



# ANATOMY & PATHOLOGY

6th Edition

The World's Best Anatomical Charts

 Wolters Kluwer

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An anatomical illustration of the human torso, showing internal organs and a circled area. The illustration is detailed, showing the lungs, heart, stomach, and intestines. A dashed black circle highlights a specific area in the abdominal region, possibly the pancreas or a nearby structure. The text 'SYSTEMS OF THE BODY' is written vertically in white capital letters on the right side of the illustration.

# SYSTEMS OF THE BODY

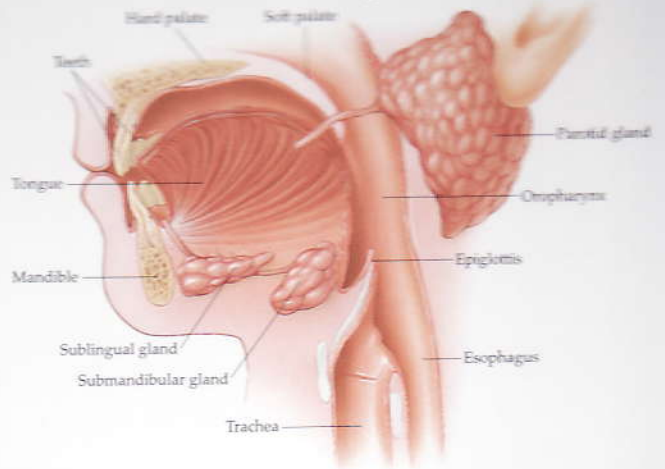
