



Sindrome ADHD nell'adulto: perché interessarsene?

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Centro Comunitario (CERS)

Lugano



Perché?

- **Ufficio Federale Statistica**

- **Ultimi 10 anni pz con D ADHD adulto nelle cliniche psichiatriche svizzere è passato da **1200 a 5000 persone****
- **La prescrizione dei farmaci per ADHD è aumentato del **70% nello stesso periodo.****

- **Critiche da parte di:**


- **M.P Hengartner (Uni Zurigo): D facili**
- **Joanna Moncrieff Univ College di Londra: D per vendere i farmaci**
- **Studio Cochrane conclude che gli psicostimolanti o le anfetamine per ADHD hanno benefici dubbi e gravi effetti collaterali**
- **Altri**

4.4%
US Adults
with ADHD

5.4%
Men



3.2%
Women

 The Primary
Care Companion
FOR CNS DISORDERS

Source: <https://doi.org/10.4088/PCC.22m03348>

**Annual Cost of
Adult ADHD in the US
\$105-\$194 billion**



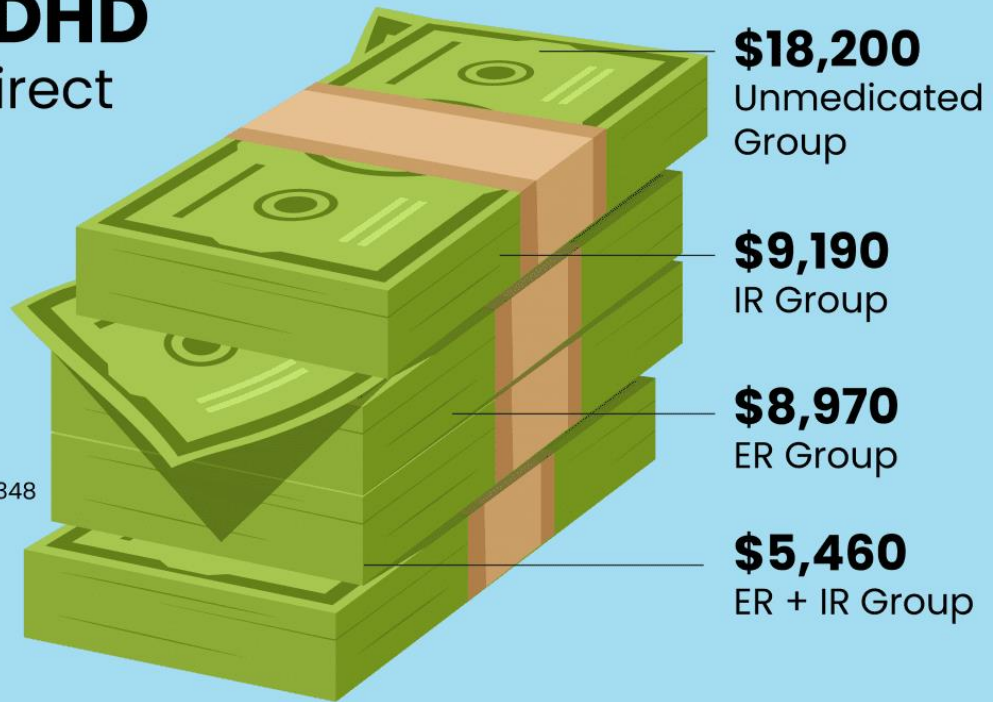
 The Primary
Care Companion
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Source: <https://doi.org/10.4088/PCC.22m03348>

*Work productivity, income losses account for the largest share of economic burden.

Adults with ADHD

Estimate annual direct healthcare costs



Source: <https://doi.org/10.4088/PCC.22m03348>

* ER - extended-release only stimulants

** IR - immediate-release only stimulants

*** ER + IR - uses a combination of both

Source:

* ER -

** IR -

*** ER





Epidemiologia

- **Studies in**
 - **children and adolescents have shown that the disorder is at least**
 - **three times more common in men,**
 - **but that the adult male/female ratio here tends to decrease to 2:1.**
- **The prevalence of ADHD is estimated at**
 - **7.1% in children and adolescents,**
 - **2.5–5% in adults**
 - **~2.8% in the elderly.**

- Young S, Adamo N, Ásgeirsdóttir BB, et al. Females with ADHD: An expert consensus statement taking a lifespan approach providing guidance for the identification and treatment of attention-deficit/ hyperactivity disorder in girls and women. *BMC Psychiatry* 2020;20:404.



