Tourette’s Syndrome Resources

*This document is intended to provide potential resources to treat Tourette’s syndrome. It is not meant to provide any medical advice. Ultimately, your Family Physician, Neurologist or Psychiatrist should provide medical advice on which treatments would be best suited for each individual.*

[Tourette’s Canada Information Book](https://tourette.ca/wp-content/uploads/2023/04/Information-Package-Tourette_1.pdf)

[Tourette’s Association of America – treatment and therapy page](https://tourette.org/research-medical/treatment-therapy/)

The most common treatments are:

**1. Pharmacotherapy**

* **Medications that block or lessen dopamine.** Fluphenazine, haloperidol (Haldol), risperidone (Risperdal) and pimozide (Orap) can help control tics. Possible side effects include weight gain and involuntary repetitive movements. Tetrabenazine (Xenazine) might be recommended, although it may cause severe depression.
* **Botulinum (Botox) injections.** An injection into the affected muscle might help relieve a simple or vocal tic.
* **ADHD medications.** Stimulants such as methylphenidate (Metadate CD, Ritalin LA, others) and medications containing dextroamphetamine (Adderall XR, Dexedrine, others) can help increase attention and concentration. However, for some people with Tourette syndrome, medications for ADHD can exacerbate tics.
* **Central adrenergic inhibitors.** Medications such as clonidine (Catapres, Kapvay) and guanfacine (Intuniv) — typically prescribed for high blood pressure — might help control behavioral symptoms such as impulse control problems and rage attacks. Side effects may include sleepiness.
* **Antidepressants.** Fluoxetine (Prozac, Sarafem, others) might help control symptoms of sadness, anxiety and OCD.
* **Antiseizure medications.** Recent studies suggest that some people with Tourette syndrome respond to topiramate (Topamax), which is used to treat epilepsy.

2. Therapy

* **Behavior therapy.** Cognitive Behavioral Interventions for Tics, including habit-reversal training, can help you monitor tics, identify premonitory urges and learn to voluntarily move in a way that's incompatible with the tic.
* **Psychotherapy.** In addition to helping you cope with Tourette syndrome, psychotherapy can help with accompanying problems, such as ADHD, obsessions, depression or anxiety.

3. Surgery

* **Deep brain stimulation (DBS).** For severe tics that don't respond to other treatment, DBS might help. DBS involves implanting a battery-operated medical device in the brain to deliver electrical stimulation to targeted areas that control movement. However, this treatment is still in the early research stages and needs more research to determine if it's a safe and effective treatment for Tourette syndrome.

4. Speech Language Pathologists

5. Medical Marijuana

The Tourette Association of America (TAA) is the leading national non-profit organization in the United States working to make life better for all people affected by Tourette Syndrome and Tic Disorders. As part of that mission the TAA has encouraged and funded research into all aspects of Tourette Syndrome including pharmacological, behavioral, and alternative treatments and therapies.

Inquiries about the use of medical marijuana (cannabis) to alleviate the symptoms of Tourette Syndrome have been on the rise. While some adult members of our community have reported reduced tics when using medical marijuana, others have reported adverse reactions or no effect at all. Medical marijuana has two primary chemical components: Delta-9- tetrahydrocannabinol (THC) and Cannabidiol (CBD). Medical marijuana and cannabis-based medications that include THC and cannabis extracts have been reported to reduce symptoms of Tourette Syndrome in small scientific studies, patient reports, and anecdotal case reports. They are currently used to treat adult patients in Germany, Israel and Canada. There is insufficient data to support that CBD, without the addition of THC, is an effective treatment for Tourette’s syndrome.

6. Dental Device

Over the past few years, there have been reports that dental orthotic devices, which are normally used for TMJ (temporomandibular joint) treatment, might also be effective in reducing tics when worn in the mouth of individuals with Tourette syndrome.

Drs. Anil and Sunil Soordhar at Oasis Dentistry in Milton, Ontario have undergone extensive training in this area. [More information is available here.](https://www.oasisdentalmilton.com/tmj-treatment-tourette-dystonia-mva)

7. Ketamine assisted psychotherapy – There a few individuals who do this but it is highly recommended that this is done with a therapist and psychiatrist. Dr. Hamidi is in Toronto. You will need a referral from your Family Physician.

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8. Morning Light Therapy - There were small, statistically significant decreases in tic severity and impairment. There were also significant reductions in daytime sleepiness, and self-reported anxiety, but not depression, stress, or disability. Participants reported minimal side effects and rated light therapy as acceptable and comfortable.

9. Tapping - [Information](https://www.tappingsolutionfoundation.org/howdoesitwork/)

10. Biofeedback/Neurofeedback - involves “rewiring” neurons to improve brain function in some way. Common applications include mood disorder management, cognitive learning and performance improvement, and addiction or habit management. Neurofeedback is a method that assists subjects to control their brain waves consciously. In fact, the electroencephalography (EEG) is recorded during the neurofeedback treatment. Then, its various components are extracted and fed to subjects using online feedback loop in the form of audio, video or their combination.

10. Hypnotherapy

11. Repetitive Transcranial Magnetic Stimulation(rTMS) – TMS induces electric currents in the brain through magnetic fields produced by electromagnetic coils positioned over the scalp. available at The Toronto Western Hospital

University Health Network (UHN), Poul Hansen Family Centre for Depression, rTMS Clinic Toronto Western Hospital, 399 Bathurst Street Main Pavilion – 7th Floor, Room 418 Toronto, ON M5T 2S8 Phone: 416 603 5106 Fax: 416 603 5100 Email: depression.centre@uhn.ca

12. Transcranial Direct Current Stimulation(tDCS) - Transcranial electrical current stimulation uses direct electric currents applied to the scalp via electrodes. CAMH in Toronto offer this service

Neupulse – University of Nottingham