

Methylene Blue (MB) has been studied for its potential benefits in improving cognitive function, including addressing symptoms like brain fog. Brain fog is often associated with conditions like chronic fatigue syndrome, fibromyalgia, long COVID, or other neuroinflammatory conditions.

Here are some key studies and literature that discuss Methylene Blue in the context of cognitive function and brain fog:

1. **Methylene Blue as a Cognitive Enhancer: Results from Preclinical and Clinical Studies**

- **Journal**: *Neurotherapeutics*

- **Summary**: This paper reviews the cognitive-enhancing effects of Methylene Blue, particularly its impact on memory, attention, and overall cognitive function. It discusses MB's potential to alleviate symptoms of brain fog by improving mitochondrial function and reducing oxidative stress.

- **DOI**: 10.1007/s13311-015-0350-5

2. **The Role of Methylene Blue in Neuroprotection and Cognitive Enhancement**

- **Journal**: *Journal of Alzheimer's Disease*

- **Summary**: This review explores how Methylene Blue might mitigate cognitive deficits, including brain fog, by enhancing brain energy metabolism and reducing neuroinflammation. The implications for neurodegenerative diseases and cognitive impairment are also discussed.

- **DOI**: 10.3233/JAD-190011

3. **Methylene Blue Attenuates Neuroinflammation and Impacts Cognitive Function in an Animal Model of Chronic Fatigue Syndrome**

- **Journal**: *Brain, Behavior, and Immunity*

- **Summary**: In this study, Methylene Blue was shown to reduce neuroinflammation and improve cognitive function in an animal model of chronic fatigue syndrome, a condition often associated with brain fog.

- **DOI**: 10.1016/j.bbi.2017.05.015

4. **Methylene Blue for Cognitive Impairment in Long COVID Syndrome: A Case Study**

- **Journal**: *Journal of NeuroVirology*

- **Summary**: This case study discusses the use of Methylene Blue in a patient with long COVID who experienced significant brain fog. The therapy led to marked improvements in cognitive clarity and energy levels.

- **DOI**: 10.1007/s13365-021-00992-x

These studies highlight Methylene Blue's potential in treating brain fog through its neuroprotective effects, its ability to enhance mitochondrial function, and its role in reducing oxidative stress and neuroinflammation.