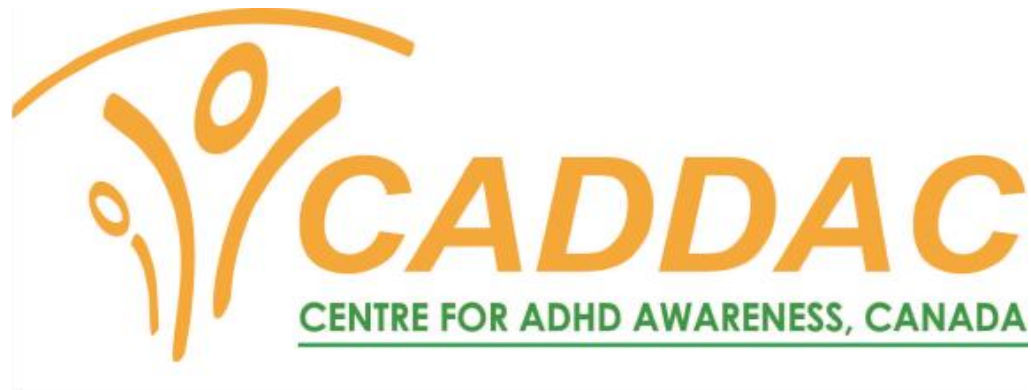


Childhood ADHD into Adolescence and Beyond

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The Centre for ADHD Awareness, Canada

Is a national not-for-profit organization providing leadership in awareness, education and advocacy for ADHD organizations and individuals with ADHD across Canada

Moving into Adolescence

Challenges Increase

ADHD Symptoms and Other Impairments that Remain

- 80% of adolescents still meet diagnostic criteria
- Symptoms do not magically disappear
- For most, ADHD attention dysregulation remains
- Impulsivity may remain
- EF skill impairments continue in working memory, organization, time management etc
- Cognitive deficits such as slower processing speed, language deficits in reading and writing, dysgraphia
- Emotional dysregulation may have improved but can still be an issue for many – consequences greater
- They continue to be late reaching the same levels of maturity as their peers – 3 years behind?

What Changes

- Outward hyperactivity decreases, becomes more subtle
- Internal/mental restlessness becomes more of an issue
- Impulsivity with less supervision results in increased risk:
 - More sensation seeking
 - Riskier physical activities
 - Impulsive decisions have greater consequences
 - Impulsive spending now possible
 - More impulsive eating
 - Verbal impulsivity greater consequences
 - Stealing and Fighting
 - Substance use begins
 - Sex begins earlier

Changes at School

- Load on attention regulation and executive functioning (EF) skills increase while impairments remain, causing greater issues
- IEP may be removed or accommodations not followed
- EF skills and strategies not taught and practiced in elementary school become more obvious and impede success
- Increase in teachers, subjects and assignments make organization and time management skills essential
- EF impairments are now more often interpreted as laziness by teachers and parents
- Increased complaints of boredom especially around certain subjects, teachers and repetitive and uninteresting assignments
- Drop in grades often due to assignments not completed and handed in
- May refuse to use strategies and accommodations – do not want to be seen as different

What About Life at home?

- Regular adolescent changes occur - hormones, fight for independence
- Some may avoid move to independence – fear?
- Expected to become more responsible
- Parents may become tired of accommodating and frustrated when they see other adolescents maturing
- Stress between siblings remains and may increase
- Rules will need to be added, altered and negotiated (CPS)
- EF impairments impact chores and responsibilities - are now more often interpreted as laziness
- Adolescents often refuse to admit that they need help
- Resist using strategies and accommodations at home as well

Parental Strategies to Prepare Them for Later Adolescence and Adulthood

- Educate your child about ADHD in general but also how it impacts them specifically – their impairments
- Discover, discuss & encourage their strengths/talents – leads to increased self esteem and possible career path
- Develop habits – the load on executive functioning (EF) decreases when you don't need to think about it
- Teach, model and practice EF skills
- Practice Life Skills
 - Food buying and preparation
 - Clothes purchase and care
 - Finances, budget, credit card

