

MEDICATIONS FOR PSYCHIATRIC CONDITIONS

PSYCHOTROPIC MEDICATIONS: FIVE MAIN GROUPS

Type of medication	
Antidepressants	Used to treat disorders such as major depression, dysthymia (persistent mild depression), anxiety disorders, eating disorders, and borderline personality disorders.
Antipsychotics	Used to treat psychotic disorders such as schizophrenia and psychotic symptoms occurring in other disorders such as mood disorders. Also used in the treatment of bipolar disorder and for augmentation in major depression.
Anxiolytics	Used to treat anxiety disorders and include hypnotics and sedatives.
Mood stabilizers	Used to treat bipolar disorder and schizoaffective disorder
Stimulants	Used to treat disorders such as ADHD and narcolepsy

If used for psychotropic purposes:

- anti-convulsants
- cardiac medications
- anticholinergics
- anti-Parkinson drugs are considered psychotropic medications.

DEPRESSION AND ANTI-DEPRESSANTS

Major depression goes beyond everyday sadness.

Symptoms of depression include:

- ❑ Depressed mood – people tend to feel:
 - Sad, blue, or “down in the dumps”.
 - Discouraged, hopeless.
 - Angry, frustrated, irritable, annoyed.
 - May describe themselves as having “no feelings” or feeling “blah”.
- ❑ Loss of interest or pleasure in most or all activities.
- ❑ Change in appetite or weight.
- ❑ Insomnia or hypersomnia - sleeping too little or too much.
- ❑ Feelings of worthlessness or excessive guilt.
- ❑ Fatigue, loss of energy, poor concentration, memory problems.
- ❑ Psychomotor agitation or retardation (restlessness or sluggishness).
- ❑ Recurrent thoughts of death or suicide.



ANTIDEPRESSANT MEDICATIONS

Class/medication: (new medications may not be listed)	Side effects (not limited to those listed)*
SSRI: fluoxetine (Prozac®), sertraline (Zoloft®), fluvoxamine (Luvox®), paroxetine (Paxil®), citalopram (Celexa®), escitalopram (Lexapro®)	jitteriness, restlessness, agitation insomnia, headache, nausea, diarrhea sexual side effects
SNRI: duloxetine (Cymbalta®), venlafaxine (Effexor®)	nausea, constipation, dizziness, sedation, insomnia
TCA (tricyclic antidepressant): amitriptyline, doxepin, imipramine, clomipramine, nortriptyline	dry mouth, constipation, nausea, drowsiness, weight gain
NDRI: Bupropion (Wellbutrin®)	anxiety, insomnia, loss of appetite, seizures
NaSSA: Mirtazapine (Remeron®)	sedation, increased appetite, weight gain, dry mouth
MAOIs: tranylcypromine (Parnate®), isocarboxazid (Marplan®), phenelzine (Nardil®)	dizziness, dry mouth, GI upset headache, fatigue
SARI: trazodone (Desyrel®)	sedation, nausea, lightheadedness
*suicidal ideation up to age 24 can be a side effect seen with all antidepressants.	

MAOI (MONOAMINE OXIDASE INHIBITOR)

Anyone taking a monoamine oxidase inhibitor* must avoid foods that contain tyramine due to an increased risk for developing severely elevated blood pressure.

Foods and beverages to avoid include:

- caffeine (coffee, tea, chocolate)
- fermented or aged cheese, Brewer's yeast
- imported beer, some wines, sherry
- soy sauce, sour cream, yogurt
- avocados, bananas, papaya, raisins
- meat extracts and tenderizers
- beef or chicken liver
- any fermented, smoked, or aged fish or meat
 - sausage, bologna, pepperoni, salami

*Of note, the selegiline patch (EMSAM) does not require diet modifications at the usual dosing.



SYMPTOMS



**AGITATION &
RESTLESSNESS**



CONFUSION



SWEATING



**DILATED
PUPILS**



**SHIVERING &
TREMORS**



HYPERREFLEXIA



**MUSCLE
TWITCHING**



**GASTROINTESTINAL
SYMPTOMS**



**ELEVATED
BLOOD
PRESSURE**

SEROTONIN SYNDROME

Serotonin syndrome is caused by certain medications alone or in combination with others including:

- ✓ antidepressants (SSRIs, SNRIs, TCAs, etc.)
- ✓ anti-migraine medications
- ✓ narcotics, cough and cold medications
- ✓ anti-nausea medications

Serotonin:

- Is made by the body and used by the brain and nervous system cells to communicate.
- Is responsible for regulating the nervous system including body temperature, muscle tone, and gut motility.
- Low levels play a role in depression.
- Too much causes extreme nerve cell activity and symptoms.

