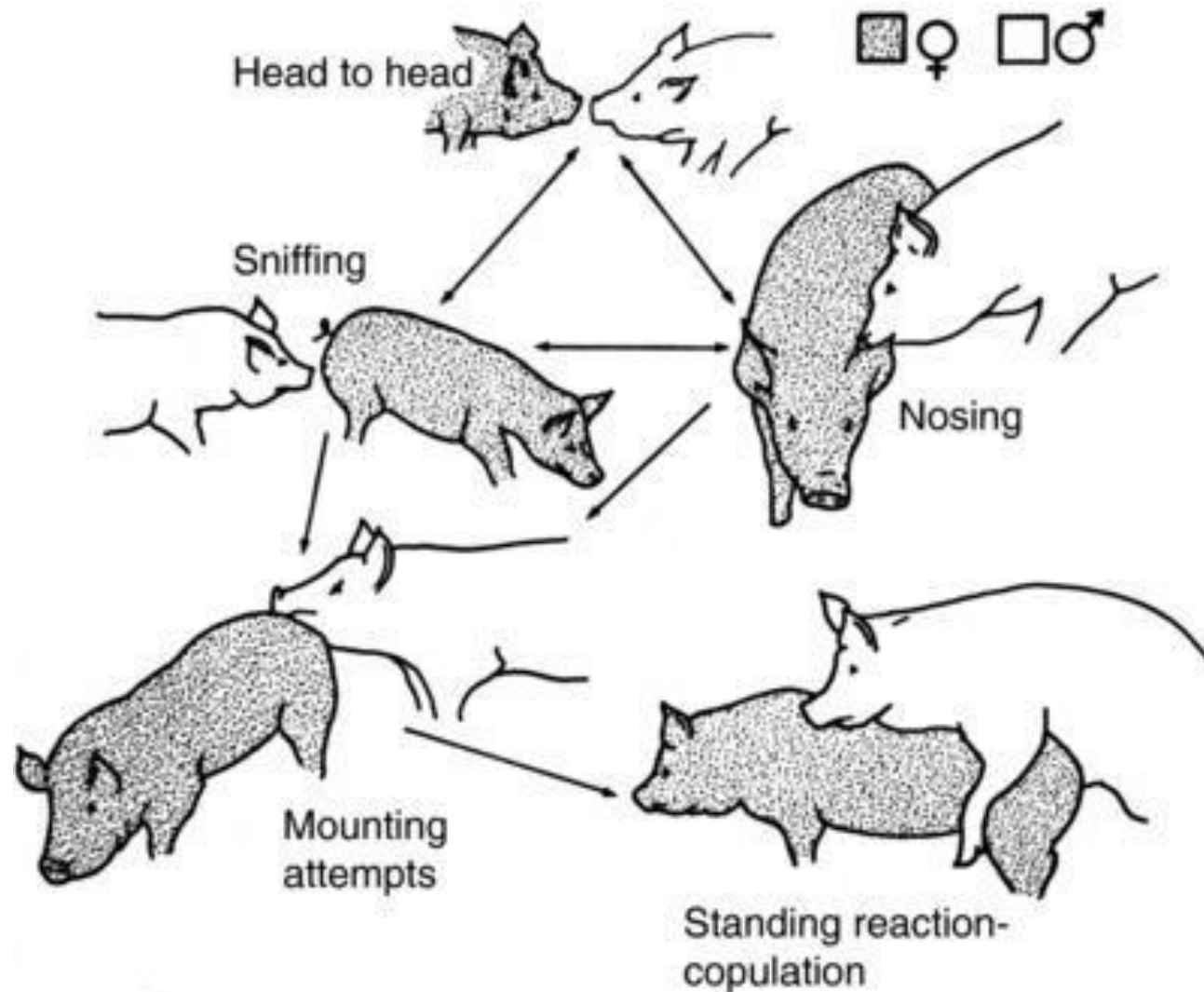


The Sow: Sexual Behavior

- Increase activity
- Mount other females
- Sniffing boar head and genitalia
- Standing heat
 - Immobile
 - Ears pointing up



