

Pharmacological and dietary treatments for developmental stuttering: A systematic review

Key terms

Stuttering, Systematic review, Pharmacology, Diet, Children, Adults, Quality assessment

What this research is about



Childhood onset stuttering is a common speech condition, seen in 1 in 100 people. Treatment for stuttering often includes behavioural-based therapies. While these therapies can be very effective, they can also be time-consuming, very mentally tiring for people with stuttering, and only work when the strategies are being purposefully

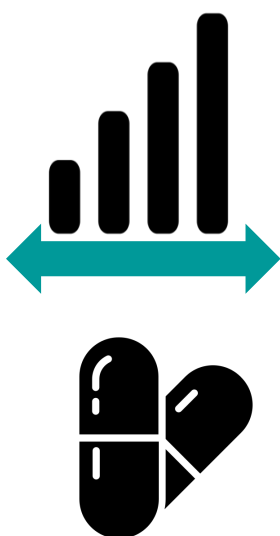
used during speech. Research has been done to see if drug or dietary treatments can help with stuttering. These treatments could potentially target the brain processes that cause stuttering. They may require less time commitment than traditional speech therapy and might work well alongside behavioural approaches. Our researchers did a thorough review of drug and dietary intervention studies to see whether these might be effective treatments.

What the researchers did



- Researchers searched for drug and dietary intervention studies for stuttering.
- 1300 studies were screened.
- Studies that did not provide evidence-based data, or that were not looking at drug or dietary interventions in stuttering were excluded.
- 39 papers were included in the final review.
- The evidence in these 39 papers was evaluated.

What the researchers found



- Different types of stuttering measures across studies made it difficult to compare results.
- Dietary supplements were not effective for treating stuttering.
- Newer antipsychotic drugs were more effective than older versions, which also had the worst side effects.
- A drug called Atomoxetine helped children who stutter when combined with speech therapy.
- More high-quality research in larger groups is needed to draw firm conclusions about effective drugs for stuttering.

What this means for people with stuttering and their families

- At the moment, there is not enough evidence to support drugs being prescribed for stuttering treatment.
- There is no evidence that dietary supplements (e.g. vitamin B1) can treat stuttering.
- Behavioural interventions for stuttering provided by a Speech Pathologist have the best evidence for improving the fluency of speech in people who stutter.



Learn more here: Horton, S. E.*, Forbes, E. J.*, Scheffer, I. E., Reilly, S., Shepherd, D. A., & Morgan, A. T. (2025). Pharmacological and dietary treatments for developmental stuttering: A systematic review. *Neuroscience & Biobehavioral Reviews*, 179, Article 106427. <https://doi.org/10.1016/j.neubiorev.2025.106427> *Joint first authors.