Healthy Lifestyle Choices

- As children move into adolescence it becomes more difficult to monitor and influence their life style choices – diet exercise, sleep
- Delayed sleep phase inherent to ADHD but can now become exacerbated by excessive screen time and poor sleep habits
- Lack of sleep during week, made up with excessive sleep during the weekend and then unable to sleep Sunday night
- Cardio exercise can be very beneficial for brain functioning
- Specialty diets not beneficial, but balanced diet high in proteins good for brain functioning
- The more that you can promote healthy lifestyle choices and turn them into habits the better chance they will continue those choices when they leave home and become adults

Coexisting Disorders

- LDs and ODD have generally been diagnosed by adolescence
- When ODD continues – consequences larger
- Tic Disorders and mood and anxiety disorders become more evident
- Anxiety and depression more common in girls
- More suicidal ideation and attempts
- Eating disorders 3.6 times more likely
- Children with ADHD are not overly insightful about their impairments and can be unaware of their issues – however by adolescence they start to become more aware of their differences and failures = depression

Substance Use and Abuse

- This is the age where drug use and abuse begins
- Much higher rates of use than in teens without ADHD – age 15 and up is when rates increase
- Often used to self-medicate
- High quantities of caffeine may be consumed
- Tobacco (nicotine is a stimulant) used to fidget – but can also improve focus
- Cannabis to stop the racing mind, relax, reduce anxiety, sleep
- Alcohol much higher rates of excessive use and bingeing, earlier use and earlier problems
- ADHD medication use neither creates or protects

ADHD Medication Misuse & Abuse

- Misuse - use of medication for another reason than what it is prescribed for or in other dose – does not lead to dysfunction
- Abuse - outside normal accepted standards (to get high or enhance other substances) results in disability or dysfunction
- Diversion – sharing most common reason for diversion of the medication
- Motivation for use other than ADHD Treatment
 - Improve attention and concentration
 - Stay awake all night and cram
 - Achieve higher grades on tests – has been proven to be incorrect in those without ADHD
 - Pressure for higher and higher grades and too much work to accomplish in the time allotted
 - Party drug

Strategies for Medication Misuse & Abuse

- Be aware that your child may be approached or intimidated by others into sharing or selling their medication – meds may be stolen
- They need to be warned that medication is a controlled substance and sharing can be considered dealing even if money is not involved
- Be proactive and discuss how to deal with this situation before it happens
- Develop a strategy - practice by role playing
- Make sure they report this when it happens
- Discuss risks of misuse and abuse
 - Increased BP and heart rate - Cardiovascular incidents
 - Psychiatric – hallucinations
 - Intoxication and withdrawal
 - Interaction with other substances
- Long acting medication less chance of abuse to get high
- Become hyper vigilant if prescriptions run out prior to expected date or if medication is frequently lost

ADHD Offending and the Justice System

- ADHD symptoms of impulsivity and executive functioning impairment result in self-regulation impairment and emotional regulation impairment
- Possible additional substance abuse
- With this profile it is not surprising that individuals with ADHD are at a much higher risk of becoming involved with the criminal justice system
- ADHD 10 times more likely in adolescents in the correction system and 5 times more likely in adults when compared to rates in the general population – 26 to 33%
- Begin offending earlier
- Offences more impulsive in nature

Parental Strategies Around Offending

- Remain hyper vigilant
- Catch small things before they escalate
- Be cognizant that immaturity, impulsivity and low self-esteem sets these kids up to be followers
- Their need for acceptance makes them more vulnerable – arrange for positive role models
- It is important to keep them away from less desirable peer groups
- Open communication is needed about temptations, impulsivity and increase in consequences at this age

Driving

Attention dysregulation, distractibility, impulsiveness and poor risk perception combine to increase driving risks

What We Know About ADHD and Driving Risk: A Literature Review, Meta-Analysis and Critique.
[Laurence Jerome](#) et al, [J Can Acad Child Adolesc Psychiatry](#). 2006 Aug; 15(3): 105–125.

