

African-Americans may live longer after liver transplant if their donors are the same race

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Among African-American adults undergoing liver transplant to treat liver cancer, patients whose organ donor was also African-American lived significantly longer than those with a racially unmatched donor, report authors of a new study using national data. The study is published online as an "article in press" on the *Journal of the American College of Surgeons* website in advance of print publication.

These [research findings](#) suggest a possible way to improve long-term survival in a patient population that typically fares worse than other racial groups with [liver cancer](#), which is the second deadliest cancer worldwide. Compared with other races, African-American [patients](#) with hepatocellular carcinoma (HCC)—the most common form of liver cancer—tend to have the poorest long-term survival and have worse outcomes after [liver transplant](#). A liver [transplant](#) is the preferred and curative treatment option for some patients with early-stage HCC, according to the study authors.

Although past studies have linked unmatched [donor](#)-recipient race to worse overall survival in recipients of kidney, lung, and heart transplants, the role of donor race in liver transplantation has not been well defined, said principal investigator T. Clark Gamblin, MD, MS, MBA, FACS, professor and chief of surgical oncology at the Medical College of Wisconsin, Milwaukee.

For this study, Dr. Gamblin and his colleagues used the Organ Procurement and Transplantation Network's (OPTN's) national database.

The researchers identified 15,141 adults with first-time HCC who received a transplant of a whole liver from a deceased donor between 1994 and 2015. Of those transplant recipients, 1,384 (9.1 percent) were African-American, and their records were further analyzed for the donor's race. A total of 325 patients (23.5 percent) received livers from African-American donors—labeled "matched"—and the other 1,059 patients (76.5 percent) were unmatched.

Five years after transplant, 64.2 percent of race-matched patients were still alive compared with 56.9 percent of unmatched patients, the researchers found. On average, race-matched patients lived 4.75 years longer after transplant than the unmatched patients, with a median overall survival of 135 months versus 78 months. This effect of donor race continued even after the researchers statistically matched the two groups on multiple donor and recipient characteristics that are important to transplant success and patient survival. On these adjusted analyses, a race-matched transplant independently predicted improved overall survival, the investigators reported. Specifically, African-American transplant recipients had 34 percent greater odds of long-term survival when the donor's race was the same. African-Americans who received a liver from a white person—the most common race among donors—had a reported 53 percent increased risk of death.

The survival advantage with race-matching reportedly did not become apparent until after one year.

"Our data are intriguing," said Dr. Gamblin. "But our results require validation through further investigation of the role of race in optimizing outcomes of liver transplant for treatment of HCC."

"It is certainly premature to recommend a change in compatibility screening criteria based on our findings alone," continued Dr. Gamblin, who noted that race is not currently a consideration during compatibility

Provided by American College of Surgeons

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