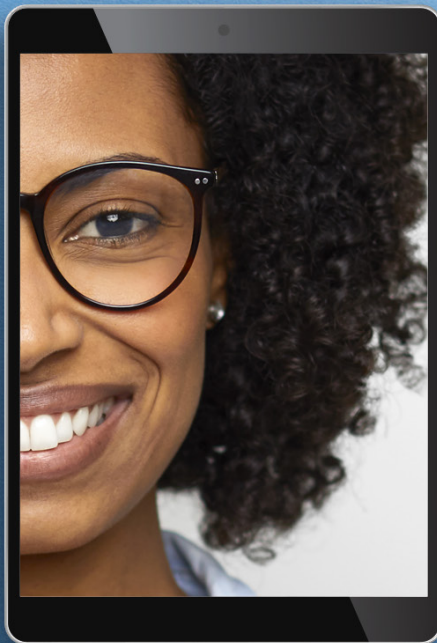


# ADHD IS A CHRONIC MENTAL HEALTH CONDITION THAT CAN BE MANAGED WITH YOUR HELP<sup>1</sup>



**ADHD is a mental health condition that  
affects children, adolescents and adults.<sup>1</sup>**

ADHD can impact many aspects of life in individuals of all  
ages, from childhood, through adolescence to adulthood.  
Untreated ADHD can have severe consequences.



ADHD=attention deficit hyperactivity disorder

## LIFETIME PREVALENCE OF ADHD



ADHD is one of the most common childhood psychiatric disorders, affecting **5-9% of children** and adolescents<sup>1</sup>



**50-80% of children with ADHD** will exhibit symptoms into adolescence<sup>1</sup>



ADHD affects **3-5% of adults** (approximately 905,000 to 1.5 million Canadian adults)<sup>1,2</sup>

## ADHD IS A MENTAL HEALTH CONDITION THAT OCCURS IN CHILDREN, ADOLESCENTS AND ADULTS<sup>1</sup>

Core symptoms of ADHD include inattention, hyperactivity and impulsivity



ADHD frequently presents with other conditions, such as anxiety, oppositional defiant disorder, depression, and substance use



ADHD can impair function throughout the life of the patient



DID YOU KNOW?

**More than 50% of children** diagnosed with ADHD continue to experience symptoms into adulthood.<sup>1</sup>



# ADHD HAS BEEN SHOWN TO IMPAIR EXECUTIVE FUNCTION<sup>3</sup>

Executive functions manage the brain's cognitive function. They provide the mechanism for "self-regulation."

## SIX CLUSTERS OF COGNITIVE FUNCTION



### ACTIVATION

Organizing, prioritizing and activating to work



### FOCUS

Focusing, sustaining and shifting attention to tasks



### EFFORT

Regulating alertness, sustaining effort and processing speed



### EMOTION

Managing frustration and modulating emotions



### MEMORY

Utilizing working memory and accessing recall



### ACTION

Monitoring and self-regulating action

These functions constitute a way to conceptualize executive function, with each bearing a unique weight for each individual.

# ADHD CAN CAUSE FUNCTIONAL IMPAIRMENT IN MANY ASPECTS OF LIFE

## FUNCTIONAL CONSEQUENCES OF ADHD IN



### CHILDREN<sup>1,4</sup>

- Behavioural disturbance
- Psychiatric comorbidities
- Need to repeat grade at school
- Lower score on standardized school tests
- Difficulty with social interactions
- Parental stress
- Low self-esteem
- Rejection by peers
- Accidental injuries



### ADOLESCENTS<sup>1,4\*</sup>

#### IN SCHOOL

- Repetition of grade
- Did not complete high school
- Suspended at least once
- Expelled

#### BEYOND SCHOOL

- Substance abuse
- Incarceration
- Intentional injury
- Attempted suicide
- Teen pregnancy
- Sexually transmitted diseases
- Dismissal from job



### ADULTS<sup>1,5†</sup>

- Fewer received a graduate degree
- Divorce
- Nicotine dependence
- Substance disorder‡
- Incarceration
- Psychiatric hospitalization

\* Participants aged 4-12 years without ADHD (n=81) or with ADHD (n=158) were followed for at least 13 years (until mean age 20 years), were interviewed about major life activities, and had their employer ratings and high school records collected.

