

AD/HD, Life and The 30 to 40 % Rule

Barkley's 30%-40% Rule for Combined AD/HD

People with Combined Type AD/HD tend to be on average 30% - 40% less mature in controlling their hyperactivity, impulsivity, and inattentiveness than their non-disabled age peers.

--Barkley, R.A. (1998), (2008); Chang, Z. et al (2017).

Scientists conducted longitudinal MRIs of children between age 12 and 20 with "Attention Problems". They also measured their driving behaviors, symptom...

Barkley, R.A. (2006). Attention Deficit Hyperactivity Disorder, Third Edition. New York, NY, Guilford.

Barkley, R.A., Murphy, K.R. and Fischer, M. (2008). ADHD In Adults: What The Science Says. New York, NY: Guilford.

Vijayakumar, N. (December 19, 2016). Neurodevelopmental Trajectories Related to Attention Problems Predict Driving - Related Risk Behaviors. Journal of Attention Disorders. DOI: 10.1177/1087054716682336.

...impairment, and "risky behaviors". They found those most at risk of poor driving were those with the highest symptom impairment, and the least developed right orbital-frontal cortex.

A population study of AD/HD adults in Taiwan indicated they have a 143% increased risk of having a serious injury than typical adults. If the AD/HD adult is administered methylphenidate that increase rate of injury is reduced to 22%.

Chien, W-C et al. (June 2017). The risk of injury in adults with attention-deficit hyperactivity disorder: A nationwide, matched-cohort, population-based study in Taiwan. Research in Developmental Disabilities, 65, 57-73.

Life Expectancy and AD/HD



Life Expectancy and AD/HD

- People with AD/HD have a ***significantly reduced life expectancy*** due to an impulsive lack of concern for health related issues, exercise, diet, drugs, etc. if their AD/HD is untreated. On Average it is 9.6 to 12.7 years!
- It is useful to spend significantly more time with them emphasizing the importance of good health and developing ways to ensure they follow through with annual check-ups, etc.

Barkley, R.A. (January 14, 2018). Life Expectancy Slashed in Worst Cases of AD/HD. Paper presented at the American Professional Society of ADHD and Related Disorders, January 12-14, 2018. Washington, DC.

Inserro, A. (January 14, 2018). Psychologist Barkley Says Life Expectancy Slashed in Worst Cases for Those With ADHD.

American Journal of Managed Care. From website: <https://www.ajmc.com/conferences/apsard-2018/psychologist-barkley-says-life-expectancy-slashed-in-worst-cases-for-those-with-adhd>.

Chau, Y.C.Y. et al. (November 28, 2017). Oral Health of Children With Attention Deficit Hyperactivity Disorder: Systematic Review and Meta-Analysis. Journal of Attention Disorders. DOI: 10.1177/1087054717743331.

Life Expectancy and AD/HD

- **Take the four biggest reducers of life-expectancy in the US:**
 - **Obesity**
 - **Smoking**
 - **Risk of diabetes**
 - **Exercise and Diet**
- **Untreated AD/HD lowers life-expectancy 2 1/2 times more than the combination of all four of the above combined!**
- **Why?: Little exercise, or sleep, poor nutrition, less education, more obesity, more smoking, alcohol, and drug use, as well as poor driving, poor dental hygiene, more STDs, more teen pregnancies, more antisocial behavior, more reactive aggression, etc.**

Barkley, R.A. (December 10, 2018). ADHD Likely Reduces Estimated Life Expectancy by Young Adulthood. Summary of paper presented at the 2018 American Professional Society of ADHD and Related Disorders (APSAD) Conference, Saturday, January 13, 2018, Washington, DC. Summary can be found on the APSAD website: <https://apsard.org/adhd-likely-reduces-estimated-life-expectancy-by-young-adulthood/>.

Life Expectancy and AD/HD

A new British study indicated ADHD is underdiagnosed in England. Additionally They found the average adult male in GB with ADHD lives 6.78 years shorter lives than their non-ADHD peers, and the Average Adult female with ADHD live 8.64 years less than their non-ADHD peers. Medical professionals feel ill-equipped to treat adults with ADHD.