The Digestive System • The Endocrine System • The Female Reproductive System • The Lymphatic System • The Male Reproductive System • The Muscular System • The Nervous System • The Respiratory System • The Skeletal System • The Spinal Nerves • The Urinary Tract • The Vascular System and Viscera

# The Digestive System

## The Oral Cavity, Salivary Glands and Stomach

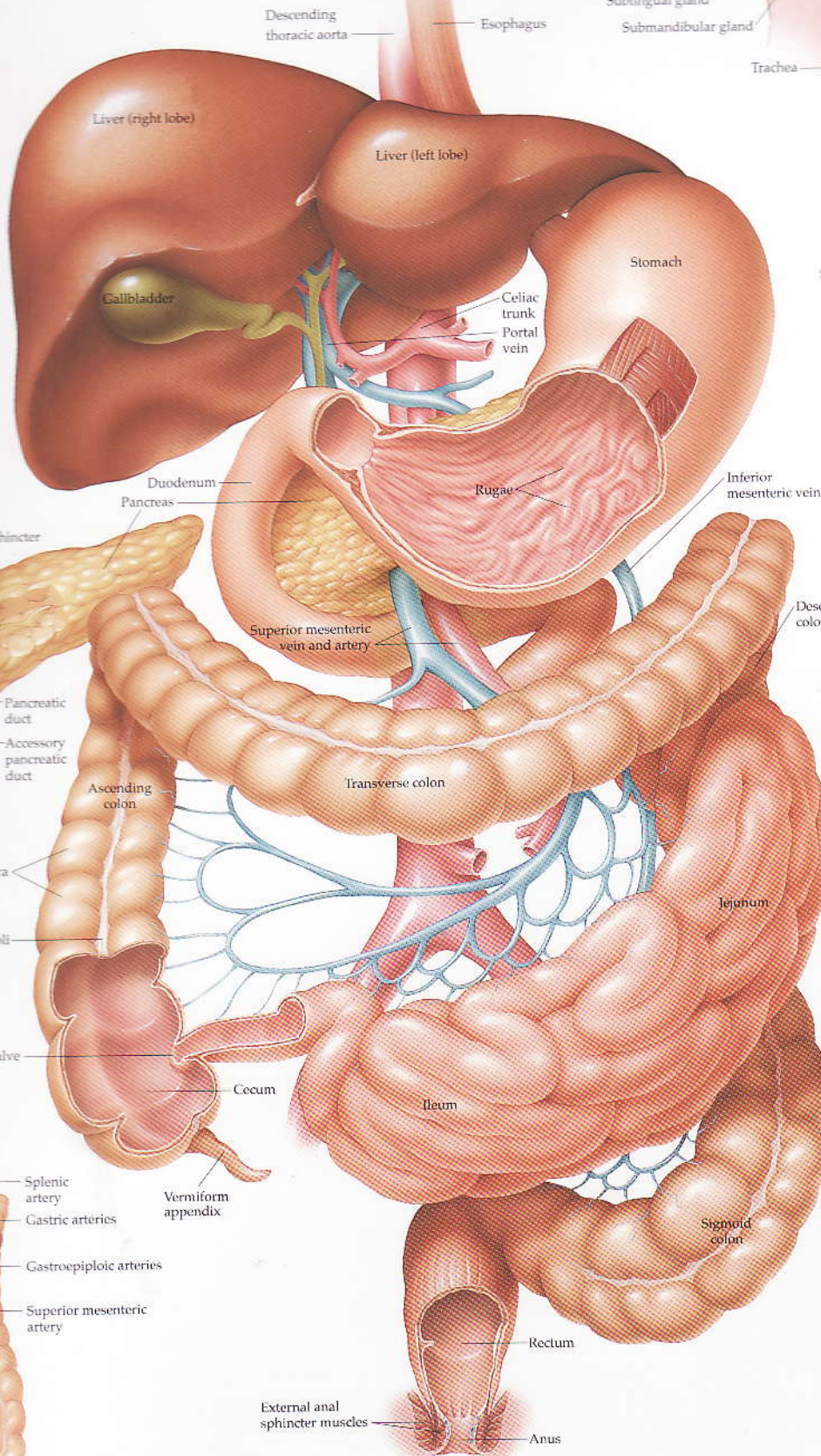
Digestion begins in the mouth as food is mixed with saliva. Saliva breaks down the starch in food into smaller sugars. After moving to the stomach through the esophagus, food is further broken down by enzymes and hydrochloric acid. A layer of mucus protects the stomach lining from damage by the hydrochloric acid.

