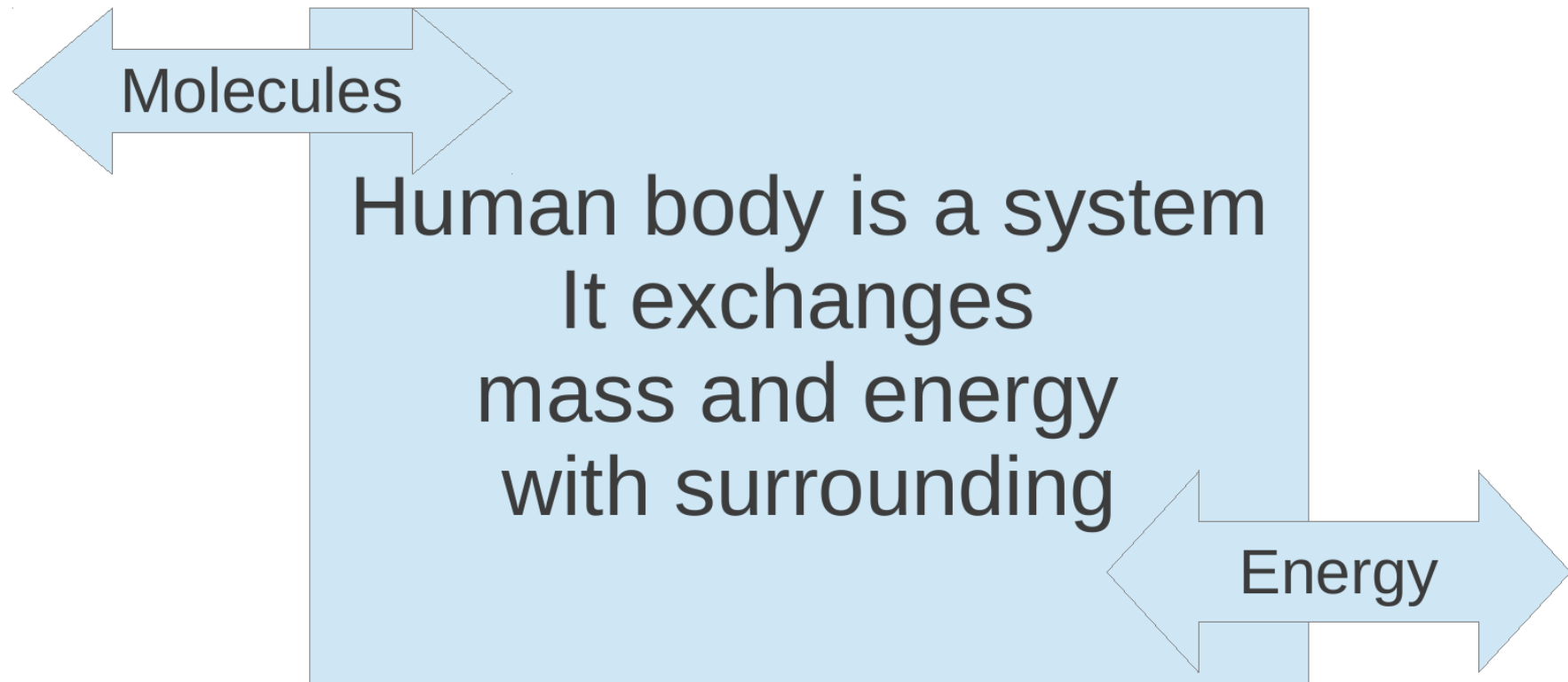


# Body as a system (Part-1)

Dr S M Patel

**What is a system?**

# Body is a system



**When does the system mass  
increase?**

# Growth

Molecules



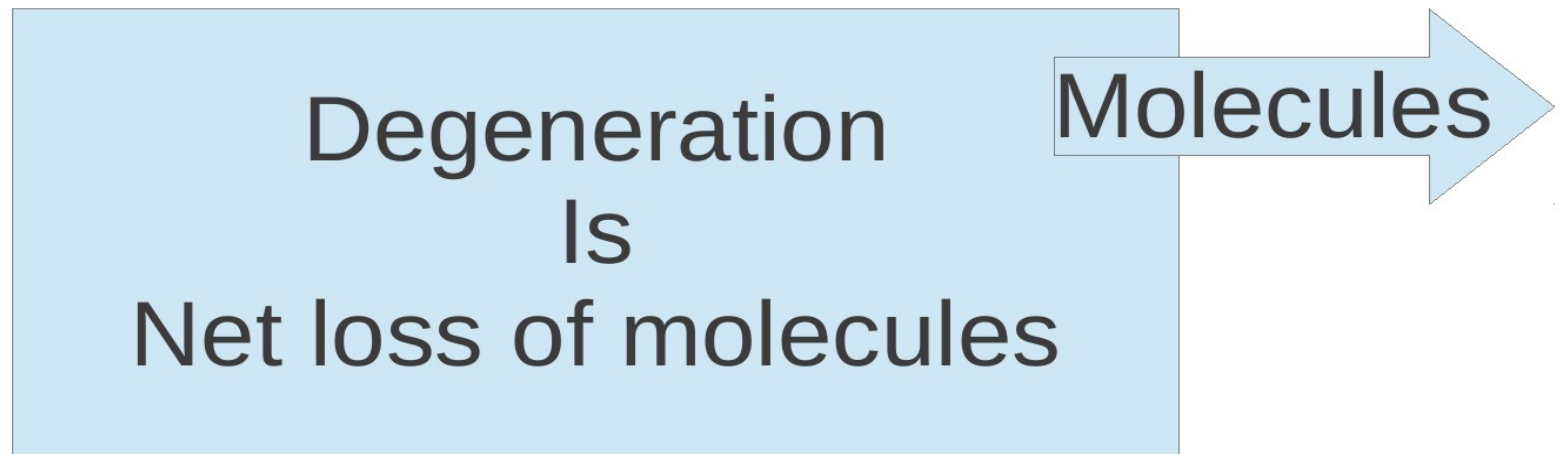
Growth  
Is

Net increase of molecules

Embryo, Growing Child,  
Body Building,  
recovery from illness

**When does the system mass  
decreases?**