Prevalenza ADHD e altri disturbi psichiatrici

- **14% Disturbi ansiosi**
- **7% Insonnia**
- **6.9% depressione**
- **6.3% disturbi somatoformi**
- **4.4% ADHD**
- **4-4.5% dipendenze**
- **1.4% disturbi alimentari**
- **1.0% Schizofrenia**
- **0.9% Disturbi bipolari**

■ H.U. Wittchen et al. *European Neuropsychopharmacology* (2011) 21, 655–679



Fattori di rischio

- **Several factors contribute to ADHD symptoms, including**
 - **genetics,**
 - **neurodevelopmental disorders,**
 - **abnormal neuronal maturation,**
 - **brain injury,**
 - **environmental exposure and consanguinity.**
 - **Prenatal and perinatal risk factors such as prematurity, low birth weight, maternal smoking history, stress, trauma and obesity are substantially associated with ADHD.**
 - **Postnatal risk factors such as trauma, parenting style, artificial colours and fragrances, pollutants, and pesticides can exacerbate ADHD symptoms**

- Yadav SK, Bhat AA, Hashem S, et al. Genetic variations influence brain changes in patients with attention-deficit hyperactivity disorder. *Transl Psychiatry* 2021;11:349.
- Posner J, Polanczyk GV, Sonuga-Barke E. Attention-deficit hyperactivity disorder. *Lancet* 2020;395:450–462



Perché?

- ADHD diagnosed in childhood often persists into adulthood, with 14.6% of U.S. adults meeting the Diagnostic and Statistical Manual of Mental Disorders, 5th ed., criteria for ADHD.
- When evaluating for adult ADHD, other mental disorders should be included in the differential diagnosis due to the substantial overlap of symptoms and ADHD concurrence with
 - **anxiety/stress,**
 - **mood,**
 - **personality,**
 - **impulse control,**
 - **and substance use disorders.**
- A robust association between **ADHD and low self-esteem** in adults emerged

- Olagunju A. E. et al Am Fam Physician. 2024 Aug;110(2):157-166
- Pedersen A. B. et al.J Atten Disord. 2024 May;28(7):1124-1138.



Perché?

- **The diagnosis of ADHD is often complicated by masking coping mechanisms, an overlap of symptoms with other, more commonly diagnosed disorders**
 - **mood disorders,**
 - **oppositional and antisocial personality disorders,**
 - **self-harm and substance abuse,**
 - Posner J, Polanczyk GV, Sonuga-Barke E. Attention-deficit hyperactivity disorder. *Lancet* 2020;395:450–462
- **Compared with ADHD in childhood, ADHD in adults has been relatively neglected in epidemiological studies, mainly due to the lack of established valid diagnostic criteria.**
 - Williams O.C et al. *Ann Med Surg (Lond)* 2023 Apr 12;85(5):1802-1810.