### Oral Cavity

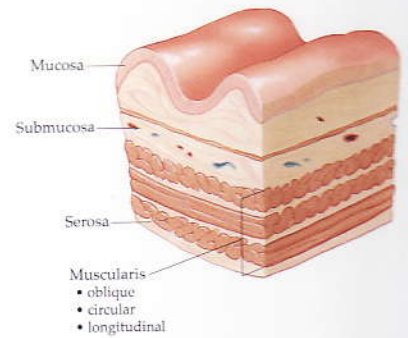


## Small Intestine, Pancreas and Duodenum

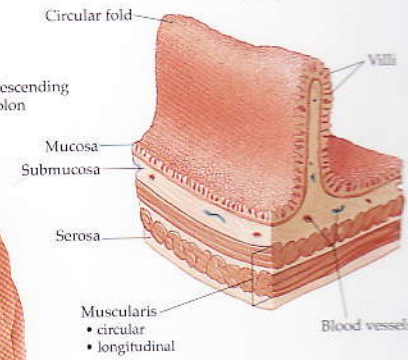
Food, or chyme, passes from the stomach into the duodenum. Here bile and enzymes are added to further break down protein and carbohydrates. Bile is stored in the gallbladder.



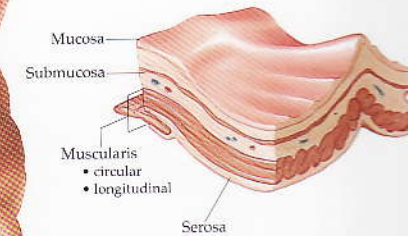
### Wall of Stomach



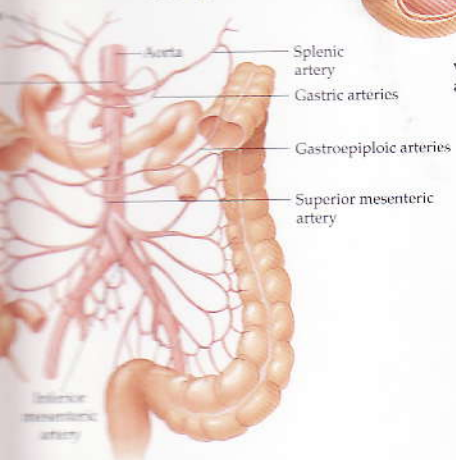
### Wall of Jejunum



### Wall of Colon



## Arterial Supply

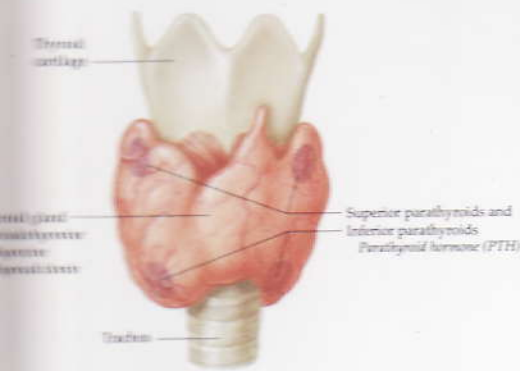


## The Small and Large Intestines

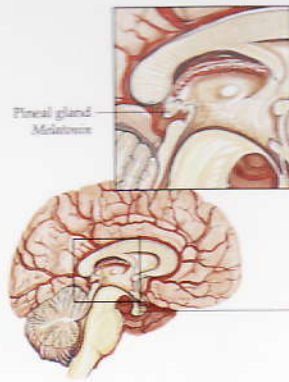
Chyme moves to the last parts of the small intestine, the jejunum and ileum, where nutrients are absorbed into the bloodstream. The nutrients travel to the liver, via the hepatic portal venous system, for further metabolism and storage. Undigested material enters the colon, where water and electrolytes are absorbed. The remaining waste is stored until eliminated.

