

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

МАТЕРІАЛИ ІХ МІЖВУЗІВСЬКОЇ  
НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ  
КАФЕДРИ ІНОЗЕМНИХ МОВ

**“TO MAKE THE WORLD SMARTER AND SAFER”**

(Суми, 26 березня 2015 року)

The ninth scientific practical student`s, postgraduate`s and teacher`s  
LSNC conference

## INNOVATIONS IN MEDICINE

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There are a lot of innovative technologies that are developed nowadays. They are: A Robot Surgeon, Testing Genetic Diseases, Non-Invasive Glucose Monitor. One of them is modern technology that is called Transcranial Magnetic Stimulation.

About two million adults in the United States suffer from bipolar disorder, a form of depression that is characterized by extremely high and low mood cycles. Transcranial Magnetic Stimulation or TMS is a kind of the magnet therapy that is being used to treat depression. TMS is a good way to treat a patient's depression and the effects of bipolar disorder [2].

This method was developed by Professor Dr. Mark George of medical University South Carolina. But what is Transcranial Magnetic Stimulation (TMS), and how does it help to treat depression? TMS activates certain parts of the brain by using electrical energy passed through a coil of wires to create a powerful magnetic field. During the procedure, energy from this magnetic field is transferred into a patient's brain by means of the coil device applied to the head. Unlike direct electrical energy, energy from the magnetic field passes through skin and skull, activating the brain painlessly and without surgery or sedation. TMS affects brain functions and chemical activity resulting in dramatic improvements in depressed patients.

One of the benefits of TMS is its accuracy. It allows practitioners to target very specific parts of the brain, leaving other areas alone. In fact, by getting rid of the depression, patients' ability to think and function actually improves. TMS patients notice that they feel "themselves" better [1].

TMS treatment in the United States is taking place only as part of clinical trials. TMS is still considered an experimental treatment for depression in the United States [3].

I am sure that this method has more advantages than disadvantages. It helps to treat people without surgery. The USA is a highly developed country that tries to find new methods of helping people.

Literature:

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