

Lauren Chaney, PharmD, November 2021



- There are 3 types of short-term movement side effects: acute dystonic reactions, pseudoparkinsonism, and akathisia.
- Short-term movement side effects happen within the first few days to months of starting the drug. It is important to watch for signs. All three of these short-term movement side effects can be prevented and treated.
- Tardive dyskinesia (TD) is a long-term movement side effect that should be routinely monitored for.
- Talk to a provider or pharmacist with questions or concerns about drugs.
- Talk to a provider before stopping a drug or changing the amount of drug that is prescribed.

Background

All antipsychotic drugs, first generation and second generation, block a chemical in the brain called dopamine.¹ Blocking dopamine raises the chance of drug-induced movement side effects.¹⁻⁴ Second generation antipsychotics generally have a lower chance of movement side effects and are preferred over the first-generation antipsychotics.²

There are two types of movement side effects, short-term and long-term.¹ The long-term movement side effect is called **tardive dyskinesia (TD)**.^{1,5} The 3 short-term movement side effects are called **acute dystonic reactions, pseudoparkinsonism, and akathisia**.¹⁻⁴ These can occur in the first days, weeks, or months of starting an antipsychotic drug.^{1,4} TD can develop after 3 months to several years of treatment with an antipsychotic (ref 3 from TD).

Acute Dystonic Reaction

An acute dystonic reaction is an uncontrolled movement of the muscles in the back, arms, hands, feet, legs, vocal cords, face, or neck.^{1,3,4} It may appear as unusual movement or postures for short or long periods of time.^{4,6} Examples include twisting the neck or head, uncontrollable blinking, making unusual faces, trouble speaking, foot cramps, and/or shaking of the arms or legs.⁶ It can happen 24-96 hours after starting the antipsychotic drug or when the amount of drug is increased too fast.^{1,4} Young people can have a higher chance of having this side effect. Also, first generation antipsychotics, such as haloperidol (Haldol®) or fluphenazine (Prolixin®) have a higher chance of causing acute dystonic reaction.

- Treatment: It can be quickly taken care of with drugs such as benztropine (Cogentin®), diphenhydramine (Benadryl®), or lorazepam (Ativan®).^{1,3} Also, providers may stop the drug or lower the amount of drug.⁴
- Prevention: Providers should choose a drug with a small chance of causing movement side effects.³ Also they may start with a small amount of drug and raise it slowly.¹ Providers may also start a new drug to stop the side effects. Drugs like benztropine (Cogentin®) or diphenhydramine (Benadryl®) can lower the chances of getting this side effect^{3,4}

Pseudoparkinsonism

Pseudoparkinsonism can show as a slowing of movement.¹ People may feel shakiness in their arms or shuffle their feet when walking.^{1,4} Some people will also say their face shows no emotion.¹ This can happen many days to weeks after starting the antipsychotic drug or raising the amount.¹ It happens more in females and older people.⁴ First generation antipsychotic drugs have a higher chance of pseudoparkinsonism, too.⁴

- Treatment: Providers may stop the drug or lower the amount.¹ Drugs such as benztropine (Cogentin®), diphenhydramine (Benadryl®), amantadine (Symmetrel®), trihexyphenidyl (Artane®) or propranolol (Inderal®) can be used to stop this side effect.³
- Prevention: Providers should pick an antipsychotic drug with a low chance of movement side effects. They should also increase the amount of drug slowly.¹

Akathisia

Akathisia is feeling of pain or discomfort with a need to move.^{1,2,4} It mostly happens in the legs.^{1,4} It can show as pacing, rocking, leg swinging, or foot tapping.⁴ It may be confused with fear or worry.¹ Most cases start within the first few months of therapy.^{1,4} It can happen when starting a drug or changing from one drug to another.⁴ Middle-aged women and people with low iron levels can have a higher chance of getting this movement side effect.⁴

- Treatment: A drug used to stop this movement side effect is called propranolol (Inderal®).¹⁻³ Other drugs such as lorazepam (Ativan®) or clonazepam (Klonopin®) can be used, too.¹ Also, providers may lower the amount of drug or change the drug to one that might not cause the side effect.¹⁻³
- Prevention: Providers should start these drugs at a small amount and raise it slowly.^{1,4}

Tardive Dyskinesia (TD)

TD may appear as repetitive, jerking movements that occur in the face, neck, and tongue.¹ The symptoms of TD can be very troubling for patients and family members. The muscle movements are outside of the patient's control. Risk factors for TD include being elderly, female sex, diabetes, and having other mental illnesses (ref 4 from TD tool).

- Treatment: Providers may adjust the dose of the medication or switch to a different antipsychotic that may lessen TD.² Many available treatments for TD offer some benefit to patients, but response to treatment depends on the patient. New medications have been developed for TD including duetetrabenazine (Austedo®), and valbenazine (Ingrezza®)^{7,8}, but these may be too expensive for some patients. In addition to these approved medications, other alternative agents have shown mild benefit in treating TD such as ginkgo biloba and vitamin E.⁹
- Prevention: Providers should pick an antipsychotic drug with a low chance of movement side effects and monitor patients for signs of TD.⁵ Tests may be performed at office visits. These should be done routinely because recognizing TD early may reduce the severity of the side effect.⁶



Go online to find more information and to view the references for this toolkit.

aapp.org/515481