CONDITION

Tardive dyskinesia

Tardive dyskinesia is a medication-related movement condition that causes repeated, involuntary movements, often of the face or mouth.

WHAT IT IS
Delayed, involuntary movements caused by certain medicines

BODY SYSTEM
Nervous system

MAIN SYMPTOMS
Lip smacking, tongue movements, blinking, limb movements

WHAT CAUSES IT
Exposure to dopamine-blocking medicines

HOW IT IS DIAGNOSED
Medication history and movement examination

MAIN TREATMENT
Medication review and VMAT2 inhibitor medicines

CAN IT BE CURED?
Sometimes - movements may fade after medication changes

IS IT AN EMERGENCY?
Sometimes - breathing or severe swallowing difficulty

LONG-TERM OUTLOOK
Symptoms may improve, persist, or affect daily activities

Overview

Tardive dyskinesia is a movement condition caused by exposure to certain medicines. It produces movements that you do not intend and may find difficult or impossible to control.

"Tardive" means delayed. Symptoms often appear after months or years of taking a medicine, but they can sometimes begin sooner. "Dyskinesia" means abnormal movement.

The condition most often affects people taking medicines that block dopamine, a chemical involved in movement and behaviour. These include antipsychotic medicines used for conditions such as schizophrenia, bipolar disorder, and severe depression. Some medicines for nausea or digestive problems can also cause it.

Tardive dyskinesia often affects the mouth, tongue, jaw, or face. It can also involve the arms,

legs, fingers, or trunk. Symptoms may be mild and barely noticeable, or they may interfere with speaking, eating, walking, work, or social activities.

The medicine linked to tardive dyskinesia may still be important for your health. Do not stop or reduce it on your own. Sudden changes can make the condition being treated worse and may sometimes make abnormal movements more noticeable.

Symptoms

Tardive dyskinesia can look different from person to person. Movements are usually repeated, involuntary, and present while you are awake. You may not notice them at first, especially movements around the face.

Common movements include:

Some people have muscle tightening or abnormal postures. This is sometimes called tardive dystonia. Others feel inner restlessness and a strong need to move, known as tardive akathisia. These are related tardive movement conditions, but they are not identical to classic tardive dyskinesia.

Symptoms may become more obvious during stress, excitement, or purposeful movement. They often lessen during sleep. Their intensity can change from day to day.

Tell a healthcare professional if movements interfere with eating, swallowing, speaking, breathing, balance, sleep, dental care, or everyday tasks.

- Lip smacking, chewing motions, or puckering
- Tongue twisting, pushing out, or moving inside the mouth
- Rapid blinking, facial grimacing, or jaw movements
- Finger movements that resemble playing a piano
- Jerking, twisting, or swaying of the arms, legs, or trunk
- Rocking of the hips or irregular movements while walking

Causes and risk factors

Tardive dyskinesia is linked to medicines that reduce dopamine signalling in the brain. The exact biological process is not fully understood. Long-term dopamine blocking may make movement-control pathways unusually sensitive.

Medicines associated with the condition include:

Older antipsychotics like olanzapine or risperidone generally have a higher risk, but newer antipsychotics can also cause tardive dyskinesia. The condition can occur even when a medicine is taken correctly and is medically necessary.

Risk tends to rise with longer exposure and a higher total amount of dopamine-blocking medicine over time. Older adults and people who have previously had medication-related stiffness, tremor, restlessness, or muscle spasms may be more vulnerable. Diabetes, mood disorders, and certain brain conditions have also been associated with increased risk.

Having a risk factor does not mean that you will develop tardive dyskinesia. Some people develop it after relatively brief exposure, while many people take these medicines for years without developing it.

Symptoms can first appear or become clearer after a medicine is reduced or stopped. This is sometimes called withdrawal-emergent dyskinesia. Short-lived withdrawal movements are not always permanent tardive dyskinesia, so follow-up is important.

- Antipsychotics, including both older and newer types
- Metoclopramide, used for certain nausea and stomach-emptying problems
- Some other medicines used for severe nausea or vomiting

Diagnosis

There is no blood test or scan that confirms tardive dyskinesia. Diagnosis is based on the pattern of movements, your medicine history, and a physical examination.

A healthcare professional will usually ask:

A structured examination called the Abnormal Involuntary Movement Scale, or AIMS, may be used. It records movements in different parts of the body and helps track changes over time. An AIMS score supports assessment but does not diagnose the condition by itself.

Other conditions can cause similar movements. These include tics, tremor, Parkinson-like medication effects, dental problems, restless movements, and other neurological conditions. Blood tests or brain imaging may be ordered when the history or examination suggests another cause, but these tests do not confirm tardive dyskinesia.

A video recorded with permission may help show movements that are not present during an appointment. It can also help your care team compare symptoms over time.

- Which medicines you take or previously took
- When the movements began

- Whether symptoms changed after a medicine was started, stopped, or adjusted
- How the movements affect eating, speaking, walking, and daily life

Treatment and management

Treatment aims to reduce involuntary movements while keeping the original medical or mental health condition safely controlled.

The first step is a careful review of current and past medicines. Your prescriber may consider whether the suspected medicine is still needed, whether its amount can be changed, or whether a different medicine would be suitable. These choices need to balance movement symptoms against the risk of the original condition returning.

Do not abruptly stop an antipsychotic or another suspected medicine without professional guidance. Sudden withdrawal can cause serious symptoms and may temporarily worsen abnormal movements.

Valbenazine and deutetrabenazine are medicines approved in the United States for adults with tardive dyskinesia. They are known as VMAT2 inhibitors. They reduce the amount of certain chemical messengers released by nerve cells involved in movement.