The Boar: Sexual Behavior



Clinical Problems of Boars

- Inadequate nutrition
- Poor management techniques
- Previous unpleasant mating experience
- Lack of early socialization



Photo courtesy: <http://nationalhogfarmer.com/reproduction/>



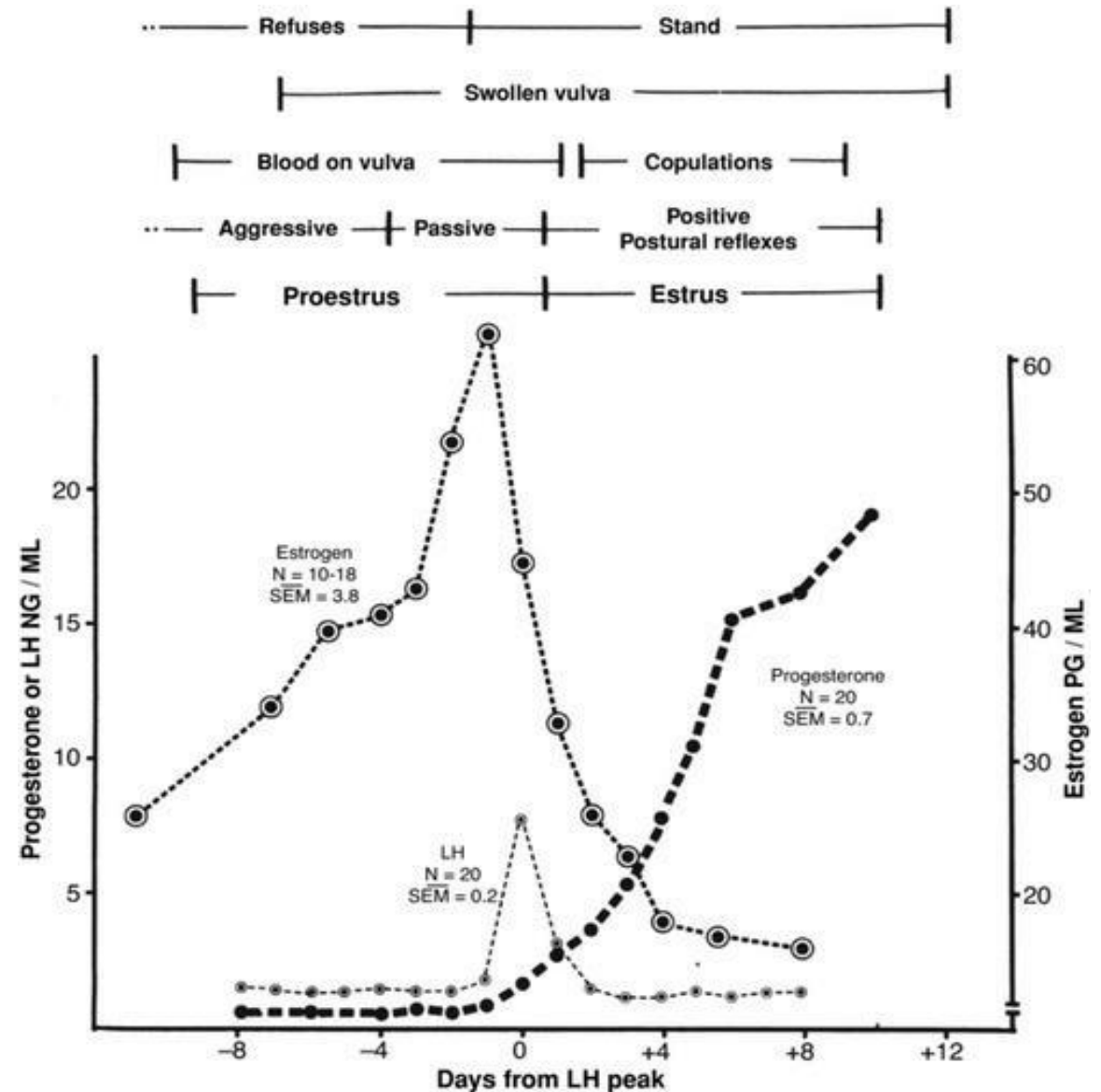
Domestic Canines

- Males = stud
- Females = bitches



The Bitch: Estrous Cycle

- Non-seasonal
- Puberty varies
