

# Postoperative delirium results in poor outcomes in older adults

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Researchers from the Aging Brain Center at the Institute for Aging Research (IFAR) at Hebrew SeniorLife confirm that delirium is a significant and independent contributing factor to poor postsurgical outcomes in older adults. Findings published in *JAMA Surgery* suggest that the combination of major postoperative complications and delirium demonstrate a strong combined effect on adverse outcomes in older adults undergoing major surgery.

Of all inpatient operations in the U.S. in 2007, 36% were performed on patients 65 years of age or older, and that number is expected to climb with the aging population. Previous research shows that postoperative complications occur in up to 25% of older individuals and may cause adverse outcomes including disability, reduced quality of life, or even death.

Senior author Dr. Sharon K. Inouye, Director of the Aging Brain Center at IFAR, Hebrew SeniorLife in Boston, Massachusetts and Professor of Medicine, Harvard Medical School said, "Delirium, which is characterized by a sudden onset of confusion, is a concern for [older adults](#) having surgery or who are hospitalized. Our study explores the association of postoperative complications and [delirium](#), with adverse results following surgery."

For this prospective study, the research team included 566 patients without dementia or delirium who were age 70 or older at the time of elective major orthopedic, vascular, or abdominal surgeries. Participants

had a minimum hospital stay of three days. Major postoperative complications were defined as life altering or threatening, and based on the Accordion Severity (grade 2 or more). Daily measures of delirium were determined using the Confusion Assessment Method and validated chart-review.

Study results report that a major complication occurred in 8% of study subjects and 24% of participants developed delirium. Major [postoperative complications](#) alone contributed to prolonged length of hospital stay. Delirium alone was found to significantly increase all adverse outcomes following surgery, including prolonged [hospital stay](#), institutional discharge, and 30-day readmission.

Furthermore, the group who experience both major complications following surgery and delirium had the highest rates of all adverse outcomes. While, delirium alone exerted the highest risk of adverse outcomes at the population level compared to other major surgical complications.

First author, Dr. Lauren Gleason from the Division of Aging at Brigham and Women's Hospital in Boston, Massachusetts, concludes, "Delirium is highly prevalent among older adults who undergo surgery or are hospitalized and should be considered a leading postoperative complication leading to [adverse outcomes](#). Clinicians should be aware of the negative impact of delirium and look for ways to mitigate its effect on older patients in their care through use of preventative strategies such as the Hospital Elder Life Program (HELP), proactive geriatric consultation, and co-management services. "

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