



# Medication Induced Movement Disorders: Essential Facts for Patients

## CAN MEDICATION CAUSE MOVEMENT DISORDERS? YES.

There are many drugs that can cause movement disorders. Movement disorders caused by drugs can appear within hours, days, or weeks after drug exposure.

## WHICH MEDICATION CAUSE MORE COMMONLY MOVEMENT DISORDERS

There are many drugs that may cause movement disorders. The most commonly used drugs that may cause movement disorders are:

- Antipsychotics and other psychotropics are used for treating psychiatric symptoms. These drugs may include, fluphenazine, chlorpromazine, promazine, pimozide, haloperidol, perphenazine, risperidone, lithium, reserpine and others
- Prokinetic or antiemetics are drugs used against nausea and other gastroenterological issues. These drugs include metoclopramide, promethazine, prochlorperazine, levosulpiride,
- Antihistaminics are drugs used for allergies and include hydroxyzine and promethazine
- Antiepileptics are drugs used against seizures and include valproate, phenytoin and others

## WHICH MOVEMENT DISORDERS CAN BE CAUSED BY MEDICATION?

Drug-induced movement disorders include a variety of disorders such as dyskinesias, dystonia, parkinsonism, tremor, chorea, akathisia, tics and ataxia or a combination of more than one of these.

Tardive movement disorders are a result of the use of dopamine receptor blocking drugs (mainly antipsychotics and antiemetics) are chronic disorders.

- Orofacial dyskinesias (e.g. involuntary movements around the area of the mouth, the tongue and the jaw) are the most common drug-induced abnormal movements. These occur more commonly in older women and may look like chewing, jaw opening or closing, lip smacking, or involuntary tongue protrusion. These movements cause discomfort socially and may also cause difficulties in eating, swallowing, speaking.
- Tardive dystonia is less common than orofacial dyskinesia and is more often in young men. It is characterized by sustained abnormal posturing, most commonly a backward extension of the head (retrocollis), or the trunk (opisthotonus) but also other body parts.

- Parkinsonism caused by drugs is also common and may cause slowness of movements, unsteadiness when walking and falls, leading to hospitalizations.

Acute movement disorders induced by drugs include among others dystonia (sustained muscle spasms leading to abnormal postures), which may develop rapidly and may involve any body part or many body parts including the trunk and akathisia (e.g. a feeling of restlessness often accompanied by a tension and stereotyped movements such as rocking in place, pacing, rubbing hands) that can begin within hours to days after initiating treatment (or can also present as tardive akathisia).

Very rarely, drugs may cause movement disorders emergencies such as the so called neuroleptic malignant syndrome which require immediate medical attention.

## WHAT SHOULD I DO IF I TAKE SUCH MEDICATION AND I EXPERIENCE MOVEMENT DISORDERS

If you take medication that may cause movement disorders and you experience symptoms such as involuntary movements, slowness, the urge to move constantly or any discomfort you should talk to your doctor as soon as possible. You should not stop your medication by yourself because an abrupt withdrawal of such drugs may cause dangerous side effects. At the same time, you should not ignore the symptoms as sometimes time is an important factor in the treatment of such movements.

## ARE MEDICATION-INDUCED MOVEMENT DISORDERS TREATABLE? YES.

They may be treatable, but treatment is individualized and needs to be discussed with your treating physician. In most cases the offending drug will be stopped and replaced by another drug by your physician, depending on the underlying disease for which you were prescribed these drugs. This may need to take a while as well as some of these drugs cannot be stopped abruptly. Some drugs that are directly targeting to improve these symptoms (e.g. VMAT2 inhibitors) that your physicians may prescribe to you. In severe cases, a surgical approach (Deep brain stimulation) may be considered.