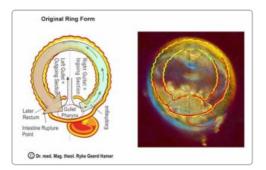
EMBRYOLOGY



"The science of embryology and our knowledge of the evolution of man is the foundation of medicine. They are the two sources that reveal to us the nature of cancer and of all so-called diseases."

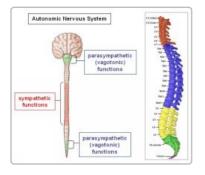
Dr. med. Ryke Geerd Hamer

Human life begins as a single cell holding all instructions for its growth and development. Starting with the first cell division, the embryo grows into a cluster of cells called a **blastocyst**. Two weeks after conception, the blastocyst divides into **three embryonic germ layers**: an inner **endoderm**, an outer **ectoderm**, and a **mesoderm** forming in between. Over the course of gestation the embryonic germ layers develop all organs and tissues of the body. Throughout this period the growing fetus passes through all the evolutionary stages from a single-celled organism to a complete human being. **NOTE:** The three germ layers give rise to the same tissue types in all organisms, including animals and plants.



We know from the science of biology that the first life forms were **ring-formed organisms** consisting solely of **intestine**. At this early development stage both the intake of food and elimination were shared by one opening, the so-called **GULLET** (see GNM diagram). The ingoing section of the gullet served the intake and digestion of food, the outgoing section regulated the disposal of feces.

The image on the right shows a five days old human embryo. The ring form is still maintained.

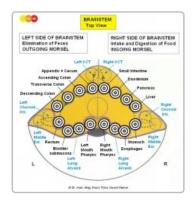


The nerve contribution of the autonomic nervous system before birth also points to the primordial **ring form**. While the sympathetic nerves are arranged in the middle of the **spinal cord**, the parasympathetic (vagotonic) nerves are located on the periphery, namely at the base of the brain and in the sacral region, close to the pharynx and the rectum. This strongly suggests that the parasympathetic divisions were once connected.

We have to envision the development of the spinal cord and the spine progressively from the cervical (C), thoracic (T) and lumbar spine (L) to the sacrum; first, in a round configuration equal to the ring form of the intestine. We can speak of an upper and lower section of the spine only after the gullet had broken open. The sympathetic trunks, which are two long chains of nerves on each side of the vertebrae, allow nerve fibers to travel to spinal nerves that are

DEVELOPMENT FROM THE ORIGINAL RING FORM TO THE FINAL EMBRYO FORM

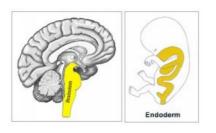
superior or inferior to the one in which they originate.



In the **BRAINSTEM**, the oldest part of the brain, the control centers of the organs of the intestinal canal are also arranged in a **ring-form order**, starting on the right hemisphere with the brain relays of the mouth and pharynx (incl. thyroid gland, parathyroid glands), esophagus, stomach, liver parenchyma, pancreas gland, duodenum, small intestine, continuing counter-clockwise with the brain relays of the appendix, cecum, colon, rectum and bladder on the left side of the brainstem. The transition from the right to the left brainstem hemisphere corresponds on the organ level to the ileo-cecal valve, positioned between the small intestine and the cecum, the first section of the large intestine.

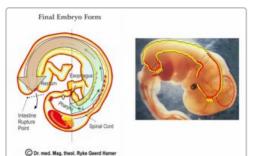
The lung alveoli, middle ear and Eustachian tubes, tear glands, choroid, iris and ciliary body of the eyes, kidney collecting tubules, adrenal medulla, prostate, uterus and fallopian tubes, Bartholin's glands, smegma producing glands as well as the pituitary gland, pineal gland, and choroid plexus originate from the intestinal mucosa. They are therefore controlled from the brainstem.

Equal to the intestinal cells that absorb (resorptive quality) and digest (secretory quality) the "food morsel", the lung alveoli "absorb" and "digest" the "air morsel", the middle ear and Eustachian tubes the "sound morsel", the tear glands and uvea the "visual morsel", and the kidney collecting tubules the "water morsel".



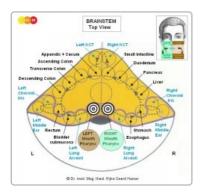
All organs that are controlled from the **BRAINSTEM** derive from the **ENDODERM**, the first and oldest embryonic germ layer. Because of their origin from the intestinal mucosa, they consist of **INTESTINAL CYLINDER EPITHELIUM**.

In the event of a biological conflict, the related organ generates during the conflict-active phase cell proliferation. In the healing phase, the additional cells are removed with the help of fungi and tubercular bacteria.