 - Breed
 - Size



Bitch Sexual Behavior

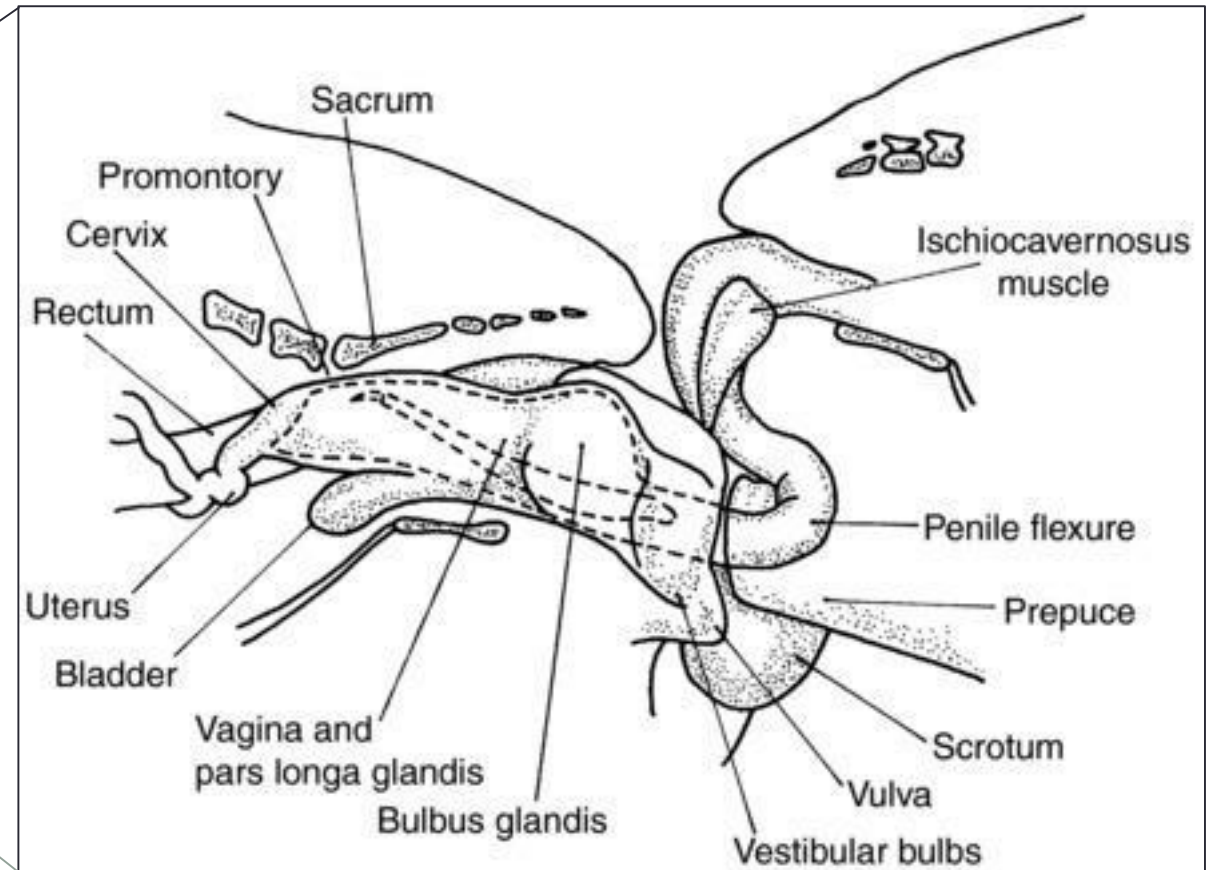
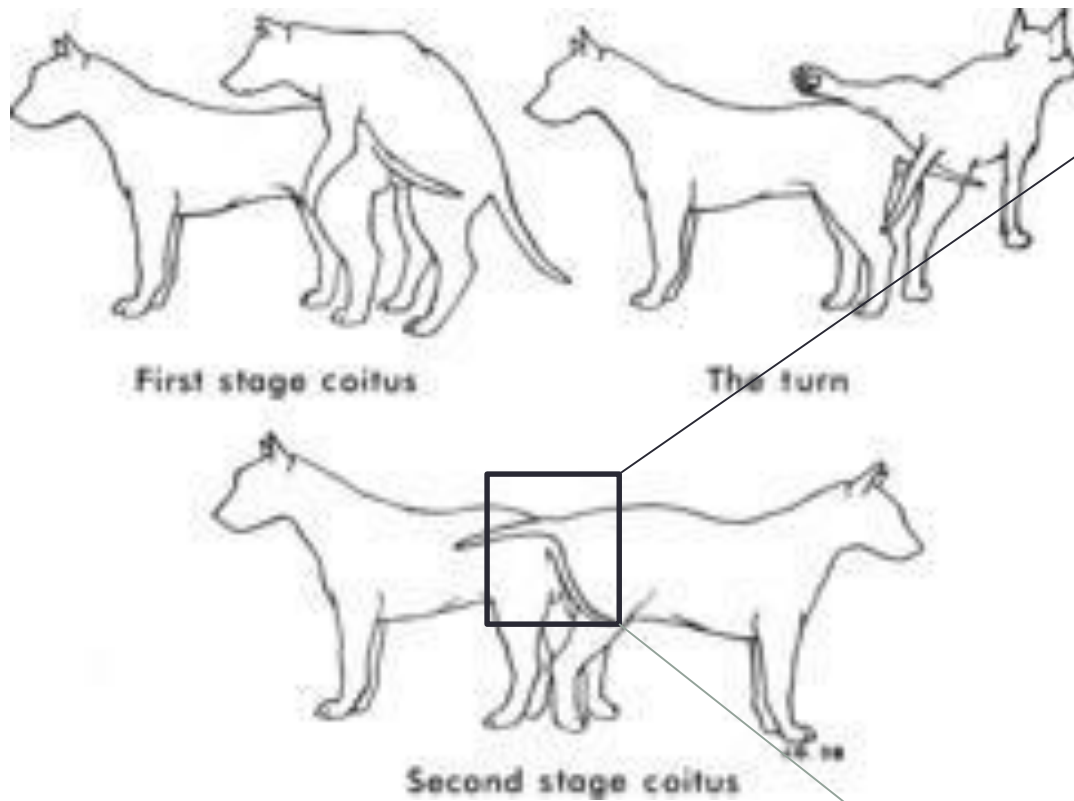
- Playing
- Sniffing males' body and genitals
- Urination
- Perineum movements



