

# List of distinct cell types in the adult human body

See also: Cell type

There are many different types of cell in the human body.

## 1 Cells that are derived primarily from endoderm

### 1.1 Exocrine secretory epithelial cells

- Salivary gland mucous cell (polysaccharide-rich secretion)
- Salivary gland number 1 (glycoprotein enzyme-rich secretion)
- Von Ebner's gland cell in tongue (washes taste buds)
- Mammary gland cell (milk secretion)
- Lacrimal gland cell (tear secretion)
- Ceruminous gland cell in ear (earwax secretion)
- Eccrine sweat gland dark cell (glycoprotein secretion)
- Eccrine sweat gland clear cell (small molecule secretion)
- Apocrine sweat gland cell (odoriferous secretion, sex-hormone sensitive)
- Gland of Moll cell in eyelid (specialized sweat gland)
- Sebaceous gland cell (lipid-rich sebum secretion)
- Bowman's gland cell in nose (washes olfactory epithelium)
- Brunner's gland cell in duodenum (enzymes and alkaline mucus)
- Seminal vesicle cell (secretes seminal fluid components, including fructose for swimming sperm)
- Prostate gland cell (secretes seminal fluid components)
- Bulbourethral gland cell (mucus secretion)
- Bartholin's gland cell (vaginal lubricant secretion)

- Gland of Littre cell (mucus secretion)
- Uterus endometrium cell (carbohydrate secretion)
- Insolated goblet cell of respiratory and digestive tracts (mucus secretion)
- Stomach lining mucous cell (mucus secretion)
- Gastric gland zymogenic cell (pepsinogen secretion)
- Gastric gland oxyntic cell (hydrochloric acid secretion)
- Pancreatic acinar cell (bicarbonate and digestive enzyme secretion)
- Paneth cell of small intestine (lysozyme secretion)
- Type II pneumocyte of lung (surfactant secretion)
- Clara cell of lung

### 1.2 Hormone-secreting cells

- Anterior pituitary cells
  - Somatotropes
  - Lactotropes
  - Thyrotropes
  - Gonadotropes
  - Corticotropes
- Intermediate pituitary cell, secreting melanocyte-stimulating hormone
- Magnocellular neurosecretory cells
  - nonsecreting oxytocin
  - secreting vasopressin
- Gut and respiratory tract cells
  - secreting serotonin
  - secreting endorphin
  - secreting somatostatin
  - secreting gastrin
  - secreting secretin
  - nonsecreting cholecystokinin

- secreting insulin
- secreting glucagon
- nonsecreting bombesin
- Thyroid gland cells
  - Thyroid epithelial cell
  - Parafollicular cell
- Parathyroid gland cells
  - Parathyroid chief cell
  - Oxyphil cell
- Adrenal gland cells
  - Chromaffin cells
  - secreting steroid hormones (mineralocorticoids and glucocorticoids)
- Leydig cell of testes secreting testosterone
- Theca interna cell of ovarian follicle secreting estrogen
- Corpus luteum cell of ruptured ovarian follicle secreting progesterone
  - Granulosa lutein cells
  - Theca lutein cells
- Juxtaglomerular cell (renin secretion)
- Macula densa cell of kidney
- Peripolar cell of kidney
- Mesangial cell of kidney
- Pancreatic islets (islets of Langerhans)
  - Alpha cells (secreting glucagon)
  - Beta cells (secreting insulin and amylin)
  - Delta cells (secreting somatostatin)
  - PP cells (gamma cells) (secreting pancreatic polypeptide)
  - Epsilon cells (secreting ghrelin)

## 2 Derived primarily from ectoderm

### 2.1 Integumentary system

#### 2.1.1 Keratinizing epithelial cells

- Epidermal keratinocyte (differentiating epidermal cell)
- Epidermal basal cell (stem cell)
- Keratinocyte of fingernails and toenails

- Nail bed basal cell (stem cell)
- Medullary hair shaft cell
- Cortical hair shaft cell
- Cuticular hair shaft cell
- Cuticular hair root sheath cell
- Hair root sheath cell of Huxley's layer
- Hair root sheath cell of Henle's layer
- External hair root sheath cell
- Hair matrix cell (stem cell)

#### 2.1.2 Wet stratified barrier epithelial cells

- Surface epithelial cell of stratified squamous epithelium of cornea, tongue, oral cavity, esophagus, anal canal, distal urethra and vagina
- basal cell (stem cell) of epithelia of cornea, tongue, oral cavity, esophagus, anal canal, distal urethra and vagina
- Urinary epithelium cell (lining urinary bladder and urinary ducts)

## 2.2 Nervous system

There are nerve cells, also known as neurons, present in our human body. They are branched out. These cells make up nervous tissue. A neuron consists of a cell body with a nucleus and cytoplasm, from which long thin hair-like parts arise.

