

## ASK Silver Doc:

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Dear Silver Doc:

I read with interest your recent article on dementias. You made no mention of dementia that is caused by anesthesia. Yet I know of several cases that seem to have been initiated by surgery. Could you please comment on this? Thank you.  
Jean E.

Dear Jean,

“Grandma was never the same after her heart surgery.” I hear this statement frequently. Yes, there is a known clinical entity of “postoperative cognitive decline” (POCD) that occurs in a small percentage of elderly persons following surgery. This decline is characterized by decreased attention span and memory loss and can persist to look a lot like dementia. Like the more common dementia of Alzheimer’s disease, it can be progressive and affect functional status.

POCD is not the same as delirium which is another syndrome that includes mental changes and often occurs in hospitalized elderly. Delirium involves sudden and fluctuating changes in attention and cognition, disorientation, increased or decreased motor activity, and hallucinations and delusions. Common causes are medications, infections, or metabolic changes that frequently accompany diseases and surgical procedures in the elderly. However, unlike dementia and some cases of POCD, delirium generally resolves.

Most patients are discharged from hospitals before they are “back to normal”. Many of the immediate POCD changes that occur after surgery do resolve over time, in the weeks or months it takes to recover from surgery. Recognizing persistent POCD is tricky because the changes may be too subtle to see (without detailed neuropsychological testing) until a person is back into his regular routine. Only then, weeks or months after surgery, are the changes seen as permanent. In addition, POCD appears to be more common in persons with preexisting cognitive impairment, even that which may be too subtle to be classified as dementia. In these cases, it becomes impossible to distinguish preexisting impairment, which also may be progressive, from new changes that developed only after surgery.

The incidence of POCD is unclear and little is certain about causes and risk factors. POCD is no longer believed to be secondary to anesthesia alone. Some studies have shown that POCD occurs as often with regional (local) anesthesia as it does with general anesthesia. Even though POCD is particularly common after cardiac surgery, studies have found no particular characteristics of heart surgery or cardiac anesthesia to be consistently related to POCD. Other studies have suggested that people with atherosclerotic disease or neurological disorders are more likely to develop POCD. Many questions remain and receive ongoing research attention.

What we do know is that persons with preexisting dementia or even very mild cognitive impairment are particularly susceptible to developing delirium as well as POCD. This does not mean that surgery should never be performed in these persons, only that POCD is another potential surgical risk factor to be considered particularly in the elderly.

Thank you, Jean, for your very important and provocative question.  
Silver Doc

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*“Silver Doc” is Dr. Michele Haber, a Board Certified Internal Medicine and Geriatric Medicine specialist. Dr. Haber specializes in evaluations in the home or facility focusing on Alzheimers’ disease and other dementias, early memory changes, behavioral problems, functional decline and frailty, polypharmacy and other geriatric medical issues. Send questions for “Silver Doc” to: [mahaber@att.net](mailto:mahaber@att.net)*