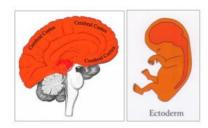
Over the course of evolution the GULLET BROKE OPEN. The new opening of the outgoing section developed into today's rectum, the remaining gullet became in its entirety the mouth and pharynx (see GNM diagram).

The image on the right shows the further development of the fetus to the final embryo form, outlining the embryonic germ layers.



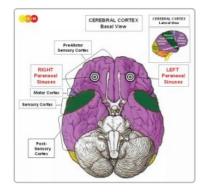
The intestinal rupture occurred close to the left half of the gullet. This explains why the control center of the **mouth and pharynx** is divided into **two brain relays** located opposite each other at the midline of the brainstem hemispheres.

The **right half of the mouth and pharynx** is controlled from the **right side of the brainstem** that still regulates ingestion ("ingoing morsel"), while the **left half of the mouth and pharynx** is controlled from the **left side of the brainstem**, which, however, no longer regulates excretion (this is now managed by the rectum) but instead the vomiting reflex (a remainder of the gullet's previous fecal disposal function). The preservation of the original innervation of the left half of the gullet also serves the biological purpose to be able to expel a morsel (excretory quality) that might cause harm to the organism.



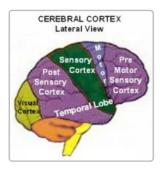
The **rupture of the gullet** happened at a point in time when so-called **SQUAMOUS EPITHELIUM** that originated from a new embryonic germ layer, namely from the **ECTODERM**, had already migrated from the gullet both into the ingoing and outgoing section of the intestine. During gestation the ectoderm develops on the seventh day after fertilization. All organs and tissues that derive from the ectoderm are **controlled from the CEREBRAL CORTEX**. **NOTE:** The alpha islet cells and beta islet cells of the pancreas, the olfactory nerves, and the thalamus are controlled from the diencephalon (part of the cerebrum).

In the event of a biological conflict, the corresponding organ generates during the conflict-active phase cell loss (ulceration). In the healing phase, the cell loss is restored with the help of bacteria. **NOTE:** The inner ear (cochlea and vestibular organ), retina and vitreous body respond to the related conflict with functional loss or hyperfunction (periosteal nerves).



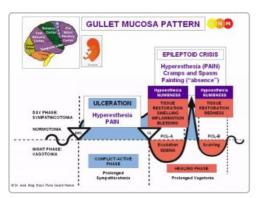
The **starting point of the ectodermal cell migration** was the squamous epithelium covering the **periosteum** of the **paranasal sinuses**. The sensitive nerves of the epithelial sinus mucosa provided a heightened sense of smell facilitating survival (scent of danger) as well as procreation (scent of a mate). The control centers of the paranasal sinuses are located at the base of the cranium. They form the junction between the premotor-sensory and post-sensory cortex.

The **squamous epithelial cell migration into the INGOING SECTION OF THE GULLET** explains why ectodermal tissue is found in today's ...



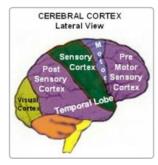
... mouth and pharynx, salivary gland ducts, paranasal sinuses, tooth enamel, tear ducts, thyroid ducts, and pharyngeal ducts. All these tissues are **controlled from the PRE-MOTOR SENSORY CORTEX**.

... esophagus (upper two-thirds), stomach (small curvature), pylorus, duodenal bulb, bile ducts, gall bladder, pancreatic ducts, coronary arteries, coronary veins, ascending aorta, internal carotid arteries, inner sections of the subclavian arteries, carotid sinus, glans penis and glans clitoris. All these tissues are **controlled from the POST-SENSORY CORTEX**.



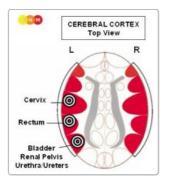
Concerning their sensitivity, both organ groups follow the **GULLET MUCOSA PATTERN** (so named because of its connection to the gullet) with hypersensitivity during the conflict-active phase and the Epileptoid Crisis and hyposensitivity during the healing phase.

The **squamous epithelial cell migration into the OUTGOING SECTION OF THE GULLET** explains why ectodermal tissue is found in today's ...



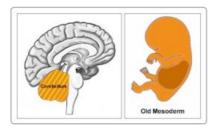
... renal pelvis, ureters, bladder, urethra, rectum, para-anal ducts, and cervix uteri. All these tissues are **controlled from the POST-SENSORY CORTEX**.

NOTE: After the gullet had broken open, the sensitive nerves as well as the motor innervation of the entire urino-rectal system had to be rewired through the spinal cord (this is why these organs paralyze with paraplegia) and were connected to the **OUTER**



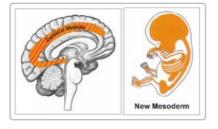
SKIN PATTERN. In the brain, the organs are orderly arranged side by side on the left side of the cerebral cortex.