† Prospective, blinded, 33-year follow-up study in adult males, mean age 41, without childhood ADHD (n=136) or with childhood ADHD free of conduct disorder (n=135).

‡ Other than alcohol-related disorder and nicotine dependence.

# ADHD IS A CHRONIC MENTAL HEALTH CONDITION THAT CAN BE MANAGED WITH YOUR HELP<sup>1</sup>

ADHD is a persistent disorder, with functional impairment and treatment needs varying through the lifespan for many. It is important for clinicians to be aware of these differences to better serve individuals with ADHD.



## CHILDREN<sup>1</sup>

- Challenges can occur in all areas of a child's life including at school, at home and during social activities
- Interventions aimed at minimizing the functional impairments (multimodal approach)



## ADOLESCENTS<sup>1</sup>

- Should be seen alone where possible; clinician should develop a rapport with the adolescent to obtain a history of risk factors (i.e. smoking, drug use, reckless driving)
- Gathering collateral information from key people (i.e. parents, peers) can also be helpful

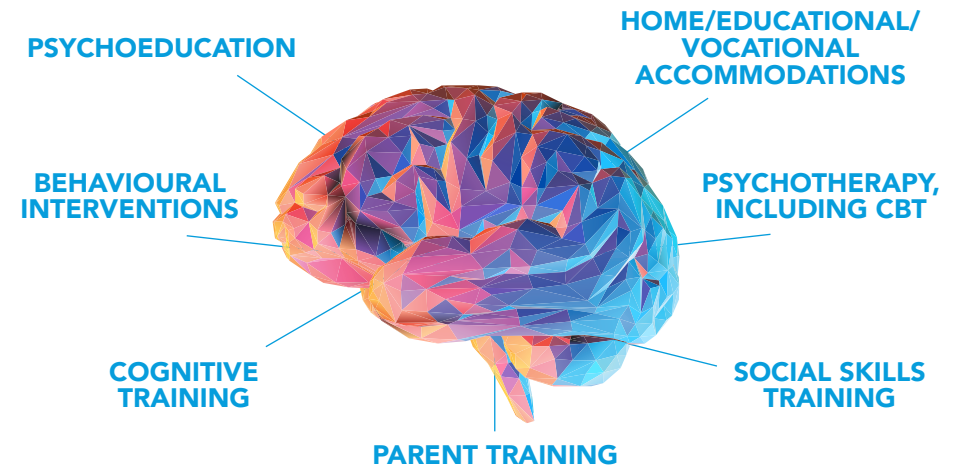


## ADULTS<sup>1</sup>

- Most adults with ADHD present with comorbid conditions
- It is important to know which individuals need to be screened for ADHD as missing this diagnosis can result in years of trials with medications without adequate response

# ADHD REQUIRES A COMPREHENSIVE TREATMENT APPROACH<sup>1,6</sup>

A multimodal approach involves both pharmacological and psychosocial interventions, including:



A multimodal approach improves not just core ADHD symptoms, but also the overall quality of life by improving the resultant functional impairments.<sup>1</sup>



## DID YOU KNOW?

### The goal of ADHD therapy

has shifted from symptom control to functional impairment and outcomes with improvement of overall quality of life as the main goal.<sup>1</sup>



## ADHD TREATMENT HAS BEEN SHOWN TO IMPROVE FUNCTIONAL OUTCOMES

Across 48 studies with 76 outcomes, it was found that ADHD treatment (pharmacological, non-pharmacological or multimodal) improved 72% of functional outcomes<sup>7\*†</sup>

### TREATMENT BENEFIT BY OUTCOME GROUP (COMPARED WITH UNTREATED ADHD)

Percentage of outcomes for which the treatment of ADHD was beneficial:<sup>7\*</sup>



**100%**  
DRIVING  
OUTCOMES



**90%**  
SELF-ESTEEM  
OUTCOMES



**83%**  
SOCIAL FUNCTION  
OUTCOMES



**71%**  
ACADEMIC  
OUTCOMES

\* Results from a systematic review evaluating long-term outcomes (>2 years) of ADHD in adults, adolescents and children from 351 peer-reviewed primary studies of ADHD long-term outcomes published between January 1980 and December 2010. Treated ADHD vs. untreated ADHD was compared in 48 studies with 76 outcomes.

