# Transplanted kidneys survive longer

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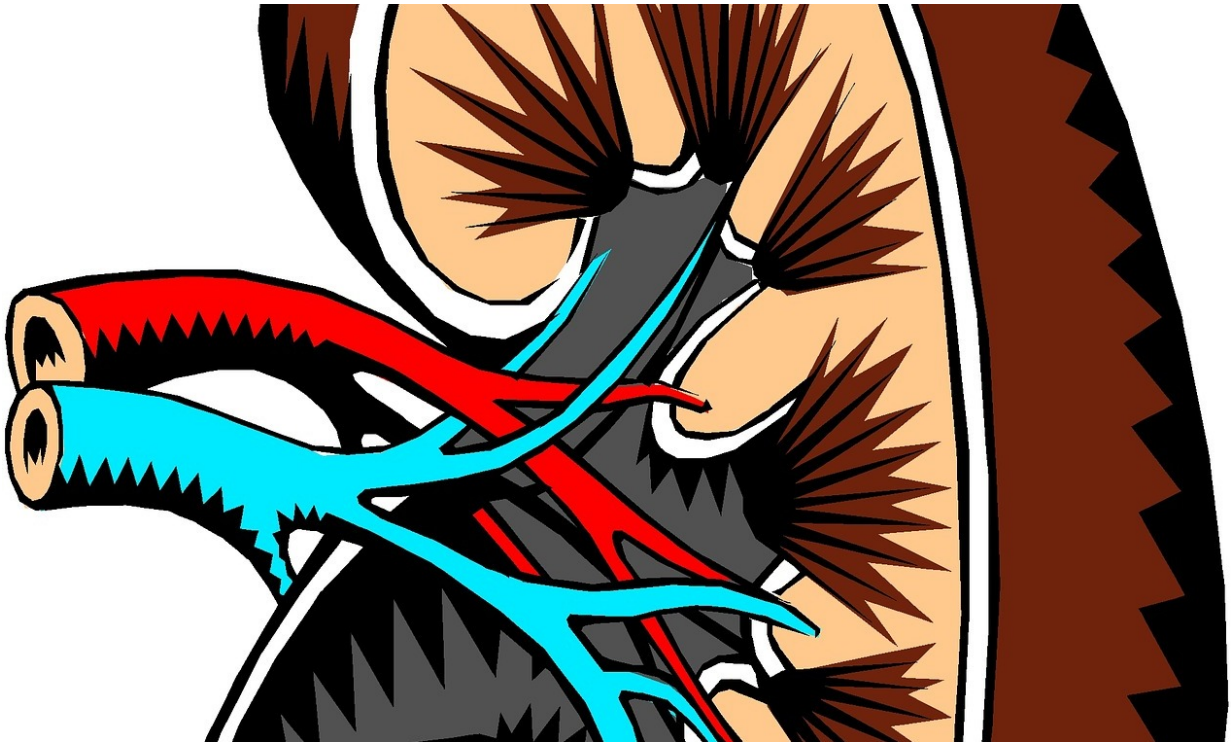

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The lifespan of a transplant kidney has significantly improved over the last 30 years. Between 1986 and 1995, 75 percent of the transplanted kidneys still functioned five years after the transplant. Between 2006 and 2015, this number had already risen to 84 percent. However, an international study led by kidney specialist Maarten Naesens of KU Leuven shows that the progress is stagnating.

A transplanted kidney's lifespan is 15 to 20 years on average. If the kidney stops working, the patient is back on the waiting list for a new one. However, a second or even a third transplant is more complex, as finding a new good match between donor and recipient becomes increasingly difficult. In practice, this often results in patients having to undergo dialysis treatment for a long time, or even for the rest of their lives. To avoid this, extending the lifespan of transplant kidneys should be prioritized.

Professor Maarten Naesens of KU Leuven and University Hospitals Leuven says, "The data of more than 100,000 recipients of transplant kidneys across Europe from 1986 until 2016 shows that we have made considerable progress in the last 30 years. Between 1986 and 1995, 87 percent of the transplanted kidneys still functioned one year after the transplant. After five years, that was still 75 percent. Between 2006 and 2015, this number had risen to 92 percent one year after the transplantation and 84 percent five years after."

This is good news, but Naesens says, "For the most part, this progress was made in the period 1986 to 2000. Unfortunately, we haven't seen much progress in the last 15 years. The data confirms what we already noticed in the hospital. This is especially striking compared to other fields in medicine. Against expectations, the stagnation has nothing to do with the changing profile of donors and recipients, at any rate. On average, they have become older with more concomitant diseases in past years. But even if we take this into account, it doesn't explain why the lifespan of a transplant kidney has stagnated." So the question is: what is the cause?

The explanation can be found in the way we treat patients, concludes Naesens: "The medication currently used to prevent a kidney from being rejected by the recipient's immune system dates back to the 1990s. Our scientific knowledge has, of course, increased in the last 15 years, but

this hasn't resulted in better medicines. This means that there is a clear need for innovation when it comes to kidney transplants."

**More information:** Maarten Coemans et al, Analyses of the short- and long-term graft survival after kidney transplantation in Europe between 1986 and 2015, *Kidney International* (2018). DOI: 10.1016/j.kint.2018.05.018

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