ANTIPSYCHOTICS

Used since the 1950s to treat psychosis and manage chronic psychotic disorders such as schizophrenia. They are also used to treat acute agitation including agitation seen in dementia patients, behavioral dysregulation in youth, augmentation in major depression, bipolar disorder, and other psychiatric disorders.

PSYCHOSIS

Psychosis refers to a collection of symptoms that affect the mind, where there has been some loss of contact with reality. During an episode of psychosis, a person's thoughts and perceptions are disrupted and they may have difficulty recognizing what is real and what is not.

The key symptoms include:

- ✓ Delusions
- ✓ Hallucinations
- ✓ Disorganized speech (with frequent derailment or incoherence)
- ✓ Grossly disorganized or catatonic behavior

Psychosis can be triggered by:

- Physical illness or injury
- Abuse or trauma
- Recreational drugs, alcohol, smoking
- Prescribed medication



FIRST GENERATION ANTIPSYCHOTICS

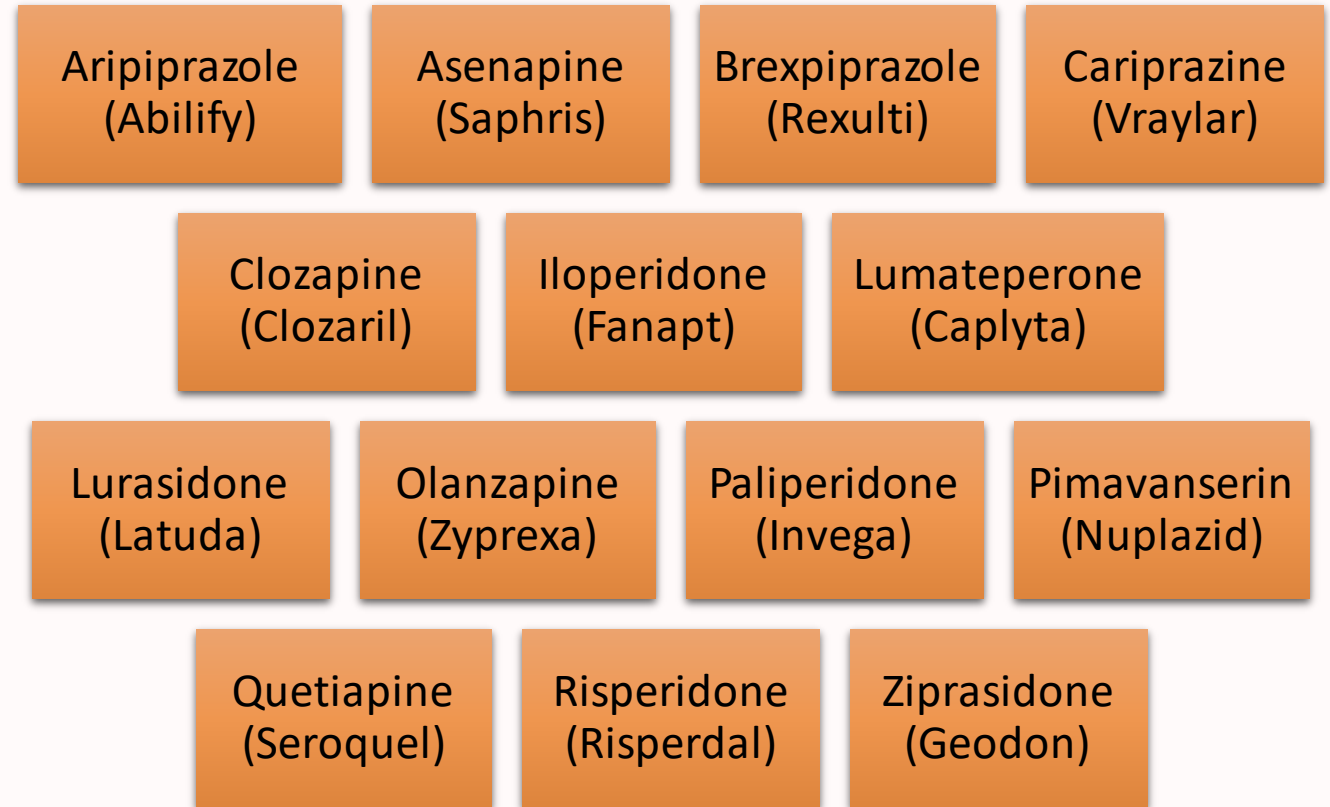
Side effects:

