

# Brain Lateralization in Alzheimer's Disease

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## ABSTRACT

The alternation of the brain lateralization has been reported from many studies.

## Introduction

Brain Lateralization in healthy aging and AD:

In William Calvin's book 'The Throwing Madonna',<sup>1</sup>

AD is a disconnection syndrome: From an early stage of Alzheimer's Disease (AD) research, scientists have realized that AD pathology is a consequence of disturbance of the brain connectivity<sup>2</sup>. Till today, a growing volume of literature has demonstrated that Alzheimer's Disease (AD) is a brain disconnection syndrome<sup>3245</sup> from several aspects. Daianu and colleagues have found widespread structural connectivity breakdown in AD patients brain networks compared to normal aging<sup>6</sup>. From network analysis, almost all the AD studies have reported that some brain network features such as the long range connectivity<sup>7</sup>, interhemispheric connectivity<sup>8</sup>, node centrality, synchronizability and modularity have decreased in AD<sup>9</sup>. All the evidence suggests that the disconnection syndrome might be a major manifestation of the progression of the AD.

Decrease of interhemispheric connectivity in AD: In all range of these disconnection syndromes, decrease of the interhemispheric connectivity is one of the most common results in AD, which has been reported in several studies<sup>61011</sup>.

## Results

Up to three levels of **subheading** are permitted. Subheadings should not be numbered.

### Subsection

Example text under a subsection. Bulleted lists may be used where appropriate, e.g.

- First item
- Second item

### Third-level section

Topical subheadings are allowed.

## Discussion

The Discussion should be succinct and must not contain subheadings.

## Methods

Topical subheadings are allowed. Authors must ensure that their Methods section includes adequate experimental and characterization data necessary for others in the field to reproduce their work.

## References

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## Author contributions statement

Must include all authors, identified by initials, for example: A.A. conceived the experiment(s), A.A. and B.A. conducted the experiment(s), C.A. and D.A. analysed the results. All authors reviewed the manuscript.

## Additional information

To include, in this order: **Accession codes** (where applicable); **Competing interests** (mandatory statement). The corresponding author is responsible for submitting a [competing interests statement](#) on behalf of all authors of the paper. This statement must be included in the submitted article file.

Condition	n	p
A	5	0.1
B	10	0.01

**Table 1.** Legend (350 words max). Example legend text.

Figures and tables can be referenced in LaTeX using the ref command, e.g. Figure 1 and Table 1.



**Figure 1.** Legend (350 words max). Example legend text.