

How does tardive dyskinesia (TD)
impact residents at your
long-term care facility?

**Uncover the impact and
importance of managing TD**



Have you seen residents with these abnormal movements? It could be TD.

TD is a medication-induced movement disorder associated with prolonged exposure to dopamine receptor blocking agents (DRBAs), including antipsychotics¹

Actor portrayals



LIPS/TONGUE

Puckering, pouting, smacking^{1,2}



JAW

Biting, clenching, or side-to-side movements^{1,2}



EYES/FACE

Excessive blinking or squinting again and again^{1,2}



TORSO

Rocking, leaning back, or torso and hip shifting^{1,2}



UPPER LIMBS

Twisting hands or dancing fingers^{1,2}



LOWER LIMBS

Stretched toes, gripping feet, ankle twisting^{1,2}

The movements of TD have distinct characteristics^{3,4}

Repetitive, purposeless movements

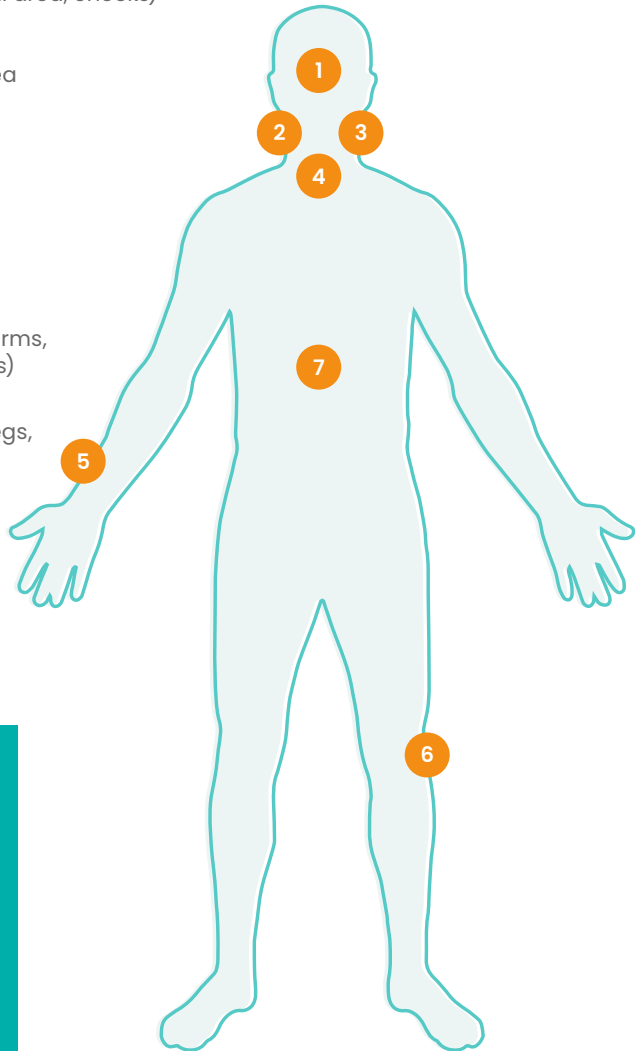
Irregular, dance-like movements

Slow, snake-like, writhing movements

TD may affect more than one area of the body—not just the face^{1,2}

The Abnormal Involuntary Movement Scale (AIMS) exam can be used to assess symptom severity across multiple areas of the body

- 1 Muscles of facial expression (forehead, eyebrows, periorbital area, cheeks)
- 2 Lips and perioral area
- 3 Jaw
- 4 Tongue
- 5 Upper extremities (arms, wrists, hands, fingers)
- 6 Lower extremities (legs, knees, ankles, toes)
- 7 Trunk (neck, shoulders, hips)



Find expert-led
guidance on
conducting the
AIMS exam at
[MIND-TD.com](https://www.mind-td.com)



TD can affect any resident

treated with a DRBA⁵

Overall prevalence of antipsychotic use in long-term care facilities may be up to



^aMedicare Part D claims data; long-stay residents age ≥65 years.