- Extrapyramidal side effects (EPS)
- Tardive dyskinesia
- Increased prolactin levels which cause:
 - breast milk production (lactation) and menstrual problems females
 - decreased libido, impotence, breast enlargement, lactation and infertility in men
- Weight gain
- Sedation, blunting of affect
- Anticholinergic effects
- Cardiac rhythm problems
- Lowered seizure threshold
- Neuroleptic malignant syndrome

- Haloperidol (Haldol®)
- Thioridazine (Mellaril®)
- Fluphenazine (Prolixin®)
- Thiothixene (Navane®)
- Chlorpromazine (Thorazine®)
- Perphenazine (Trilafon®)

SECOND GENERATION ANTIPSYCHOTICS

- Lower risk for extrapyramidal side effects and tardive dyskinesia than with first generation antipsychotics. These risks vary depending on the dose and which medication is prescribed.
- Cause significant changes in metabolic parameters increasing the risk for developing metabolic syndrome. These parameters include:
 - Weight gain/obesity
 - High blood sugar levels and diabetes
 - High blood pressure and high cholesterol
- Can lower the seizure threshold, increase prolactin levels and cause cardiac rhythm abnormalities.



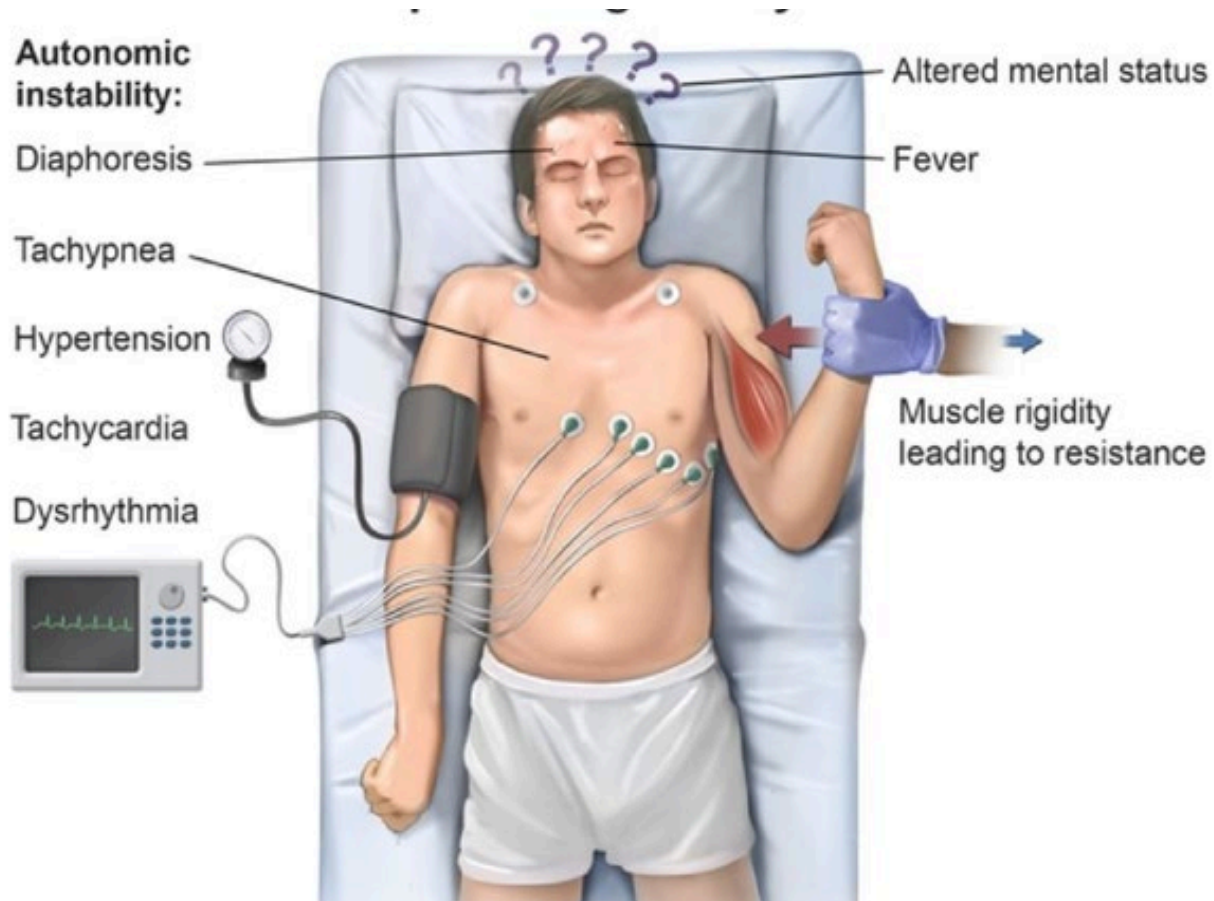
CLOZAPINE

Clozapine (Clozaril®) is an antipsychotic that is different from the others.

