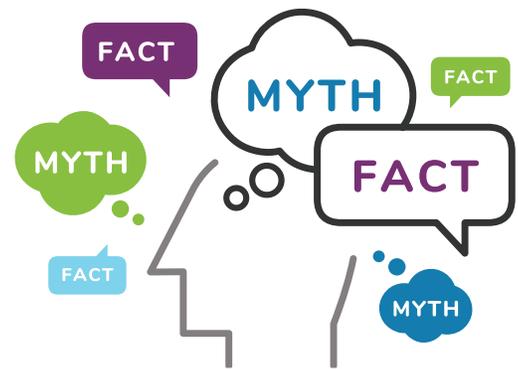


# ADHD Myths vs. Facts

Expanded Learnings from the World Federation of ADHD International Consensus Statements (ICS)



Myths <sup>a-m</sup>	Facts	Evidence
ADHD is a new disorder caused by the stress of modern society	ADHD has existed for tens of thousands of years. The genetics of ADHD have been traced back to Paleolithic times <sup>1-2</sup>  The syndrome we now call ADHD has been described in the medical literature since 1773 <sup>1,3</sup>	<sup>1</sup> ICS #1-13 <sup>2</sup> Esteller-Cucala, 2020 <sup>3</sup> Weikard, 1799
ADHD is only an American disorder	Individuals meeting diagnostic criteria for ADHD have been observed in studies from Europe, Scandinavia, Australia, Asia, the Middle East, South America, and North America <sup>4-7</sup>	<sup>4</sup> ICS #20-25 <sup>5</sup> Fayyad <i>et al.</i> 2017 <sup>6</sup> Polanczyk <i>et al.</i> 2014 <sup>7</sup> Rydell <i>et al.</i> 2018
ADHD doesn't exist or isn't a real disorder, it's just who a person is  Adults presenting with presumed ADHD have a different condition or are actually drug-seekers	The diagnosis of ADHD has been criticized as being subjective because it is not based on a biological test. This criticism is unfounded. ADHD meets standard criteria for validity of a mental disorder established by Robins and Guze <sup>8-10</sup>  Professional medical associations have endorsed and published guidelines for diagnosing ADHD <sup>8,11-12</sup>  The majority of adults with ADHD have at least one coexisting psychiatric disorder, including mood, anxiety, substance use and personality disorders, which complicates the recognition and diagnosis of ADHD in adults <sup>13</sup>  ADHD in adults often co-occurs with substance use disorder, therefore, caution and careful clinical management is needed to prevent abuse and diversion of prescribed stimulants <sup>14</sup>  In summary, when made by a licensed clinician, the diagnosis of ADHD is well-defined and valid at all ages, even in the presence of other psychiatric disorders, which is common <sup>15-16</sup>	<sup>8</sup> ICS #14-19 <sup>9</sup> Robins & Guze 1970 <sup>10</sup> Faraone 2005 <sup>11</sup> APA, 2013 <sup>12</sup> Wilcutt <i>et al.</i> 2012 <sup>13</sup> Katzman <i>et al.</i> 2017 <sup>14</sup> Crunelle <i>et al.</i> 2018 <sup>15</sup> Solberg <i>et al.</i> 2018 <sup>16</sup> Tung <i>et al.</i> 2016
ADHD is a childhood disorder that is outgrown, or disappears in adulthood	Worldwide, ADHD occurs in 5.9% of youth and 2.5% of adults <sup>17-19</sup>  While not all individuals with a history of childhood ADHD continue to meet full diagnostic criteria as adults, many continue to be impaired by the disorder, although adults often show reduced hyperactivity and impulsivity while retaining symptoms of inattention <sup>20</sup>  In fact, 90% of individuals with childhood ADHD will have recurrent periods where they experience impairing ADHD symptoms through at least young adulthood, although intermittent periods of remission can be expected in most cases <sup>21</sup>	<sup>17</sup> ICS #20-25 <sup>18</sup> Wilcutt, 2012 <sup>19</sup> Simon <i>et al.</i> 2009 <sup>20</sup> Faraone <i>et al.</i> 2006 <sup>21</sup> Sibley <i>et al.</i> 2022

