



# NORMAL PUERPERIUM

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## Topics to be covered

- DEFINITION
- PHYSIOLOGICAL CHANGES DURING PUERPERIUM

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## DEFINITION

- Refers to 6 weeks following childbirth, during which the pelvic organs return to prepregnant state & the physiological changes of pregnancy are reversed
- Immediate – within 24 hrs
- Early – up to 7 days
- Woman in this period puerpera

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## Physiological changes

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## Uterus

- **Involution**

- Uterus immediately after delivery- 1000 gm
- After one week-500 gm
- After 2<sup>nd</sup> week- 300 gm
- After 4 weeks return to normal –involution
- By reducing size of cells-by autolysis
- Pain may be present- spasmodic

- **Endometrium**

- Decidua- endometrium of pregnancy shed after childbirth.
- Z .Compacta & spongiosa shed
- Completed in 14 days
- Placental site takes longer to recover-6 weeks
- Arteries- endarteritis & hyaline obliteration in one week
- Veins - thrombosis

- **Lochia**

- Vaginal discharge after deliver in first few weeks
- Blood from placental site + necrotic decidua
- **Lochia rubra**- first few days, red( red cells)
- Lochia serosa – after 3-4 days, pale(wbc+rbc)
- **Lochia alba**- after 10<sup>th</sup> day yellow
- Up to 4 weeks
- Character of lochia- indicator for infection

# School of Nursing

Course Code : BSCN3004

Course Name: Midwifery & Obstetrical Nursing

Lochia Rubra  
3-4 days  
postpartum



Lochia Alba  
10 days - 6 weeks  
postpartum



Lochia Serosa  
3 weeks  
postpartum





- **Cervix**
  - End of 1<sup>st</sup> week- starts closing & cervical canal reforms completed in 6 weeks
  - Parous cervix-transverse slit
  - Lower uterine segment contracts- to form isthmus
  - Vagina reduce in size & become rugose-4 weeks
  - Hymen –small tags of tissue- caruncle myritiformes
  - Some relaxation of vaginal outlet & pelvic floor

## Urinary system

- Bladder- edema & submucoal haemorrhage – heal in few days
- Overdistention, incomplete emptying, retention-due to injury to innervation of bladder during difficult labour
- Epidural & spinal – exaggerate this
- return to normal after 1<sup>st</sup> week
- Dilated ureters & pelvicalyceal system return to {N} in 8 weeks
- GFR,CCR & RPF return to (N) in 6 weeks

## Gastro intestinal system

- Immediately after delivery- constipation due to intestinal paresis
- Pain from episiotomy & perineal laceration contributes
- Early ambulation, high fluid intake is recommended

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## Cardiovascular system

- Heart return to normal size slowly
- Heart sounds return to normal rapidly
- S3 & ESM if present return to normal in 1<sup>st</sup> week
- C O becomes near nonpregnant value by 10<sup>th</sup> day & normal in 6<sup>th</sup> month
- HR- remain high for 24 hrs & become normal
- BP – rises in first few weeks return to n/l by one week
- Reduced peripheral resistance- n/l rapidly

## Blood

- Plasma volume falls in 1<sup>st</sup> day reaches n/l by first week
- Red cell mass- n/l in 24 hrs
- Hb conc. Minimum on 4<sup>th</sup> day & then rises to n/l by 6 weeks
- ESR increases in 1<sup>st</sup> week & return to n/l in 4 weeks
- Increased leucocytosis after labour subsides after one week
- Coagulation factors elevated

## Weight loss

- Due to uterine evacuation
- 2-3 kg reduction due to postpartum diuresis
- Return to prepregnancy weight in 6 months

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## Menstruation & ovulation

- Depends on lactation
- Non lactating –early resumption of menstrual cycle-6-8 wks
- Nursing mothers- 4-6 months
- Total protection only possible for 10 wks
- Addl contraception adviced after 3 months

## BIBLIOGRAPHY

1. JB Sharma " midwifery and Gynecological nursing" 1<sup>st</sup> edition, 2015, published by Avichal publishing house

2. Dc Dutta " Textbook of obstetrics" 8<sup>th</sup> edition , 2006, published by Jaypee brothers