

## Cytoplasm

- The gel-like substance that surrounds the nucleus of a cell but is contained within the cell membrane.

## DNA

- The molecule that holds genetic information and makes an exact copy of itself whenever the cell divides

## Diagnosis

- The identification of a disease or condition by scientific evaluation of physical signs, symptoms, history, laboratory, and clinical test results, and radiographic procedures

## Endoscope

- The instrument consisting of a rigid or flexible fiberoptic tube and optical system for observing the inside of a hollow organ or cavity

## Etiology

- The study of the cause of disease

## Fluoroscope

- The instrument, consisting of an X-ray machine and a fluorescent screen, used to view the internal organs of the body

## Idiopathic

- Pertaining to conditions without clear pathogenesis, or disease without recognizable cause, as of spontaneous origin

## Metabolism

- Chemical changes that take place in a cell or an organism and produce energy and basic materials needed for all life processes

## Prognosis

- The prediction of the course and end of a disease and the estimated chance of recovery

## Sign

- Any objective evidence or manifestation of an illness or a disordered function of the body

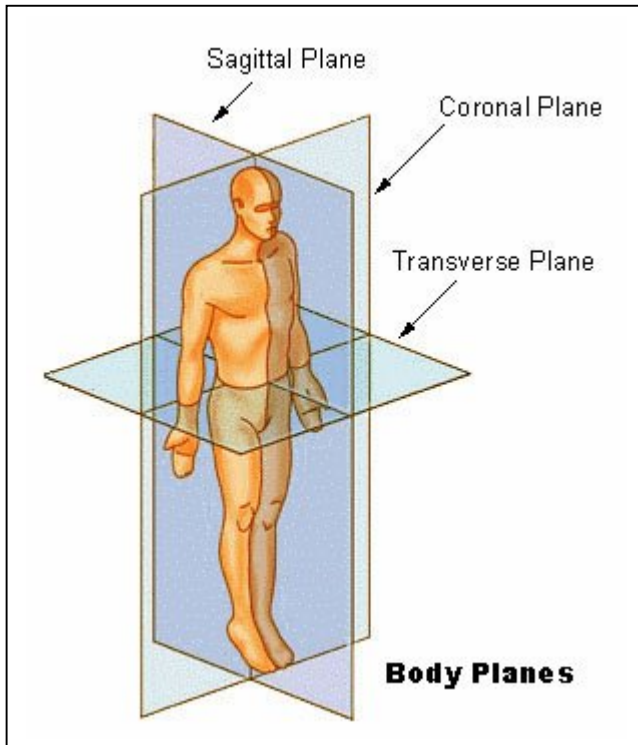
## Symptoms

- Any change in the body or its functions as perceived by the patient

## Transverse (horizontal) plane

- Superior (upper) and inferior (lower) aspects

## BODY PLANES



### Coronal (frontal) plane

- Anterior (ventral) and posterior (dorsal) aspects

### Midsagittal (median) plane

- Right & left halves

### Dorsal cavity

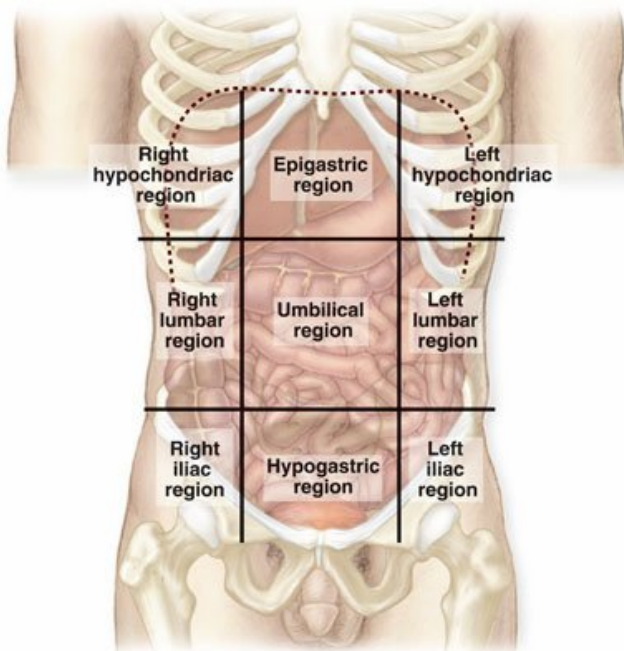
- Contains brain & spinal cord

### Ventral cavity

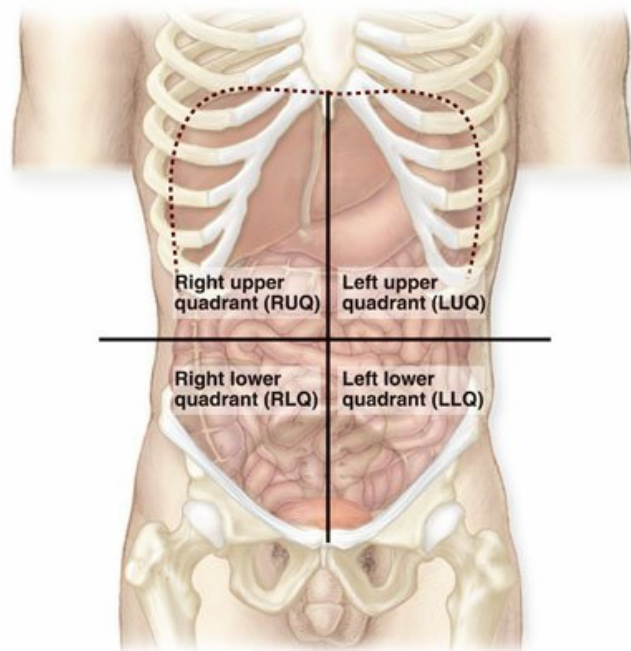
- Thoracic & abdominopelvic

## QUADRANTS

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(a) Abdominopelvic regions



(b) Abdominopelvic quadrants

### Right upper quadrant (RUQ)

- Right lobe of liver, gallbladder, part of pancreas, part of the small and large intestines