# The Endocrine System

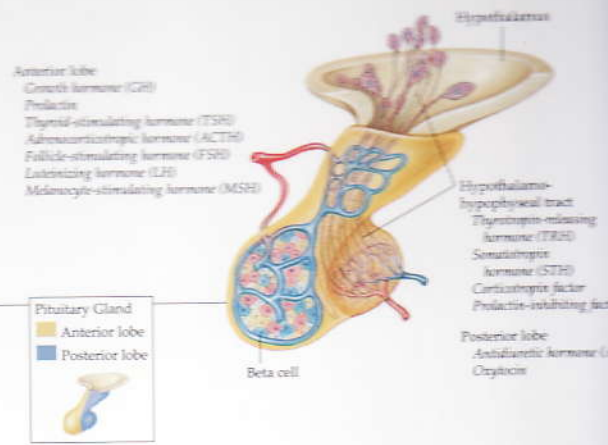
## Thyroid and Parathyroid Glands



## Pineal Gland



## Pituitary Gland and Hypothalamus



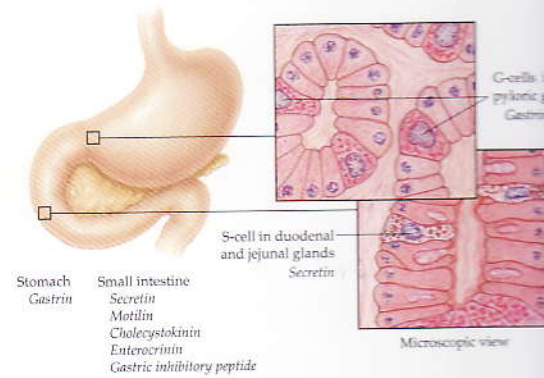
## Thymus Gland



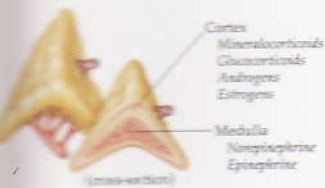
## Heart



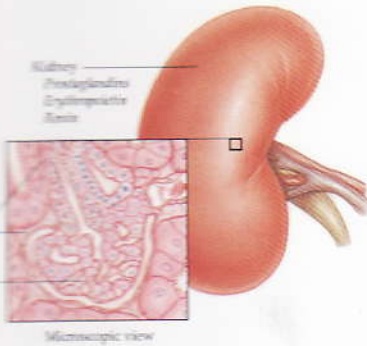
## Stomach, Duodenum, and Jejunum



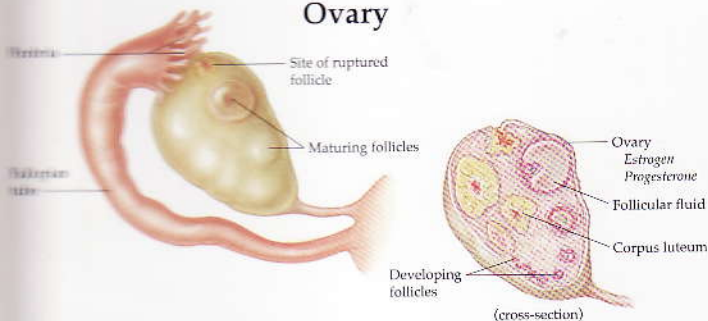
## Adrenal Glands



## Kidney



## Ovary

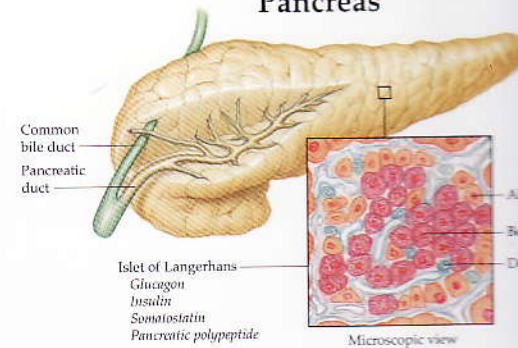


## Placental Hormones

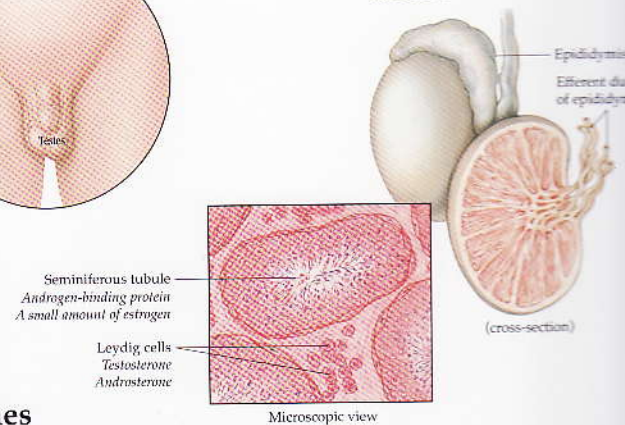
(from uterus during pregnancy)

