

# Coronary artery bypass grafting has potential benefits for patients over age 80 with reasonable surgical risk

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Patients over age 80 are considered high-risk candidates for coronary artery bypass grafting, not only because of normal wear and tear on the

body, but also because of comorbidities and risks of complications after surgery. No hard-and-fast guidelines are available to assess the risks and benefits for octogenarians. Patients and physicians often choose not to proceed with surgery, and that decision carries its own risks and disadvantages.

A new retrospective study from Mayo Clinic finds that, although there's a higher surgical risk for patients over age 80, [coronary artery bypass grafting](#) may be associated with favorable outcomes and increased [long-term survival](#). Further research is needed to identify patient groups that may benefit most from surgical revascularization, according to an article published in *Mayo Clinic Proceedings*.

Researchers reviewed case histories for 1,283 patients who were older than age 80 and underwent primary isolated coronary artery bypass grafting at Mayo Clinic in Rochester between Jan. 1, 1993, and Oct. 31, 2019. Median survival time was 7.6 years, compared with six years for age- and sex-matched octogenarians in the general U.S. population.

"Our results show that [coronary artery bypass surgery](#) can be beneficial for patients over age 80," says Kukbin Choi, M.D., a Mayo Clinic clinical fellow in Cardiovascular Surgery and the study's first author.

"The key is to carefully identify patients who can most benefit from the procedure. That's what future research can help with: to identify subgroups of patients who can most benefit."

The patients' survival rate was 90.2% at one year, 67.9% at five years, 31.1% at 10 years and 8.2% at 15 years, according to the study. The surgical mortality rate was 4%, but it declined significantly during the 26-year study period. Mortality in the last three years of the study period was 1.6%. Risk factors associated with reduced survival time included advanced age, [diabetes mellitus](#), smoking history and chronic lung disease.

Just over 56% of the surgeries were elective procedures, 40% were performed in urgent situations and 3.8% were emergencies.

"The longer median survival in octogenarians undergoing surgery and the relatively low rates of complications observed in our study imply that with tailored surgery candidacy and consideration of specific high-risk factors, [coronary artery bypass grafting](#) may be an important treatment strategy for those patients with multivessel coronary artery disease," says Dr. Choi.

**More information:** Kukbin Choi et al, Coronary Artery Bypass Grafting in Octogenarians—Risks, Outcomes, and Trends in 1283 Consecutive Patients, *Mayo Clinic Proceedings* (2022). [DOI: 10.1016/j.mayocp.2022.03.033](#)

Provided by Mayo Clinic

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