VMAT2 inhibitors can reduce movements, but they do not work for everyone and may not remove symptoms completely. Possible adverse effects include sleepiness and Parkinson-like symptoms such as stiffness or slowed movement. Each medicine has its own warnings and potential interactions, so the prescriber and pharmacist need to review your other medicines and health conditions.

For some people, changing the medicine associated with tardive dyskinesia may help. Improvement can take months, and movements can remain even after the suspected medicine has been stopped. A specialist may sometimes recommend other approaches for particular movement patterns, such as botulinum toxin injections for a severely affected group of muscles.

Medicines used for some other medication-related movement problems do not necessarily treat tardive dyskinesia. Certain anticholinergic medicines, such as benztropine, may worsen typical tardive movements. Do not start, stop, or change these medicines without guidance.

Speech therapy, swallowing assessment, physiotherapy, occupational therapy, and dental care may help when symptoms affect specific activities.

Complications

Mild tardive dyskinesia may have little effect on daily life. More noticeable movements can cause physical, emotional, and social difficulties.

Repeated mouth or tongue movements may lead to mouth sores, dental damage, difficulty keeping dentures in place, or problems eating. Jaw and throat movements can affect speech or swallowing. Severe swallowing problems can increase the risk of food or liquid entering the airway.

Movements involving the legs or trunk can affect balance and increase the risk of falls. Constant movement may cause pain, tiredness, or difficulty sleeping.

Visible movements can also lead to embarrassment, unwanted attention, or social withdrawal. Some people consider stopping an essential medicine because of these effects. A treatment review can address both the movements and the condition for which the medicine was prescribed.

Prevention

Tardive dyskinesia cannot always be prevented. Dopamine-blocking medicines may be necessary, and the condition can occur despite careful prescribing.

Risk may be reduced by using these medicines only when there is a clear medical reason and avoiding more exposure than is needed. Decisions about the medicine and amount should be made by the prescriber based on the condition being treated.

Regular checks for new movements can help identify tardive dyskinesia early. Mention subtle changes such as increased blinking, tongue movements, finger tapping, chewing motions, or unexplained restlessness. Early recognition allows the benefits and risks of treatment to be reviewed before symptoms become more disruptive.

Living with it and what to expect

The course of tardive dyskinesia is not predictable for an individual person. Some movements improve after treatment changes or a VMAT2 inhibitor. Others remain stable, come and go, or gradually become more noticeable. Symptoms can continue for months or years after the medicine linked to them has been stopped.

Follow-up usually includes checking the type and severity of movements, their effect on daily activities, and any treatment side effects. A structured movement scale may be repeated to

show whether symptoms are changing.

Practical adjustments can help. Cups with lids, modified utensils, softer foods, or changes to a workspace may make activities easier. A speech or swallowing professional can suggest safer techniques if mouth or throat movements cause problems. Physiotherapy may help with balance, walking, or muscle discomfort.

Tardive dyskinesia does not affect intelligence. Most people can continue everyday activities, although some need treatment or practical support. Emotional effects also matter. Tell your care team if embarrassment, anxiety, low mood, or other people's reactions are affecting your quality of life.

Keep an up-to-date medicine list, including medicines you no longer take. This can help future healthcare professionals understand your history and avoid unnecessary exposure to medicines that may worsen the condition.

When to get medical help

Arrange a routine appointment if you notice new repeated movements after taking an antipsychotic, metoclopramide, or another dopamine-blocking medicine. This is also appropriate if known movements are becoming more frequent or affecting eating, speech, work, walking, or social activities.

Contact your care team promptly if you have repeated choking, increasing difficulty swallowing, frequent falls, or treatment side effects such as marked sleepiness, stiffness, or slowed movement.

Seek emergency help if you:

Fever with severe stiffness and confusion may indicate neuroleptic malignant syndrome, a rare emergency that is different from tardive dyskinesia.

- Cannot breathe or are choking and cannot clear the blockage
- Cannot swallow saliva or develop severe, sudden swallowing difficulty
- Develop fever, severe muscle stiffness, confusion, and reduced alertness while taking an antipsychotic

Common questions

Does tardive dyskinesia go away?

It sometimes improves or resolves, particularly after an appropriate medicine change or

treatment. In other people it persists. Improvement may take months, and stopping the suspected medicine does not guarantee that movements will disappear.

Can newer antipsychotics cause tardive dyskinesia?

Yes. Newer antipsychotics generally carry less risk than older ones, but the risk is not zero. Their benefits may still outweigh this risk for many people.

Can tardive dyskinesia start after I stop a medicine?

Yes. Movements may first appear or become more obvious after a dopamine-blocking medicine is reduced or stopped. A professional assessment can help distinguish persistent tardive dyskinesia from temporary withdrawal-related movements.

Is tardive dyskinesia the same as Parkinson's disease?

No. Tardive dyskinesia usually causes flowing, twisting, chewing, or jerking movements. Parkinson's disease more often causes slowed movement, stiffness, and a particular type of tremor. Some medicines can cause both tardive movements and Parkinson-like effects.

Can stress make the movements worse?

Stress, excitement, tiredness, or being observed can make movements more noticeable for some people. This does not mean that stress caused the condition or that the movements are under voluntary control.

Should I stop the medicine that caused it?

Do not stop it on your own. An abrupt change may worsen the condition being treated and can sometimes increase movements. Your prescriber can review whether a gradual change, a different medicine, or treatment for tardive dyskinesia is appropriate.

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