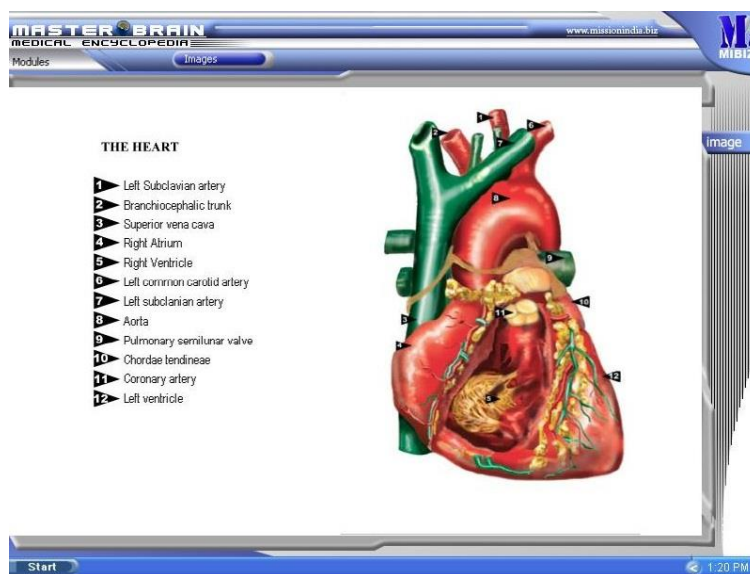
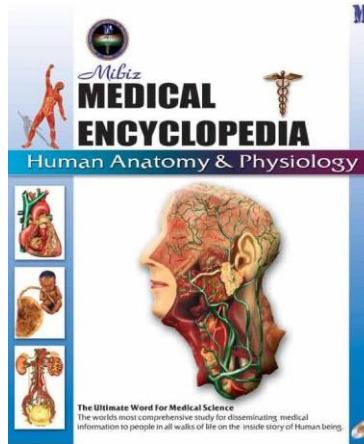


# HUMAN ANATOMY & PHYSIOLOGY



## **Human Anatomy & Physiology**

Introduction, The Skin, Hair & Nail, The Musculoskeletal System, The Cardiovascular System, The Blood, and the lymphatic, and immune system, The Respiratory System, The Nervous System, The Teeth and gums, The Digestive System, The Hormones& metabolism, The Urinary System, The Reproductive System, Sex, Pregnancy, and Childbirth week 1- week 40

### **Unique Features**

200,000 Interactive Links

40,000 Lines of Articles

Over 40,500 Frames of 2D Animations

Over 15,000 Frames of 3D Animations

Over 30,000 Titles

Over 10,000 Frames of descriptive Animations

Several Illustrations

Images with Interactive Title graphics with voice over

Detailed study on Pregnancy & Childbirth week 1- week 40

### **MVUP Brain Theory System (elearning)**

Virtual Professor

Subject Reviews

Animations Learning Goals

Four-color art and animation program

Interactivity

Explanations and full-action animations

Content is detailed

Overview of topics

Important terminology Variety of menus for navigation Print capabilities, Internet access.

## HUMAN ANATOMY & PHYSIOLOGY

Introduction, Skin, Hair & Nail, Musculoskeletal System, Cardiovascular System, Blood, and the lymphatic, and immune system, Respiratory System, Nervous System, Teeth and gums, Digestive System, Hormones & metabolism, Urinary System, Reproductive System, Sex, Pregnancy, and Childbirth

### **Skin, Hair & Nail**

Skin, Organ, Physical barrier, Temperature control, Skin color, Wrinkles, Skin Anatomy, Epidermis, Dermis, Subcutaneous Tissue Healing & Repair- SKIN, Closed-wound healing, Open wounds, Surfaces and adhesions, How aging affects your skin What is a skin biopsy?, Skin Biopsy- Risks, Maintaining a healthy lifestyle , Bathing: Avoid drying out, The Biology of Hair Hair Origin, Hair Anatomy, Hair Growth Cycle, Hair Shape, Baldness, Gray hair: What causes it? , Hair transplant, Hair Transplant – History, parts of the nail, Nail Anatomy, How your skin, hair and nails affect your health What Can Go Wrong With the Skin, Hair, and Nails?, Other Skin Problems

