

Table of Contents

- FOETAL EMBRYOLOGY** 3
- Introduction* 5
- Basic process in development* 5
- Germ Cells and their maturation* 5
- Fertilization* 6
- Stages of embryology* 6
- Placenta* 6
- Fertilization* 6
- ZYGOTE 6
- STAGES OF EMBRYOLOGY** 6
- CHANGES IN FIRST WEEK 6
- CHANGES IN SECOND WEEK 7
- CHANGES IN THIRD WEEK 8
- SYSTEMIC EMBRYOLOGY** 8

FOETAL EMBRYOLOGY

- recurring [life](#) , ontogeny
- phylogeny
- progeny , today's creator (अद्यज)
- EMBRYOLOGY GENITORS
 - zygote (युग्मज)
 - Blast -
 - Amnioblast (उल्वज)
 - Blastocoel (जननगुहा) , Blastocyst (जननपूट) , Blastomeres (जननखंड) , Blastopore (जननछिद्र)
 - Embryoblast (भ्रूणज)
 - Epiblast (अधिज , आद्यबहिर्जनस्तर) , Hypoblast (अधःज , आद्यअंतःजनस्तर)
 - Trophoblast (पोषज)
 - [heart](#) and vessels creator
 - Angiogenesis (वाहिकाजनन)
 - Cardiogenic area (हृदजनक क्षेत्र) , Cardiac progenitor [cell](#) (हृद प्रजनक कोशिका)
 - creator of [kidney](#)
 - Nephrogenic cord
 - nervous system creator
- युग्मज (zygote)
 - द्वि कोशिकीय युग्मज (क्स 2 celled)
 - 4 celled (4 क्स)
 - 8 celled (8 क्स)
 - 16 celled (16 क्स)
 - जननपूट (blastocyst - क्सः)
 - जननगुहा (blastocoel - ह,अः)
 - outer [cell](#) mass (क)
 - पोषज (trophoblast)
 - कोशिकापोषज (cytotrophoblast - क्र)
 - बीजपोषक संकोशिका (syncytiotrophoblast - कृ)
 - भ्रूणीय ध्रुव (Emrbyonic pole - किं)
 - अवभ्रूणीय ध्रुव (Abembryonic pole - कुं)
 - Mural trophoblast (कों)
 - भ्रूणज (inner [cell](#) mass / embryoblast - स)
 - अधिःज (epiblast - श)
 - उल्वीय गुहा (amniotic cavity - शः)
 - उल्वज (amnioblast)
 - ectoderm
 - आद्य रेखा (Primitive streak)
 - आद्य मंडली , आद्य गांठ (Primitive knot / node / hensens node)
 - जनन छिद्र (blastopore)
 - आद्य पृष्ठरज्जु नाल (notochordal process)
 - आद्य तंत्राशय नली (neurenteric canal)
 - तंत्रिक शिखर (neural crest)

- [development of nervous system](#)
- अधःज (hypoblast - ष)
 - पीतक थैली (yolk sac - षः)
 - heuser membrane (पीतकज)
 - endoderm
 - प्ररज्जु पत्तल / आद्य पत्तल (Prochordal plate / primitive plate)
 - [development of digestive system](#)
 - [development of respiratory system](#)
- मध्यत्वक, मध्यज (mesoderm - स) derived from ingressing epiblast cells
 - paraxial (परअक्षीय -)
 - extends from primitive streak to prechordal plate
 - extends to otic vesicle of hind [brain](#)
 - post otic part undergoes segmentation in to cubical blocks
 - अनुकाय , कायखंड (Somites) or , अनुकायांश (somitomeres) , metameres by transverse clefts
 - 44 pairs develop
 - first 4 pairs called occipital somites
 - form skull
 - 8 cervical
 - 12 thoracic
 - 5 lumbar
 - 5 sacral
 - 8-10 coccygeal
 - (sclerotome)
 - अक्षीय कंकाल (axial [skeleton](#))
 - [development of skeletal system](#)
 - vertebral column
 - ribs
 - (dermato-myotome)
 - lateral (dermatome) plate
 - त्वचा (dermis of skin)
 - medial [muscle](#) plate
 - अक्षीय मांस - पेशी (axial muscles)
 - muscles of [tongue](#)
 - diaphragm
 - [trunk](#)
 - अंगीय मांस पेशी (limb muscles)
 - rostral/ beak part remains unsegmented
 - develop base of skull
 - Intermediate (अंतरामध्य)
 - upper cervical and thoracic regions show segmentation
 - lower segments are unsegmented
 - Nephrogenic cord
 - [development of urogenital system](#)
 - [development of reproductive system](#)
 - Lateral (पार्श्व)