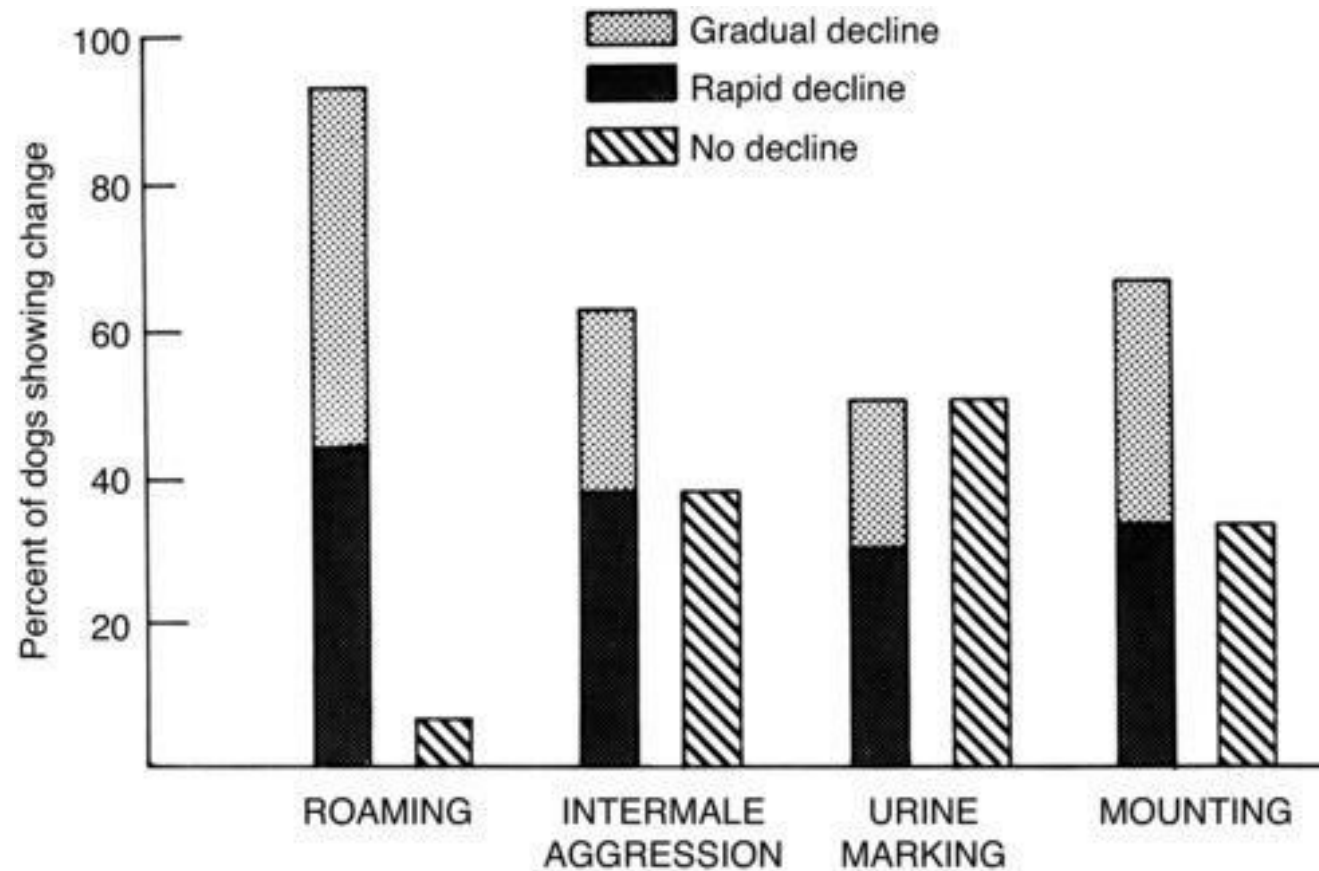
Clinical Problems of Bitches



The Dog: Sexual Behavior



Clinical Problems of Dogs



- Impotence
 - Lack of socialization
 - Timidity
 - Environment
- Masturbation
- Castration
 - Do not affect some behavior



Domestic Cats

- Males = toms
- Females = queens



The Queen: Estrous Cycle

- Puberty occurs between 6 and 10 months
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- Seasonally polyestrous
- Estrus lasts 9 to 10 days.
- 3 weeks
- Induced ovulatory