Adolescents with ADHD:

- Are more likely to have received traffic cautions – most often for speeding
- Sustain three times as many car crash injuries
- Are four times more likely to be in an accident
- Are four times as likely to be at fault
- Are six to eight times more likely to have their license suspended
- Are more likely to have driven a vehicle without supervision before they get their license

<http://behindthewheelwithadhd.com/the-statistics/>

Parental Strategies for Driving

- Only allow them to drive when medical treatment is in effect
- Openly discuss concerns and dangers - also when you drive
- Model good driving
- Driver training
- Collaborate on strategies – cell phone in glove compartment
- Implement rules and consequences as soon as driving begins
- Absolutely no alcohol or drugs when driving
- No passenger policy at beginning
- Night driving is more risky
- Driving in unknown areas more risky – pull over to use GPS
- Loud music makes it difficult to hear emergency vehicles, horns etc. – compromise on a level

How to Help Kids With ADHD Drive Safely. Extra precautions and clear rules pay off for kids at higher risk of accidents, Rae Jacobson, Child Mind Institute, <https://childmind.org/article/how-to-help-kids-with-adhd-drive-safely/>

ADHD Sex and Adolescence

Those with ADHD:

- Express more risky sexual behaviour
- Experience sexual activity earlier & have more partners
- Have more casual sex
- Are more impulsive and are therefore less likely to use protection and contraception
- Have more teen pregnancies – 54% do not have custody
- Have a higher risk of sexually transmitted disease – 17 % vs 4%
- Are more likely to misinterpret boundaries
- Have less developed social skills which can result in unintentional or wanted advances and perceived harassment

Tips on Sex, ADHD and Adolescence

- Since they are more likely to misinterpret boundaries, rules and nuances it is necessary to be very frank and clear with them about sex
- Openly discuss issues— let them know that you will discuss anything
- Be prepared, educate yourself so you can answer questions
- Discuss pressure and coercion – everyone is not doing it!
- If teens have low self-esteem they are more likely to be promiscuous to be liked – work on boosting their self-esteem and frankly discuss feelings of value
- Discuss safe sex

Later Adolescence Moving into Adulthood

Challenges Continue to Increase

Compared to others without ADHD

- Less likely to attend post-secondary education
- Have lower grade point averages
- Fewer graduate 4 year program
- Lower personal income despite similar IQ and background
- More likely to be fired or laid off
- More likely to have quit a job
- By age 32, more likely to be unemployed, not in school, or working and in school
- Academic problems predict more job loss
- Two fold increase of premature death due to accidents – associated with untreated ADHD

Growing Up With ADHD: Clinical Care Issues, Thomas E. Brown
Published on Psychiatric Times (<http://www.psychiatrictimes.com>)

Comorbid Disorders in Adulthood

- 85% of adults have a coexisting mental health disorder
- Mood and anxiety disorders continue to increase
- Chronic dysthymia can become an issue
- Additional adult conditions start to pop up, Bipolar, Personality Disorder
- Hard drug use, cocaine (stimulant) is associated with Conduct Disorder

Increased Challenges

- Challenges increase with additional responsibilities, just as supports decrease
- More pressure to become independent
- Now responsible for choices, decisions, and actions – consequences larger
- Post-secondary and career path decisions
- Move out of the family home and may need to cohabitate with strangers
- Life skills required – finances, food purchase and prep, care of living environment, clothes etc.
- Job search, applications, responsibilities increase at work
- Time management more essential – being somewhere on time
- Peer relationships, exposed to more and monitored less
- Intimate romantic relationships more serious

Challenges with Receiving Ongoing Medical Care after 18

- Many professionals still think of ADHD as a childhood disorder
- Children who have been followed by pediatricians and child and adolescent psychiatrists lose their follow-up care
- Family physicians are not educated about ADHD
- Treatment away from home is challenging because:
 - Post-secondary healthcare – resources few and uninformed
 - New physicians are reluctant to prescribe medication due to misuse and abuse at this age and in a post-secondary setting
 - They forget appointments, forget to renew medication
- Many multimodal ADHD treatments, CBT, coaching, mindfulness are difficult to access and not covered by provincial health care – results in two tier medical care

