ADHD

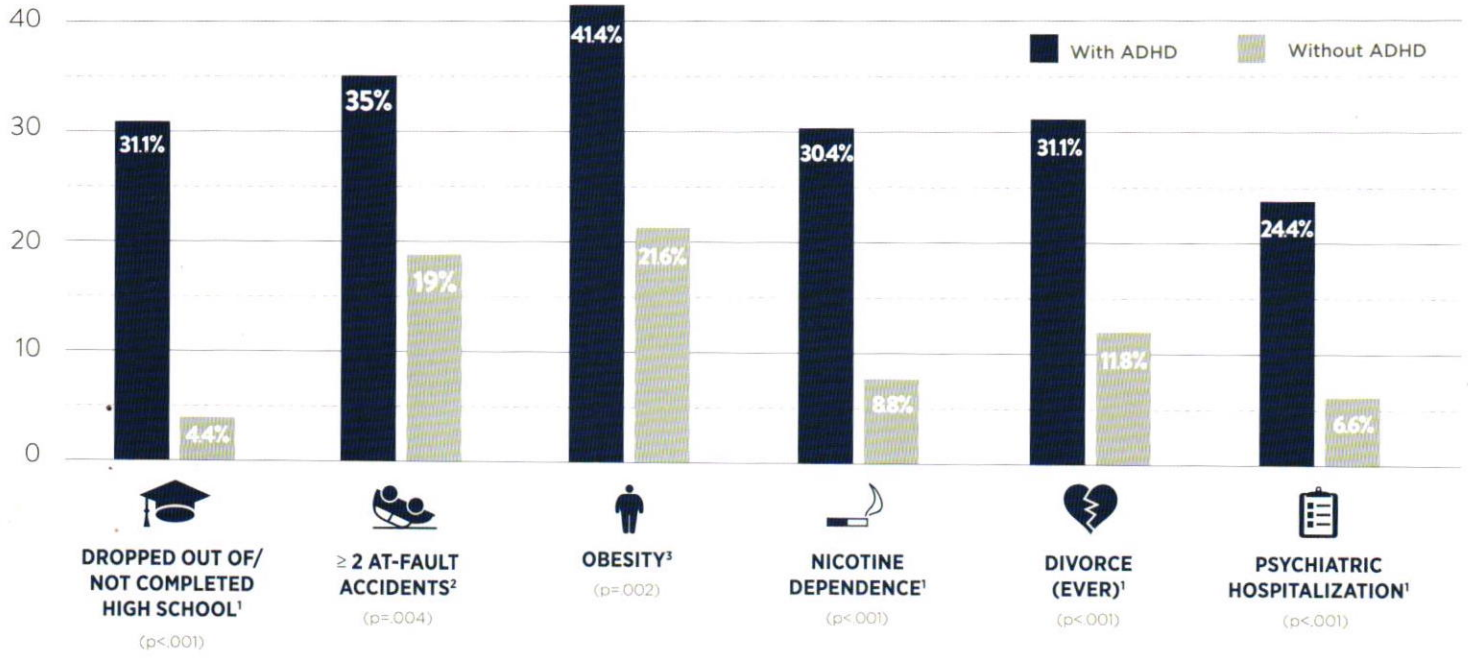
ATTENTION DEFICIT HYPERACTIVITY DISORDER

A REAL DISORDER WITH REAL LONG-TERM RISKS

For a group of 41-year-old adults diagnosed at age 8, growing up hasn't meant outgrowing the long-term risks associated with ADHD.*[1-3]

GREATER RISK OBSERVED IN ALMOST EVERY ASPECT OF LIFE:

In a 33-year follow-up, children with ADHD were found to have a greater risk of poor long-term outcomes as adults in almost every aspect of life compared to their non-ADHD counterparts.*[1-3]



Probands were 6- to 12-year-old boys (white, mean age 8 years), referred between 1970-78. At follow-up (mean age 41 years) 135 probands were interviewed.

PROVIDING FOR THEMSELVES AND THEIR FAMILIES

OCCUPATION

- **Earning less: almost ½ the annual salary[1]**
  $60K vs. $100K (p<.001)
- **Poorer work performance[1]**
  3.2 vs. 2.5[a]
- **Lower occupational levels[1]**
  4.7 vs. 3.0[b] (p<.001)

[a]1 indicates superior; 2, very good; 3, good; 4, average; 5, fair; and 6, poor.
[b]Hollingshead occupational level: 1 indicates higher executives; 8, unemployed.

