

# African-Caribbean people with type 1 diabetes more likely to develop kidney disease

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New research confirms for the first time that ethnicity is a risk factor for developing kidney disease in people with type 1 diabetes.

The study is one of the largest of its type and is published today in *Diabetes Care* by researchers from King's College London. The findings also show people of African-Caribbean heritage and living with [diabetes](#) have nearly a 60% greater risk of advanced kidney disease.

Type 1 diabetes is an autoimmune condition that can cause symptoms early in life. Type 2 diabetes is often lifestyle-related and can develop over time. An estimated 10% of people with diabetes have type 1, with 400,000 people living with the condition in the UK. Kidney disease affects nearly 30-40% of people with diabetes, regardless of type.

While it is known that ethnicity is a risk factor for type 2 diabetes and kidney disease, there is little understanding of whether ethnicity is a risk factor for kidney complications of type 1 diabetes. Most previous studies looking at risk factors for kidney disease have been in less diverse or predominantly Caucasian cohorts.

Researchers from King's College London looked at more than 5,000 people with type 1 diabetes. All people in this cohort had good kidney function and 13% were African-Caribbean. They observed after eight years of follow-up that 260 people had a decline of more than 50% of kidney function and developed stage 4 kidney disease, which is an indicator of severe and advanced kidney disease. Stage 5 is kidney failure when people often need a [kidney transplant](#) or dialysis to live.

Findings show that this increased risk for African-Caribbean people is independent of other established risk factors for kidney disease such as blood pressure and glucose control.

Lead author Dr. Janaka Karalliedde, from King's College London, says that "diabetes-related [kidney failure](#) is devastating for people affected and their families. This is the first study in type 1 diabetes to describe the impact of ethnicity on kidney function loss. We observed that

African-Caribbean people with type 1 diabetes are at nearly 60% higher risk of losing more than half of their kidney function and that this loss also occurs faster. Further studies are needed to study and understand the exact reasons for this increased risk of kidney disease in African-Caribbean people with type 1 diabetes."

Hilary Nathan, Director of Policy and Communications at JDRF UK says that "this is important research, showing for the first time that people of African-Caribbean heritage have a far higher risk of developing kidney disease because of type 1 diabetes. This research area needs greater funding and focus to help form future approaches to genuinely personalized medicine, so that people from African-Caribbean backgrounds with type 1 diabetes do not have to face undue fear or consequences of traumatic kidney function loss. The study was supported by a research grant from Guy's and St Thomas Hospital Charity."

Daniel Newman, 36, from London, lives with type 1 diabetes and was diagnosed with chronic [kidney disease](#) in 2013. He says that "it was difficult to manage the disease once my [kidney function](#) dropped to 20% in early 2017. I would dread seeing my consultant because I knew if my function dropped it was one step closer to needing dialysis or a transplant. I knew I would have a longer wait for a transplant because I am from an African-Caribbean background. Luckily, I received a kidney transplant from a relative in 2018, however I was just weeks away from needing dialysis. This study has answered a lot of questions I had about why I developed the disease."

Provided by King's College London

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