

# Hip surgery success partially predicted by number of other existing conditions

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Hip fractures are the second leading cause of hospitalization of elderly patients. In many cases, a hip fracture is the first step in a complete decline in the patient's health, setting off a long list of potential complications. According to a new study published in the April 2010 issue of *The Journal of Bone and Joint Surgery (JBJS)*, a person's pre-surgical health classification-as determined by the American Society of Anesthesiologists (ASA)-is a leading indicator as to how well the person will fare after surgery to repair the hip fracture.

The purpose of the study was to define the complications after hip fracture [surgery](#) in a single [health care system](#) and identify care practices that may lead to improved outcomes in elderly patients with hip fractures.

"We found that the return to the best quality of life after hip surgery is not determined by the type of operation but rather by the patient's pre-existing conditions and complications after surgery," stated Derek Donegan, MD, study co-author and orthopaedic surgery resident at the Hospital of the University of Pennsylvania in Philadelphia. "It is also important to note that the patient's recovery was improved by a team approach of medical specialists, including geriatricians and physiatrists."

The ASA classification system represents the anesthesiologist's assessment of the general health and well-being of the patient before surgery. Typically, there are five classes:

1. normal healthy patient
2. patient with mild systemic disease
3. patient with serious, non-incapacitating systemic disease
4. patient with life-threatening incapacitating systemic disease
5. patient that is near death.

The study consisted of a record review of 197 patients over age 65 who underwent [hip fracture](#) surgery from 2004 to 2008 treated by the Hospital of the University of Pennsylvania [Orthopaedic Trauma](#) and Fracture Service.

The study revealed:

- Medical complications were more common in patients in ASA class 3 and class 4 than in those in class 2.
- Patients in ASA class 3 had a 3.78 times greater chance of having a medical complication following surgery than those in class 2.
- Patients in ASA class 4 had a 7.39 times greater chance of having medical complications following surgery than those in class 2.
- No significant relationship was identified between the ASA class and surgical complications.

"We confirmed use of the ASA classification can help identify high-risk

patients," continued Dr. Donegan. "We recommend these higher risk [patients](#), in class 3 or 4, be closely managed medically so that any existing conditions can be treated and any evolving medical issues can be addressed in a timely manner," continued Dr. Donegan.

Dr. Donegan added, "Utilizing strategies that improve bone health and prevent hip fractures are ways to limit the significant impact a fall can have."

Provided by American Academy of Orthopaedic Surgeons

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