# Article information:

Ketamine evoked disruption of entorhinal and hippocampal spatial maps | bioRxiv  
<https://www.biorxiv.org/content/10.1101/2023.02.05.527227v1>

# Article summary:

1. Ketamine, an anesthetic and antidepressant, has been linked to spatial cognition side effects.

2. This study used electrophysiology and calcium imaging to examine ketamine’s impacts on the medial entorhinal cortex and hippocampus in mice navigating virtual reality and real world environments.

3. Results suggest that ketamine disrupts the spatial coding properties of the entorhinal-hippocampal circuit, which may be a neural substrate for ketamine-induced changes in spatial cognition.

# 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 is generally reliable and trustworthy as it is posted on bioRxiv, a preprint server that posts papers that have not yet been formally peer-reviewed but are still subject to rigorous editorial standards. The authors have declared no competing interests, which suggests that their findings are unbiased. The article also provides detailed information about the methods used in the study as well as clear results and conclusions drawn from them.

However, there are some potential biases in the article that should be noted. For example, the study only looked at ketamine's effects on mice navigating virtual reality and real world environments, so it is unclear how applicable these findings would be to humans or other animals. Additionally, while the authors provide evidence for their claims about ketamine's effects on spatial cognition, they do not explore any potential counterarguments or alternative explanations for their findings. Finally, while the article does note possible risks associated with using ketamine (e.g., out-of-body experiences), it does not provide any information about how to mitigate these risks or what precautions should be taken when using this drug.

# Topics for further research:

* Ketamine effects on humans
* Ketamine risks and precautions
* Alternative explanations for ketamine effects
* Mitigating ketamine risks
* Ketamine effects on other animals
* Peer-reviewed studies on ketamine

# Report location:

<https://www.fullpicture.app/item/534517c5c79f9ff2fd8378d2f7dda008>