



## **Transcranial Magnetic Stimulation (TMS) A New Treatment for Depression in Adolescents?**

### **Introduction**

Physical treatments are an important part of therapy for depression for many people. The physical treatments currently available are antidepressant medications and electroconvulsive therapy (ECT), both of which are helpful to many people. A third option is transcranial magnetic stimulation (TMS). This is currently only offered through research studies. TMS can be used before people have tried antidepressants, eg for those who prefer not to take a medication, or for those people who have troublesome side effects with medication or who have not improved with medication.

### **TMS- what is it?**

TMS stands for “Transcranial Magnetic Stimulation”. Strong magnetic fields are used to stimulate the brain via a simple coil held to the head. While receiving stimulation, the person is fully awake and alert. There is no anaesthetic or seizure and memory is not affected. TMS has been used for about 20 years by neurologists to test brain function (e.g. nerve and muscle connections).

### **TMS for depression?**

Researchers are investigating a form of TMS (involving repeated pulses) as a treatment for depression. More than 25 studies have been completed worldwide in adults and almost all reported that TMS improved depression. Though still considered experimental in adolescents, it is potentially an alternative treatment to antidepressants and ECT. TMS can be done on an outpatient basis and each session takes about 30 minutes. There are minimal side effects.

### **The University of NSW study**

Researchers from the University of NSW (A/Prof Colleen Loo) and the University of Sydney (Prof Garry Walter, Prof Philip Hazell,) are investigating TMS as a treatment for depression for those aged 13-18 years. The treatment is done each weekday on an outpatient basis over 4-6 weeks and is conducted at the Black Dog Institute at Randwick. It is being offered to people with depression either as a first-up treatment, or as an alternative treatment to those who have not recovered with or cannot take antidepressant medication. For those interested, enquiries should be directed to:

TMS Study Coordinator  
Ph. (02) 9382 3720  
email. [TMSandDCS@unsw.edu.au](mailto:TMSandDCS@unsw.edu.au)