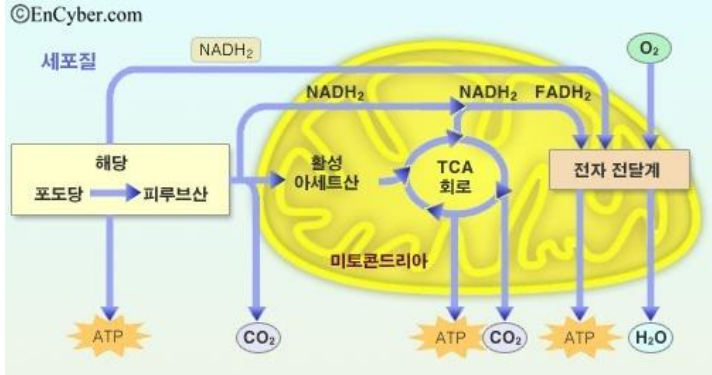
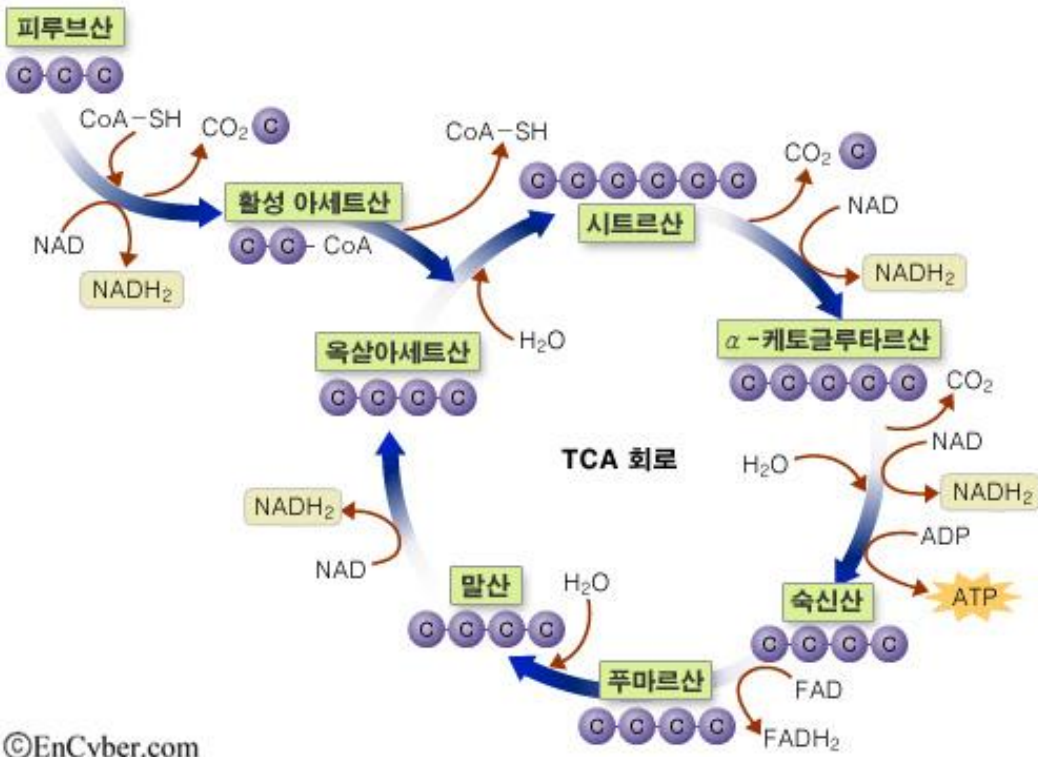
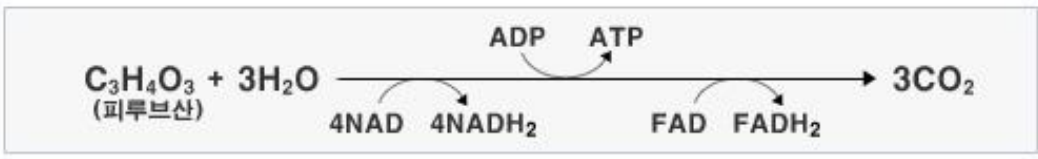
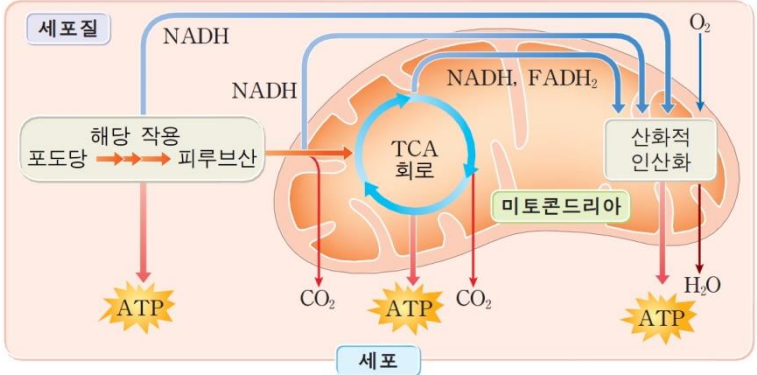