# Degeneration

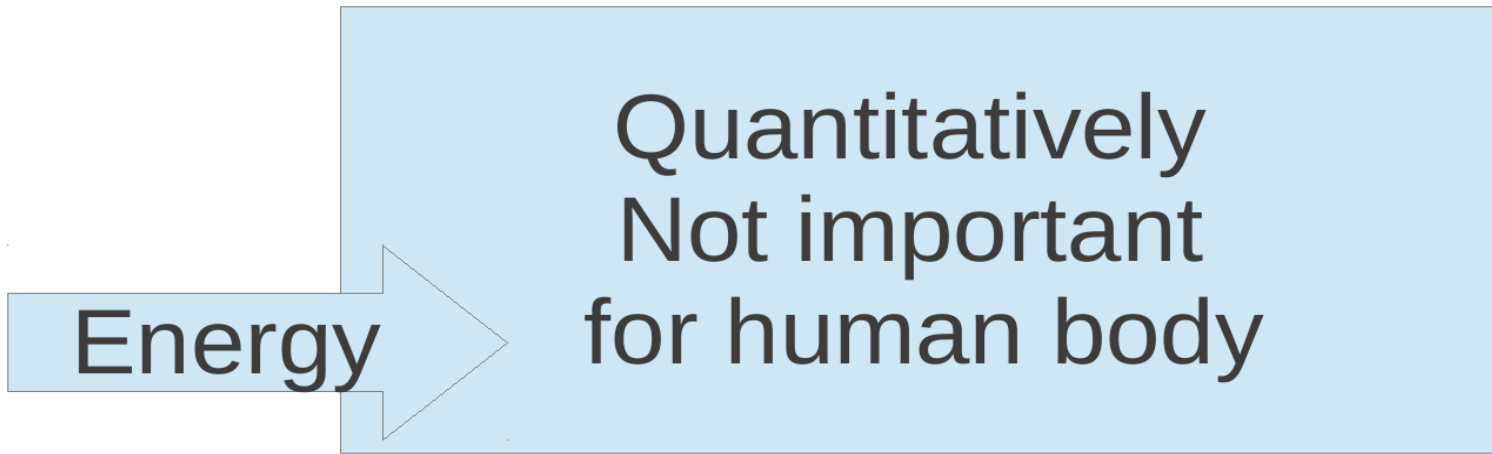


Aging  
Illness

**When does the system energy  
increase?**



# Photons are used by human body



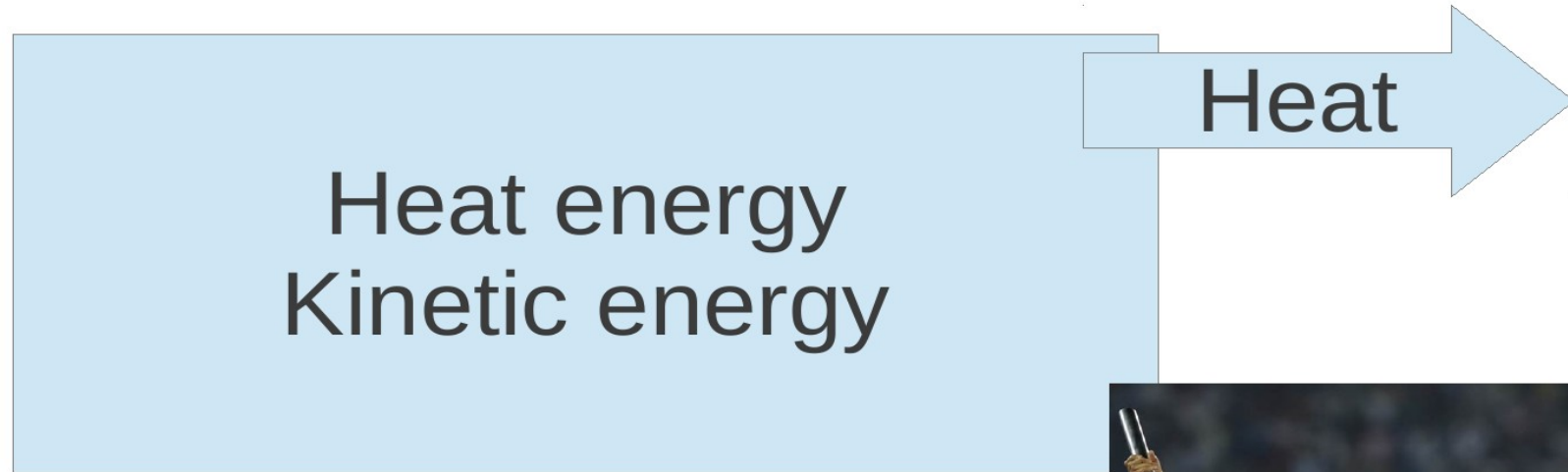
Synthesis of Vitamin D

Retina absorbing light

**Plant uses energy to form Glucose**

**When does the system energy  
decreases?**

# Body makes net energy output



energy output we can not do



Electric fish



Firefly