O’Nions, E. et al. (January 23, 2025). Life expectancy and years of life lost for adults with diagnosed ADHD in the UK: matched cohort study. British Journal of Psychiatry. From website: <https://www.cambridge.org/core/journals/the-british-journal-of-psychiatry/article/life-expectancy-and-years-of-life-lost-for-adults-with-diagnosed-adhd-in-the-uk-matched-cohort-study/30B8B109DF2BB33CC51F72FD1C953739#article>.

Life Expectancy and AD/HD

A recent genomic-wide study of AD/HD found it had genetic markers with:

- Obesity
- Diabetes
- Smoking
- Poor sleep
- High LDL cholesterol
- Earlier parenthood
- Rheumatoid arthritis
- Earlier menopause

- Lower intelligence
- Less education
- Earlier parental mortality (both mother and father)

Demontis, D. et al. (November 26, 2018). Discovery of the first genome-wide significant risk loci for attention deficit/hyperactivity disorder. Nature Genetics. DOI: 10.1038/s41588-018-0269-7.

Dementia and ADHD

A study done in Taiwan indicated adult with ADHD have a 3 ½ greater risk of having dementia than the general population.

There is a higher risk of Lewy Body Dementia in adults with ADHD.

It does not appear taking stimulant medication increases the risk.

Recently after reviewing the literature researchers concluded that ADHD may be a risk factor for dementia that may be related to genetics and/or lifestyle.

Nian-Sheng Tzeng, et al. (June 19, 2017). Risk of Dementia in Adults With ADHD: A Nationwide, Population-Based Cohort Study in Taiwan. *Journal of Attention Disorders*. DOI: [10.1177/108705471771](https://doi.org/10.1177/108705471771).

Golimstok, A. et al. (December 15, 2010). Previous adult attention-deficit and hyperactivity disorder symptoms and risk of dementia with Lewy bodies: a case-control study. *European Journal of Neurology*. DOI: [10.1111/j.1468-1331.2010.03064.x](https://doi.org/10.1111/j.1468-1331.2010.03064.x).

Levine, S.Z. et al. (October 17, 2023). Adult Attention-Deficit/Hyperactivity Disorder and the Risk of Dementia. *JAMA Psychiatry*. DOI: [10.1001/jamanetworkopen.2023.38088](https://doi.org/10.1001/jamanetworkopen.2023.38088).

Carr, R.H. et al. (March 2, 2024). Attention-Deficit/Hyperactivity Disorder as a Potential Risk Factor for Dementia and Other Neurocognitive Disorders: A Systematic Review. *Journal of Alzheimer's Disease*. DOI: [10.3233/JAD-230904](https://doi.org/10.3233/JAD-230904).

ADHD and Parkinson's Disease

“Recent epidemiological evidence indicates that diagnosis of attention-deficit/hyperactivity disorder (ADHD) is associated with increased risk for diseases of the basal ganglia and cerebellum, including Parkinson’s disease (PD).” The author suggested this should be investigated.

Baumeister, A.A. (March/April, 2021). Is Attention-Deficit/Hyperactivity Disorder a Risk Syndrome for Parkinson’s Disease? Harvard Review of Psychiatry. DOI: 10.1097/HRP.000000000000283.

Life Expectancy and AD/HD

- This is a major public health issue:
- We can reduce the impact of all of the above factors. If you change them you can increase life expectancy.
- 30% of the variation in life expectancy is how impulsive one is about life decisions and life style.
- People with AD/HD's main symptom is impulsivity. That is hard to change.
 - But, treatment with medication, parental training, classroom management, and CBT in adults can change this.
- Medical professionals do not know this and need to be aware of this.
- Start with health and life style training as soon as child in diagnosed. This should be done at home and school.

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Driving and AD/HD

Researchers from the United States used an Assetto Corsa driving simulator and found those with AD/HD drove significantly faster, used the accelerator significantly more, applied significantly more pressure to the accelerator and break, than those without AD/HD. The scientists attributed this to impulsivity and mind wandering and continued by mentioning their results further confirm the literature regarding poor driving record and AD/HD.

Bernstein, J. et al. (April 12, 2019). Utility of a novel simulator paradigm in the assessment of driving ability in individuals with and without attention-deficit hyperactivity disorder. Attention Deficit Hyperactivity Disorder. DOI: 10.1007/s12402-019-00303-w. [Epub ahead of print].