ADHD and Psychiatric

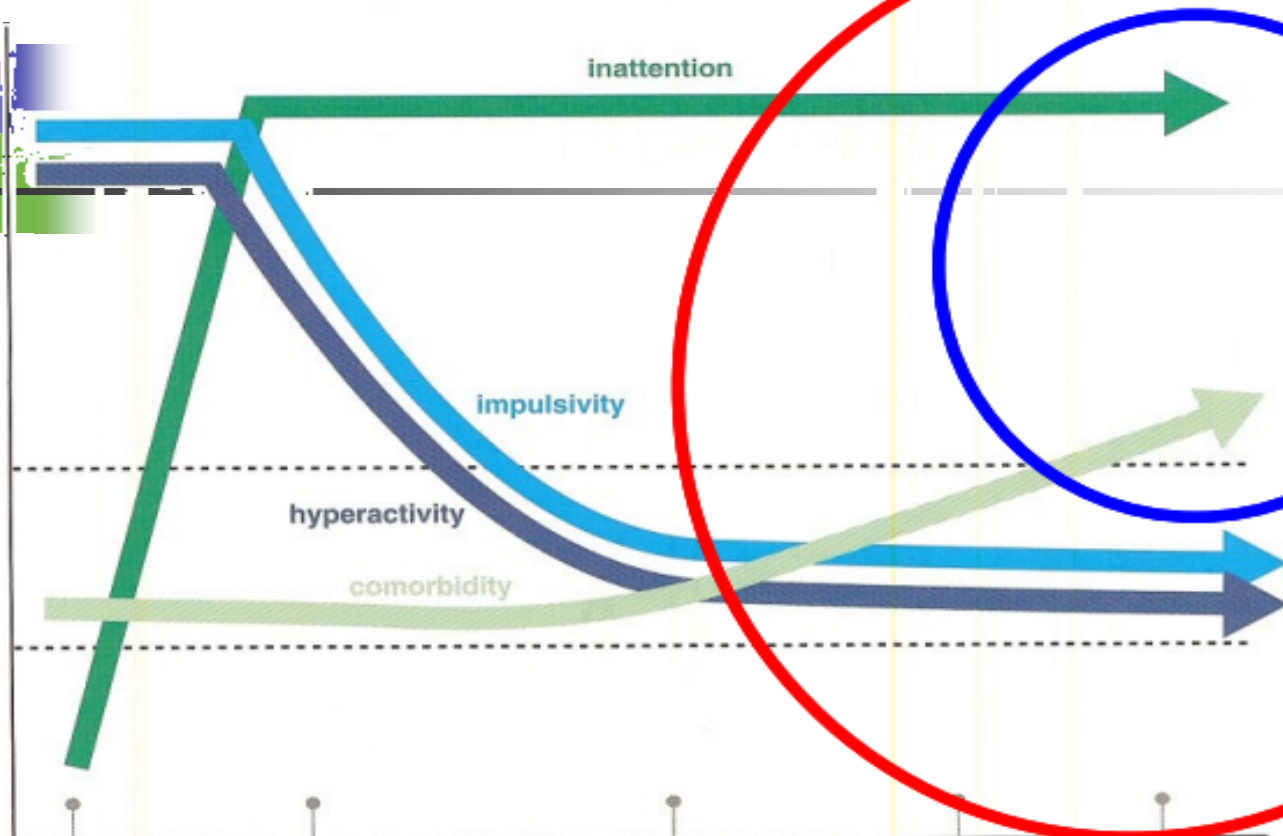
- **Two-thirds** of ADHD adults present with one comorbid psychiatric disorder.
- Studies also show that ADHD is found in **15% of psychiatric patients**.
- These comorbidities are responsible for masking ADHD which reduces the frequency of correct diagnosis.
- **Comorbidity rates of 57–92%** have been shown in various studies.
- **Bipolar disorder, Personality disorders, depression, anxiety disorders, Substance abuse disorders are the common comorbidities that occur with ADHD.**
 - Fayyad J, De Graaf R, Kessler R, et al. Cross-national prevalence and correlates of adult attention-deficit hyperactivity disorder. *Br J Psychiatry* 2007;190:402–409
 - Deberdt W, Thome J, Lebrec J, et al. Prevalence of ADHD in nonpsychotic adult psychiatric care (ADPSYC): A multinational cross-sectional study in Europe. *BMC Psychiatry* 2015;15:242
 - Gustavsson A, Svensson M, Jacobi F, et al. Cost of disorders of the brain in Europe 2010 [published correction appears in *Eur Neuropsychopharmacol*. 2012 Mar;22(3):237-8. den Bergh, Peter Van [corrected to Van den Bergh, Peter]]. *Eur Neuropsychopharmacol* 2011;21:718–779
 - Soendergaard HM, Thomsen PH, Pedersen E, et al. Associations of age, gender, and subtypes with ADHD symptoms and related comorbidity in a Danish sample of clinically referred adults. *J Atten Disord* 2016;20:925–933

