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SeizureDoc.com

00:01

- Southern Ontario Epilepsy Clinic presents this video.

00:07

- So, what exactly is an EEG test?

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- The acronym EEG is an abbreviation for the word electroencephalogram; that is e-lec-tro-en-ceph-a-lo-gram. In summery, an EEG is a nonintrusive, safe and painless test that detects and records the electrical activity generated by the neurons in your brain.

00:41

- Neurons are the most common cells in your brain. Also, neurons are considered the building blocks of your brain and the most famous of all brain cells. Let's go into a little more depth detail.

00:56

- These electric signals are what make the human brain so unique. The electrical activity is detected by using small, metal discs with thin wires called "electrodes" that are attached to a patient's scalp and transmitted to an amplifier that records the activity.

01:16

- The human body's most complex organ is the brain. The average adult human brain contains approximately 100 billion neurons (**ZOOM in effect**). This signal is communicated at a very high-speed process from one neuron to another. They have to communicate with each other to exchange information. Each neuron fires on average about 200 times per second and each neuron connects to about one thousand other neurons.

01:47

- (**1X ZOOM in effect**) The communication or connection point between neurons is called the "synapse". This is the site of transmission of electric nerve impulses between neurons. The synapse contains a small gap separating neurons and is the structure that permits a neuron to pass an electrical signal to another neuron. In summery, these billions of neurons are electrically excitable cells that communicate all of your thoughts, actions and emotions.

02:22

- **(ZOOM out effect)** The electrodes explore the electrical impulses in your brain and send these signals to a computer that records the results. This activity shows up as wavy lines called “brainwaves” on an EEG recording. The main purpose of an EEG test is to detect and investigate brainwaves.

02:44

- Let’s take a deeper look into brainwaves. Your brain cells communicate via electrical impulses and are active constantly, even when you’re asleep (graphic explained). When you’re dozing off, when you’re wide awake, when you’re active and when you’re paying close attention to a task.

03:03

- Brainwaves are produced by synchronized electrical pulses from the masses of neurons communicating with each other in your brain. An EEG can determine any changes in brain activity that might possibly be useful in diagnosing brain disorders, such as epilepsy or other seizure disorders.

03:24

- Our clinic conducts two different types of EEG test, including: Daytime EEG and Ambulatory EEG. Let’s go into more detail regarding each one.

03:40

- The *Daytime EEG* consist of three types’ routine, sleep deprived and prolonged video. All are done in our clinic’s lab while being continuously monitored by video. The routine EEG recording time is approximately half an hour. The sleep-deprived EEG is done to further assess brainwaves after a night of staying awake and is typically done first thing in the morning lasting approximately half an hour to an hour. The prolonged video EEG is done to further assess patient’s events and last 1 to 3 hours.

04:30

- The *Ambulatory EEG* is done to assess the patient’s events while they are at home. This typically includes a portion of the video EEG done in the clinic and the remainder of the EEG is done at home. After which time, the patient is required to come back to the clinic and have the electrodes removed.

05:02

- As with all EEGs the technologist will connect 15 to 20 electrodes to the patient’s scalp with some conductive cream. These are connected to a device called an “amplifier” that is in a carrying case and strapped to the patient’s shoulder and does the ambulatory EEG test recording. NOTE that all brain activity is recorded while the patient goes about their daily routine (*clock appears*). Then, the patient returns to the clinic the next day to complete the ambulatory EEG recording.

05:52

- The type of EEG test that is performed is done depending on each individual patient's needs and urgency.

06:06

- To book an EEG appointment in our clinic please have your doctor fill out the requisition form that is available for download on our website at ***seizuredoc.com***. Please note that most of these tests are covered by OHIP.

06:32

- Thank you for watching this video from Southern Ontario Epilepsy Clinic.

06:42

- Don't forget to contact us for more information.

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