Left upper quadrant (LUQ)

- Left lobe of liver, stomach, spleen, part of pancreas, part of small and large intestines

Right lower quadrant (RLQ)

- Part of the small and large intestines, appendix, right ovary, right fallopian tube, right ureter

Left lower quadrant (LLQ)

- Part of the small and large intestines, left ovary, left fallopian tube, left ureter

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## ABDOMINOPELVIC REGIONS

Left hypochondria

- Upper left region beneath the ribs

Epigastric

- Region above the stomach

Right hypochondriac

- Upper right region beneath the ribs

Left lumbar

- Left middle lateral region

Umbilical

- Region of the navel

Right lumbar

- Right middle lateral region

Left inguinal (iliac)

- Left lower lateral region

Hypogastric

- Lower middle region beneath the navel

Right inguinal (iliac)

- Right lower lateral region
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# DIRECTIONAL TERMS

## Abduction

- Movement away from the median plane of the body or one of its parts

## Adduction

- Movement toward the median plane of the body

## Medial

- Pertaining to the midline of the body or structure

## Lateral

- Pertaining to a side

## Superior (cephalad)

- Toward the head or upper portion of a structure

## Inferior (caudal)

- Away from the head, or toward the tail or lower part of a structure

## Proximal

- Nearer to the center (trunk of the body) or to the point of attachment to the body

## Distal

- Farther from the center (trunk of the body) or from the point of attachment to the body

## Anterior (ventral)

- Near the front of the body

## Posterior (dorsal)

- Near the back of the body

## Parietal

- Pertaining to the outer wall of the body cavity

## Visceral

- Pertaining to the viscera, or internal organs, especially the abdominal organs

## Prone

- Lying horizontal with the face downward, or indicating the hand with palms turned downward

## Supine

- Lying on the back with the face upward, or indicating the position of the hand or foot with the palm or foot facing upward