ADHD e comorbidità

Il 75% degli adulti con ADHD ha altri disturbi in comorbidità

	%
Depressione (60% SAD)	25-50%
Ansia	25%
SUD	20-45%
Disturbi di Personalità	6-25%
Disturbi del comportamento alimentare (BN)	9%
Binge Eating	86%
Obesità	30%
Disturbi del sonno	75%

Impact of Development on ADHD



preschool
behavioral disturbances

school age
- behavioral disturbances
- academic problems
- difficulty with social interactions
- self-esteem issues

adolescence
- academic problems
- difficulty with social interactions
- self-esteem issues
- legal issues, smoking and injury

college age
- academic failure
- occupational difficulties
- self-esteem issues
- substance abuse
- injury/accidents

adulthood
- occupational failure
- self-esteem issues
- relationship problems
- injury/accidents
- substance abuse

Stahl III Edition.
Chapter 17



ADHD and Dementia

- This study suggests that adult ADHD is associated with an increased risk of dementia and warrants reliable assessment in adulthood.
- an adult ADHD diagnosis was associated with a **2.77-fold increased risk of incident dementia**.
- It may be plausible that **adult ADHD reflects a brain pathobiological process that reduces the ability to compensate for the effects of later-life neurodegenerative and cerebrovascular processes**.
- Less cognitive and brain reserve may result in pathobiological processes of ADHD that, in turn, reduce compensatory abilities.
- **ADHD is a chronic condition** and may have negative long-term sequelae when untreated.
- **Psychostimulants** are cognitive enhancers hypothesized to reduce dementia risk

■ Stephen Z. Levine et al. *JAMA Network Open*. 2023;6(10):e2338088.



Suicidality in ADHD

- The lifetime prevalence of SI (suicidal ideation) and SSI (severe suicidal ideation) were 59.5% and 16.2%, respectively.
- The 9.5% of patients showed lifetime SB, while (non suicidal self-injury behavior) NSSIB was found in 10.8% of the subjects.
- **Lifetime SI was associated with severity of inattentive symptoms during adulthood, low self-esteem and impairment in social functioning.**
- Lifetime SSI appeared related to **severity of inattentive symptoms during childhood, attentional impulsiveness and number of hospitalizations**, while physical activity appeared to be protective.
- The prevalence of lifetime SB and NSSIB did not appear significantly related to any socio-demographic or clinical feature.
- Di Salvo G. et al Ann Gen Psychiatry 2024 Nov 1;23(1):42.



Sex Differences

- Sex differences also appear to influence the prevalence of comorbidities.
- women who suffer from ADHD are more likely to have
 - **depression and eating disorders,**
- and men are more likely to have
 - **substance use disorders**
 - Kok FM, Groen Y, Fuermaier ABM, et al. The female side of pharmacotherapy for ADHD-A systematic literature review. PLoS One 2020;15:e0239257



Sex Differences

- **ADHD-Inattentiveness** is more common in **women** reflected in mood and emotional dysregulation, making differential diagnosis very difficult and interfering with internalizing disorders such as mood disorders, anxiety disorders and depression and lead to misdiagnosis
- **ADHD-Hyperactivity/Impulsivity** is more common in **men** and presentation is associated with impulsive and hyperactive behaviours, and presentation is associated with hypo arousal, inattentiveness and withdrawal.

■ Singh A, Yeh CJ, Verma N, et al. Overview of attention deficit hyperactivity disorder in young children. Health Psychol Res 2015;3:2115.