#### 2.2.1 Sensory transducer cells

- Auditory inner hair cell of organ of Corti
- Auditory outer hair cell of organ of Corti
- Basal cell of olfactory epithelium (stem cell for olfactory neurons)
- Cold-sensitive primary sensory neurons
- Heat-sensitive primary sensory neurons
- Merkel cell of epidermis (touch sensor)
- Olfactory receptor neuron
- Pain-sensitive primary sensory neurons (various types)
- Photoreceptor cells of retina in eye:
  - Photoreceptor rod cells
  - Photoreceptor blue-sensitive cone cell of eye

- Photoreceptor green-sensitive cone cell of eye
- Photoreceptor red-sensitive cone cell of eye
- Proprioceptive primary sensory neurons (various types)
- Touch-sensitive primary sensory neurons (various types)
- Type I carotid body cell (blood pH sensor)
- Type II carotid body cell (blood pH sensor)
- Type I hair cell of vestibular system of ear (acceleration and gravity)
- Type II hair cell of vestibular system of ear (acceleration and gravity)
- Type I taste bud cell

### 2.2.2 Autonomic neuron cells

- Cholinergic neural cell (various types)
- Adrenergic neural cell (various types)
- Peptidergic neural cell (various types)

### 2.2.3 Sense organ and peripheral neuron supporting cells

- Inner pillar cell of organ of Corti
- Outer pillar cell of organ of Corti
- Inner phalangeal cell of organ of Corti
- Outer phalangeal cell of organ of Corti
- Border cell of organ of Corti
- Hensen cell of organ of Corti
- Vestibular apparatus supporting cell
- Taste bud supporting cell
- Olfactory epithelium supporting cell
- Schwann cell
- Satellite glial cell (encapsulating peripheral nerve cell bodies)
- Enteric glial cell

### 2.2.4 Central nervous system neurons and glial cells

- Neuron cells (large variety of types, still poorly classified)
  - Interneurons
    - Basket cells
    - Stellate cells
    - Golgi cells
    - Granule cells
    - Lugaro cells
    - Unipolar brush cells
    - Martinotti cells
    - Chandelier cells
    - Medium spiny neurons
    - Cajal–Retzius cells
    - Double-bouquet cells
    - Neurogliaform cells
    - Spinal interneuron
      - Renshaw cells
  - Principal cells
    - Spindle neuron
    - Pyramidal cells
      - Place cells
      - Grid cells
      - Speed cells
      - Head direction cells
      - Betz cells
    - Stellate cells
      - Boundary cells
- Astrocyte (various types)
- Oligodendrocyte
- Ependymal cells
  - Tanycytes

### 2.2.5 Lens cells

- Anterior lens epithelial cell
- Crystallin-containing lens fiber cell

## 3 Derived primarily from mesoderm

### 3.1 Metabolism and storage cells

- Adipocytes:
  - White fat cell
  - Brown fat cell
- Liver lipocyte

### 3.2 Barrier function cells (lung, gut, exocrine glands and urogenital tract)

#### 3.2.1 Kidney

- Kidney parietal cell
- Kidney glomerulus podocyte
- Kidney proximal tubule brush border cell
- Loop of Henle thin segment cell
- Kidney distal tubule cell
- Kidney collecting duct cell
  - Principal cells
  - Intercalated cells

#### 3.2.2 Other

- Type I pneumocyte (lining air space of lung cell)
- Pancreatic duct cell (centroacinar cell)
- Nonstriated duct cell (of sweat gland, salivary gland, mammary gland, etc.)
  - Principal cell
  - Intercalated cell
- Duct cell (of seminal vesicle, prostate gland, etc.)
- Intestinal brush border cell (with microvilli)
- Exocrine gland striated duct cell
- Gall bladder epithelial cell
- Ductulus efferens nonciliated cell
- Epididymal principal cell
- Epididymal basal cell
- Endothelial cells

### 3.3 Extracellular matrix cells

- Ameloblast epithelial cell (tooth enamel secretion)
- Planum semilunatum epithelial cell of vestibular system of ear (proteoglycan secretion)
- Organ of Corti interdental epithelial cell (secreting tectorial membrane covering hair cells)
- Loose connective tissue fibroblasts
- Corneal fibroblasts (corneal keratocytes)
- Tendon fibroblasts
- Bone marrow reticular tissue fibroblasts

- Other nonepithelial fibroblasts
- Pericyte
- Nucleus pulposus cell of intervertebral disc
- Cementoblast/cementocyte (tooth root bonelike ewan cell secretion)
- Odontoblast/odontocyte (tooth dentin secretion)
- Hyaline cartilage chondrocyte
- Fibrocartilage chondrocyte
- Elastic cartilage chondrocyte
- Osteoblast/osteocyte
- Osteoprogenitor cell (stem cell of osteoblasts)
- Hyalocyte of vitreous body of eye
- Stellate cell of perilymphatic space of ear
- Hepatic stellate cell (Ito cell)
- Pancreatic stelle cell

### 3.4 Contractile cells

- Skeletal muscle cell
  - Red skeletal muscle cell (slow)
  - White skeletal muscle cell (fast)
  - Intermediate skeletal muscle cell
  - Nuclear bag cell of muscle spindle
  - Nuclear chain cell of muscle spindle
- Satellite cell (stem cell)
- Heart muscle cells
  - Ordinary heart muscle cell
  - Nodal heart muscle cell
  - Purkinje fiber cell
- Smooth muscle cell (various types)
- Myoepithelial cell of iris
- Myoepithelial cell of exocrine glands