Myths <sup>a-m</sup>	Facts	Evidence
ADHD isn't a biological disorder, it's an artifact of poor parenting or an underprivileged upbringing	<p>While indicators of adversity, including a history of poverty, stress, exposure, deprivation or trauma are associated with an increased risk of ADHD, ADHD is believed to be caused by a combination of genetic and environmental risk factors<sup>22</sup></p> <p>ADHD is rarely caused by a single factor. Most cases of ADHD are caused by the combined effects of many genetic and environmental risks each having a very small effect<sup>22-23</sup></p> <p>There is also evidence for ADHD as a biological disorder when one examines neuroimaging studies. These studies find small differences in the structure and functioning of the brain between people with and without ADHD. However, these differences cannot be used to diagnose ADHD<sup>22,24-25</sup></p>	<p><sup>22</sup><b>ICS #26-62, 71-77</b></p> <p><sup>23</sup>Demontis <i>et al.</i> 2019</p> <p><sup>24</sup>Hoogman <i>et al.</i> 2017</p> <p><sup>25</sup>Hoogman <i>et al.</i> 2019</p>
ADHD only occurs in boys ADHD is less severe in females or is attributed to symptoms of something else	<p>ADHD exists in both males and females although it is more common in males<sup>26-27</sup></p> <p>In childhood, ADHD will most often be a combined presentation of hyperactivity/impulsivity and inattention, with hyperactivity/impulsivity being the more common observation, especially in boys. While a presentation of inattention alone is less common at younger ages, it does occur more often in girls, and is easier to miss<sup>28-29</sup></p> <p>Since hyperactivity/impulsivity and associated externalizing behaviors (more common in boys), are more readily observed than inattention and associated internalizing behaviors (more common in girls), as well as the likelihood for females to develop better coping strategies to mitigate their ADHD, this leads to the perception that ADHD is less severe in females and often results in fewer referrals for diagnosis and treatment<sup>30-31</sup></p> <p>Furthermore, in females, symptoms of ADHD may be misattributed to anxiety, mood disorders or hormones<sup>30</sup></p> <p>However even though ADHD presentation may differ between males and females, genetics suggest that the underlying biology of ADHD is similar, and females with ADHD may be at higher risk for certain comorbid developmental conditions, as well as have a higher risk for suicide attempts and self-injury by adulthood<sup>32-33</sup></p>	<p><sup>26</sup><b>ICS #25</b></p> <p><sup>27</sup>Wilcutt, 2012</p> <p><sup>28</sup>Cherkasova <i>et al.</i> 2013</p> <p><sup>29</sup>Faraone <i>et al.</i> 2015</p> <p><sup>30</sup>Quinn &amp; Madhoo 2014</p> <p><sup>31</sup>Hinshaw <i>et al.</i> 2022</p> <p><sup>32</sup>Martin <i>et al.</i> 2018</p> <p><sup>33</sup>Hinshaw <i>et al.</i> 2012</p>
ADHD is not associated with other health problems or any long-term consequences	<p>People with ADHD are at increased risk for various health problems such as neurologic, cardiac, respiratory, immune, sleep, and metabolic disorders when compared to matched counterparts without ADHD.<sup>34-38</sup></p> <p>People with ADHD are at increased risk for accidental injuries, as well as issues with educational attainment, employment, socialization, and longevity.<sup>34,39-41</sup></p>	<p><sup>34</sup><b>ICS #78-136</b></p> <p><sup>35</sup>Lugo <i>et al.</i> 2020</p> <p><sup>36</sup>Chen <i>et al.</i> 2017</p> <p><sup>37</sup>Chen <i>et al.</i> 2018</p> <p><sup>38</sup>Cortese <i>et al.</i> 2016</p> <p><sup>39</sup>Dalsgaard <i>et al.</i> 2015</p> <p><sup>40</sup>Sun <i>et al.</i> 2019</p> <p><sup>41</sup>Barkley &amp; Fischer, 2019</p>
ADHD doesn't incur a cost on society	<p>Studies of economic burden, including impact to the justice system, healthcare system, and occupational performance, show that ADHD costs society hundreds of billions of dollars each year nationally and worldwide<sup>42-43</sup></p>	<p><sup>42</sup><b>ICS #137-147</b></p> <p><sup>43</sup>Doshi <i>et al.</i> 2012</p>