The **MESODERM**, which developed after life had moved on land, is divided into an older and younger group.



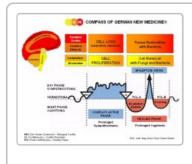
The **OLD MESODERM** develops the corium skin (incl. sebaceous glands and sweat glands), pleura, peritoneum, great omentum, pericardium, breast glands, tunica vaginalis testis, and eyelid glands. All organs and tissues that derive from the old mesoderm are **controlled from the CEREBELLUM**, which had formed next to the brainstem.

In the event of a biological conflict, the related organ generates during the conflict-active phase cell proliferation. In the healing phase, the additional cells are removed with the help of fungi and bacteria.

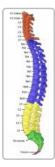


The **NEW MESODERM** develops the bones (incl. bone marrow and blood cells), tooth dentin, periodontium, periosteum, striated muscles, cartilage, tendons, ligaments, fat tissue, connective tissue (incl. neuroglia and myelin), endocardium and heart valves, blood vessels (incl. descending aorta, external carotid artery, outer sections of the subclavian arteries, abdominal aorta, cerebral arteries), meninges, lymph vessels with lymph nodes, spleen, ovaries, testicles, corpora cavernosa (penis), kidney parenchyma, adrenal cortex, and parts of the vitreous body. All organs and tissues that derive from the new mesoderm are **controlled from the CEREBRAL MEDULLA**, which had formed underneath the cerebral cortex.

In the event of a biological conflict the related organ generates during the conflict-active phase cell loss (necrosis). In the healing phase, the cell loss is restored with the help of bacteria.



The ability of the primordial cell to divide through mitosis, creating diploid cells which contain two sets of chromosomes, became the blueprint for Old Brain (brainstem and cerebellum) controlled organs that generate cell proliferation during the conflict-active phase. The so-called reduction division (meiosis) where the number of chromosomes is reduced from diploid to haploid became the plan for cerebrum (cerebral medulla and cerebral cortex) controlled organs that generate cell loss during conflict activity. The Biological Special Programs are inscribed in the genetic make-up of each cell of the human organism.

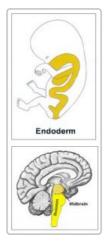


NOTE: The bones of the skeletal system are supplied by the spinal nerves. The innervation of the bones comes from the second to fourth cervical nerves (C 2 - C 4). The corium skin is supplied by the second to fifth cervical nerves (C 2 - C 5), almost parallel to the bone innervation. The epidermis is supplied by the fifth to seventh cervical nerves (C 5 - C 7). The reason for the different innervation of the bones and the epidermis is that the bones, originating from the new mesoderm, developed much earlier than the outer ectodermal layer of the skin.

At first, the periosteum that envelops the bones of the skeletal system was covered with squamous epithelium. After the muscles, ligaments, tendons and two skin layers (corium skin and outer skin) had given new support to the bones, the squamous epithelial layer degenerated (in the fetal development this process occurs during the first two weeks of gestation). What remained was a sensitive network of periosteal nerves (controlled from the post-sensory cortex). **NOTE:** The previous, old squamous epithelium (compare with young squamous epithelium of the epidermis) still lines today's paranasal sinuses, periodontium, glans clitoris and glans penis. The periosteal membrane of the glans penis is a remainder of the periosteum that covered the previous penis bone.

THE DEVELOPMENT OF MUSCLE TISSUE

SMOOTH MUSCLES: The smooth muscles of the human body originate from the intestinal muscles of the original gullet.



The **smooth muscles** of the intestines, sigmoid colon and rectum (upper part), internal rectal sphincter, renal pelvis, ureters, bladder, urethra, internal bladder sphincter, esophagus, bronchia, larynx, uterus, myocardium (atria), blood vessels (incl. coronary arteries, coronary veins, aorta, carotid arteries, subclavian arteries), lymph vessels, pupils, and ciliary muscles originate from the **ENDODERM**.

Smooth muscles are involuntary non-striated muscles. Their ability to contract allows moving the "food morsel" (intestinal muscles), the "blood morsel" (atria, blood vessels), the "air morsel" (laryngeal muscles, bronchial muscles), the "urine morsel" (renal pelvis, ureters, bladder, urethra, internal bladder sphincter), the "semen morsel" (prostatic ducts), and the "light morsel" (pupil muscles) through specific organs by peristaltic motion.

The smooth muscles are controlled from the **MIDBRAIN**, located at the outermost part of the brainstem. **NOTE:** The male and female germ cells are also controlled from the midbrain.