- It can cause dangerously low white blood cell counts (WBCs).
 - Counts must be monitored carefully and frequently.
 - The WBC must be within certain parameters in order to obtain the drug.
 - If Clozaril is missed for two days, the dose must go back down and weekly counts will start over.
- Other side effects include (but are not limited to):
 - Severe constipation including ileus (due to abnormal peristalsis)
 - Seizures
 - Low blood pressure with dizziness and fainting, rapid heart rate
 - Dry mouth
 - Myocarditis (an inflammation of heart muscle)
 - Neuroleptic malignant syndrome



NEUROLEPTIC MALIGNANT SYNDROME




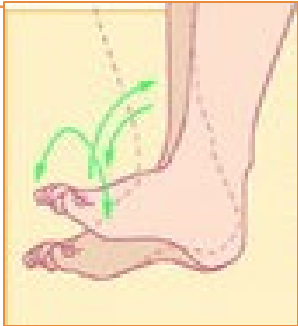

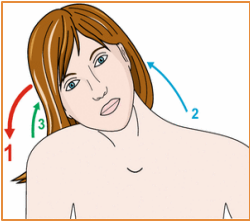
Neuroleptic malignant syndrome (NMS) is a life-threatening neurologic emergency associated with the use of antipsychotic agents and some other medications.

People with NMS show:

- Mental status change (often agitated or hypoactive delirium).
- Muscular rigidity is generalized and “lead pipe” in nature.
- Hyperthermia with temperatures over 100.4
- Elevated heart rate, blood pressure, breathing.
- Cardiac arrhythmias may occur.
- Sweating, pallor

EXTRAPYRAMIDAL SIDE EFFECTS (EPS)

Antipsychotics interfere with dopamine transmission causing several drug induced movement disorders.

Side effect	Signs and symptoms		
Acute dyskinesia (uncontrolled muscle movements)	<ul style="list-style-type: none">➤ Blinking➤ Writhing limbs➤ Protruding tongue➤ Uncontrolled movements of face (tics) and grimaces		
Akathisia (severe restlessness)	<ul style="list-style-type: none">➤ Pacing, inability to hold still➤ Rocking, foot tapping➤ Restless legs➤ Complaints of “jitters”, “crawling out of my skin”		
Dystonia (distorted movements of body, sustained muscle contractions)	<ul style="list-style-type: none">➤ Lock jaw, contorted face➤ Eyes rolled up➤ Head snapped back or to side➤ Rigidity, back arching		

MORE EXTRAPYRAMIDAL SIDE EFFECTS

Side effect

Signs and symptoms

Pseudo-Parkinsonism
(mimic Parkinson's disease)