Chorionic gonadotropins  
Progesterone  
Estrogen  
Relaxin

## Pancreas

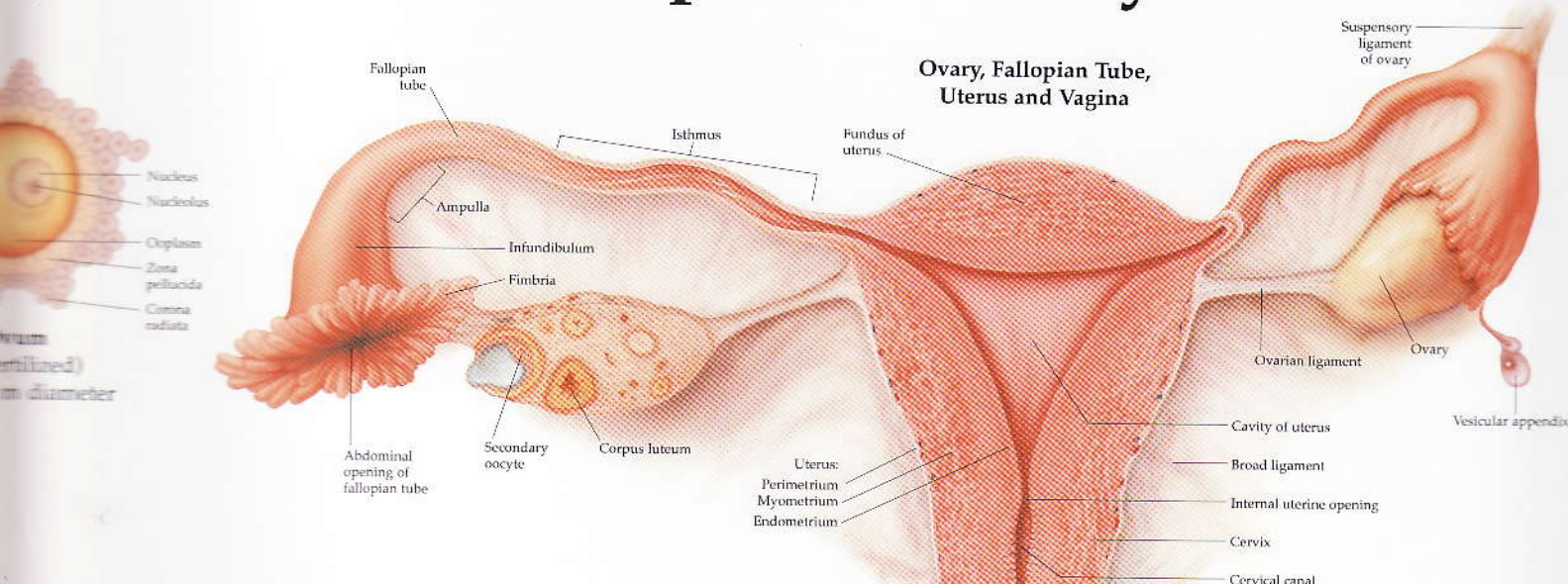


## Testes

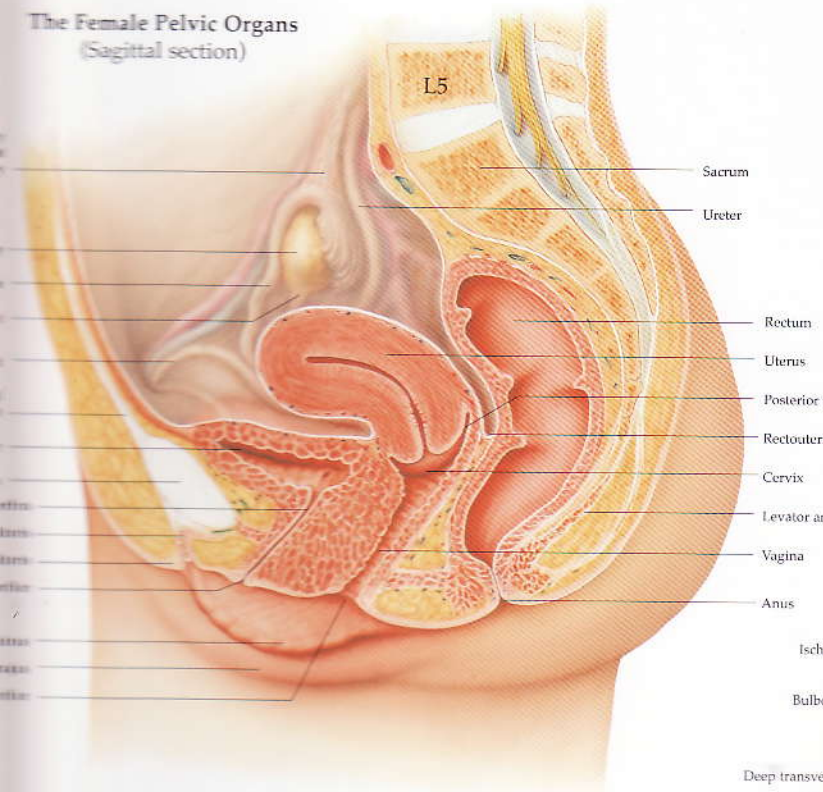


Note: Italicized words represent hormones.

