# Article information:

Methods and considerations for longitudinal structural brain imaging analysis across development - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1878929314000310>

# Article summary:

1. MRI has allowed for longitudinal studies exploring brain changes across the entire life span, with several investigations of brain development in childhood and adolescence currently underway.

2. The review discusses commonly used MRI measures and current knowledge of brain development through longitudinal investigations, as well as the biological validity of interpretations derived from these investigations and methods to process, analyze, and model longitudinal changes in brain structure.

3. The benefits of longitudinal designs are discussed, and the hope is expressed that this review will stimulate further discussion amongst researchers regarding best practices in longitudinal studies of brain development.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章是一篇关于使用磁共振成像技术进行儿童和青少年脑结构发育的纵向研究的综述。文章介绍了当前MRI测量和分析技术，以及这些技术如何与生物学发展和潜在的生理机制相关联。此外，文章还讨论了处理、分析和建模脑结构纵向变化的各种方法。

然而，该文章存在一些问题。首先，它没有提供足够的证据来支持其主张。例如，在讨论生物学发展与脑发育之间的关系时，文章没有提供足够的数据来支持其观点。其次，该文章可能存在偏见，因为它只关注了MRI测量和分析技术，并没有探讨其他可能影响结果的因素。此外，该文章也没有考虑到可能存在的风险或负面影响。

总之，尽管该文章提供了有价值的信息和见解，但它需要更多的证据来支持其主张，并且需要更加全面地考虑可能存在的偏见和风险。

# Topics for further research:

* Evidence supporting the claims
* Potential biases in the article
* Other factors that may affect the results
* Risks or negative effects not considered
* Need for more comprehensive analysis
* Further research needed to support the claims

# Report location:

<https://www.fullpicture.app/item/4b54d50344fa5b1f3310290679ee343d>