질병병태생리학 개론 - 04주차

중부대학교 애완동물자원학부
정 태 호

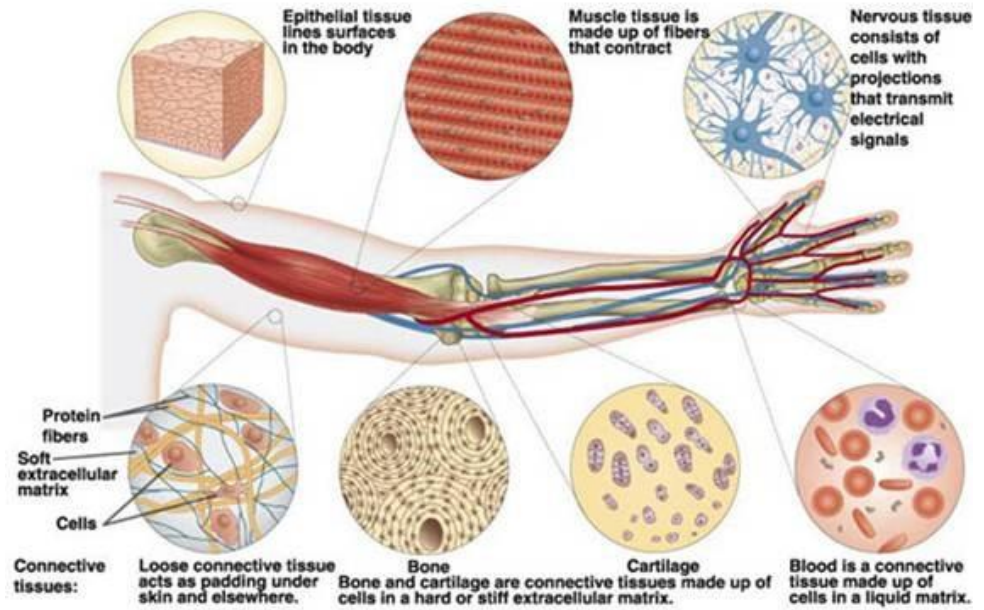
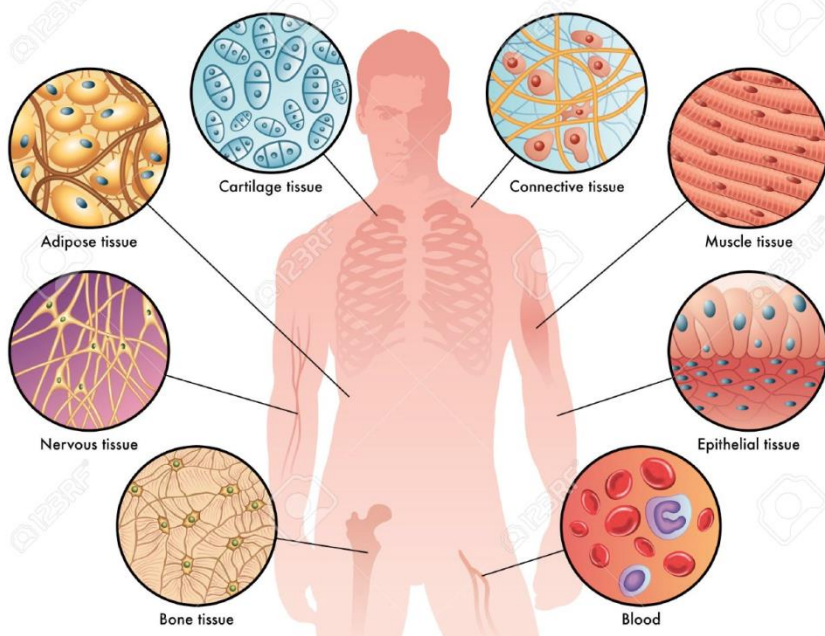