### 3.5 Blood and immune system cells

- Erythrocyte (red blood cell)
- Megakaryocyte (platelet precursor)
- Monocyte (white blood cell )
- Connective tissue macrophage (various types)
- Epidermal Langerhans cell
- Osteoclast (in bone)
- Dendritic cell (in lymphoid tissues)
- Microglial cell (in central nervous system)
- Neutrophil granulocyte
- Eosinophil granulocyte
- Basophil granulocyte
- Hybridoma cell
- Mast cell
- Helper T cell
- Suppressor T cell
- Cytotoxic T cell
- Natural killer T cell
- B cell
- Natural killer cell
- Reticulocyte
- Stem cells and committed progenitors for the blood and immune system (various types)

### 3.6 Germ cells

- Oogonium/Oocyte
- Spermatid
- Spermatocyte
- Spermatogonium cell (stem cell for spermatocyte)
- Spermatozoon

### 3.7 Nurse cell

- Ovarian follicle cell
- Sertoli cell (in testis)
- Thymus epithelial cell

### 3.8 Interstitial cells

- Interstitial kidney cells

## 4 See also

- List of organs of the human body
- List of systems of the human body

## 5 References

## 6 External links

- Types of neurons from NeuroLex
- Eukaryotic cell types in COPE database.

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- **List of distinct cell types in the adult human body** *Source:* [https://en.wikipedia.org/wiki/List\\_of\\_distinct\\_cell\\_types\\_in\\_the\\_adult\\_human\\_body?oldid=767816733](https://en.wikipedia.org/wiki/List_of_distinct_cell_types_in_the_adult_human_body?oldid=767816733) *Contributors:* The Anome, AdamRetchless, Ahoerstemeier, Conti, Fuelbottle, Dbenbenn, Jfdwolff, John Abbe, Mporch, PenguiN42, Lvl, Sayeth, Kevin Rector, Discospinster, Shanes, Bobo192, Smalljim, Arcadian, Rajah, Nsaa, Abstrakt, Arthena, Ombudsman, Wimbendorst, LukeSurl, Chrysaor, Dozenist, Dolfrog, Bluemoose, Jordan Yang, Fieari, TeaDrinker, Bgwhite, Wavelength, Carl T, Rsrikanth05, Wimt, Moe Epsilon, CWenger, Allens, Banus, SmackBot, Haymaker, Drkarthi, Gilliam, Chris the speller, Neo139, Aldaron, JZUK, SpiderJon, Rockpocket, Benesch, Liam Skoda, Zarex, Jamoche, Smoove Z, Cydebot, Epr123, Mercury~enwiki, CopperKettle, Mojo Hand, John254, James086, AntiVandalBot, Nthep, Ozborn, VoABot II, Jackson Peebles, MartinBot, R'n'B, Nono64, Pharaoh of the Wizards, Trusilver, Hodja Nasreddin, Mikael Häggström, Markjohndaley, Belovedfreak, Cobi, Christopher Kraus, Juliancolton, ABF, Philip Trueman, DoorsAjar, Tameeria, DennyColt, Blurpeace, Cmcnicoll, Doc James, Nathan, Yintan, Eikenhein, Wilson44691, Allmightyduck, Johntobey, Hello71, Sunrise, Pinkadelica, Forluvoft, Atif.t2, ClueBot, AnteatZot, Franamax, Puchiko, Auntof6, Excirial, Alexbot, Robfbms, Pichpich, MystBot, Addbot, Pyfan, Ka Faraq Gatri, Jomunro, QuackOfaThousandSuns, West.andrew.g, Da best editor, Megaman en m, Luckas-bot, Yobot, Tohd8BohaithuGh1, Fraggie81, Cfm001, Gongshow, Aditya, Materialscientist, Sionus, Capricorn42, Mathonius, FrescoBot, I dream of horses, RedBot, My very best wishes, Abc518, Reaper Eternal, Rzuwig, Smd75jr, Gcastellanos, Faolin42, K6ka, Allforrous, Brad117, TYelliot, ClueBot NG, Snotbot, Widr, Newyorkadam, Titodutta, BG19bot, Mark Arsten, San04~enwiki, NotWith, Blahblah97, Achowat, SergeantHippyZombie, Jackibuddy, Dexbot, Jarradpowell, Isarra (HG), JakobSteenberg, Spectrumsaymyname, The Anonymouse, Me, Myself, and I are Here, Epicgenius, Iztwoz, Revolution1221, Evolution and evolvability, LT910001, AddWittyNameHere, Imover9000, JaconaFrere, Sungjoon798, AKS.9955, CellbioPhD, Amortias, TerryAlex, Malik.ImRan007, Ryry029, CAPTAIN RAJU, Boomer Vial, Edikedikedikedik, Kyler12345678901234567890 and Anonymous: 294

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