

What is tardive dyskinesia?

Tardive dyskinesia (TD) is one of the most disturbing potential side effects of antipsychotic medications. Tardive (late) Dyskinesia (bad movement) is a movement disorder that occurs over months, years and even decades. TD is a principle concern of first generation antipsychotic medication but has been reported in second generation antipsychotic medication and needs to be monitored for all people who take these medications.

TD is one of a group of side effects called “extrapyramidal symptoms” that includes akathisia (restlessness), dystonia (sudden and painful muscle stiffness) and Parkinsonism (tremors and slowing down of all body muscles. TD is perhaps the most severe of these side effects and does not occur until after many months or years of taking antipsychotic drugs. TD is primarily characterized by random movements of different muscles within the body and can occur in the tongue, lips or jaw (e.g., facial grimacing), or consist of purposeless movements of arms, legs, fingers and toes. In some severe cases, TD can include swaying movements of the trunk or hips or affect the muscles associated with breathing. TD can be quite embarrassing and—depending on its severity—can be disabling as well.

Because there are a number of other medical and neurological conditions that can cause uncontrollable or strange body movements, a long history of treatment with antipsychotics must be documented before diagnosis with TD is even considered. For example, a number of neurological and muscular may cause uncontrollable body movements including Parkinson’s disease, Huntington’s disease and strokes. Therefore, any person with the onset of uncontrollable movements should discuss these symptoms with their doctors.

Who is at risk for developing tardive dyskinesia?

Many people with serious and chronic mental illness, such as [schizophrenia](#), require long term treatment with antipsychotic medications. While ongoing antipsychotic treatment can be very helpful or even life-saving for many people, it comes with the risk of developing TD. Not all people exposed to long term treatment with antipsychotics will develop TD and some people are at increased risk for developing this side effect when compared with others. Some common risk factors for developing TD are:

- Longer duration of treatment with [antipsychotic medications](#).
- Exposure to high-potency first generation antipsychotics (e.g., haloperidol (Haldol), fluphenazine (Prolixin), risperidone (Risperdal]) as opposed to certain newer—“Second Generation”—antipsychotics (e.g., clozapine (Clozaril), quetiapine (Seroquel)).
- Older age of the individual receiving these medications (sp. post-menopausal females).
- Having alcoholism or another [substance abuse disorder](#).
- Being female.

- Being of African-American or Asian ethnicity.

The exact neurological basis of TD is still unknown despite extensive research. All antipsychotic medications change the activity of a chemical within the brain involved in communication between neurons (a neurotransmitter called “Dopamine”). While this is useful in decreasing the [symptoms of psychosis](#), such as delusions and hallucinations, it also changes the brain’s ability to coordinate the body’s muscular movements.

Due to a number of factors, it is very difficult to determine exactly who will develop TD or what the exact risk of developing TD might be for a person treated with antipsychotic medications. Some scientific studies suggest that approximately 5 percent of people treated with antipsychotics will develop TD for each year of treatment and that the overall risk of developing TD over the course of one’s ongoing treatment is between 30 to 50 percent.

Are there effective treatments for tardive dyskinesia?

The most effective treatment for TD is *prevention*. Because usually months to years of antipsychotic treatment pass before the onset of TD, a person taking medications should see their psychiatrist for regular evaluations to ensure that any signs of TD are recognized before they become severe. Most psychiatrists will use a standardized rating scale called “The Abnormal Involuntary Movement Scale”—*AIMS* for short—to screen for TD at least once each year. This can help to stop TD before it starts.

The majority of people who develop TD will find that it is mild and reversible and the percentage of patients who develop severe or irreversible TD is quite low. For people who are developing the signs and symptoms of TD, the most important thing to do is to talk with their psychiatrist. Decreasing the dose of one’s antipsychotic medications is often the most effective treatment. Many people will find that their symptoms improve significantly at lower doses of antipsychotics. If this is not possible or does not relieve the symptoms of TD, some psychiatrists may recommend switching from one medication to a different one. However, this can also lead to the worsening of psychotic symptoms, which further emphasizes the importance of having a long discussion with one’s psychiatrist prior to making any changes.

Unfortunately there is no medication that can cure TD. A number of different medications have been studied—including benzodiazepines (e.g., lorazepam (Ativan), clonazepam (Klonopin)), anticholinergic medications (e.g., benzotropine (Cogentin)), and supplements (e.g., Vitamin E, branched chain amino acids, Gingko Biloba)—but it remains unclear whether any of them can prevent or treat TD at the current time. The antipsychotic clozapine may have some efficacy in selected cases of TD.

Reviewed by Ken Duckworth, M.D. and Jacob L. Freedman, M.D., October 2012