† Beneficial effects were observed as improvement compared with pre-treatment baseline, improvement compared to untreated ADHD participants or stabilization compared with pre-treatment baseline.

## ADHD RESOURCES FOR YOU AND YOUR PATIENTS

**Canadian ADHD Resource Alliance (CADDRA)**  
[caddra.ca](http://caddra.ca)

**Centre for ADHD Awareness, Canada (CADDAC)**  
[caddac.ca](http://caddac.ca)

**Centre for Addiction and Mental Health (CAMH)**  
[camh.ca/en/health-info/mental-illness-and-addiction-index/attention-deficit-hyperactivity-disorder](http://camh.ca/en/health-info/mental-illness-and-addiction-index/attention-deficit-hyperactivity-disorder)

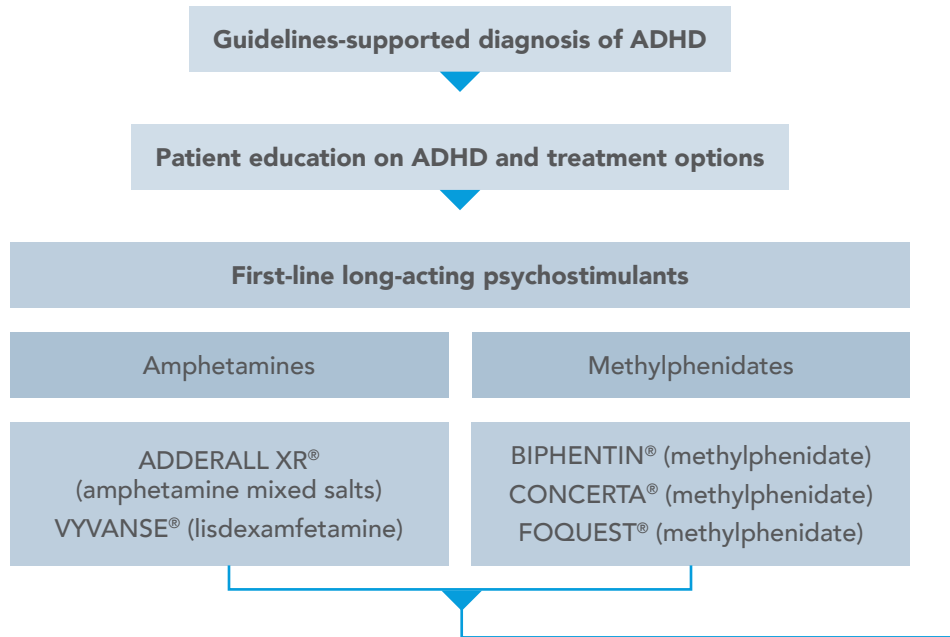
**ADHD – Information, tricks and practical tips**  
[attentiondeficit-info.com/?lang=en](http://attentiondeficit-info.com/?lang=en)

**Regroupement des associations de parents PANDA du Québec (French only)**  
[associationpanda.qc.ca](http://associationpanda.qc.ca)

