

# Vitamin A<sup>+</sup>: Absorption & Transport



• From Diet 

B-Carotene

Retinyl esters → Retinol

Absorbed

• B-Carotene

→ Retinal

→ Retinol

resterified

• Retinol

Fatty Acids

Retinyl Esters

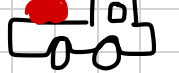
by Chylomicrons 

• Target Cells 

• Liver 

(Stored)

Retinol

• carried by   
- Retinol Binding Proteins (RBP)  
- Transferrin

• Retina 

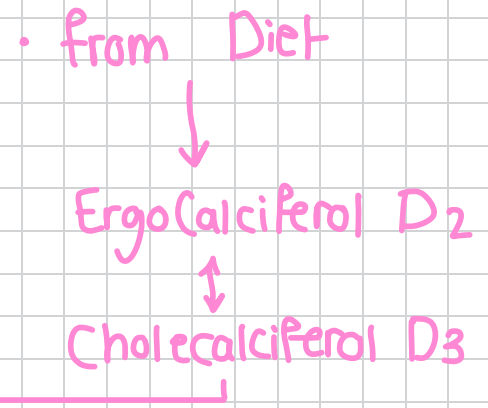
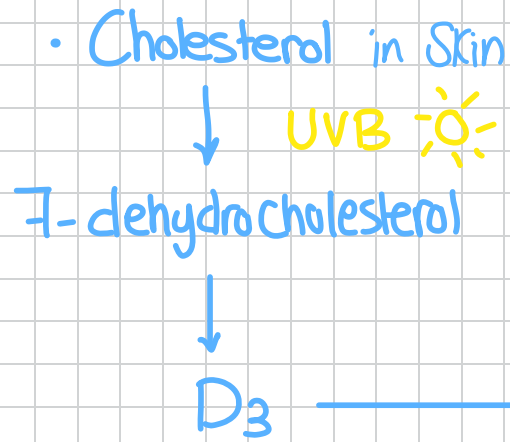
Vision ← Retinal

DNA + Intracellular receptors + Retinoic Acid

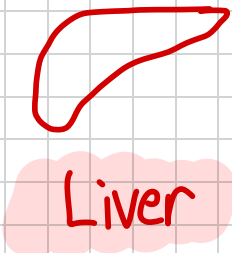
Regulates Transcription.

oxidized

oxidized



VD-binding proteins



Chylomicrons

Cholecalciferol

D<sub>3</sub>

25-hydroxylase [Hydroxylated]

Calcidiol  
(25 OH vitamin D)



1-hydroxylase. [Hydroxylated]

Active → Calcitriol  
(1,25 OH<sub>2</sub> Vitamin D)

# Vitamin D ☀️ Synthesis