Tips to Improve Medical Care

- It is essential that care continues, if not expands
- Teach and practice medical self-care
 - Begin to involve them in their medical care before they leave home
 - Start to include them in the responsibility of tracking their medical appointments - electronic reminders
 - Include them in the practice of booking appointments, observe, role play, execute
 - Increase their responsibility for keeping track of their medication pill count - When would they need to call for a renewal and pick-up ?
(will require your back up for some time)
 - Have them report on symptom control and side effects when seeing the doctor
- Make sure that medical follow-up procedures are set up for when they leave home
 - Can they access their physician in times of crisis?
 - What services does post-secondary health care provide?
- A year prior to their turning 18 start looking for an adult psychiatrist or confirm that their family doctor will do long term follow-up prescribing

Post-Secondary

Preparation for Post- Secondary Education

- Become involved with their search for a career path – set up experiences
- Assist in search for school and program
- Questions to ask and things to consider when choosing a school and program
 - How do they recognize and accommodate for ADHD?
 - Can they take fewer courses at one time?
 - A smaller school may be less overwhelming
 - Commuting from home may allow for more supervision
 - Visit the Access Center
- Always put accommodations in place before starting school
- Meet with your medical professional to have the required documentation prepared – access CADDAC web site resources

ADHD Recognized as a Disability in Post-Secondary Education

- More young adults with ADHD are able to access PS education due to increased awareness and advances in diagnostic procedures and the care and support of children and adolescents with ADHD
- CADDAC 2015 policy paper, Understanding ADHD as a disability in the Post-Secondary Environment
http://www.caddac.ca/2015/Final_Post-secondary_Paper.pdf
- For ADHD to be diagnosed impairment in functioning has to be evident
- For ADHD to be recognized as a disability in the SE environment
 - It must be recognized as a permanent disability that impacts functioning in the post-secondary setting
 - Functional impairment must impact academic performance
 - Impairments as mentioned earlier clearly qualify

Assessment for Impairment

- There are no national or provincial agreed upon standards for assessment and documentation that would qualify a student with ADHD for accommodations –lead to inconsistency & discrimination
- Due to the inadequate understanding of ADHD schools were demanding expensive psychoeducational testing to be done less than 2 years prior to entering PS education to qualify students for accommodations
- Research has shown that psychoeducational testing does not accurately quantify ADHD impairments that impact academic performance
- Some schools required evidence of below average functioning for a student to qualify
- Less than one third of those with ADHD would show as impaired on these tests
- When these tests are used many students with ADHD can be unfairly barred from access to accommodations for their disability

Documentation Required

- Detailed medical reporting should be required
- Impairments documented by a qualified medical expert linking them to appropriate accommodations should qualify a student as having a disability and allowing them to access accommodations
- Reporting should provide the post-secondary institution with the necessary information required to understand the student's unique impairments and need for specific accommodations

This Report Should

- Identify the permanent disability and list specific impairments
- Indicate how these impairments would negatively impact functioning of the student in the post-secondary academic setting
- Link requested accommodations to existing impairments of the student

CADDAC Post-Secondary Reporting Tool

- CADDAC developed a tool for physicians and psychologists to use to assist them in developing a detailed report
- If they follow the instruction the report would meet government requirements and provide the necessary information for post-secondary institutions
- Medical professional should meet with the student to discuss their areas of impairment that have caused difficulty in the past and strategies and accommodations that have helped
- Use the chart to facilitate the discussion and mark off impairments for that particular student and accommodations that apply

Report requirements

- The student's diagnosis and how it was achieved, in detail
- Symptoms directly linked to expected impairments in PSE
- Impairments directly linked to appropriate accommodations