Myths <sup>a-m</sup>	Facts	Evidence
ADHD doesn't affect highly intelligent individuals	<p>ADHD is genetically correlated with measures of lower intelligence<sup>44-45</sup></p> <p>People with ADHD often show impaired performance on psychological tests of brain functioning, but these tests cannot be used to diagnose ADHD<sup>44,46</sup></p> <p>However, while high intelligence can partially compensate for ADHD, ADHD does impair the functioning of this population as well, so the disorder can be diagnosed in this group<sup>47</sup></p> <p>Furthermore, ADHD-related cognitive deficits may be easily overlooked in the high intelligence population when compared to individuals of average intelligence. Thus, ADHD is often underdiagnosed during childhood in this population<sup>48-49</sup></p>	<p><sup>44</sup><b>ICS #16, 63-70</b></p> <p><sup>45</sup>Demontis <i>et al.</i> 2019</p> <p><sup>46</sup>Pievsky &amp; McGrath, 2018</p> <p><sup>47</sup>Katusic <i>et al.</i> 2011</p> <p><sup>48</sup>Cadenas <i>et al.</i> 2020</p> <p><sup>49</sup>Milioni <i>et al.</i> 2014</p>
People can't have ADHD if they can stay engaged in specific tasks	<p>Individuals with ADHD are sensitive to immediate rewards, like those in video games, but not to weak or distant rewards, like the grade on the report card at the end of the year. Therefore, individuals with ADHD can often maintain focus on specific tasks with immediate, short term rewards, but still have difficulty paying attention at work or school<sup>50-52</sup></p>	<p><sup>50</sup><b>ICS #65</b></p> <p><sup>51</sup>Jackson &amp; MacKillop, 2016</p> <p><sup>52</sup>Marx <i>et al.</i> 2021</p>
<p>ADHD doesn't need to be treated</p> <p>ADHD medications have no benefit past childhood</p>	<p>Professional health care associations and regulatory agencies around the world have determined that several medications are safe and effective for reducing the symptoms of ADHD as shown by randomized controlled clinical trials<sup>53-59</sup></p> <p>Management of ADHD may reduce various long-term consequences, which are detailed in the ICS.<sup>53,65</sup></p> <p>Treatment with ADHD medications is not associated with observed deficits in brain structure, but with improved brain function, most prominently in inferior frontal and striatal regions<sup>53,60-64</sup></p> <p>Non-medication treatments for ADHD are another treatment option and are frequently useful to help problems that remain after medication has been optimized<sup>53-58</sup></p> <p>The stimulant medications for ADHD are reported to be more effective than nonstimulant medications but are also more likely to be diverted, misused, and abused<sup>53,66</sup></p>	<p><sup>53</sup><b>ICS #77, 148-177, 189-208</b></p> <p><sup>54</sup>Wolraich <i>et al.</i> 2019</p> <p><sup>55</sup>CADDRA, 2018</p> <p><sup>56</sup>NICE, 2018</p> <p><sup>57</sup>Pliszka <i>et al.</i> 2007</p> <p><sup>58</sup>Post <i>et al.</i> 2021</p> <p><sup>59</sup>Cortese <i>et al.</i> 2018</p> <p><sup>60</sup>Hoogman <i>et al.</i> 2017</p> <p><sup>61</sup>Hoogman <i>et al.</i> 2019</p> <p><sup>62</sup>Lukito <i>et al.</i> 2020</p> <p><sup>63</sup>Norman <i>et al.</i> 2016</p> <p><sup>64</sup>Spencer <i>et al.</i> 2013</p> <p><sup>65</sup>Biederman <i>et al.</i> 2019</p> <p><sup>66</sup>Faraone <i>et al.</i> 2020</p>
ADHD medications often have considerable side effects and can change who a person is	<p>In general, medications for ADHD are well tolerated<sup>67-68</sup></p> <p>The adverse effects of medications for ADHD are typically mild to moderate and can be addressed by changing the dose or the medication. They can also have rare, but serious side effects which may require medical attention.<sup>67,69</sup></p> <p>As individual responses to ADHD medications vary, it is important for the trained, healthcare professional to obtain a thorough family history and monitor throughout treatment to ensure continuing, optimal clinical response while minimizing impact of adverse events<sup>70-71</sup></p>	<p><sup>67</sup><b>ICS #178-188</b></p> <p><sup>68</sup>Faraone <i>et al.</i> 2015</p> <p><sup>69</sup>Cortese <i>et al.</i> 2018</p> <p><sup>70</sup>Leucht <i>et al.</i> 2012</p> <p><sup>71</sup>Rohde <i>et al.</i> 2019</p>

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