SSRI antidepressants not associated with an increased risk of cardiovascular conditions

*These findings should reassure doctors and patients, say experts*

Commonly used antidepressants, known as selective serotonin reuptake inhibitors, are not associated with an increased risk of cardiovascular conditions, such as heart attacks and strokes in people aged below 65, finds a study published in *The BMJ* today.

Depression is known to increase the risk of cardiovascular outcomes, but whether antidepressants, particularly selective serotonin reuptake inhibitors, increase or reduce this risk remains controversial.

This is important because antidepressants are one of the most commonly prescribed drugs, and cardiovascular diseases are a leading cause of death and disability worldwide.

In this latest study, a team of UK-based researchers examined associations between different antidepressant treatments, and rates of three cardiovascular outcomes in people with depression.
The study cohort included 238,963 patients aged 20-64 with a diagnosis of depression made between 2000 and 2011, identified using the UK QResearch database.

The researchers looked at antidepressant class, including tricyclic and related antidepressants, selective serotonin reuptake inhibitors, and other types, as well as dosage and duration of use.

Patients were monitored for occurrence of heart attacks, strokes or transient ischaemic attacks, and arrhythmia (an irregular heartbeat), and followed up until 2012.

Factors such as age, sex, smoking status, alcohol consumption, co-morbidities and use of other drugs were accounted for.

Overall, the study found no evidence that selective serotonin reuptake inhibitors were associated with an increased risk of arrhythmia, heart attacks, or stroke/transient ischaemic attacks in people with depression over the five year period.

But there was a significant doubling of risk for arrhythmia during the first four weeks of taking tricyclic and related antidepressants.

In addition, there was some indication that selective serotonin reuptake inhibitors were associated with a reduced risk of heart attacks, particularly with the use of fluoxetine.

Absolute risks of heart attacks were 6 per 10,000 for selective serotonin reuptake inhibitors over 1 year, and 4 per 10,000 for fluoxetine compared with 10 per 10,000 for non-use.

Citalopram, the most commonly prescribed drug among patients in the study, was not associated with an increased risk of arrhythmia, even at higher doses. In 2011, the FDA and EMA both issued warnings about taking high doses of the drug following safety concerns.
But the authors say they can't rule out the possibility of an increased risk of arrhythmia in patients taking citalopram at high doses because only a relatively small proportion of citalopram prescriptions (18%) were at high doses in the study.

They recommend that high doses should not be prescribed, particularly for patients with any risk factors.

This is an observational study so no firm conclusions can be made between cause and effect. Nevertheless, the authors say "these findings are reassuring in light of recent safety concerns about selective serotonin reuptake inhibitors."

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**Note to editors:**
Research: Antidepressant use and risk of cardiovascular outcomes in people aged 20 to 64: cohort study using primary care database
[http://www.bmj.com/cgi/doi/10.1136/bmj.i1350](http://www.bmj.com/cgi/doi/10.1136/bmj.i1350)

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