

# Signs of approaching parturition

Anas Al-Saffar  
Lecturer, PhD.

- **Eutocia** (parturition), normal birth (no external assistance) of viable mature full term fetus
- **Gestation period** (term), the time between successful fertilization and normal parturition

Animal species	Gestation period, days (months)
Mare	330 – 342 (11.4 month)
Cow	275 – 292 (9.7 month)
She camel	370 – 400 (13.3 month)
Ewe	144 – 151 (5.0 month)
Doe	145 – 155 (5.2 month)
Bitch	58 – 65 (2.2 month)
Cat	58 – 67 (2.2 month)

- **Abortion**, premature delivery of (usually non viable) fetus of uncompleted gestation period  
(In early stages of pregnancy < 4 months, usually the recovery is fast and without complications)
- **Premature delivery**, the parturition of a viable fetus before completing normal gestation period, usually at month 6 or 8 when **ductus arteriosus** is narrowing and phospholipoproteins formation that prevent atelectasis (lung collapse)
- **Still birth**, the delivery of fully developed non viable fetus at a normal term

- Progesterone blood levels throughout pregnancy remain elevated (progesterone block) inducing myometrium quiescence
- At parturition, there is sharp increase in cortisol associated with decrease in progesterone blood levels
- Oestrone and prostaglandin metabolites levels become elevated 15 days reaching peak 3-5 days pre-parturition
- Above mentioned changes give rise to:
  - Structural changes of the cervix permitting dilation
  - Initiation of myometrial contractions
  - Fetus disposition (rotation and extension) to facilitate expulsion

## ➤ Signs

- Abdominal enlargement relatively to the previous status, starts 3-4 weeks before parturition
- Udder enlargement (engorged and oedematous, starts gradually 3 months pre parturition) usually more obvious in heifers, teats engorgement and waxing (72-48 h pre parturition, although not reliable sign)



- Vulva hypertrophy and oedematous
- Pelvic region ligaments relaxing leads to elevate tail head (estrogen and relaxin elevated levels)



- Nesting behavior such as isolation from the herd
- low ration consumption near or round parturition
- Restless behavior (alternate lying/standing) 4-6 h pre parturition before starting of 1<sup>st</sup> phase
- Liquefaction of cervical mucus plug, which can be noticed as a thick yellowish mucus string hanging out of the vagina





# ➤ Signs & behavior before foaling

Distended abdomen



As the udder enlarges, filling of the teats is noticed 6 weeks before foaling



Normal condition



Usually about 3 weeks before foaling, Relaxation of the muscles in the pelvic area occurs



Teats waxing/  
Milk flow (48-72  
hrs before  
foaling)



Restlessness  
Sweating



# Thanks