MEDICATIONS THAT MAY REQUIRE MONITORING FOR TD

FIRST-GENERATION ANTIPSYCHOTICS⁷

- | | | | | |
|--|---|---------------------------------------|---|---|
| • Chlorpromazine
(<i>Thorazine</i>) | ⋮ | • Loxapine
(<i>Loxitane</i>) | ⋮ | • Thioridazine
(<i>Mellaril</i>) |
| • Molindone
(<i>Moban</i>) ⁸ | ⋮ | • Haloperidol
(<i>Haldol</i>) | ⋮ | • Thiothixene
(<i>Navane</i>) |
| • Fluphenazine
(<i>Prolixin</i>) | ⋮ | • Perphenazine
(<i>Trilafon</i>) | ⋮ | • Trifluoperazine
(<i>Stelazine</i>) |

SECOND-GENERATION ANTIPSYCHOTICS⁷

- | | | | | |
|---------------------------------------|---|---------------------------------------|---|--|
| • Aripiprazole
(<i>Abilify</i>) | ⋮ | • Loxapine
(<i>Loxitane</i>) | ⋮ | • Quetiapine
(<i>Seroquel, Seroquel XR</i>) |
| • Asenapine
(<i>Saphris</i>) | ⋮ | • Lumateperone
(<i>Caplyta</i>) | ⋮ | • Risperidone
(<i>Risperdal</i>) |
| • Brexpiprazole
(<i>Rexulti</i>) | ⋮ | • Lurasidone
(<i>Latuda</i>) | ⋮ | • Ziprasidone
(<i>Geodon</i>) |
| • Cariprazine
(<i>Vraylar</i>) | ⋮ | • Olanzapine
(<i>Zyprexa</i>) | ⋮ | |
| • Clozapine
(<i>Clozaril</i>) | ⋮ | • Paliperidone
(<i>Invega</i>) | ⋮ | |
| • Iloperidone
(<i>Fanapt</i>) | ⋮ | • Pimavanserin
(<i>Nuplazid</i>) | ⋮ | |

OTHER DOPAMINE RECEPTOR BLOCKING AGENTS¹

- | | | | | |
|---|---|---|---|---------------------------------------|
| • Prochlorperazine
(<i>Compazine, Compro</i>) | ⋮ | • Trimethobenzamide
(<i>Tebamide, Tigan</i>) | ⋮ | • Metoclopramide
(<i>Reglan</i>) |
| • Promethazine
(<i>Phenergan, Promethegan, Phenadoz</i>) | ⋮ | • Thiethylperazine
(<i>Torecan</i>) | ⋮ | |

DRBA, dopamine receptor blocking agent.

For educational purposes only. Not intended as an exhaustive list of medications that may require monitoring for TD.

Are your residents at increased risk for TD?

Older individuals treated with antipsychotics have a greater risk for TD, even when treated with lower doses for a shorter duration⁹⁻¹⁴

Cumulative incidence of TD in older individuals exposed to first-generation antipsychotics^{10,b}

25%

AFTER 1 YEAR

34%

AFTER 2 YEARS

53%

AFTER 3 YEARS

^bBased on an analysis of neuroleptic-naïve patients ≥55 years (n=261).

While anyone treated with a DRBA can develop TD, the following patient types may be associated with increased risk:



Patient risk factors for TD:

- Aged 50 or older⁰
- Substance use disorder¹⁵
- Being postmenopausal¹⁶
- Diagnosis of mood disorder¹⁷



Treatment risk factors for TD:

- Cumulative exposure to antipsychotics¹⁵
- Treatment with anticholinergics¹⁵
- History of acute drug-induced movement disorder symptoms¹⁵
- Potency of antipsychotics¹⁸

TD may negatively

impact residents' daily lives¹⁹



Stigmatization

Abnormal and involuntary movements may make residents feel stigmatized socially



Isolation

Abnormal and involuntary movements may cause residents to isolate themselves



Functional impact

TD movements can impact residents' ability to perform daily activities

Uncover the impact TD has on your residents

Use empathetic, open-ended questions to help residents recognize and accept their involuntary movements. This can help uncover the impact TD has on the way your residents think, feel, and act.



THINK

When you first noticed these movements, what did you think of them?



FEEL

How do the movements make you feel?

Have family members or others noticed your movements? If so, what did they say?



ACT

How do these movements affect your daily life, such as getting dressed, eating, or sleeping?

Do you find yourself participating less often in group activities or physical therapy because of your movements?

