

Chapter 03

HUMAN REPRODUCTION

LACTATION

- Formation , secretion & ejection of milk
- Formation & secretion – Alveoli of mammary gland – by the end of pregnancy.
- Ejection – actual flow starts after child birth.

Baby $\frac{\text{suck}}{\text{Suckle}}$ nipple.

TWO - Phases:

1) Milk secretion:

- Alveoli maingland stimulates – **Prolactin** hormaone
- Prolactin secretion in stimulated – **Estrogen & progestreron** levels are low.

Secret - prolactine ← Stimulate anterior tube pitutary gland.

- Stimulate epithelial alveoli mammry gland – Lactogenesis
- Maintance of cutions / Production flow – Galactogenesis
- Hormone – thyroxin , cortisol helps to Galactogenesis.

2) Milk ejection:

- Hormone – oxytocin – contraction of the muscle which are around mammary glands.
- After parturation.

Colostrum (1st Milk):

- Thick & yellow milk contain Immunoglobulins
- 1st milk, helps Immunity.

Placenta – Colostrum both are give Immunity to foetus Infant.

How the milk let it down:

- Suckling of the nipple – sensory cells- Stimulus – oxytocin release from pituitary gland.
- Emotional – baby cry – it can be **Neuro endocrine reflex(Nerves, hypothalamic hormones involved)**
- **Regular milk** – Water, mineral, milk protein (casein), carbohydrate(Lactose), Oil droplets(Fat)
- Regular milk is complete food for Infant.