

Study offers insights on how to decrease the discard rate of donated organs

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A new study indicates that many donated organs that are discarded might be suitable for transplantation if certain steps are taken to limit damage following donation. The findings appear in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*.

In most cases in the United States, transplant organs come from donors following brain death, in which all the functions of the brain have stopped. Donation after circulatory death (DCD)—in which circulation, heartbeat, and breathing have stopped—has become increasingly more common, however, accounting for 17.7% of deceased donor [kidney](#) transplants in 2015 compared with only 7.3% in 2005. A DCD organ must be chilled after its [blood supply](#) has been cut off and then later warmed when its blood supply is restored. The process of restoring blood flow following this period of "cold ischemia" can lead to tissue damage.

To examine the contemporary use and outcomes of DCD kidneys for transplantation in the United States, John Gill, MD, MS (University of British Columbia and Vancouver's Providence Health Care) and his colleagues examined national data obtained between 2008 and 2015. The number of DCD kidneys recovered by the country's 58 donor service areas varied substantially (from 0 to 1072), and 25% of DCD kidneys were recovered in only 4 donor service areas. Overall, 20% of recovered DCD kidneys were discarded, varying from 3% to 33% among [donor](#) service areas.

DCD kidneys exhibited excellent organ survival, with a 5-year survival

rate of 75%. Certain DCD kidneys were at higher risk of failing when compared with kidneys from brain dead donors, but only when the cold ischemia time was >12 hours.

"We found that use of DCD kidneys is variable throughout the United States, that the outcomes are generally excellent, and that the use of these organs could probably be safely increased if cold ischemia times are limited," said Dr. Gill.

More information: "Use and Outcomes of Kidneys from Donation after Circulatory Death Donors in the United States," [DOI: 10.1681/ASN.2017030238](https://doi.org/10.1681/ASN.2017030238)

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