Neuroectoderm

Neuroectoderm (or neural ectoderm or neural tube epithelium) is ectoderm which receives bone morphogenetic protein-inhibiting signals from proteins such as noggin, which leads to the development of the nervous system from this tissue.

After recruitment from the ectoderm, the neuroectoderm undergoes three stages of development: transformation into the neural plate, transformation into the neural groove (with associated neural folds), and transformation into the neural tube. After formation of the tube, the brain forms into three sections; the hindbrain, the midbrain, and the forebrain.

The types of neuroectoderm include:

Neural crest pigment cells in the skin ganglia of the autonomic nervous system dorsal root ganglia. facial cartilage aorticopulmonary septum of the developing heart and lungs ciliary body of the eye adrenal medulla parafollicular cells in the thyroid Neural tube brain (rhombencephalon, mesencephalon and prosencephalon) spinal cord and motor neurons retina posterior pituitary

Ependymal cysts is thought to arise from sequestration of developing neuroectoderm during embryogenesis.