The Queen: Sexual Behavior

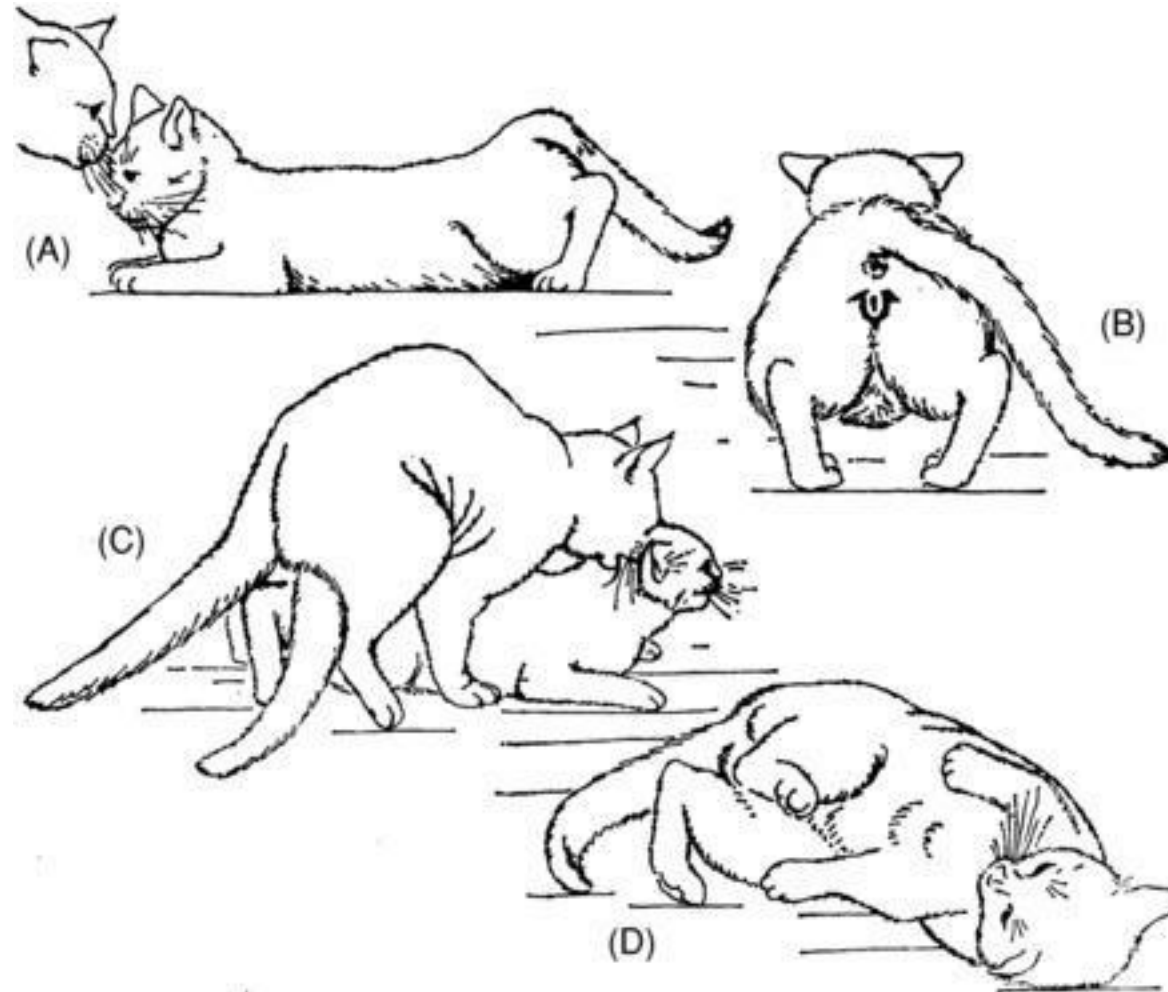


Figure courtesy: Houpt 2011, Figure 4.17



Tom sexual behavior

- Olfactory cue in female urine
- Calling the female
- Sniffing
- Holding the queen neck
- 10 seconds
- Lick his penis