* Prospective, 33-year follow-up study with masked clinical assessments of 135 white men diagnosed as having ADHD in childhood (at a mean age of 8 years), free of conduct disorder, and 136 matched male comparison subjects without childhood ADHD (comparison subjects; mean age of 41 years) (65.2% and 76.4% of original cohort, respectively). (Weight and height measurements were self-reported by 111 men with, and 111 men without childhood ADHD.)[1-3]

REDUCED RISKS IN ADHD

ADHD treatments, including pharmacological (i.e., drugs), non-pharmacological (i.e., behavioural and psychosocial therapies, organizational skills training, biofeedback) and multimodal (i.e., a combination of both drug and non-drug therapies), have been shown to effectively reduce the risk of poor long-term outcomes in ADHD.[†‡§//4]

OCCUPATION[a]

33% of outcomes related to occupation

e.g., employment, military service, job changes, occupation level, socioeconomic status

WEIGHT

100% of outcomes related to obesity

e.g., body mass index (BMI), weight

EDUCATION/ ACADEMICS

71% of outcomes related to education/academics

e.g., achievement test scores, grade point average, repeated grades, years of schooling, degrees earned

TREATMENT HELPED REDUCE THE RISKS OF ADHD

Compared with untreated ADHD, these various treatments had a beneficial effect on long-term outcomes in many aspects of life, including:[†‡§//4]

DRUG-USE/ ADDICTIVE BEHAVIOUR

57% of outcomes related to drug-use/addictive behaviour

e.g., use, abuse, and dependence on alcohol, cigarettes, marijuana, stimulants, or illicit drugs; age at first use; multiple substance use; gambling

DRIVING

100% of outcomes related to driving

e.g., accidents, traffic violations, license suspensions, driving

SELF-ESTEEM

90% of outcomes related to self-esteem

e.g., suicide ideation, attempts and rate, self-esteem scales, self-perception

SOCIAL FUNCTION

83% of outcomes related to social function

e.g., relationships, peer nomination scores, marital status, multiple divorces, activities, hobbies

ANTISOCIAL BEHAVIOUR

50% of outcomes related to antisocial behaviour

e.g., school expulsion, delinquency, self-reported crimes, arrests, detainment, incarceration, repeat convictions

If you or a loved one are showing symptoms of ADHD, it is important to seek help by talking to your doctor.

Adapted from Shaw et al.[4]

[a]Continued impairment in occupation despite treatment may reflect the cumulative effects of ADHD symptoms and dysfunctioning over the lifespan. For example, low academic grades may later restrict employment or opportunities; impaired social function may precipitate extra friction with employers.[4]

† Although not usually to normal levels.[4]

‡ These beneficial effects were observed as either improvement compared to untreated ADHD participants; improvement compared to pretreatment baseline; or, stabilization of the outcomes (that is, prevention of the deterioration over time from baseline reported with untreated ADHD).[4]

§ Studies were identified using predefined search criteria and 12 databases. Studies included were peer-reviewed, primary studies of ADHD long-term outcomes published between January 1980 and December 2010. Inclusion was agreed on by two independent researchers on review of abstracts or full text. Published statistical comparison of outcome results were summarized as poorer than, similar to, or improved versus comparators, and quantified as percentage comparisons of these categories. Only those studies in which ADHD was the primary disorder under study were included. Studies included both: naturalistic examination of ADHD course (vs. non-ADHD controls or start-of-study baseline) and/or; treated ADHD (vs. ADHD natural course, pretreatment baseline, or non-ADHD controls). Treatments included pharmacological, non-pharmacological, and/or multimodal treatment. Treated ADHD versus untreated ADHD was compared in 48 studies with 76 outcomes.[4]

1. Klein RG, et al. Clinical and functional outcome of childhood attention-deficit/hyperactivity disorder 33 years later. Arch Gen Psychiatry. 2012;69(12):1295-1303.
2. Olazagasti MA, et al. Does childhood attention-deficit/hyperactivity disorder predict risk-taking and medical illnesses in adulthood? J Am Acad Child Adolesc Psychiatry. 2013;52(2):153-162.
3. Cortese S, et al. Obesity in men with childhood ADHD: A 33-year controlled, prospective follow-up study. Pediatrics. 2013;131:e1731-e1738.
4. Shaw M, et al. A systematic review and analysis of long-term outcomes in attention deficit hyperactivity disorder: effects of treatment and non-treatment. *BMC Medicine*. 2012;10:99:1-15.

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