- continuous with pericardial **bar** cephalic to buccopharyngeal membrane
- pericardial **bar**
 - pericardial sac
- series of clefts appear inside
 - **join** to form
 - intraembryonic coelom
 - u shaped tubular **passage**
 - divides mesoderm
 - somatic layer with overlying ectoderm
 - somatopleure
 - **body** wall
 - parietal layer
 - skeletal elements
 - pectoral girdle
 - pelvic girdle
 - splanchnic layer with underlying endoderm
 - Splanchnic layer
 - gut
 - splanchnic mesoderm
 - **development of circulatory system**
- बाह्य भ्रूणगुहा (extraembryonic coelom)
- बाह्य मध्यत्वक (extramebryonic mesoderm)
 - आद्यकायिक मध्यजनस्तर (Somatopleuric mesoderm)
 - आद्यआशय मध्यजनस्तर (Splanchnopleuric mesoderm)
 - **ग्रसनी चाप**
- PRIMITIVE POSTURE OF EMBRYO
 - the first folding of embryo to reorganize the organ locations
 - cardiogenic area , pericardial sac , septum transversum
- आद्य गर्त (Primitive pit)
- आद्य खात (Primitive groove)
- आद्य स्तंभ / पृष्ठरज्जु (notochord)
- decidua (माँ)
 - decidua basalis पाती आधार
 - decidua parietalis पाती पार्श्व
 - decidua capsularis पाती संपुट

Introduction

Basic process in development

Germ Cells and their maturation


Fertilization


- [fertilization](#)


Stages of embryology


Placenta


Fertilization

 = amnioblast

 = epiblast

 = hypoblast

 = cytotrophoblast

 = syncytiotrophoblast

ZYGOTE



STAGES OF EMBRYOLOGY

CHANGES IN FIRST WEEK

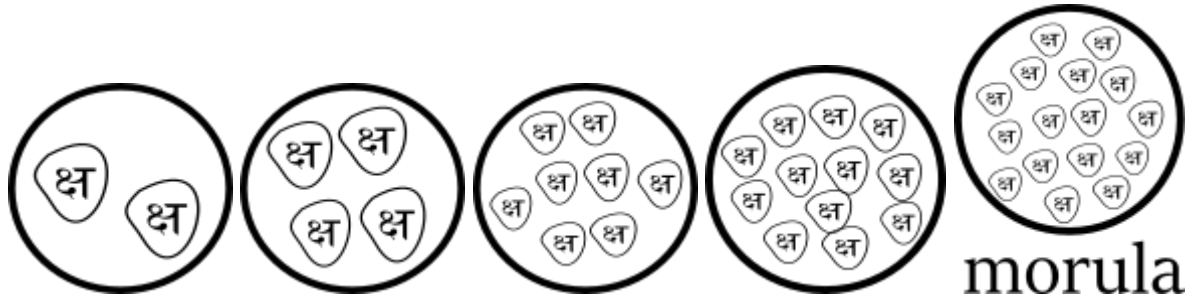
- [morula](#)
- [blastocyst](#)

CLEAVAGE The two cells formed as described above undergo a series of divisions. One [cell](#) divides first so that we have a 3 [cell](#) stage of embryo followed by 4 [cell](#) stage , a 5 [cell](#) stage etc. This process is called cleavage.