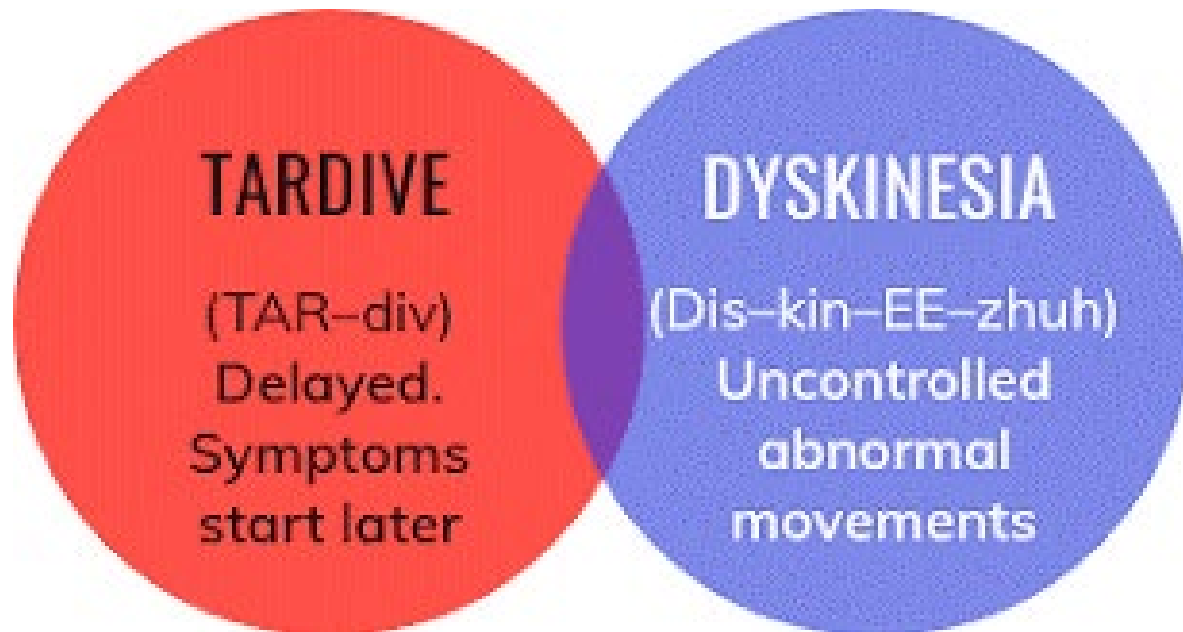
- Tremor (unintentional, rhythmic)
- Slow movement (bradykinesia) or no movement
- Drooling, dysphagia, lack of expression, decreased blinking
- Pill rolling, cogwheel rigidity, shuffling gait

"Rabbit Syndrome"
(mimics chewing motions of a rabbit)

- Lip tremor
- Perioral (around the mouth) tremor

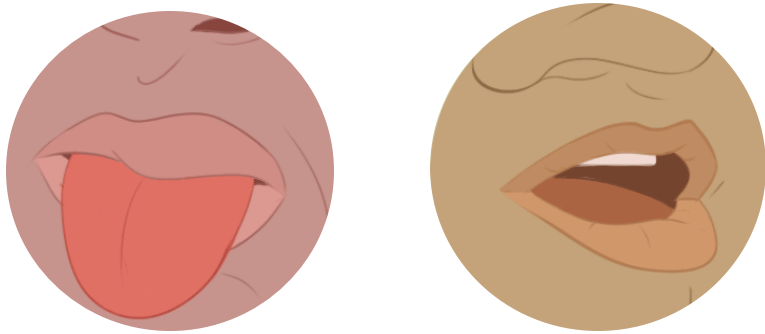


TARDIVE DYSKINESIA (TD)



- TD is a movement disorder caused by antipsychotic medications. Technically, the word tardive means delayed; dyskinesia means abnormal movement.
- Symptoms are often mild but can be progressive and may become disfiguring or disabling.
- Symptoms can affect the lips, jaw, eyes, tongue, torso, upper limbs, and lower limbs and they may never resolve.
- The risk increases with age, time of exposure to the medication, and prior development of EPS.
- There are new medications that treat this: Ingrezza, Austedo.

STEREOTYPICAL BEHAVIORS



Stereotypical behaviors are repetitive, rhythmic, non-purposeful movements seen with tardive dyskinesia.

They include:

- ☐ protruding, twisting of tongue
- ☐ smacking lips
- ☐ bulging cheeks
- ☐ chewing movements
- ☐ shoulder shrugging
- ☐ thrusting of hips
- ☐ rocking and swaying

AKATHISIA

- Akathisia is a combination of subjective feelings of restlessness/agitation and a compelling need to move.
- Often see non-productive, uncontrollable movements including rocking, pacing, and shifting weight. These movements do not give any relief.
- It can be caused by antipsychotic medications as well as some antidepressants, and anti-nausea drugs. Health conditions such as Parkinson's disease, and traumatic brain injury can also cause this.

