

# tranquil TMS

# Repetitive Transcranial Magnetic Stimulation (rTMS)



Medicine-free, Non-invasive Treatment for Anxiety, OCD and Depression



## What is rTMS?

Repetitive Transcranial Magnetic Stimulation (rTMS) is a non-invasive method to treat depression, anxiety and OCD. It is an effective and drug-free alternative to traditional approaches. By utilizing magnetic stimulation to target specific regions of the brain, rTMS taps into the brain's intricate electrical workings to bring about therapeutic effects.

In rTMS, a specialized electromagnetic coil is placed on the scalp, delivering precise magnetic pulses into the brain. This stimulation triggers a cascade of effects, including the release of neurochemicals and nerve growth factors, fostering positive changes in brain activity.

Effective for addressing various conditions such as depression, anxiety, OCD and certain types of pain, rTMS gently stimulates precise areas of the brain, working to improve its function and alleviate symptoms.



#### Who are we?

As a pioneer of rTMS in the North West, we proudly opened our doors in February 2018, driven by our unwavering commitment to providing exceptional patient-centred care. Our team comprises mental health-trained professionals who bring their expertise and genuine passion to every aspect of their work.

We prioritize your comfort and convenience, which is why we offer complimentary 20-minute phone consultations with our Senior Consultant Psychiatrists before scheduling a comprehensive face-to-face meeting. This ensures that your treatment plan is tailored to your unique needs from the very beginning.

Nestled in the heart of Cheadle, our reach extends beyond Cheshire, Liverpool, and Manchester. We warmly welcome clients who seek non-invasive treatment alternatives for depression, anxiety, OCD and various other disorders.











#### What do we treat?

#### <u>Depression</u>: <u>Anxiety Disorders</u>:

Major Depression
Post-partum Depression
Adolescent Depression
Bipolar Depression

Generalised Anxiety Disorder
Panic Disorder
Post-Traumatic Stress Disorder
Obsessive Compulsive Disorder

## Depression and Anxiety from other issues

Fibromyalgia Seasonal Affective Disorder

Chronic Fatigue Depression in pregnancy

Cancer Anorexia Nervosa

Diabetes Bulimia

Hypertension Somatisation Disorder

Chronic pain Personality disorders

Fertility issues Alcohol and Drug Abuse



## What are the benefits of rTMS?

Non-Invasive: No sedation or anesthesia required, reducing risks and discomfort.

<u>Effective</u>: 1 in 3 people recover completely from their symptoms and 1 in 2 achieve more than 50% reduction in symptoms, which is better than the success rates of antidepressants (28%-32% by the STAR-D trials).

Minimal Side Effects: Rare discomfort (headaches) and low seizure risk (less than 1 in 10,000) with thorough screening.

Rapid Response: Within weeks, 75% of patients experience significant symptom reduction, with over 50% achieving remission.

<u>Seamless Integration</u>: No recovery period needed, allowing immediate resumption of daily activities.

<u>Cognitive Enhancements</u>: High-frequency rTMS improves attention, memory, and executive functions alongside emotional well-being.



## What is the process?

Once you have been invited for an in-depth assessment with one of our experienced Consultant Psychiatrists, and if you are deemed a suitable candidate, your treatment will commence.

Typically, each session will last a maximum of 30 minutes, during which you have the option to listen to music, engage in conversation with our staff, or simply enjoy some quiet time.

The treatment involves placing a coil against your scalp, through which mild tapping sensations will be delivered via magnetic impulses.

The Standard protocol requires daily treatment sessions, with a minimum of 20 treatments spread over a period of 4 weeks.

Alternatively, we also offer an FDA-approved fast protocol for Depression known as Theta Burst therapy. This accelerated treatment compresses the 30-minute standard session to 3-4 minutes, allowing the completion of the 4-week standard treatment in just 2 weeks.



## What do we know?

Our approach to TMS is rooted in scientific principles. We actively engage in research within this domain, ensuring we remain abreast of the most recent discoveries and advancements.

In a groundbreaking in-house study conducted at our North West-based clinic in the UK, Dr. Nikhila Deshpande and Dr. Babu Nayar explored the efficacy of repetitive transcranial magnetic stimulation (rTMS) for depression. Comparing two protocols – intermittent theta bursts (iTBS) and the standard high-frequency approach – the research revealed that iTBS showed remarkable promise. Patients treated with iTBS exhibited an impressive 50% remission rate and a 75% response rate, outperforming the standard protocol's 25% remission and 50% response rates. The results demonstrate that iTBS could be an effective and well-tolerated treatment option for individuals resistant to conventional antidepressants.