에너지 대사

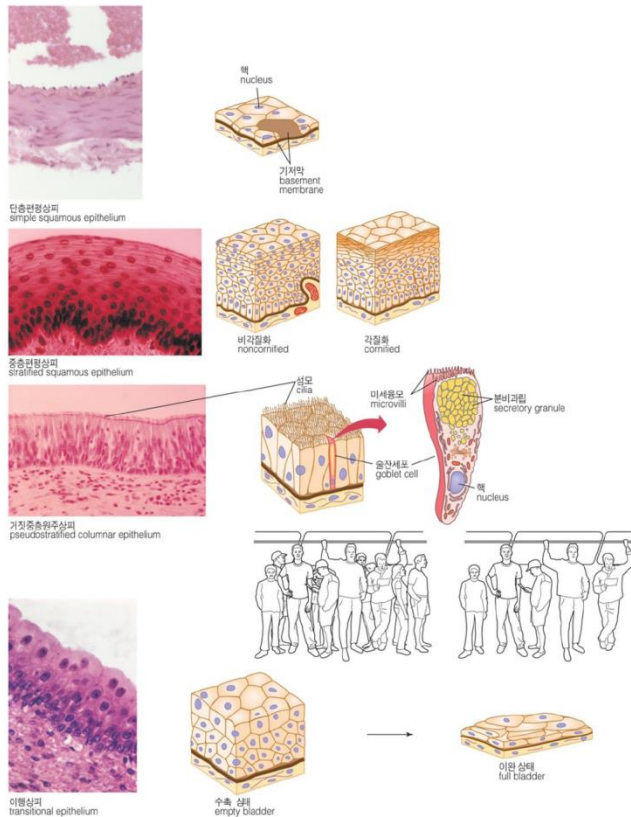


Tissues

Animal Tissue



Epithelial tissues



상피조직

단층편평상피
simple squamous epithelium

분포의 예와 작용

허파의 허파파리 (alveoli) 벽: 혈액과 외부공기 사이의 가스교환이 빠르게 일어남.
모세혈관 벽: 혈액과 주변조직 사이의 물질교환이 빠르게 일어남.

단층입방상피
simple cuboidal epithelium

콩팥세관 (renal tubule)의 벽: 형성중인 오줌으로 물질을 분비함 (세관분비, tubular secretion). 형성중인 오줌으로부터 필요한 물질을 재흡수함 (세관흡수, tubular resorption).

단층원주상피
simple columnar epithelium

소화관의 벽: 점액분비, 영양분의 흡수, 부위에 따라 술잔세포 (goblet cell)를 갖고 있음.

거짓중층원주상피
pseudostratified columnar epithelium

기관 (trachea)과 큰 기관지 (bronchi)의 벽: 점액을 분비하고 이동시켜 외부에서 들어온 불순물을 거름. 술잔세포 (goblet cell)를 갖고 있음.

비각질중층편평상피
noncornified stratified squamous epithelium

입안과 인두 (pharynx)의 벽: 표면이 젖은 상태에서 마찰로 인한 손상으로부터 조직을 보호함.

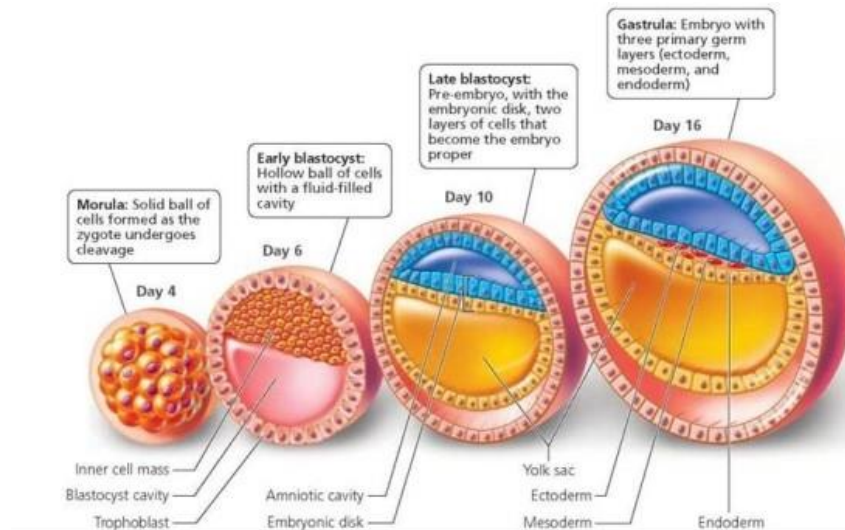
각질중층편평상피
cornified stratified squamous epithelium

피부: 외부 마찰로부터 조직을 보호함. 외부의 물리적 자극이 커지면 더욱 두꺼워지며 세포재생력이 증가함.