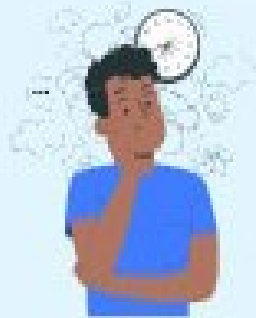
Restlessness



Fidgeting



Discomfort



Inability to Find Relief



Irritability

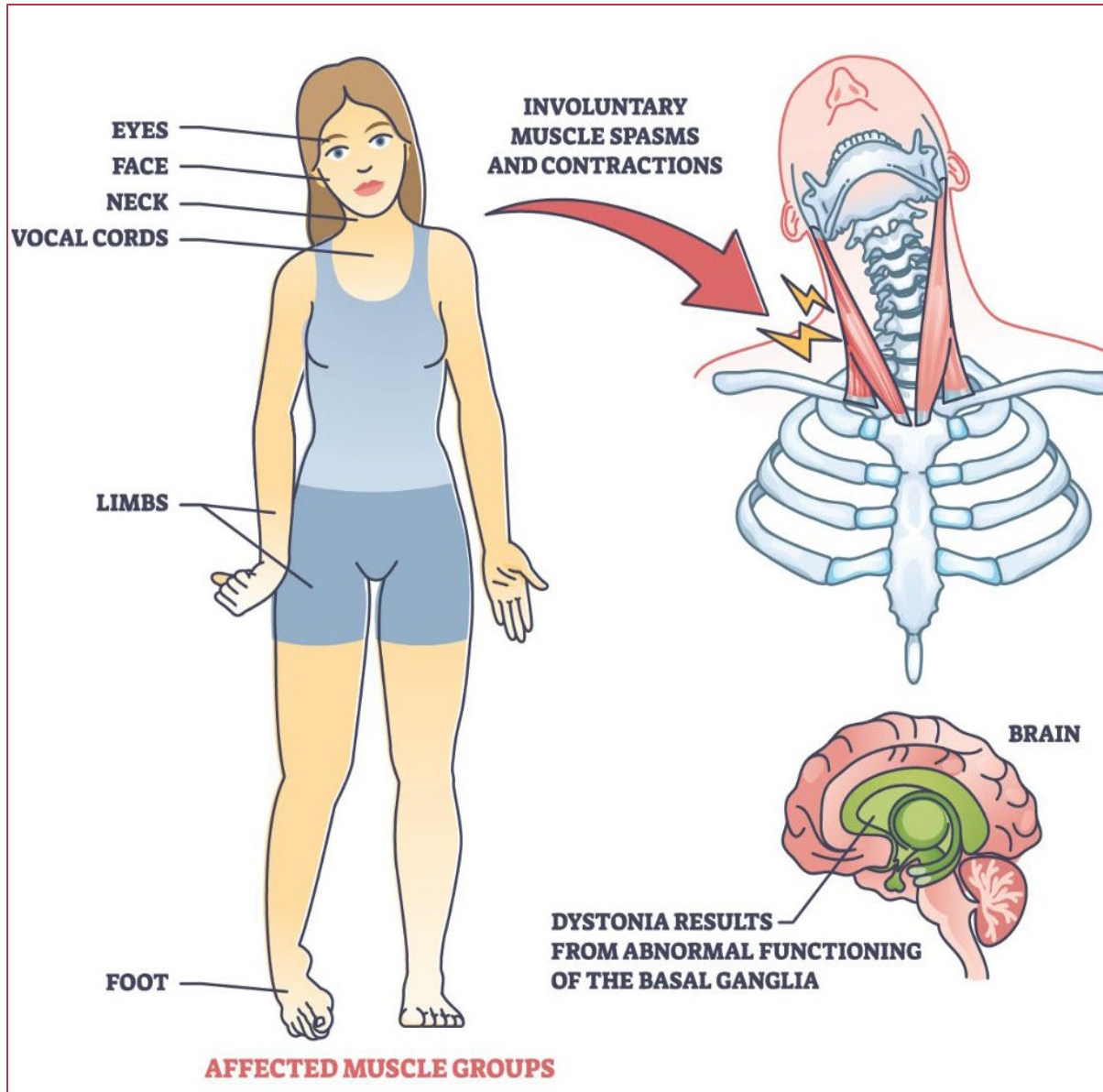


DYSTONIA

Dystonia is a nervous system disorder that causes uncontrollable muscle contractions, meaning a person's muscles tense up without trying to make the muscles do so. Though it affects muscles, it's an issue with the brain or another part of the nervous system.

Dystonia can be caused by first- and second-generation antipsychotics, certain anti-nausea drugs, lithium, stimulants, and certain anti-depressants.