In the event of a biological conflict, the related muscles generate during the conflict-active phase cell proliferation with an increase of muscle mass and increased local muscle tension (hypertonus). In the healing phase, the muscles relax. The Epileptoid Crisis presents as muscle spasms. In the uterus, the additional muscle cells remain after healing has been complete.

STRIATED MUSCLES: The striated muscles developed at a time when more efficient muscle functions were required.



The **striated muscles** of the skeletal musculature, myocardium (ventricles), coronary arteries, coronary veins, aorta, carotid arteries, and subclavian arteries, blood vessels, tongue, jaw, ear, bronchia, larynx, diaphragm, esophagus, stomach (small curvature), pylorus, duodenal bulb, pancreatic ducts, bile ducts, gall bladder, cervix, cervical sphincter, vagina, rectum, external rectal sphincter, renal pelvis, ureters, urethra, bladder, external bladder sphincter, eyelid muscles, ciliary muscles, and extraocular muscles derive from the **NEW MESODERM**.

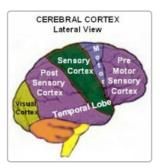
The trophic function of the striated muscles is controlled from the **CEREBRAL MEDULLA**.

The ability to move the muscles is controlled from the **MOTOR CORTEX**.

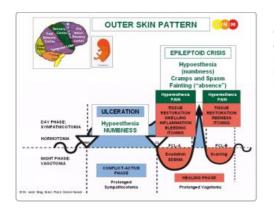
In the event of a biological conflict, the related muscles generate during the conflict-active phase cell loss and muscle paralysis. In the healing phase, the muscles are reconstructed. The Epileptoid Crisis manifests as muscle cramps, rhythmic convulsions, spasms, or muscle twitching. NOTE: From an evolutionary point of view, it is the tonic-clonic contractions during childbirth that became the blueprint for the Epileptoid Crisis of the striated muscles.

NOTE: The striated muscles belong to the group of organs that respond to the related conflict not with cell proliferation or cell loss but with functional loss (see also Biological Special Programs of the islet cells of the pancreas (alpha islet cells and beta islet cells), inner ear (cochlea and vestibular organ), olfactory nerves, retina and vitreous body of the eyes) or hyperfunction (periosteal nerves and thalamus). In case of the striated muscles, the conflict-active phase manifests as muscle paralysis. From a biological point of view, the paralysis is an innate fake-death reflex in response to danger.

Lastly, the **ECTODERM** developed the **OUTER SKIN** that covered the entire corium skin (under skin). From the outer skin ectodermal **squamous epithelium** migrated through the nipples into the milk ducts, into the ear canal, nasal cavities and respiratory tract. It also covered the outer part of the eyes. This is why squamous epithelium is found in today's ...

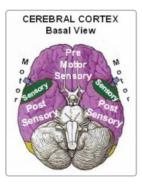


... epidermis (including the external genitals and the vagina), prostatic ducts, eyelid skin, eyelid gland ducts, conjunctiva, cornea, lens, milk ducts, outer ear and auditory canal, nasal mucosa, trachea, larynx and vocal cords, and bronchia. All these tissues are **controlled from the SENSORY CORTEX**.

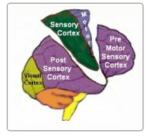


Concerning their sensitivity, this organ group follows together with the organs of the urino-rectal system the **OUTER SKIN PATTERN** (so named because of its connection to the outer skin) with **hyposensitivity during the conflict-active phase and the Epileptoid Crisis** and **hypersensitivity in the healing phase**.

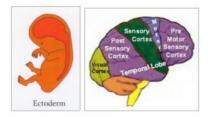
NOTE: The squamous epithelial sensitivities of the Outer Skin Pattern and of the Gullet Mucosa pattern are the exact opposite. The two sensitivity patterns explain why, for example, stomach ulcers cause pain (hyperesthesia) during conflict activity while ulceration in the rectum causes numbness (hypoesthesia) in the conflict-active phase.



This GNM diagram, showing a basal view of the cerebral cortex, illustrates that the **pre-motor sensory cortex** and **post-sensory cortex** (which control all organs following the Gullet Mucosa Pattern, the urino-rectal system, and the periosteal nerves) are considerably larger than the **sensory cortex** and **motor cortex**.



The **pre-motor sensory cortex and post-sensory cortex** were originally one big area that was **later separated by the sensory and motor cortex** maintaining a connection only at the cranial base.



The retina and the vitreous body of the eyes derive from the **ECTODERM**. They are controlled from the **VISUAL CORTEX** located in the occipital lobe in the back of the brain. The visual cortex and its corresponding organs developed before the sensory and motor cortex.

In the event of a biological conflict, the related tissue generates during the conflict-active phase functional loss. In the healing phase, the function is restored.