ADHD and Adolescents

- **66%** of adolescents displaying the combined subtype which has been linked to a greater incidence of comorbid conditions,

- **neuroticism**

- **substance abuse disorders.**

- Soendergaard HM, Thomsen PH, Pedersen E, et al. Associations of age, gender, and subtypes with ADHD symptoms and related comorbidity in a Danish sample of clinically referred adults. *J Atten Disord* 2016;20:925–933
- Liebreuz M, Gamma A, Ivanov I, et al. Adult attention-deficit/hyperactivity disorder: associations between subtype and lifetime substance use - a clinical study. *F1000Res* 2015;4:407
- Ghosh A, Ray A, Basu A. 2017. Oppositional defiant disorder: current insight. *Psychol Res Behav Manag*, 10:353–367



Clinical presentations

- Adults usually present with difficulties in organizing, planning and make impulsive decisions which result in unstable employment and relationships.
- ADHD is associated with **poor academic and professional performance** because it presents with reading disabilities which lead to repeating grades and attending special educational facilities hindering higher educational opportunities.
- As these adults have
 - **recurrent employment changes and exhibit poor performance in their jobs, they are unable to maintain stability in their profession.**
 - **While they are unable to manage inter-personal relationships, it is reported that they have difficulty in forming and keeping close friends.**
 - **ADHD adults hold a negative impression of marriage leading to separation and divorces.**
 - **It has also been associated with driving accidents and jail time.**



Dfficoltà Diagnosi

- Recently, focus has shifted to symptoms arising from **emotional dysregulation** like
 - irritability,
 - emotional fluctuations,
 - low frustration tolerance and daydreaming,
 - which increase the risk of misdiagnosing patients as having mood disorders resulting in many adults not receiving the required intervention

- Tsai F-J, Tseng W-L, Yang L-K, et al. Psychiatric comorbid patterns in adults with attention-deficit hyperactivity disorder: Treatment effect and subtypes. PLoS ONE 2019;14:e0211873
- Corbisiero S, Stieglitz RD, Retz W, et al. Is emotional dysregulation part of the psychopathology of ADHD in adults? Atten Defic Hyperact Disord 2013;5:83–92
- Reimherr FW, Marchant BK, Gift TE, et al. Types of adult attention-deficit hyperactivity disorder (ADHD): baseline characteristics, initial response, and long-term response to treatment with methylphenidate. Atten Defic Hyperact Disord 2015;7:115–128.

Impact of Untreated/Under-Treated ADHD Beyond Core Symptoms

Health Care System

50% ↑ in bike accidents¹
33% ↑ in ER visits²
2-4 x more motor vehicle crashes^{3,4}

Family

Higher Rate of Parental Divorce or Separation^{9,10}
2-4 x ↑ Sibling Fights¹¹

Patient

Education & Employment

46% Expelled⁵
35% Drop Out⁵
Lower Occupational Status⁶
↑ Absenteeism⁷
↑ Work Loss Cost^{7,8}