## Inversion

- Turning inward or inside out

## Eversion

- Turning outward

## Palmar

- Pertaining to the palm of the hand

## Plantar

- Pertaining to the sole of the foot

## Superficial

- Toward the surface of the body

## Deep

- Away from the surface of the body (internal)

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## CYT/O

- Cell

## HIST/O

- Tissue

## NUCLE/O

- Nucleus

## KARY/O

- Nucleus

## ANTER/O

- Anterior, front

## CAUD/O

- Tail

## CRANI/O

- Cranium (skull)

## DIST/O

- Far, farthest

## DORS/O

- Back (of body)

## INFER/O

- Lower, below

## LATER/O

- Side

## MEDI/O

- Middle

## POSTER/O

- Back (of body), behind, posterior

## PROXIM/O

- Near, nearest

VENTR/O

- Belly, belly side

ABDOMIN/O

- Abdomen

CERVIC/O

- Neck; cervix uteri (neck of uterus)

CRANI/O

- Cranium (skull)

GASTR/O

- Stomach

ILI/O

- Ilium (lateral, flaring portion of hip bone)

INGUIN/O

- Groin

LUMB/O

- Loins, lower back

UMBILIC/O

- Navel

PELV/I (O)

- Pelvis

SPIN/O

- Spine

THORAC/O

- Chest

ALBIN/O

- White

LEUK/O

- White

CHLOR/O

- Green

CHROM/O

- Color

CIRRH/O

- Yellow

JAUND/O

- Yellow

XANTH/O

- Yellow

CYAN/O

- Blue

ERYTHR/O

- Red

MELAN/O

- Black

POLI/O

- Gray; gray matter (of brain or spinal cord)

ACR/O

- Extremity

ETI/O

- Cause

FASCI/O

- Band, fascia (fibrous membrane supporting and separating muscles)

IDI/O

- Unknown, peculiar

MORPH/O

- Form, shape, structure

PATH/O

- Disease

RADI/O

- Radiation, X-ray; radium (lower arm bone on thumb side)

SOMAT/O

- Body

SON/O

- Sound

VISCER/O

- Internal organs

XER/O

- Dry

-LOGY

- Study of

-LOGIST

- Specialist in the study of

-GENESIS

- Forming, producing, origin

-GNOSIS

- Knowing

-GRAM

- Record, writing

-GRAPH

- Instrument for recording

-GRAPHY

- Process of recording

-METER

- Instrument for measuring

-METRY

- Act of measuring

-PATHY

- Disease

AB-

- From, away from

AD-

- Toward

INFRA-

- Below, under

HETERO-

- Different

HOMEO-

- Same, alike

PERI-

- Around

SUPER-

- Upper, above

TRANS-

- Across, through

ULTRA-

- Excess, beyond

LAPAR/O-

- Abdomen

### Adhesion

- An abnormal fibrous band that holds normally separated tissues together, usually occurring within a body cavity

### Analyte

- A substance being analyzed or tested, generally by means of a chemical

### Contrast medium

- In radiology, a substance that is injected into the body, introduced via catheter, or swallowed to facilitate radiographic imaging of internal structures that otherwise are difficult to visualize on x-ray films

### Dehiscence

- The bursting open of a wound, especially a surgical abdominal wound

### Febrile

- Feverish; pertaining to a fever

### Homeostasis

- The relative constancy or equilibrium in the internal environment of the body, which is maintained by the ever-changing processes of feedback and regulation in response to external or internal changes

### Inflammation

- The bodily defense against injury, infection, or allergy marked by redness, swelling, heat, pain, and sometimes loss of function

### Morbid

- Diseased; pertaining to a disease

### Nuclear medicine

- A branch of medicine concerned with the use of radioactive substances for diagnosis, treatment, and research

### Radionuclide

- A substance that emits radiation spontaneously; also called *tracers*

### Radiopharmaceutical

- A radionuclide attached to a protein, sugar, or other substance that travels to the organ or area of the body that will be scanned

### Scan

- A term used to describe a computerized image by modality (such as computed tomography, magnetic resonance, and nuclear) or by structure (such as thyroid and bone)

