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## Adherence to Medical Therapy, Better Heart Surgery Outcomes



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According to a study carried out by researchers at Columbia University, New York, adherence to prescribed medical therapy after coronary artery bypass graft (CABG) or percutaneous coronary intervention (PCI) is associated with a significantly better long-term patient outcome.

Past research has compared outcomes of people who have had CABG or PCI and has provided considerable evidence that compliance with prescribed medical therapy affects the outcome of these therapeutic interventions. However, very few studies have focused on the long-term influence of adherence to the recommended medical therapy. Paul Kurlansky, MD (pictured), assistant professor of surgery at Columbia University Medical Center, cardiac surgeon at NewYork-Presbyterian/Columbia, and Associate Director of Columbia's Center for Innovation and Outcomes Research in the Department of Surgery, and his colleagues are addressing this issue in a study published in the journal *Circulation*.

This included 3,228 participants from eight hospitals who underwent heart surgery in 2004. Of these, 973 patients had CABG and 2,255 had PCI. The researchers followed the patients for 5 to 7 years after surgery to determine medical history and recorded major adverse coronary events, including non-fatal myocardial infarction, consequent revascularisation procedures and death.

The findings demonstrated that there was a significant benefit for antiplatelet, lipid-lowering and  $\beta$ -blocker therapy in both the CABG and the PCI group. Moreover, compliance with optimal medical therapy was found to be a more powerful predictor of major adverse cardiac event-free survival than choice of therapy. In patients non-adherent to optimal medical therapy, CABG outcomes were superior to PCI outcomes, while they were not different in patients adherent to optimal medical therapy. More specifically, those who had continued with their recommended medical therapy were 2.8 times more likely to have survived without any major complications compared to those who did not continue taking their medications. Furthermore, PCI patients were nearly 1.5 times more likely than CABG patients to have a major coronary event.



"While larger, prospective studies are needed to replicate our results, this study underscores the importance of educating PCI and bypass patients about the need to stick to their prescribed regimens, even if they feel just fine," said Dr Kurlansky (pictured), lead author of the paper. "It also suggests that physicians may need to recommend surgery instead of PCI for patients who are unlikely to adhere to their prescribed medical therapy."

Source and image credit: [American Heart Association](#)

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