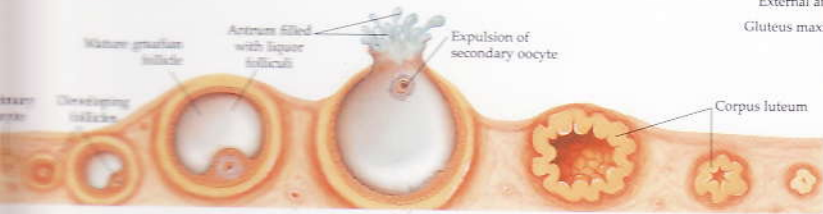
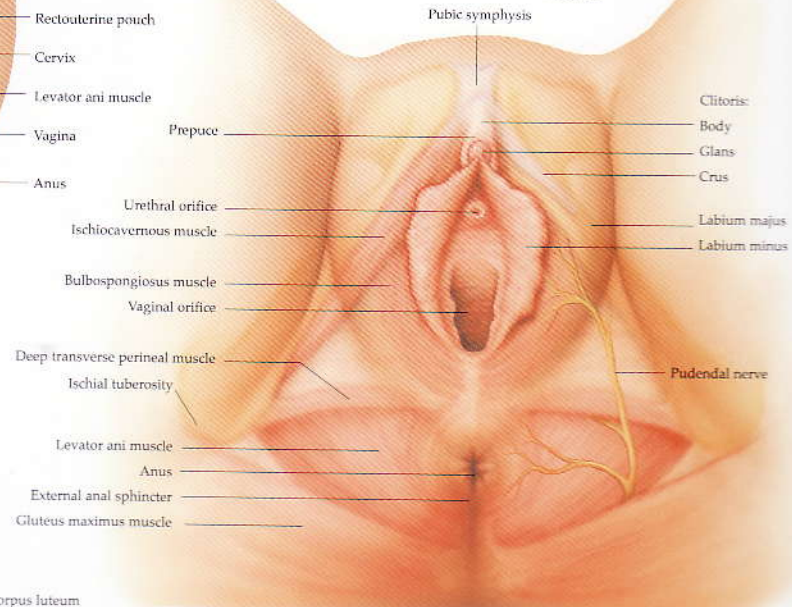
# The Female Reproductive System



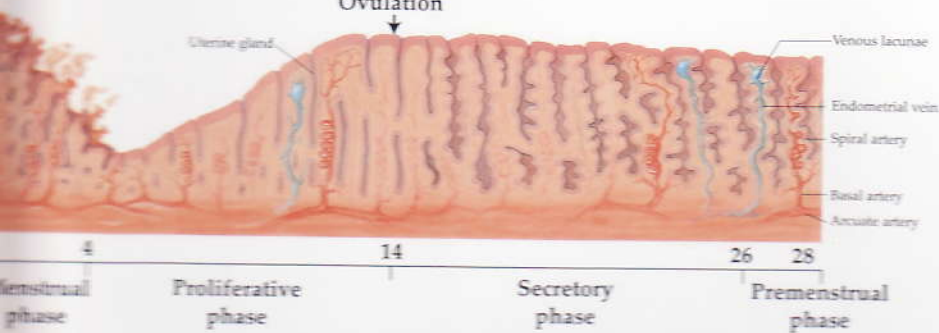
## The Female Pelvic Organs (Sagittal section)



