

Electrotherapy

Electrotherapy is a discipline that is encompassed within the physical medicine and rehabilitation and is defined as the art and science of treating injuries and illnesses by means of electricity. Is a noninvasive form of treatment used by many medical practitioners. This method is used mainly to reduce the pain, to speed the healing process after surgery and to stimulate muscle contractions. Electrotherapy employs electrical energy to stimulate the release of natural pain killers in the body (endorphins). The energy waves produced by electricity also create physiological and chemical changes in the body, thereby increasing its ability to heal damaged tissues that may have been caused by inflammation, skin ulcers or injury, among others.

How electrotherapy works

Electrotherapy is performed using procedures that not only differ in size but also in applications. These procedures may differ in terms of waveform, frequency and effect. The specific device used often depends on the type of electrotherapy being administered. There may be different types of electrotherapy, but they generally work the same way and provide the same beneficial effects. Electrical stimulation may directly obstruct transmission of pain signals along nerves and prevents them from getting the brain. Additionally, electrical stimulation also causes the body to produce more endorphins, which are natural painkillers produced by the body. As a result, the patient never experiences pain, then it's possible to affirm that more searchable types of electrotherapy are transcutaneous electrical nerve stimulation (TENS), transcutaneous spinal electrotherapy (TSE) and neuromuscular electrical stimulation (NMES) because their unit is placed on the skin, either directly over the painful area or more commonly, at key points along the nerve pathway, having few side effects, non-addictive, causes no drowsiness, and can be used indefinitely without the problems associated with prolonged drug use but mainly for chronic low-back pain.

Precautions

Electrotherapy can be an effective form of treatment, however it may also bring about a number of complications. One of the most common complications that can result from this process is that the patient may suffer from burns. This typically happens when electrodes are not placed properly on the skin, resulting in increased heat in high-resistance areas. In short, this happens when electrotherapy is not done properly. Proper care should be taken when using any electrotherapy device. Also, individuals should never attempt to use any electrotherapy device without supervision from a professional medical practitioner. The best and wisest action to take is to allow a medical practitioner to execute the process as her understanding of how this process works and how it should be done is quite methodical.

- Electrotherapy is not to be used by pregnant women or women who are trying to get pregnant;
- It should also not be used on persons with cardiac pacemakers and those diagnosed with cancer;
- Electrotherapy is not for patients suffering from hemorrhaging, phlebitis, fractures, pulmonary tuberculosis, lupus and diabetes;
- It is also not intended for persons who are suffering from undiagnosed pain.

Links

Related articles

External links

Bibliography

<http://www.thefreedictionary.com>

<http://www.library.thinkquest.org>

<http://www.miniphysics.com>

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