

# Down Syndrome and Alzheimer's Disease

## Facts

- Alzheimer's Disease is one of several types of dementia
- Alzheimer's disease is caused by a build up of Amyloid Plaques and Neurofibrillary Tangles in the brain
- People with Down syndrome have extra copies of the 21st chromosome where Amyloid Plaques are created
- Alzheimer's disease is the most common dementia seen in people with Down syndrome

## Risks

- It is not inevitable that a person with Down syndrome will develop Alzheimer's disease

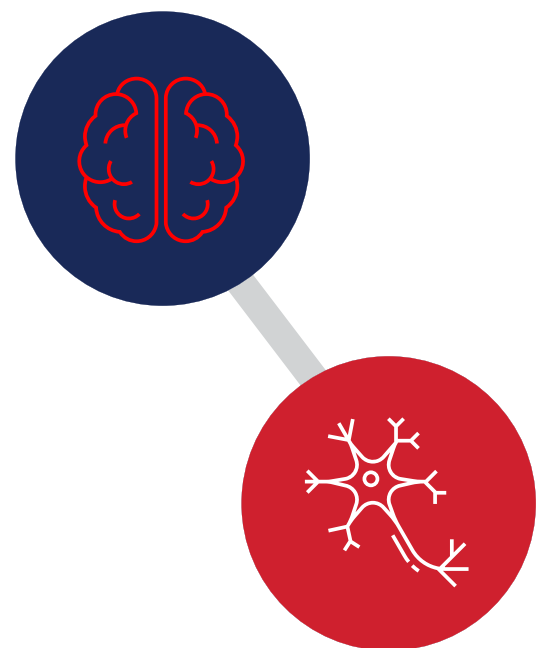
However

- The average of diagnosis in people with Down syndrome is 55.
- People younger than 40 are rarely seen with Alzheimer's disease
- 30% of people with Down syndrome in their 50s have an Alzheimer's diagnosis
- 50% of people with Down syndrome in their 60s have an Alzheimer's diagnosis
- The risk increases with advancing age

## Take Action:

### What Can be Done if changes are seen?

- Alzheimer's in people with Down syndrome can only be diagnosed by ruling out all other possibilities.
- Seek a thorough medical exam (differential diagnosis)
- Conditions to explore
  - Sleep Apnea
  - Thyroid disease
  - Depression
  - Vision/Hearing changes
  - Vitamin B-12 deficiency
  - Celiac disease
  - Heart disease
  - Seizure disorder
  - Medication side effects and interactions
  - Metabolic diseases: Kidney, Diabetes, Calcium abnormality
  - Atlantoaxial instability



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## Resources

- Alzheimer's Disease & Down Syndrome A Practical Guidebook for Caregivers  
[www.ndss.org/about-down-syndrome/publications/](http://www.ndss.org/about-down-syndrome/publications/)
- NTG & NDSS Caregiver News  
[www.the-ntg.org/caregiver-newsletter-archive](http://www.the-ntg.org/caregiver-newsletter-archive)
- The Guide to Good Health for Teens & Adults with Down syndrome,  
Brian Chicoine, M.D., Dennis McGuire, Ph.D.  
[https://books.google.com/books/about/The\\_Guide\\_to\\_Good\\_Health\\_for\\_Teens\\_Adult.html?id=v6eQSQAACAAJ&source=kp\\_book\\_description](https://books.google.com/books/about/The_Guide_to_Good_Health_for_Teens_Adult.html?id=v6eQSQAACAAJ&source=kp_book_description)
- Alzheimer's Disease in People with Down Syndrome  
[www.nia.nih.gov/health/alzheimers-disease-people-downsyndrome#:~:text=of%20Alzheimer's%20Disease-,Alzheimer's%20Disease%20in%20People%20with%20Down%20Syndrome,called%20amyloid%20precursor%20protein%20\(APP\)](http://www.nia.nih.gov/health/alzheimers-disease-people-downsyndrome#:~:text=of%20Alzheimer's%20Disease-,Alzheimer's%20Disease%20in%20People%20with%20Down%20Syndrome,called%20amyloid%20precursor%20protein%20(APP))
- Down Syndrome and Alzheimer's Disease  
[www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/down-syndrome](http://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/down-syndrome)