ADHD SYMPTOMS, IMPAIRMENTS AND ACCOMMODATIONS IN THE POST-SECONDARY ENVIRONMENT

DSM-5 Symptom [ASRS-6 Q#]	DSM-5 Symptom	Possible Resulting Impairments in PSE	Possible Accommodations
INATTENTION			
1a ASRS-6 Q1 Trouble wrapping up details	Fails to give close attention to details OR makes careless mistakes	<ul style="list-style-type: none"> • Difficulties with details in an essay, such as bibliography, checking sources & citations; forget to double check grammar, spelling, & references • Poor quality of work – inaccurate, careless mistakes • Poor time management so doesn't leave time to complete details or check for mistakes 	<ul style="list-style-type: none"> → Allow to write exams on computer with spellcheck software → Work with Accessibility staff, coach, or supervisor to review assignment, check details, assist with time management & due dates → Flexibility in due dates – with opportunity to complete details & correct mistakes → Allow clarification of questions on an exam or test and clarification of an assignment
1b No ASRS-6 item	Difficulty sustaining attention	<ul style="list-style-type: none"> • Difficulties remaining focused during lectures, conversations, or reading lengthy material • Day-dreaming or mind-wandering during lectures or reading text books etc • Difficulty focusing on & completing large amounts of written work (essays, reports etc) • Gaps in learning due to inability to stay focused during lectures, Lab demonstrations etc 	<ul style="list-style-type: none"> → Allow student to audiotape lectures, use audiotaped textbooks, receive notes & copies of PowerPoint presentations → Allow use of a note-taker → Use of computer for tests or exams → Allow testing/exams to be completed over several shorter sessions rather than one long session → No more than one exam per day → Substitute a non-compulsory subject → Reduced course load
1c No ASRS-6 item	Difficulties listening when spoken to directly	<ul style="list-style-type: none"> • Mind often wanders when discussing something with peers; • Often misses social cues or key words during one-on-one or small group interactions 	<ul style="list-style-type: none"> → Provision of notes from class discussions & presentations → Work with Accessibility staff to learn strategies for keeping mind on conversations, watching for social cues → Allow clarification of an assignment

Post-secondary Impairments to Expect

- Procrastination will be an issue so put strategies in place before this becomes an issue and they crash
- Difficulty remaining focused, easily distracted – lectures!
- Miss instructions, assignments, due dates
- Note taking will be an issue
- Not able to follow lists of instructions – or will misinterpret them
- Difficulty with sequencing, steps to a task, formulas
- Unable to chunk large assignments –become easily overwhelmed
- Starting or initiating assignments or tasks
- Becoming motivated and maintaining motivation
- Unable to time manage, over or under estimate and unable to prioritize – time spent on unimportant but stimulating activities
- Unable to sit still for long periods, may need to fidget, pace

Possible Post-secondary Accommodations

- Work with Access staff, coach or supervisor to review assignment, understanding, chunking work, time management and due dates
- Assignments given in written format
- Access to professor's notes or PPTs or another student's notes
- Ability to tape lectures
- Access to reminder sheet for steps and formulas
- Ability to use headphones when working in class
- Use of electronic organizers
- Additional copies of course material
- Allow for more frequent breaks, controlled movement, stress ball
- Preferred seating, allowed to leave to move and come back

Post-secondary Accommodations Continued

- Use of computer for tests
- Write tests in quiet room
- Extended time for tests and exams, usually time and a half
- Testing over several sessions
- Tests and assignments spaced out - due date flexibility if overwhelmed
- Allow for independent rather than group work
- Priority registration for classes with a professional in the access center
- Substitution for non-compulsory subjects

ADHD in the Workplace

- Workers with ADHD are more likely to enter the workforce as unskilled or semiskilled (due to high school or post-secondary drop out)
- More periods of unemployment, more likely to be dismissed, change job frequently (impulsivity)
- Career or job needs to be stimulating and of individual interest for attentional issues to be minimalized
- ADHD and EF impairments will continue to be an issue if strategies and accommodations are not put in place
- ADHD is recognized as a disability so employers are required to recognize impairments and put accommodations in place???
- Although disclosure is a personal decision if accommodations are requested disclosure and medical documentation will be required

ADHD in the Workplace

Questions to ask when searching for or deciding on a job/career

- What sparks their interest and engages them
- Best environment? - quiet, stimulating
- Is there a need to move?
- What are their strengths? Best when interacting with others, when working with your hands, when analyzing data?
- What are the skills that have allowed for success in the past?
- Are there specific skills that set them apart from others?
- Energy levels throughout the day?
- What parts of a current or past job do they enjoy doing and what parts do they dread?

In Summary

- Developmental delay continues - immaturity
- As children with ADHD age their challenges increase
- But many impairments remain
- Their support system naturally decreases due to physical location, post-secondary, workplace and society's expectations
- We need to prepare them as much as we can
- We need to stay involved in their lives and continue to support them while encouraging their growth
- Expectations are necessary for growth, but “tough love” may result in harsh consequences

Resource
www.caddac.ca