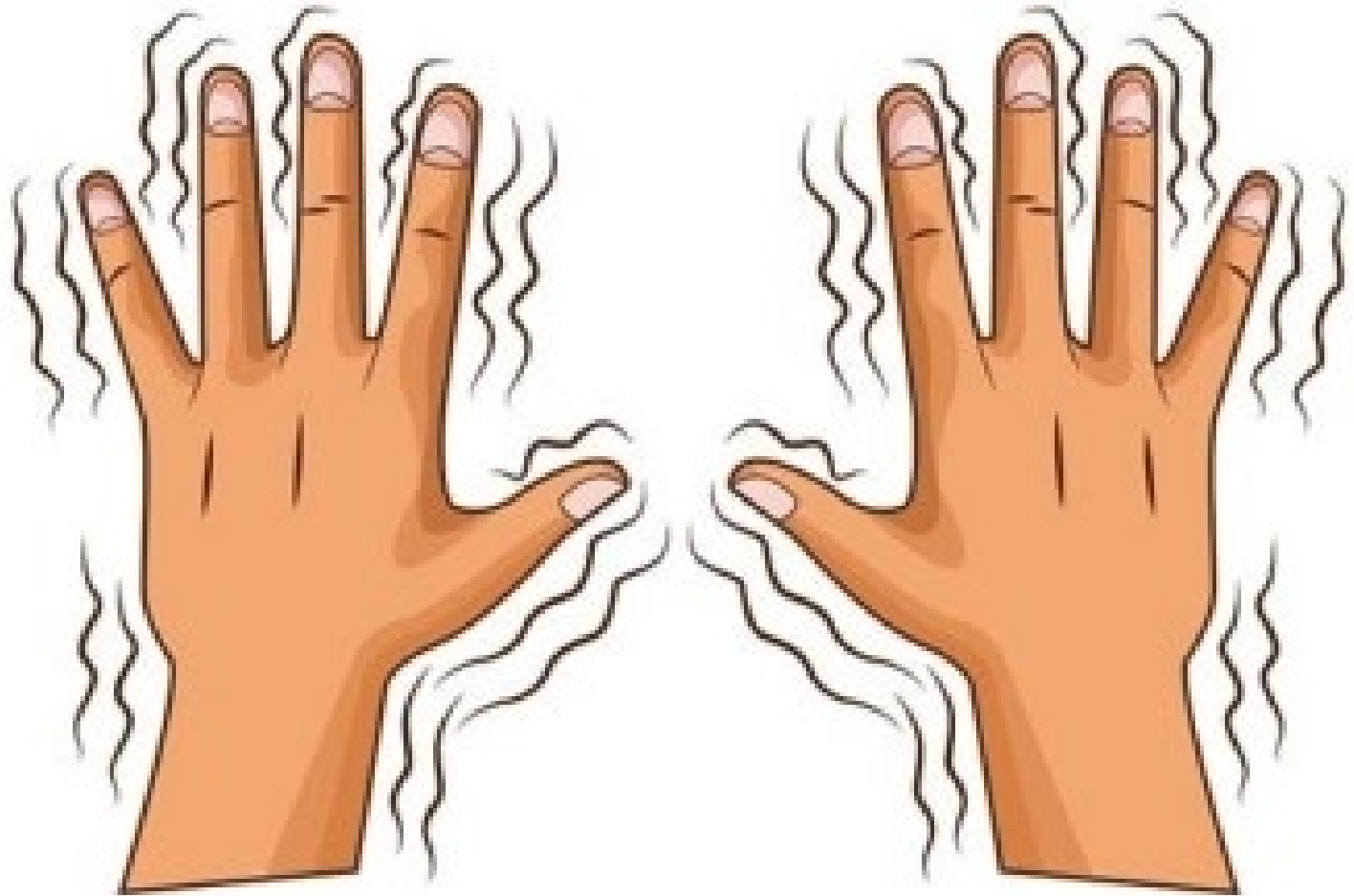
The name "dystonia" is a combination of the Latin prefix "dys-," and the Greek word "tonos," which refers to muscle tension. The combination of the two words describes a problem where muscles tense up in a way that is faulty or incorrect.



TREMOR

Tremor is uncontrolled shaking type movement of the hands.

There are many different causes including the use of medications like antipsychotics, SSRIs, stimulants, lithium and valproate. There are also medical causes such as Parkinson's disease, multiple sclerosis, stress, thyroid disease, liver disease, and kidney disease.



ANXIOLYTICS AND HYPNOTICS

Anxiolytics are anti-anxiety drugs.

- Anxiolytics are used to treat panic attacks, phobias, generalized anxiety, and various anxiety-related symptoms.
- Anti-anxiety medications include beta-blockers that help treat the physical symptoms of anxiety, including increased heart rate, nausea, sweating, and trembling.
- Antidepressants are often prescribed to treat anxiety.
- Benzodiazepines are the most used anti-anxiety drugs.
 - They can be taken as needed and work quickly thus have a high potential for abuse.
 - If used on a regular basis, abruptly stopping them will lead to withdrawal symptoms which include tachycardia, high blood pressure, tremulousness, disorientation, hallucinations, seizures, and psychotic behavior.

