

Intracellular Accumulation

- Normal cell accumulate abnormal amount of substance either temporary or permanent.
↓
Leads to harmful effect. [DEPTH OF BIOLOGY]
- Accumulation may be transient and reversible or permanent.

Effects → Range from harmful to toxic.

Why Accumulation → ? [DEPTH OF BIOLOGY]

① Accumulation of Normal Constituent of Cell Metabolism.
↓
May be due to defects in packaging or transport.
Fat, Protein, Carbohydrate

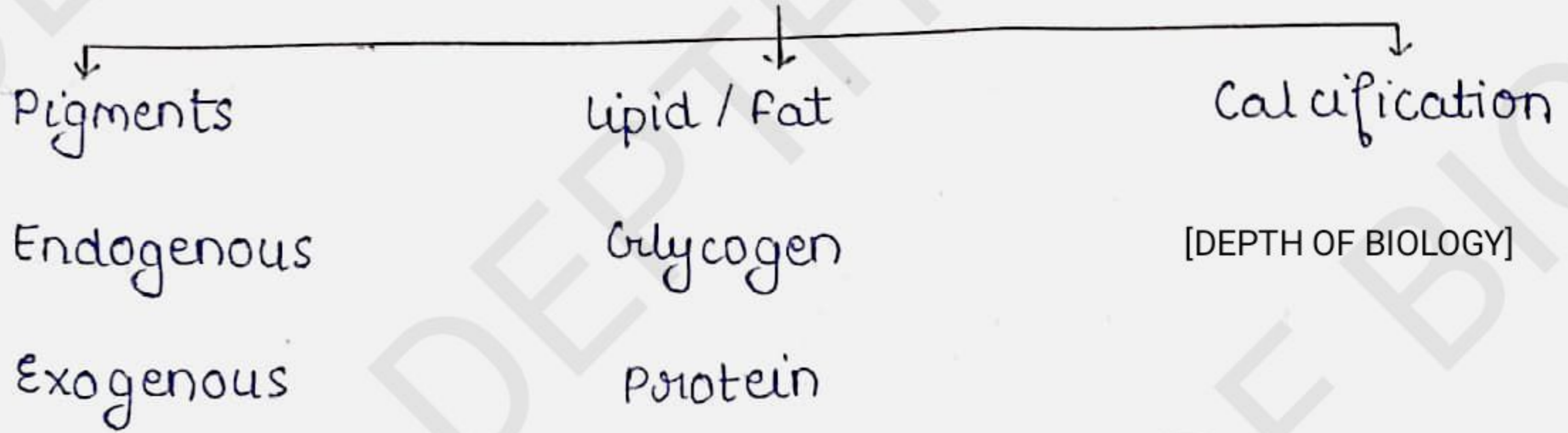
② Accumulation of Metabolites due to enzyme deficient
↓
Storage disease
[DEPTH OF BIOLOGY]
Inborn error of Metabolism

③ Accumulation of Pigment
↓
No enzymatic mechanism to degrade

	[endogenous pigment
		exogenous pigment

④ Accumulation of Abnormal substance resulting due to acquired or genetic defects. [DEPTH OF BIOLOGY]

Intracellular Accumulation



Calcification [DEPTH OF BIOLOGY]

In which the Ca ion of the body starts to accumulated in the body tissue.

Symptoms of Cal. →

- ① Tartar on teeth
- ② kidney stone
- ③ Gall stone [DEPTH OF BIOLOGY]

Types of Soft tissue Calcification ⇒

- Metastatic Calcium
- Dystrophic Calcium
- Calcinosis [DEPTH OF BIOLOGY]

Causes of Calcium → Vitamin K_2 [↓]

↳ Absorption of Ca poor due to high Ca/Vitamin ratio

Note → When Ca channel activated then result in [↑]sed
in Ca Intake. ↓ [DEPTH OF BIOLOGY]

Once the Ca ↑↑, They trigger S.R. to release stored
Ca ion. ↓

The High Conc. of Ca^{2+} ion produce precipitate on cell
organelle and finally the cell organelles become calcified

[DEPTH OF BIOLOGY]