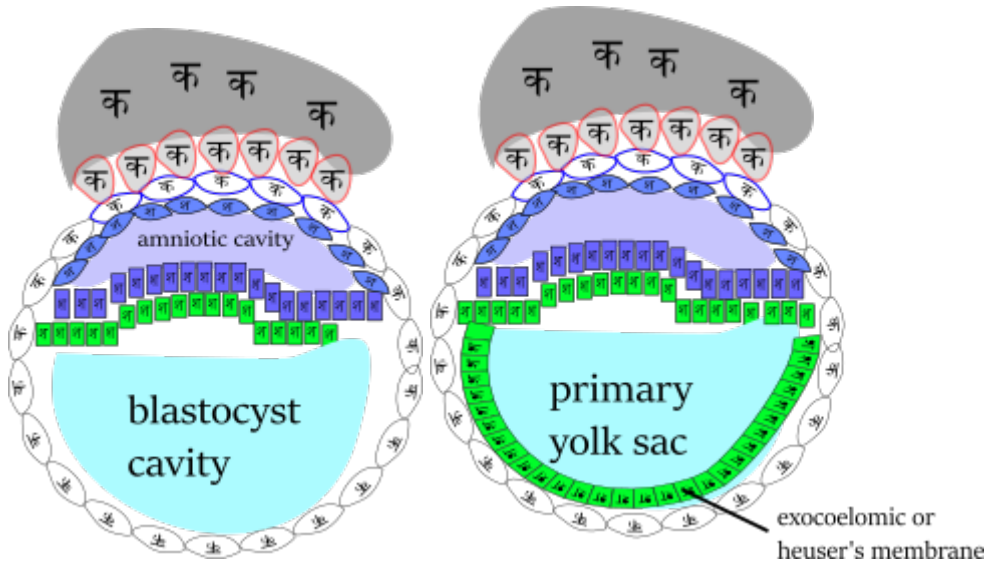
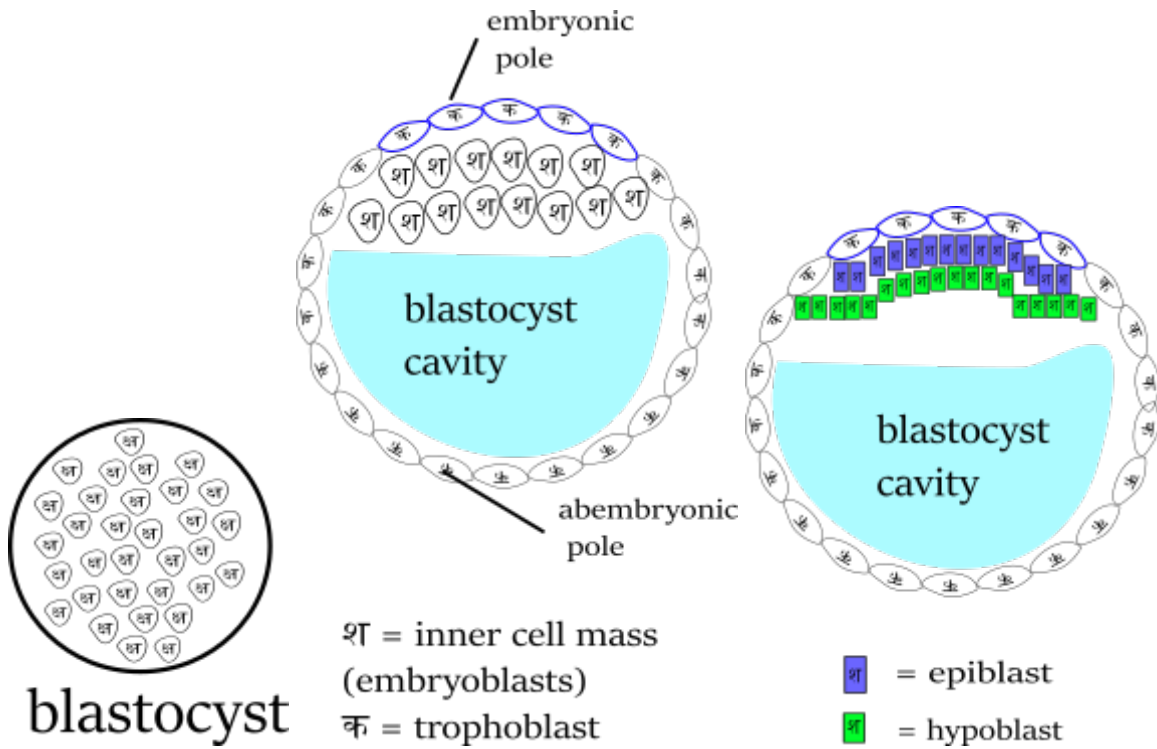
Subdivisions of cleavage

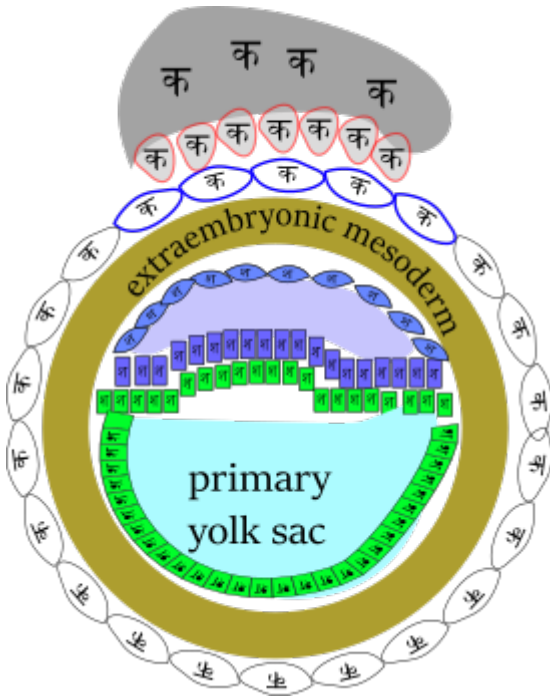
- Stage of compaction : at 8 celled stage
- Morula
- Blastocyst : between 4th and 5th day

GERMINAL PERIOD



CHANGES IN SECOND WEEK





CHANGES IN THIRD WEEK

SYSTEMIC EMBRYOLOGY

- Development of cardiovascular system
- Development of respiratory system
- Development of nervous system
- Development of urogenital system
- development of gastrointestinal tract
- development of skeletal system
- Development of face

From:

<http://mantrakshar.co.in/> - Kshtrgyn

Permanent link:

http://mantrakshar.co.in/doku.php/en/foetal_embryology?rev=1722409435

Last update: **2024/07/31 07:03**