## The Female Perineum



## Ovulation

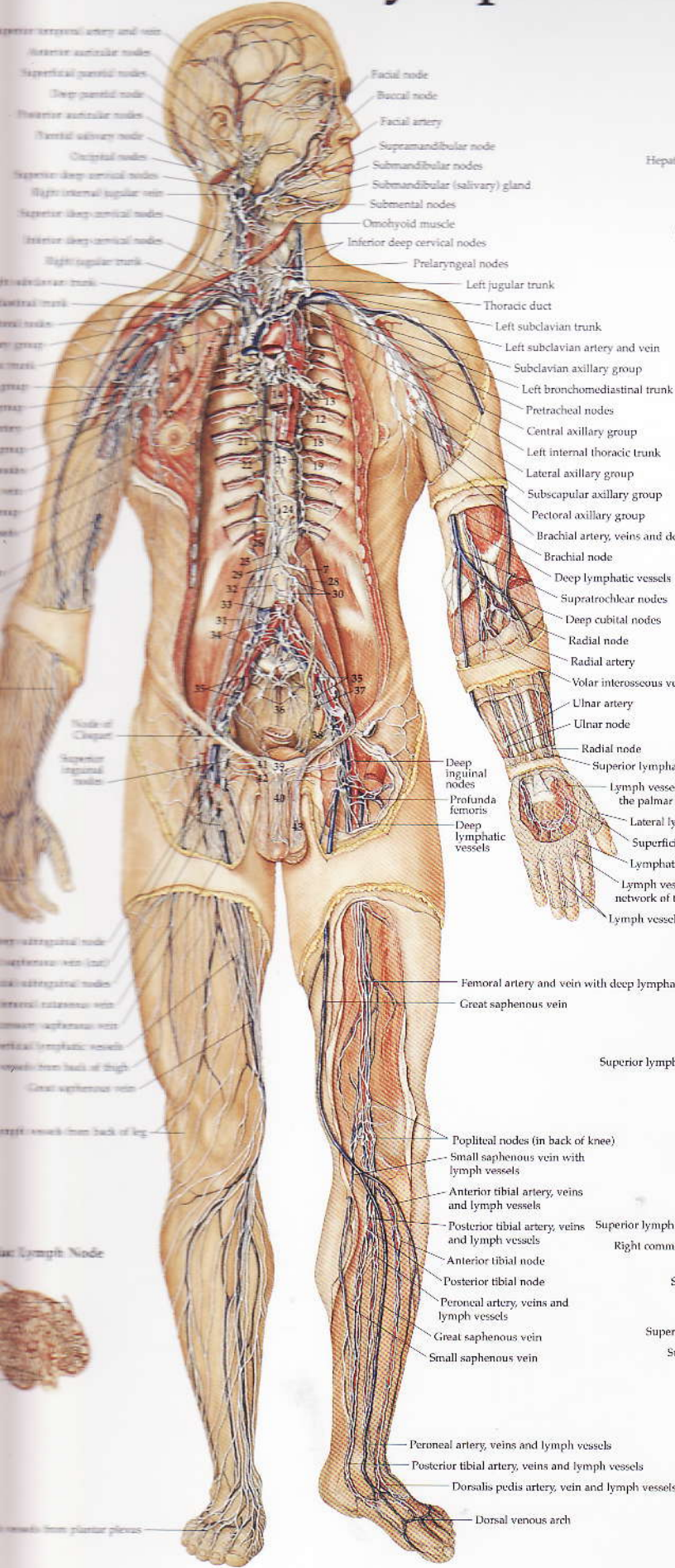


## The Menstrual Cycle

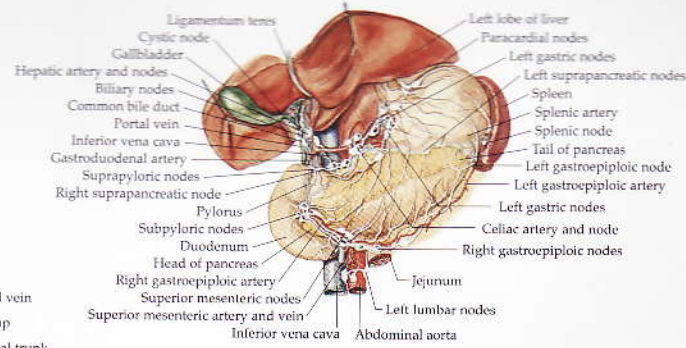
The menstrual cycle occurs during the reproductive period from puberty through menopause in response to rhythmic variations of hormones. The endometrial lining of the uterus proliferates in preparation for implantation of a fertilized egg. In the absence of pregnancy the lining is shed with some bleeding through the vagina.