### **Musculoskeletal system**

The body's skeleton, How the body moves, Flexibility of the spine, The joints, The backbone, Skeleton – skull Cranium, Facial bones, Skeleton - shape and structure, Bone structure, Bone shapes, Skeleton - bone growth Broken bones fractures, Realignment, Repair, The bone healing, Skeleton - arm and shoulder, Skeleton - hands and feet Fingers and toes, Metacarpals and metatarsals, Wrist bones, Carrying weight, Arches, Skeleton - ribcage Skeleton – spine, Column of ring-like bones, Vertebrae, Skeleton – pelvis, Skeleton – leg, Skeleton - joints Skeleton – teeth, The body's muscle, Skeletal muscle, Smooth muscle, Cardiac muscle, Pulling muscles Muscles - structure and contraction, Exercise, Endurance exercise, Bodybuilding, Endurance and resistance combined Energy is directed to your muscles during exercise, Endurance or speed, Slow twitch and fast twitch muscle fibers make energy in different ways, Muscles – tone, Firm muscles, Flaccid muscles, Muscles – facial, Expressive muscles, Bone disorders Joint and ligament disorders, joint replacement, Bunion surgery, Muscle and tendon disorders , Musculoskeletal injuries

**Cardiovascular System** Cardiovascular system, Structure of the heart, Heart and blood vessel basics, What do blood vessels do? Types of blood vessels, Arteries, Capillaries, Veins, The largest blood vessels, The aorta The blood circulation, How the heart beats, The heart cycle, Heart valves, Heart sounds, Heart, front view Heart valves - anterior view, heart valves - superior view, overview & description, What is blood pressure? Blood vessels in your heart, Coronary arteries that are commonly blocked, Coronary veins, Heart valve surgery Heart valve replacement, Aortic valve replacement, Blood cholesterol, Coronary heart disease What can be done to prevent the disease?, How is the disease diagnosed?, Heart transplant Risks for any anesthesia are:, Risks for any surgery are: , Expectations after surgery ECG(electrocardiogram), Exercise and the heart, Developmental anatomy of the heart

### **Blood, and the lymphatic, and immune system**

Blood, and the lymphatic, and immune system, Human body's defense mechanism, Physical characteristics of blood Formation of blood cells, Organs – spleen, components of blood, white blood cells, plasma, red blood cells Platelets, formed elements, functions of blood, transportation, regulation, protection, rbc life cycle production of rbcs, leukocytes (white blood cells), hemostasis, vascular spasm, platelet plug formation clotting (coagulation), the lymphatic system, the body's defenses, physical and chemical barriers blood groups and blood types, abo blood group, rh blood group, blood transfusion bone marrow aspiration and biopsy, bone marrow transplant, Blood disorders, Disorders of the lymphatic system, Immune disorders

### **THE RESPIRATORY SYSTEM**

Breathing in and out (Respiratory processes), Network of airways, voice production, Sound machine Guardian of the airways, The voice box, Croaking and warbling, the respiratory structure structures of the respiratory system, sinuses, breathing and respiration, breathing works how breathing is regulated, exchanging gases in the body, voice production (speech) the cough reflex, modified respiratory movements, pulmonary volumes and capacities respiratory system, a flash, nose and throat disorders,

stream inhalation , endoscopy of the nose and throat mirror laryngoscopy, lung disorders, asthma, monitoring your asthma, bronchitis, pneumonia tuberculosis (tb), pulmonary embolism, pulmonary edema, cystic fibrosis, severe acute respiratory syndrome (sars) Chest tube, bronchoscopy

## **THE NERVOUS SYSTEM**

The structure of the nervous system, Neurophysiology, nervous system, brain, spinal cord, and nerves protection and coverings, blood supply, cerebrum, right hemisphere, left hemisphere, cerebral cortex frontal lobe, motor cortex, sensory cortex, parietal lobe, occipital lobe, temporal lobe, cerebellum limbic system, olfactory bulbs, amygdala, hippocampus, fornix, hypothalamus, pituitary gland pineal gland, Thalamus, Corpus Callosum, brain stem , cranial nerves, the spinal cord and spinal nerves protection and coverings, meninges, reflexes, spinal cord, spinal nerves, nerve cells, neurons neuron structure, neurotransmitters work, sensations, sensory receptors, touch the special senses, olfactory sensations: smell, anatomy of olfactory receptors, olfactory receptors gustatory sensations: taste, protecting your body, taste bud structure , tastes and flavors proprioceptors, voluntary and involuntary responses, voluntary responses, autonomic responses the brain theory, processing higher functions, brain function, pain relief using tens, eeg carotid doppler scanning, cerebral angiography, lumbar puncture, subdural hemorrhage visual sensations, forming an image, light-sensitive retina, grey vision and movement color vision, secrets of your lens, the tears, structure of the eye, how the eye works accommodation and the near point of vision, action of the pupil, visual pathways rods and cones, cataract surgery, slit-lamp examination, applanation tonometry, ophthalmoscopy ears, hearing and balance, sound waves, balance and movement, connecting passageways components of the ear, the mechanism of hearing, your body's microphone, physiology of hearing the sense of balance, physiology of equilibrium, the role of hair cells, linear movement and static position rotational movement, otoscopy, stapedotomy, hearing aids, protecting your hearing, cochlear implants