## Sepsis

- A pathological state, usually febrile, resulting from the presence of micro-organisms or their products in the bloodstream

## Supportive

- Producing or associated with generation of pus

## Endoscopy

- A visual examination of a cavity or canal using a specialized lighted instrument called an *endoscope*

## Laparoscopy

- A visual examination of the organs of the pelvis and abdomen through very small incisions in the abdominal wall

## Thoracoscopy

- An examination of the lungs, pleura, and pleural space with a scope inserted through a small incision between the ribs

## Complete blood count (CBC)

- A common blood test that enumerates red blood cells, white blood cells, and platelets; it measures hemoglobin, estimates red cell volume, and sorts white blood cells into five subtypes with their percentages

## Urinalysis

- A common urine test that evaluates the physical, chemical, and microscopic properties of urine

## Computed tomography (CT) scan

- An imaging technique achieved by rotating an x-ray emitter around the area to be scanned and measuring the intensity of transmitted rays from different angles; formally *computerized axial tomography*

## Doppler

- Ultrasound technique used to detect and measure blood-flow velocity and direction through the cardiac chambers, valves, and peripheral vessels by reflecting sound waves off of moving blood cells

## Fluoroscopy

- A radiographic technique in which x-rays are directed through the body to a fluorescent screen that displays continuous imaging of the motion of internal structures and immediate serial images

### Magnetic resonance imaging (MRI)

- A noninvasive imaging technique that uses radio waves and a strong magnetic field rather than an x-ray beam to produce multi-planar cross-sectional images

### Nuclear scan

- A diagnostic technique that uses a radioactive material (radiopharmaceutical) introduced into the body (inhaled, ingested, or injected) and a scanning device to determine size, shape, location, and function of various organs and structures

### Positron emission tomography (PET)

- A scan using computed tomography to record the positrons (positively charged particles) emitted from a radiopharmaceutical, producing a cross-sectional image of metabolic activity in body tissues to determine the presence of disease

### Radiography

- An image produced when an x-ray is passed through the body or area and captured on a film; also called *x-ray*

### Single photon emission computed tomography (SPECT)

- A noninvasive imaging technique that provides clear, 3-D pictures of a major organ by injecting a radionuclide and detecting the emitted radiation using a special device called a gamma camera

### Tomography

- A radiographic technique that produces an image representing a detailed cross-section or "slice" of an area, tissue, or organ at a predetermined depth

### Ultrasonography

- An image produced by high-frequency sound waves (ultrasound) and displaying the reflected "echoes" on a monitor; also called *ultrasound, sonography, echo, & echogram*

### Biopsy

- A representative tissue sample removed from a body site for microscopic examination, usually to establish a diagnosis

### Needle biopsy

- The removal of a small tissue sample for examination using a hollow needle, usually attached to a syringe

### Punch biopsy

- The removal of a small core of tissue using a hollow instrument (punch)

### Shave biopsy

- The removal of tissue using a surgical blade to shave elevated lesions

### Frozen section biopsy

- An ultra-thin slice of tissue cut from a frozen specimen for immediate pathological examination

### Ablation

- The removal of a part, pathway, or function by surgery, chemical destruction, electrocautery, freezing, or radio frequency (RF)

### Anastomosis

- The surgical joining of two ducts, vessels, or bowel segments to allow flow from one to another.

### Cauterize

- To destroy tissue by electricity, freezing or corrosive chemicals

### Curettage

- The scraping of a body cavity with a spoon-shaped instrument called a *curette* (curet)

### Incision and drainage (I&D)

- An incision made to allow the free flow or withdrawal of fluids from a wound or cavity

### Laser surgery

- A surgical technique employing a device that emits intense heat and power at close range to cut, burn, vaporize, or destroy tissues

### Radical dissection

- The surgical removal of tissue in an extensive area surrounding the surgical site in an attempt to excise all tissue that may be malignant to decrease the chance of recurrence (such as radical mastectomy)

### Resection

- The partial excision of a bone, organ, or other structure