



# AL-MUSTAQBAL UNIVERSITY



## College of Engineering and Engineering Technologies - Medical Device Technology Engineering

M.A.

### AHMED HELMI KADHIM

The third stage

First semester experiences

ECG, EMG, EEG & ERG

## **Electroencephalography**

## **EEG**



#### What is the abbreviation for EEG:

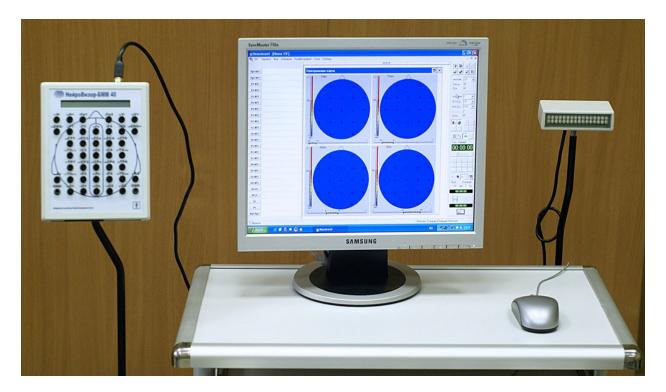
ANS: electroencephalography

• What are the cases that can be examined by the device?:

Epilepsy, Alzheimer's disease, excess brain charges, and other cases

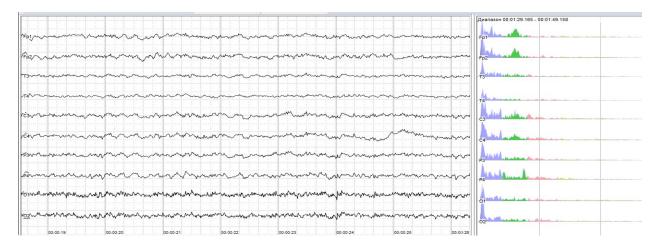
#### What are the main parts of the device?:

Display screen, electrical control panel, central control unit and medical examination electrodes .



#### What is the principle of operation of the device?:

The device works to detect electrical waves emitted by the brain and convert them into graphs displayed on the device's display screen and can also be printed on paper .

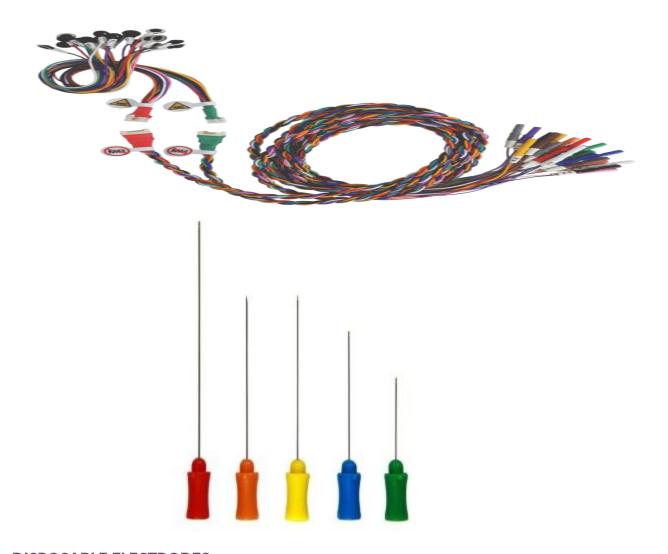




#### What are the types of electrodes in general?:

Needle & Disposable electrodes -

## **NEEDLE ELECTRODES**



#### **DISPOSABLE ELECTRODES**



#### Wat is the correct number of hours for an electroencephalography examination?:

In general, the patient needs to be examined correctly for a period of approximately 7 to 20 hours, and it is preferable for the patient to come to the examination while he is not asleep for a long period in order to take a period of sleep during the examination procedures.

#### What are the common and recurring problems or faults?

#### **Answer:**

We have many faults, including: - pole faults, electrical faults, and software faults.



END OF THE THIRD LECTURE

I WISH YOU GOOD LUCK AND SUCCESS