## **TEETH AND GUMS**

The structure of the teeth, The role of the gums, development of teeth, Types of tissue in teeth in humans Teeth and gums, Using the jaws, The dawn of dentistry, Common misconceptions, disorders of the teeth the importance of oral hygiene, Toothache, What causes toothache? , How can toothache be avoided? What should i do if i have toothache? , Caring for your teeth and gums, Brushing your teeth Cleaning between teeth, Tooth filling, Root canal treatment, Orthodontic treatment, Crowns and replacement teeth Replacement teeth, The development of toothpaste throughout history:, The development of toothbrush throughout history:

## **DIGESTIVE SYSTEM**

Absorption, Regulating digestion, hunger and appetite, Stimulating hunger and appetite, Overview of digestive process The digestive tract, Mouth, Tongue, Salivary glands, Teeth, Mechanical digestion – swallowing, Chemical digestion Esophagus and stomach, Small and large intestines, Absorption and feces formation in the large intestine, Peristalsis Liver, gallbladder, and pancreas, liver functions, Regulation of gastric emptying, Digestive enzymes, Preventing constipation Barium swallow, Upper digestive tract endoscopy, Liver biopsy, Liver transplant, Ercp, Colonoscopy, colectomy, Colostomy banding hemorrhoids, Aging and the digestive system, Developmental anatomy of the digestive system

## **THE HORMONES AND METABOLISM**

Endocrinologist, feedback mechanism, the endocrine system, Hormone-secreting glands and cells, Pituitary and pineal glands thyroid stimulating hormone (tsh), Pineal gland, Thyroid, parathyroid, the structure of thyroid and parathyroid glands. Adrenal glands, Pancreas, Structure of the pancreas, Metabolism, Anabolism and catabolism, other endocrine glands How the body uses food, endocrine diseases and disorders, Needle aspiration of the thyroid gland, Insulin Monitoring your blood glucose

## **THE URINARY SYSTEM**

Blood filtration, hormone production, The sexual difference, Urinary system, Kidneys, Balancing your blood, Regulating blood pressure, When kidneys go wrong, Urine formation and excretion, Urine formation, Water reabsorption, What is urine made of Intravenous urography, problems in the urinary system, Why do kidneys fail?, Kidney stones, Kidney biopsy, Dialysis Peritoneal dialysis, hemodialysis, Kidney transplant, urodynamic studies, Bladder catheterization, Cystoscopy

## **The Reproductive System**

Reproduction, Sexual reproductive systems, Asexual reproduction, Sexual reproduction

**Male reproductive system**, Male structure, Testes produce sperm and male sex hormones, The penis and erections, Sperm production Semen and ejaculation, Male hormones, puberty, physical development, Disorders of the testes, scrotum, and penis Epididymal cyst, Torsion of the testis, Examining your testes, hydrocele, vasectomy, Circumcision, Prostate gland biopsy Radical prostatectomy

**Female reproductive system**, eggs, ovaries and sex hormones, Female structure, Female fertility, Female hormones Puberty, Female reproductive system, Menstrual cycle, Changes during menopause, Role of the breasts Breast self-examination, aspiration of a breast lump, Breast reduction, Endometrial sampling, Laparoscopy tubal ligation, hysteroscopy, Hysterectomy, Pap test, Colposcopy, mammography, Surgery of the breast cancer

## **Sex, Pregnancy, and Childbirth**

Sex and reproduction, Human sexuality, fertility, Sexual intercourse, Fertilization, Sperm journey Sexual problems, Sex therapy, Infertility, Pregnancy and childbirth, multiple pregnancies Pregnancy & childbirth week 1- week 40



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