
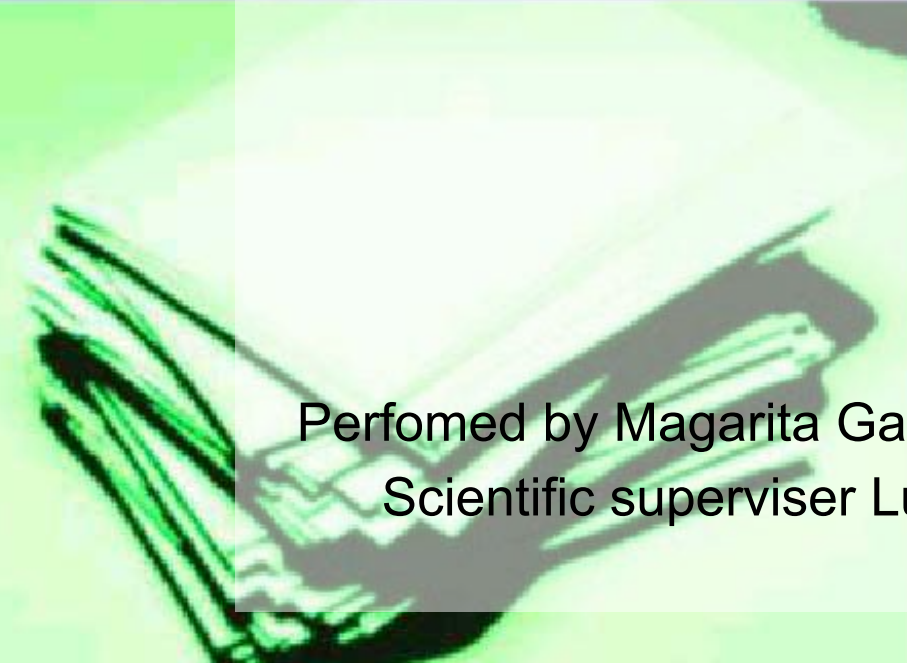




# Kazan Medical State University

Team: Vitamin D

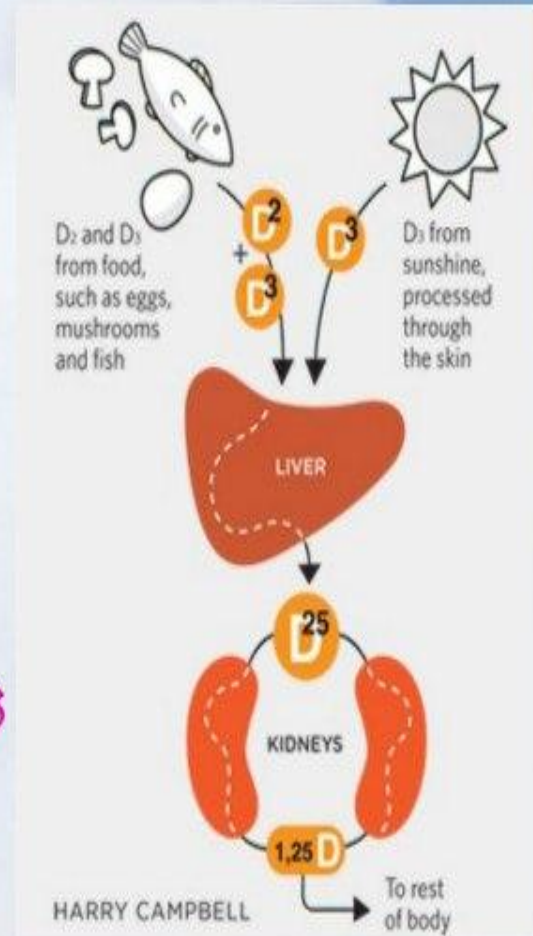
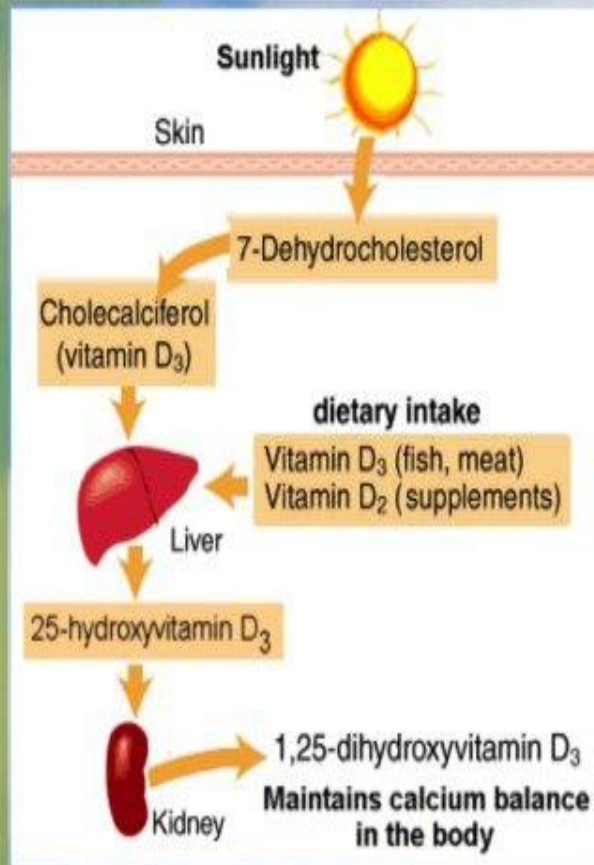


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# What is Vitamin D?

fat-soluble vitamin





# How the Body Makes Vitamin D

## Roles of Vitamin D

- regulate blood calcium
- phosphorous levels
- functions as a hormone

# < Vitamin D

- Rickets
- Osteomalacia
- Osteoporosis

# Rickets

a disease in which the bone tissue does not properly mineralize.

- bowed legs
- beaded ribs
- protruding belly

Normal Anatomy



Osteomalacia



# Osteomalacia

painful bone disease that results to muscular weakness and weak bones

- waddling gait
- weakness in the arms and legs
- painful joints



# Osteoporosis

loss of calcium from the bones which results in weak and brittle bones

- loss of height over time
  - stooped posture
  - easy bone fractures

## > Vitamin D

raises the concentration of blood calcium and damages the soft tissues (hypercalcemia)

- nausea
- irregular heartbeats
- increased urination and thirst

## Factors that Affect Vitamin D Synthesis

- Advanced age
- city living
- skin pigment
- air pollution
- SunScreen
- geography
- homebound
- Season
- clothing
- time of day

# Sun Exposure

- risk of skin cancers
- skin wrinkling
- tanning beds
- dark skinned vs. light skinned
- dietary Vitamin D

# Intake Recommendations

- 1-70 years old -
  - 15 micrograms per day
- 71 and above
  - 20 micrograms

Tolerable Upper Intake Level

Adults- 4,000 International Units

# Sources of Vitamin D

- Tuna
- Fortified Milk
- yogurt
- Enriched Cereal
- Sunlight
- Orange Juice

