# Study reveals cardiovascular effects of ADHD medications



A recent study led by researchers at the University of Southampton has raised important considerations regarding the cardiovascular effects of medications prescribed for attention-deficit/hyperactivity disorder (ADHD). The study, published in The Lancet Psychiatry, suggests that while these medications do display overall small effects on heart rate and blood pressure, the benefits they provide outweigh these risks for most users.

ADHD is estimated to affect about 4% of children in the UK, with around 45% of affected children receiving medication as part of their treatment. Professor Samuele Cortese, the senior lead author of the study, emphasised the necessity of weighing both the risks and benefits of ADHD medications. He noted that, "When it comes to taking any medication, risks and benefits should always be assessed together." The analysis revealed a general increase in both blood pressure and heart rate among children prescribed these medications, although the increases were described as "overall small."

The study, which received funding from the National Institute for Health and Care Research (NIHR), comprised an extensive review of data from 102 randomised controlled trials that included 22,702 participants. According to the findings, the majority of ADHD medications were linked to slight increases in blood pressure and heart rate. However, an exception was found with guanfacine, a non-stimulant drug, which led to decreases in both blood pressure and heart rate.

Additionally, the research indicated that there was no significant difference in the effects on blood pressure and heart rate between stimulant medications—such as methylphenidate and amphetamine—and non-stimulant alternatives like atomoxetine and viloxazine. Dr Luis Farhat, from the University of Sao Paulo in Brazil, commented further on the implications of the study, stating, "Our findings should inform future clinical guidelines, stressing the need to systematically monitor blood pressure and heart rate, both for stimulants and non-stimulants." He added that this is particularly pertinent for clinicians who may assume that only stimulant medications have adverse cardiovascular effects.

The research team also underscored the importance of consulting a specialist cardiologist for patients with pre-existing heart conditions before starting ADHD treatment. Professor Cortese remarked on the need for precision medicine, indicating that while the study provides valuable insights at a population level, it cannot specifically identify individuals who may be at higher risk for significant cardiovascular issues.

The ongoing investigation into whether specific groups may be more susceptible to cardiovascular side effects from ADHD medications continues to be a priority for the research team. Further studies may clarify these risks and potentially lead to refined guidelines for ADHD medication management in the future.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://pubmed.ncbi.nlm.nih.gov/36416824/> - This study discusses the association between ADHD medications and cardiovascular diseases, finding no statistically significant associations across age groups. It highlights the need to consider both benefits and risks of these medications.
* <https://eprints.soton.ac.uk/477158/1/zhang_2022_oi_221226_1668537418.33149.pdf> - This PDF discusses the risk of cardiovascular diseases associated with ADHD medications, emphasizing that both stimulant and nonstimulant medications do not have a statistically significant association with cardiovascular risks.
* <https://pubmed.ncbi.nlm.nih.gov/37991770/> - This entry pertains to the long-term cardiovascular effects of ADHD medications, which aligns with the article's discussion on balancing benefits and risks of treatment.
* <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6892385/> - This article discusses the importance of monitoring cardiovascular effects in ADHD medication while noting that the benefits often outweigh the risks.
* <https://academic.oup.com/jncs/article/45/10/2461/5763321> - This article discusses non-pharmacological and pharmacological treatments for ADHD, which can relate to the discussions on various ADHD medications and their effects.
* <https://www.nihr.ac.uk/research-funding/themed-calls/our-themes/mental-health/> - This page explains the funding opportunities from agencies like the NIHR, which supported the study mentioned in the article, highlighting the importance of research in areas such as ADHD medication effects.