The findings from this study were presented as a poster at the Annual Conference of The Royal College of Psychiatrists in June 2021.



## What do we know?

In another study, we assessed the response rate of rTMS in the UK population, as there is a scarcity of research in this area. This study included patients from February 2018 to December 2019. Results revealed an encouraging remission rate of 37.03% and a response rate of 66.66%, further reinforcing the efficacy of rTMS in depression treatment. The dropout rate of 18.18% was not due to side effects of treatment but due to other personal reasons.

This groundbreaking research underscores the importance of further exploration in this field, especially within the UK population. As part of our commitment to progress, we continuously conduct research to enhance and refine our outcomes.

This research and its findings were published in Journal of Psychiatry Depression & Anxiety in 2020.

You may read the paper here: DOI:<u>10.24966/PDA-0150/100033</u>



### What else do we know?

We are not the only ones excited about rTMS therapy. Research from other labs has also validated our own observations.

In 2007, a collaborative study involving researchers from the USA and Australia demonstrated the effectiveness and safety of transcranial magnetic stimulation (TMS) targeting the left dorsolateral prefrontal cortex (DLPFC) for acute major depression treatment. You can access the paper at <a href="https://doi.org/10.1016/j.biopsych.2007.01.018">https://doi.org/10.1016/j.biopsych.2007.01.018</a>.

In 2014, a multi-institutional study conducted in the USA examined the long-term efficacy of Transcranial Magnetic Stimulation (TMS) in real-world clinical settings. Over a 12-month follow-up period, the combination of TMS and ongoing antidepressant medication showed significant and enduring benefits, supported by both statistical and clinical evidence. You can read the paper at <a href="https://doi.org/10.4088/JCP.13m08977">https://doi.org/10.4088/JCP.13m08977</a>.

In a recent 2023 study conducted in the US, researchers found that Routine Transcranial Magnetic Stimulation (TMS) administered in various clinical settings led to significant anxiolytic and antidepressant effects for patients with anxious depression. You can access the paper at <a href="https://doi.org/10.4088/JCP.22m14571">https://doi.org/10.4088/JCP.22m14571</a>.



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### What else do we do?

Apart from rTMS therapy, our team of experts also provides comprehensive mental health assessment and treatment services.



<u>Dr Nikhila Deshpande</u>, the founding director of Tranquil TMS, is an internationally experienced Psychiatrist who specializes in general adult and old age psychiatry. With over 25 years of experience, she is a senior consultant at Cheshire and Wirral Partnership NHS Foundation Trust. Her interests include Anxiety, Depression, PTSD, Panic, and OCD.

Dr Babu Nayar is the Co-director and Senior Consultant at Tranquil TMS. With over 20 years of experience, he specializes in Neuropsychiatric and Memory Disorders and explores the connection between physical conditions and mental health. Since 2007, he has been a Consultant at Pennine Care NHS Foundation Trust



## How to reach us?

#### Self-referrals

You can contact us directly. We will then liaise with your GP on completion of treatment, unless you tell us not to.

#### Referrals from your GP or Psychiatrist

We welcome NHS referrals. There may be instances where the treatment could be funded by the NHS. We will be happy to provide supporting information to help your GP or Psychiatrist with the funding process.

#### Insurance companies

A few Insurance companies are funding this treatment on their mental health plan. Please contact your insurance company to see if this is available to you.

#### Referrals from other specialists

We welcome referrals from other doctors e.g. Rheumatologists, Pain consultants, Physicians, Gynecologists and Obstetricians.

#### Referrals from the workplace

We accept direct referrals from employers and human resources.



## Frequently asked questions

#### Do I have to change my routine before starting the treatment?

The simple answer is no. There is no disruption to your routine and that includes driving. You can go ahead and schedule the treatment around your work. Comfortable clothing is advised, and any metal object around the head and neck should be removed before the treatment.

#### What are the side effects?

The side effects are minimal and may include headache on the day of the treatment (which generally responds well to paracetamol), possible facial twitching during the treatment (which is relieved by re-positioning the coil.), rare chance of transient hearing loss (the risk is reduced by offering patients earplugs during the treatment) and a very small risk of having a seizure whilst having the treatment (1 in 30,000). Most patients tolerate this treatment very well.

#### How long does the treatment last?

The duration of TMS treatment varies depending on your prescription and typically lasts between three and six weeks. Initially, you will have one session per day, but as you become more comfortable with the treatment, many patients can opt for two or three sessions per day with short breaks in between. Each TMS session will last for 30 minutes.





Contact us

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