**La fondation Philippe Laprise (French only)**  
[fondationphilippelaprise.com](http://fondationphilippelaprise.com)

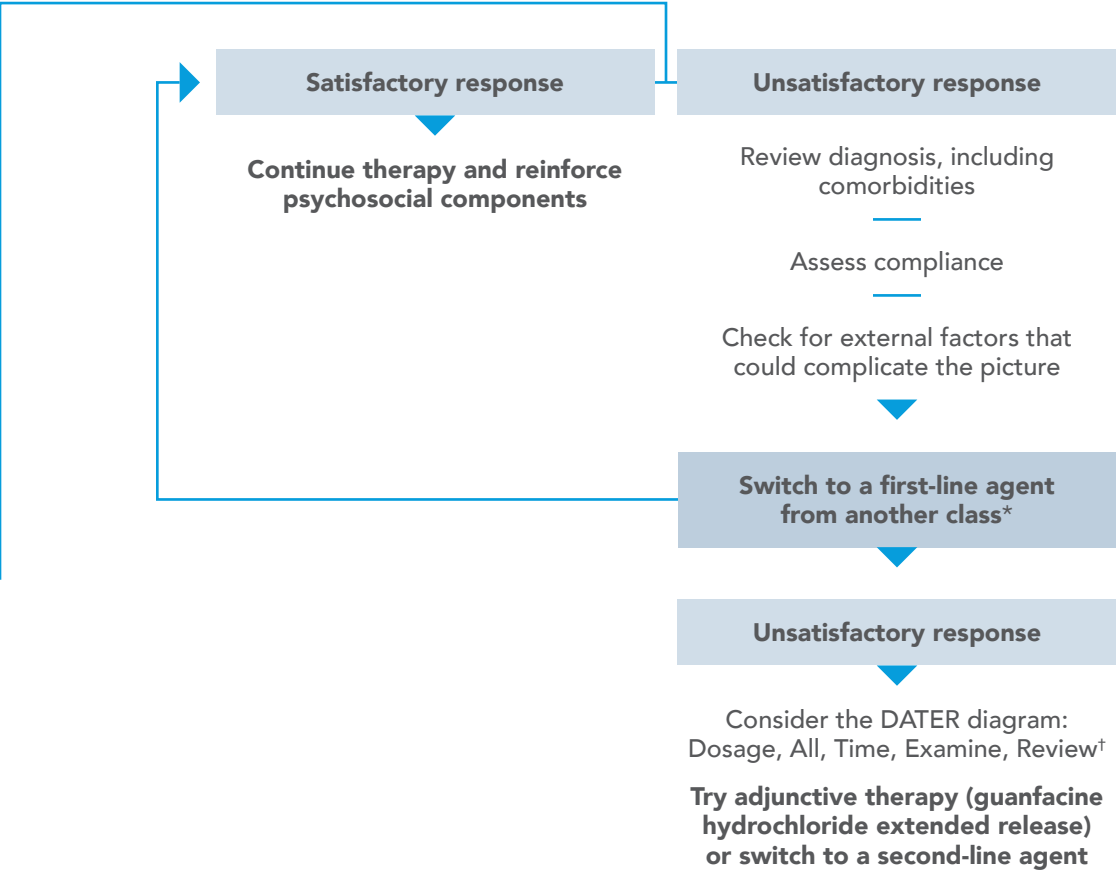


# PHARMACOLOGICAL TREATMENT APPROACH TO ADHD BASED ON CADDRA GUIDELINES<sup>1</sup>



CADDRA recommends reviewing the DATER diagram prior to considering second- or third-line therapies when response to treatment is **unsatisfactory**.<sup>†</sup>

CADDRA recommends an adequate trial of **both classes** of long-acting psychostimulants (amphetamines and methylphenidates) to identify optimal treatment before engaging in a trial of a second-line treatment.<sup>‡</sup>



DATER: Dosage, All, Time, Examine, Review

\* Some patients may respond preferentially to one versus the other class of medications. If a patient does not have an adequate response to one class of stimulant, a switch to the other class of stimulant should be considered.

† **Dosage:** Has the medication been tried on a high enough dose, is the duration effect adequate? Side effects – is the dosage too low or high? **All:** Have all medications within the higher lines of treatment been attempted? **Time:** Has enough time been given to examine response and for side effects to resolve?

**Examine:** Have specific targets for treatment and means to measure changes been determined? **Review:** Has the diagnostic process reviewed potential comorbidity, psychosocial complications and lifestyle issues?

‡ Optimal treatment means that the symptoms have decreased and that there is improvement in general functioning.



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PRMCDA/CA/ADH/0083 128558/10/2023-E

