

# **TIRED ALL THE TIME**

- It is one of the most common **clinical presentations.**
- It can be very **challenging** to deal with it.
- **Many reasons** may be beyond it.

# **IT CAN OCCUR EITHER BECAUSE OF :**

**1- Lack of physical energy.**

**Or**

**2- Lack of psychological motivation to act.**

**There is a powerful interaction between these broad factors.**

# PHYSICAL ENERGY ?

It is the capacity of the tissues to engage in their metabolic activity. This requires

1- **Oxygen** 2- **Fuel** ( glucose ) to provide energy under the control of chemical messengers.

- Some tissues need a period of recuperation ( recovery ) in different state to maintain their normal function ( e.g. **Brain = needs sleep** ).

# PSYCHOLOGICAL MOTIVATION ?

It is a complex one !!!!!

Lack of **psychological motivation** may reflect the underlying psychological upset ( e.g. **Depression** ).

Lack of energy may be due to depressed metabolism ( **reduced ATP production**).

This occurs when cells receive too little oxygen!!

**Normal O<sub>2</sub> supply is via lung → Haemoglobin → different tissues and cells.**

Poor O<sub>2</sub> supply may be due to :

- 1- Poor lung function.**
- 2- Insufficient functioning HB.**
- 3- Insufficient Blood flow.**

# **POOR LUNG FUNCTION ?**

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Either due to

- 1- Air way Diseases = Chronic Obstructive Pulmonary Disease ( COPD ).**
- 2- Respiratory Muscle Disease = Myasthenia gravis.**
- 3- O<sub>2</sub> transport ( from lung to blood ) defect = Interstitial lung disease.**

# **INSUFFICIENT FUNCTIONING HB ??**

**Insufficient HB = Anaemia ( Iron ,  
Folate or Vit. B12 deficiency.**

**Non-functioning HB = Carbon  
Monoxide ( CO ) Poisoning.**

# **FUEL SUPPLY = GLUCOSE ??**

Low intracellular glucose

concentration may be due to :

- 1- Low blood glucose concentration = hypoglycemia ( e.g. Fasting or Famine )**
- 2- Low glucose transport across cell membrane= lack of insulin = Diabetes Mellitus.**



# **LOW TISSUE PERFUSION ??**

Low tissue perfusion  
that meets the  
metabolic demand =  
**Heart Failure**

# ABNORMAL CHEMICAL MESSENGERS??

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- Low thyroid hormones =  
**Hypothyroidism → Lethargy .**
- Abnormal pathological  
mediators and cytokines →  
**acute or chronic fatigue  
syndrome = Connective Tissue  
diseases ( e.g. SLE ).**

# **SLEEP DISTURBANCES**

- **Sleep deprivation = Insomnia  
→ Tiredness .**
- **Sleep apnea = breath stop for  
short periods leading to  
repeated transient waking →  
Sommelenence → Tiredness .**

# **PSYCHOLOGICAL DISTURBANCES ??**

**- Depression. It is characterized by:**

- 1- Lack of motivation.**
- 2- Disturbances of appetite.**
- 3- Sleep disturbances with early morning waking.**