이행상피
transitional epithelium

방광 (urinary bladder)의 벽: 방광의 수축, 팽창에 따라 상피의 두께가 변하면서 조직을 보호함.

배아층과 발생

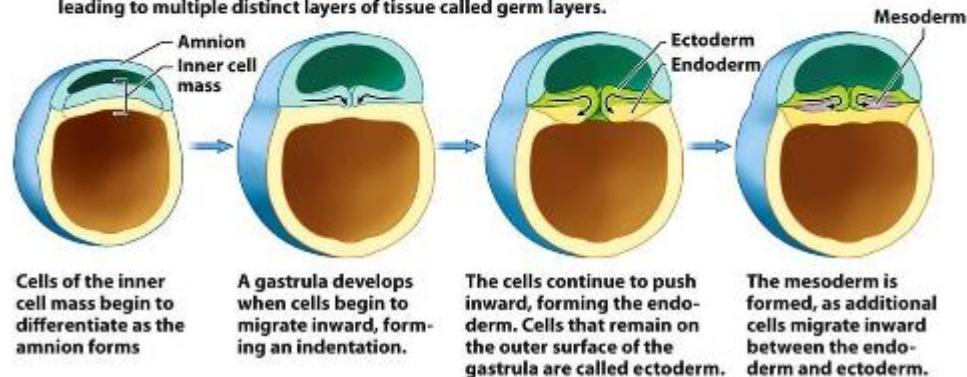


GERM LAYER	BECOMES
Ectoderm	Outer layer of skin, hair, lining of the nose and mouth, and the nervous system
Endoderm	Digestive tract, respiratory tract, liver, and pancreas
Mesoderm	Muscles and skeleton



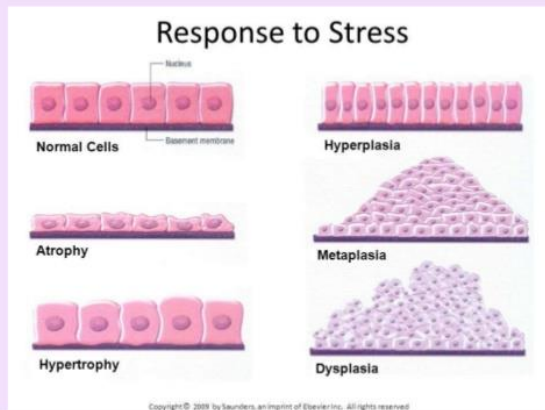
GASTRULATION

The second phase of development is gastrulation, a migration of blastocyst cells inward, leading to multiple distinct layers of tissue called germ layers.

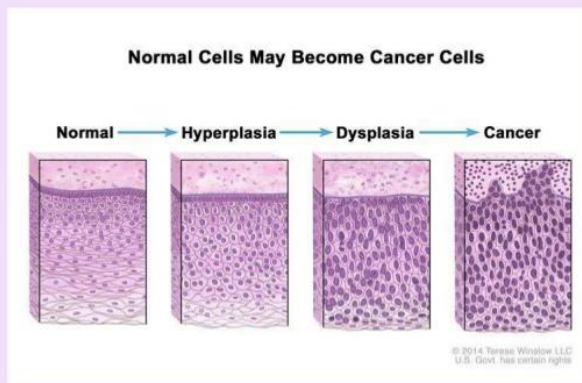


Metaplasia vs Dysplasia

- **Metaplasia:** the exchange of normal epithelium for another type of epithelium. Metaplasia is reversible when the stimulus for it is taken away.



- **Dysplasia** is a condition marked by abnormal cells that can lead to enlarged tissue or pre-cancerous cells.



METAPLASIA VERSUS DYSPLASIA

METAPLASIA

Conversion of a mature, differentiated cell into another form of a mature cell type, often following injury or insult

Conversion in cell type

Occurs in various types of tissues

An adaptive process that occurs due to an external stimulus

A reversible process

Does not lead to the formation of cancers

DYSPLASIA

Development of abnormal types of cells within a tissue, which may signify a stage preceding the development of cancer

Change in the phenotype of cells or a tissue

Mainly occurs in the epithelium

Occurs due to the alteration of genetic material

An irreversible process

May cause cancers

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Thank you!