Hypnotics are also known as sedatives or sleeping pills.

- They are used to promote sleep and calm someone.
- They can cause dizziness and lead to falls.
- After being taken regularly for approximately two weeks, they may lose effectiveness and tolerance can develop. This generally doesn't happen with the newer sleeping pills.



Frequent worry that
interferes with daily life



Withdrawal from
social life



Fixation on fear of
next panic attack

SIGNS OF AN ANXIETY DISORDER



Irrational fear and
avoidance of a harmless
object, place, or situation



Out-of-the-blue
panic attacks



Recurring nightmares,
flashbacks, or numbing of
past trauma

BIPOLAR DISORDER (MANIC DEPRESSION)

Moods can range from mania to depression with mixed and depressed episodes seen.

Mania:

- Symptoms generally last about a week though some people are rapid cyclers.
- People usually feel abnormally and persistently happy, angry, hyperactive, impulsive, and irrational at times.
- Can have feelings of special powers/superiority and engage in dangerous behaviors.
- Often a decreased need for sleep with restlessness and increased activity seen.
- Often talking excessively with racing thoughts and a short attention span.
- May go on “spending sprees” or have sprees of sexual activity.

Hypomania: less severe but causes a change in mood that is abnormal. Often lasts at least 4 days.



BIPOLAR



MOOD STABILIZERS



Mood stabilizers are medications that help regulate extreme emotions. They treat and prevent highs (mania) and lows (depression) in bipolar disorder.

- ❑ **Lithium** was the 1st mood stabilizer discovered; it was used to control mania.

Other mood stabilizers:

- ❑ **Atypical antipsychotics** have mood stabilizing activity.
- ❑ **Anticonvulsants** are also used as mood stabilizers including:
 - carbamazepine (Tegretol)
 - oxcarbazepine (Trileptal)
 - valproic acid (Depakote)
 - lamotrigine (Lamictal)
 - topiramate (Topamax)
 - gabapentin (Neurontin) and pregabalin (Lyrica)

STIMULANTS

Stimulants are often given to people with attention deficit hyperactivity disorder (ADHD) to help manage unorganized behavior.

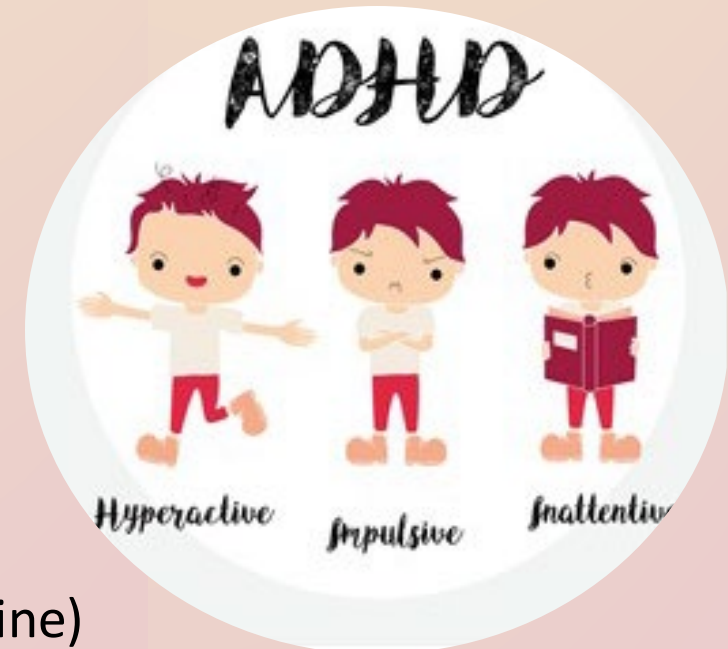
- They stimulate the central nervous system to increase the ability to focus, increase arousal and endurance, and may elevate mood.
- However, they can be addictive.
- Side effects include increased heart rate, elevated blood pressure, sleep problems, decreased appetite, and weight loss.

Stimulants include:

- Methylphenidate: Ritalin, Concerta
- Amphetamine mixed salts: Adderall
- Lisdexamfetamine: Vyvanse

Non-stimulant medications used in the treatment of ADHD include:

- Strattera, an SNRI
- Antihypertensives such as Tenex (guanfacine) and Catapres (clonidine)



MEDICATIONS USED FOR PSYCHIATRIC CONDITIONS



Thank you
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