

Risk of blood clot after surgery higher and lasts longer than previously thought

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The risk of having a potentially fatal blood clot after surgery is higher and lasts for longer than had previously been thought, concludes new research published in the *British Medical Journal* today.

This has important implications as most patients receive preventive (anti-clotting) therapy only whilst in hospital, or for up to five weeks after certain high-risk operations. And those undergoing day surgery are unlikely to be considered for preventive therapy at all.

The risk of venous thromboembolism (a collective term for [deep vein thrombosis](#) and [pulmonary embolism](#)) is known to increase after surgery, particularly after major orthopaedic (joint) surgery. The risk is thought to be highest during the first few weeks after an operation but little is known about the exact pattern and scale of this increased risk.

So an international team of researchers set out to examine the pattern of increased risk of venous thromboembolism over time and after different types of surgery

Their findings are based on NHS [hospital admission](#) and death records for 947,454 middle aged UK women recruited in 1996-2001 as part of the Million Women Study. Each woman was tracked for an average of 6.2 years.

Compared to the risk without surgery, women were almost 70 times more likely to be admitted with venous thromboembolism during the

first six weeks after an inpatient operation and almost 10 times more likely after a day case operation.

The risks were lower but still elevated 7-12 weeks after surgery, and in most cases the risk remained for at least one year. Risk also varied considerably by type of surgery, being highest after inpatient surgery for hip or knee replacement, cancer and fracture.

In real terms, this means that 1 in 140 middle aged women in the UK will be admitted to hospital with venous thromboembolism during the 12 weeks after any inpatient surgery, 1 in 45 after hip or knee replacement surgery, and 1 in 85 after surgery for cancer. This compares with 1 in 815 after day case procedure and only 1 in 6,200 women during a 12 week period without surgery.

These findings suggest that there is a substantially increased risk of venous thromboembolism after many different types of surgery that lasts for up to 12 weeks postoperatively, conclude the authors.

This study broadens our previous understanding of short term risk of venous thromboembolism in certain types of surgery, particularly for day case [surgery](#), says Alexander (Ander) Cohen, a vascular physician at King's College Hospital, in an accompanying editorial.

He also suggests that the event rates derived from this study "are probably much lower than the true values, mainly because many deep vein thromboses and pulmonary embolisms are undiagnosed, untreated, and managed out of hospital."

These findings indicate that we should be investigating the rates of venous thromboembolism, the use of preventive anti-clotting therapy, and the length of therapy in a wider range of patients. They should also make us consider whether treatment should be extended for more than

five weeks in any group of patients, he concludes.

Source: [British Medical Journal](#) ([news](#) : [web](#))

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