Residents' care may

also be impacted by TD

Prioritizing patient-centered practices is essential to ensuring safe, effective care that follows CMS guidance and quality measures²⁰



Quality measures that may be associated with TD symptoms²⁰

% of residents:

- Experiencing one or more falls with major injury
- Whose ability to move independently worsened
- Whose need for help with daily activities has increased
 - Examples of daily activities include:
 - Bathing
 - Grooming
 - Dressing
 - Eating
 - Using the toilet
 - Moving around in bed
 - Moving from bed to chair



Older adults are also especially at risk from the physical impacts of TD, including impaired gait and balance, which can lead to falls¹⁹



Monitoring for TD in long-term care

facilities is multidisciplinary²¹

All members of the care team can help recognize and report symptoms of TD



ADMISSION

- Nurse
- Admitting physician
- Advanced practice practitioner
- Assessment and care plan



INITIAL RESIDENT ASSESSMENT AND CARE PLAN

- Nurse
- Admitting physician
- Advanced practice practitioner
- Assessment and care plan



ACTIVITIES OF DAILY LIVING

- Nursing assistants
- RN/LPNs
- Activities staff
- Physical therapy/occupational therapy/speech



PHYSICIAN VISITS

- Consultant psychiatrist
- Admitting physician
- Advanced practice practitioner



DRUG REGIMEN REVIEWS

- Consultant pharmacist



MDS REVIEW AND ONGOING CARE PLANNING

- MDS coordinator
- All clinical staff

TD clinical guidelines

and recommendations

Screen regularly for TD

2020 American Psychiatric Association guidelines²²

- 1 Screen for TD before starting or changing patients' DRBA treatment
- 2 Monitor for signs of TD at each visit
- 3 Conduct a structured TD assessment every 6 to 12 months, depending on patient's risk, and if new or worsening movements are detected at any visit

Preserve stable antipsychotic regimens

2013 American Academy of Neurology guidelines²³

- There is a lack of clear evidence to support or refute withdrawing or switching antipsychotics to treat TD
- Changing a patient's antipsychotic regimen may destabilize the underlying psychiatric condition

2020 American Psychiatric Association guidelines²²

- TD may persist, and may even worsen, despite reduction in dose or discontinuation of antipsychotics

Treat first line with VMAT2 inhibitors

Systematic review of new evidence since 2013 American Academy of Neurology guidelines²⁴

- New generation VMAT2 inhibitors should be recommended as first-line treatment for TD

2020 American Psychiatric Association guidelines²²

- Treatment with a VMAT2 inhibitor is recommended in patients with moderate to severe or disabling TD
- VMAT2 inhibitors can also be considered in patients with mild TD

2020 Delphi Panel consensus recommendations²⁵

- Treatment of TD with a VMAT2 inhibitor should be considered as part of a comprehensive treatment plan

TALK TO YOUR PATIENTS ABOUT MANAGING THEIR TD

There are treatment options. Learn about one at [TDtreatmentoption.com](https://www.tdtreatmentoption.com).

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CMS provides guidance around appropriate use of antipsychotics in residents with the goal of limiting use to appropriate patients.²¹ CMS also recognizes that a subset of residents with chronic psychiatric/neurological conditions may require prolonged antipsychotic therapy.



LEARN MORE TIPS FOR SCREENING
FOR TD AT [MIND-TD.COM](https://www.mind-td.com)

Uncover the impact TD may have in your long-term care facility

Monitoring for TD is multidisciplinary²¹

- Antipsychotics carry risk for developing TD⁵
- Older patients treated with antipsychotics have a greater risk for TD, even when treated with lower doses for a shorter duration⁹⁻¹⁴
- Routine screening may help identify residents with TD^{2,22}