Society

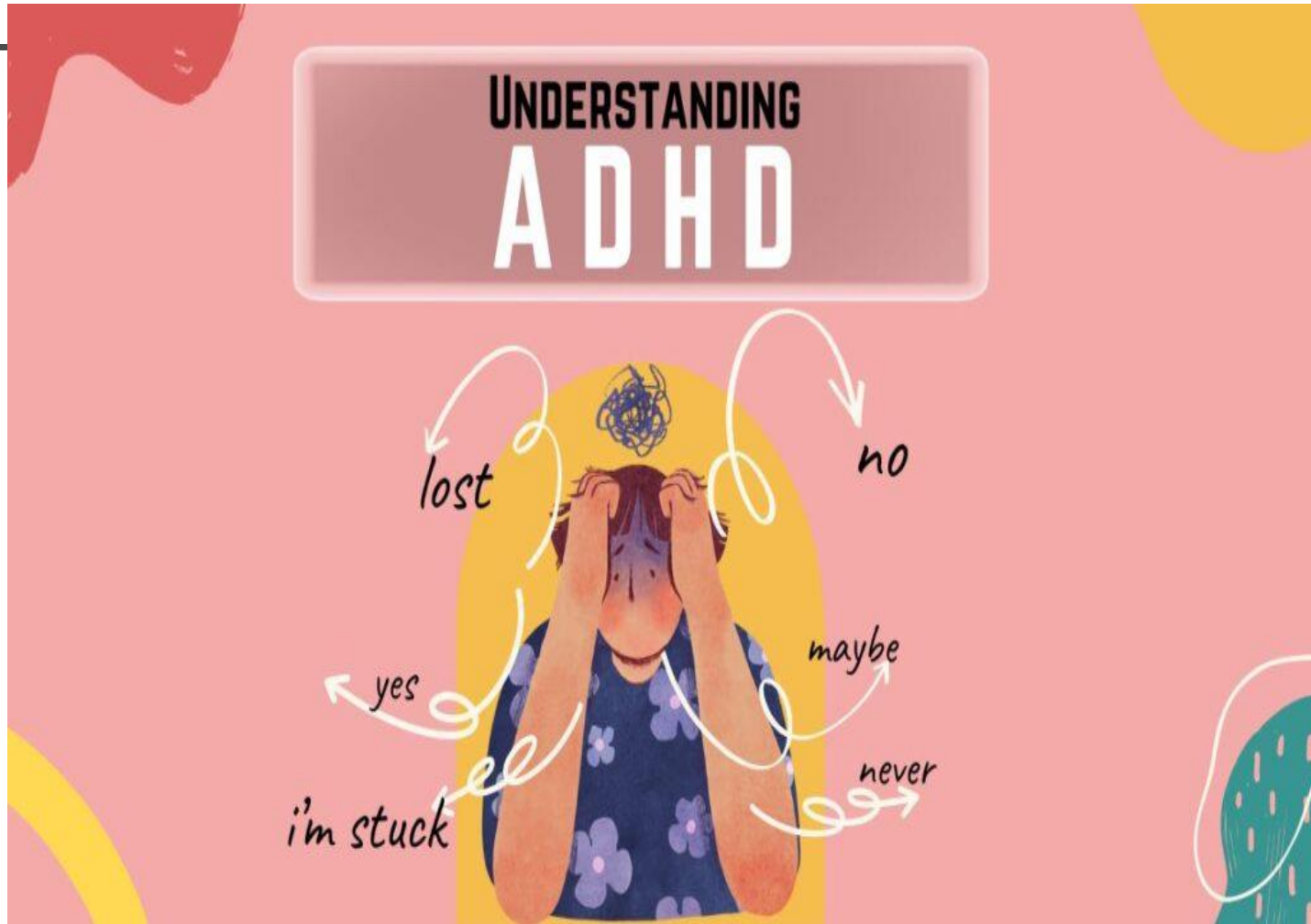
Substance Use Disorders:
2 X Risk¹²
Less Likely to Quit in Adulthood¹³
Earlier Onset¹⁴

1. DiScala et al., 1998; 2. Liebson et al., 2001; 3-4. Barkley et al., 1993; 1996;

5. Barkley, et al., 1990; 6. Manolagas et al., 1997; 7. Secnik et al., 2005; 8. Birnbaum et al., 2005; 9. Barkley, Fischer et al., 1991;

10. Brown & Pacini, 1989; 11. Mash & Johnston, 1983; 12. Biederman et al., 1997; 13. Pomerleau et al., 1995; 14. Milberger et al., 1997.

ADHD





ADHDti www.ADHDti.ch

■ **Scopi:**

- ◆ la diffusione della conoscenza dell'ADHD nella scuola e nella società per quanto attiene la prevenzione, la diagnosi, la terapia, l'importanza sociale e l'epidemiologia;
- ◆ la formazione, il perfezionamento e l'aggiornamento nel campo dei disturbi dell'attenzione e dell'iperattività;
- ◆ la promozione dello scambio di conoscenze, di esperienze e di informazioni nel campo dei disturbi dell'attenzione e dell'iperattività, per i professionisti, per i familiari, per i pazienti e per chi opera nel campo psico-socio-sanitario;
- ◆ Il superamento dello stigma;
- ◆ la collaborazione con altre associazioni con scopi simili.

◆ **Membri fondatori**

- Michele Mattia, (Presidente), Giovanna Talucci, (Vicepresidente); Marco Di Gangi, Giuseppe Foderaro, Gian Paolo Ramelli, Luana Salerno, Dunja Torroni, Valdo Pezzoli, Elena Biglia.