## Menopause

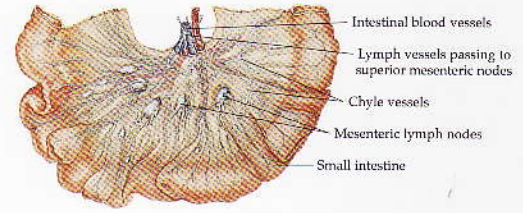
Menopause: the gradual interruption and cessation of menstrual cycles, occurs at about 45 to 50 years of age. It is associated with the depletion of oocytes in the ovary and subsequent decline of estrogen levels.



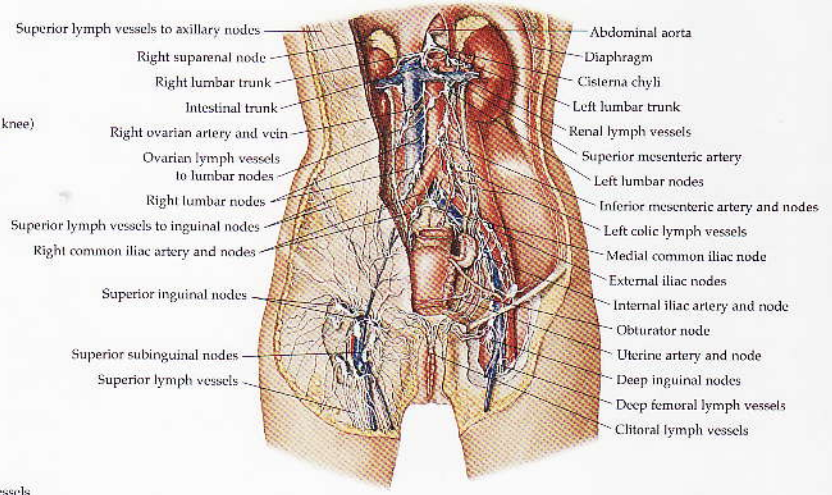
Lymph Vessels and Lymph Nodes of Stomach, Pancreas, Spleen and Biliary Tract



Lymph Vessels and Lymph Nodes of the Small Intestine



Lymph Vessels and Lymph Nodes of Inguinal Region, Pelvis and Posterior Wall of the Abdomen



- |  |  |                                     |   |
|--|--|-------------------------------------|---|
| 10. Left bronchus  | 18. Posterior mediastinal nodes                        | 26. Right crus of diaphragm         | 35. Internal iliac artery and nodes           |
| 11. Right tracheobronchial nodes                                 | 19. Intercostal nodes and lymph vessels                | 27. Intestinal trunk                | 36. Sacral nodes                              |
| 12. Left tracheobronchial nodes                                  | 20. Azygos vein  | 28. Psoas major muscle              | 37. Lymph vessels to internal iliac nodes     |
| 13. Right and left bronchopulmonary nodes                        | 21. Thoracic duct                                      | 29. Right and left lumbar trunks    | 38. Obturator vessels and nerve               |
| 14. Esophagus  | 22. Thoracic aorta                                     | 30. Lumbar nodes                    | 39. Presymphatic node                         |
| 15. Internal thoracic lymph vessel ending in subclavicular nodes | 23. Hemiazygos vein                                    | 31. Testicular lymph vessels        | 40. Collecting lymph vessels from glans penis |
| 16. Interpectoral nodes  | 24. Descending right and left intercostal lymph trunks | 32. Retroaortic node (lumbar nodes) | 41. Superior lymph vessels from the penis     |
| 17. Lymph vessels from deep part of breast                       | 25. Cisterna chyli                                     | 33. Preaortic node (lumbar nodes)   | 42. Lymph vessels from the scrotum            |
|  |  | 34. Common iliac nodes              | 43. Lymph vessels of testis and epididymus    |