HIPPOCAMPAL FORMATION

1. Gyrus dentatus (s. fascia dentata)
2. Ammon horn (s. hippocampus proper) — two interlocking gyri

3. SUBICULUM — transition zone between gyrus para-hippocampalis (six-layered cortex) and Ammon horn (three-layered cortex); dunska aksorns, kurie per fornic ineruinga hypothalamus

4. HIPPOCAMPAL RUDIMENT
   1) BROCA diagonal band
   2) Gyrus supracallosus (s. inclusion griseum)
   3) Gyrus fascicolaris

ALVEUS — baltoji medžiaga, dengianti skilvelini

hippocampus parsiečęjų purinę ir Fimbria (narrow sharp-edged crest of white matter, attached to medial border of hippocampus), o ši į FORNIX

Hippocampus (s. hippocampal formation) — primitive cortex (archicortex — three-layered) along medial margin of temporal lobe, rolled into the floor of temporal horn along choroid fissure
Hippocampus in frontal section

- Telencephalic, choroid plexus
- Choroid fissure
- Fimbria
- Pyramidal cell layer of Ammon horn
- Granular cell layer of dentate gyrus
- Pyramidal cells of entorhinal area
- Rhinal/collateral sulcus
- Medial entorhinal area
- Lateral entorhinal area

- Deiters-hippocampal fibers
- Temporozammonic fibers (perforant pathway)
- Temporoalvear fibers (alvear pathway)
- Alveus → Fimbria
  → Subiculum → Fimbria

- Nucleus caudatus
- Inferior horn of lateral ventricle
Fig. 11-7. Sagittal sections through the hippocampal formation and dentate gyrus in the rhesus monkey showing the relationships of these structures to the inferior horn of the lateral ventricle, the neostriatum and the amygdaloid nuclear complex. In A, the cellular layers of the hippocampal formation and dentate gyrus are identified. In B, the alveus, fimbria, tail of the caudate nucleus, stria terminalis, amygdaloid complex and part of the lateral geniculate body are identified. A, Nissl stain, x 8; B, Weil stain, x 9. (From Truex and Carpenter, Human Neuroanatomy, 1969; courtesy of The Williams & Wilkins Company.)
Fig. 11-6. Transverse section through human hippocampus and parahippocampal gyrus. (From Truex and Carpenter, Human Neuroanatomy, 1969; courtesy of The Williams & Wilkins Company.)
11-8. Semischematic diagram of the hippocampal formation, dentate gyrus and entorhinal area. In the dentate gyrus only the granular layer is indicated. In the hippocampal formation only pyramidal cells and their axons projecting into the alveus are shown. Afferent fibers from prepyriform cortex projecting to the entorhinal cortex are shown in black. Projections of the entorhinal cortex to the hippocampal formation follow two pathways: (1) the lateral region gives rise to fibers which follow the so-called “perforant” pathway (red), and (2) the medial region gives rise to fibers which follow the so-called “alvear” pathway (blue). Axons of pyramidal cells in the hippocampal formation entering the alveus pass to the fimbria of the hippocampus. The dentate gyrus gives rise to fibers that project only to the hippocampal formation. (Based on Lorente de Nó, ’34, and a schematic diagram by Peele, ’61). (From Truex and Carpenter, Human Neuroanatomy, 1969; courtesy of The Williams & Wilkins Company.)
Hippocampus embryogenesis:

- Hippocampus forming along hippocampal sulcus, immediately above and parallel to choroidal fissure (which marks invagination of choroid plexus into ventricle)

- Connecting temporal lobe, the physoi in hippocampus
- Nucleus dentatus and pyramidal neurons of olfactory cortex (c. cortexi)
- Frontal projection hippocampal sulcus dali pericampal gyrus, corpus callosum ils jis dampa sulcus corporis callosi, o
- Raphe hippocampus dali dafa kai rudimentas
- Indusium griseum; apatine hippocampus dalius
- Dian nyskiai z hippocampal formation
Functions:

- hippocampus has exceedingly low threshold for seizure activity
- belongs to circuit of recent memory and learning
- belongs to Papez circuit for emotions

Hippocampus labai jaunus biukai, jis lygus hipoglikemijai (joms kartojantis ar sergant epilepsija atrojoma hippocampus bei adjacent temporal cortex [subiculum, entorhinal area]) — mesial temporal lobe sclerosis