# Article information:

Vagus nerve stimulation drives selective circuit modulation through cholinergic reinforcement - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0896627322005554?dgcid=coauthor>

# Article summary:

1. Vagus nerve stimulation (VNS) is a neuromodulation therapy used to treat a variety of neurologic conditions.

2. VNS paired with motor rehabilitation can accelerate functional recovery from neurologic conditions, but the mechanism through which it does so is not well understood.

3. This study found that VNS enhances skilled motor learning in healthy animals via a cholinergic reinforcement mechanism, driving precise temporal modulation of neurons that respond to behavioral outcome.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Vagus Nerve Stimulation Drives Selective Circuit Modulation Through Cholinergic Reinforcement” provides an overview of the potential benefits of vagus nerve stimulation (VNS) for treating various neurological conditions. The authors present evidence that VNS can enhance skilled motor learning in healthy animals via a cholinergic reinforcement mechanism, and suggest that this could open new avenues for optimizing VNS to target specific disease-relevant circuitry.

The article appears to be reliable and trustworthy overall, as it cites multiple studies and provides detailed explanations of the mechanisms behind VNS-driven circuit modulation. However, there are some potential biases and missing points of consideration worth noting. For example, the article focuses primarily on the potential benefits of VNS without exploring any possible risks or side effects associated with its use. Additionally, while the authors cite several studies throughout the article, they do not provide any counterarguments or alternative perspectives on their findings; thus, readers may not be presented with both sides equally when considering this information.

In conclusion, while this article appears to be reliable and trustworthy overall, there are some potential biases and missing points of consideration worth noting before drawing any conclusions about its content.

# Topics for further research:

* Vagus nerve stimulation risks
* Vagus nerve stimulation side effects
* Alternatives to vagus nerve stimulation
* Cholinergic reinforcement mechanism
* Skilled motor learning in animals
* Vagus nerve stimulation for neurological conditions

# Report location:

<https://www.fullpicture.app/item/a8f3fa48a962105f17ac49921f1bd69a>