REFERENCES: 1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders - Text Revision*. 5th ed. Arlington, VA: American Psychiatric Association; 2022. 2. Guy W. *ECDEU Assessment Manual for Psychopharmacology*. Revised 1976. Rockville, MD: National Institute of Mental Health; 1976. 3. Fahn S, et al. The tardive syndromes. In: Fahn S, et al. *Principles and Practice of Movement Disorders*. 2nd ed. New York, New York: Saunders; 2011:415-446. 4. Hauser RA, Meyer JM, Factor SA, et al. Differentiating tardive dyskinesia: a video-based review of antipsychotic-induced movement disorders in clinical practice. *CNS Spectr*. 2022;27(2):208-217. 5. Carbon M, Hsieh C-H, Kane JM, Correll CU. Tardive dyskinesia prevalence in the period of second-generation antipsychotic use: a meta-analysis. *J Clin Psychiatry*. 2017;78(3):e264-e278. 6. US Department of Health and Human Services. Office of Inspector General Issue Brief. May 2021, OEI-07019-00490. Accessed January 27, 2022. <https://oig.hhs.gov/oei/reports/OEI-07-19-00490.pdf>. 7. Glossary of psychiatric medications 2021. Clinical Care Options website. <https://www.clinicaloptions.com/neurology-psychiatry/programs/2021/psychopharmupdate2021/glossary/glossary>. Updated December 8, 2021. Accessed April 14, 2022. 8. Molindone hydrochloride [package insert]. Laurelton, NY: Epic Pharma, LLC. 9. Solmi M, Pigato G, Kane JM, Correll CU. Clinical risk factors for the development of tardive dyskinesia. *J Neurol Sci*. 2018;389:21-27. 10. Woerner MG, Alvir JM, Saltz BL, Lieberman JA, Kane JM. Prospective study of tardive dyskinesia in the elderly: rates and risk factors. *Am J Psychiatry*. 1998;155(11):1521-1528. 11. Jeste DV, Caligiuri MP, Paulsen JS, et al. Risk of tardive dyskinesia in older patients. A prospective longitudinal study of 266 outpatients. *Arch Gen Psychiatry*. 1995;52(9):756-765. 12. Correll CU, Schenk EM. Tardive dyskinesia and new antipsychotics. *Curr Opin Psychiatry*. 2008;21(2):151-156. 13. Correll C, Leucht S, Kane J. Lower risk for tardive dyskinesia associated with second-generation antipsychotics: a systematic review of 1-year studies. *Am J Psychiatry*. 2004;161(3):414-425. 14. Woerner M, Correll C, Alvir J, Greenwald B, Delman H, Kane J. Incidence of tardive dyskinesia with risperidone or olanzapine in the elderly: results from a 2-year, prospective study in antipsychotic-naïve patients. *Neuropsychopharmacology*. 2011;36(8):1738-1746. 15. Miller DD, McEvoy JP, Davis SM, et al. Clinical correlates of tardive dyskinesia in schizophrenia: baseline data from the CATIE schizophrenia trial. *Schizophr Res*. 2005;80(1):33-43. 16. Turrone P, Seeman P, Silvestri S. Estrogen receptor activation and tardive dyskinesia. *Can J Psychiatry*. 2000;45(3):288-290. 17. Casey DE. Affective disorders and tardive dyskinesia. *Encephale*. 1988;14(spec):221-226. 18. Divac N, Prostran M, Jakovcevski I, Cerovac N. Second-generation antipsychotics and extrapyramidal adverse effects. *Biomed Res Int*. 2014;2014:6566370. 19. Citrome L, Isaacson SH, Larson D, Kremens D. Tardive Dyskinesia in Older Persons Taking Antipsychotics. *Neuropsychiatr Dis Treat*. 2021;17:3127-3134. 20. Quality measures. Centers for Medicare & Medicaid Services website. <https://data.cms.gov/provider-data/topics/nursing-homes/quality-of-resident-care#long-stay-quality-measures>. Accessed December 12, 2022. 21. Centers for Medicare and Medicaid Services. *State Operations Manual. Appendix PP - Guidance to Surveyors for Long Term Care Facilities*. Revised November 22, 2017. Accessed January 27, 2022. <https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf>. 22. Keepers GA, Fochtman LJ, Anzia JM, et al. *The American Psychiatric Association Practice Guideline for the Treatment of Patients With Schizophrenia*. 3rd ed. American Psychiatric Association Publishing, 2020. 23. Summary of evidence-based guidelines for clinicians: treatment of tardive syndromes. American Academy of Neurology website. <https://www.aan.com/Guidelines/Home/GetGuidelineContent/613>. Published 2013. Accessed August 22, 2018. 24. Bhidayasiri R, Jitkrittadakul O, Friedman JH, Fahn S. Updating the recommendations for treatment of tardive syndromes: a systematic review of new evidence and practical treatment algorithm. *J Neurol Sci*. 2018;389:67-75. 25. Caroff SN, Citrome L, Meyer J, et al. A modified Delphi consensus study of the screening, diagnosis, and treatment of tardive dyskinesia. *J Clin Psychiatry*. 2020;81(2):19csl2983.