

# APOL1 Kidney Disease

The rates of severe kidney disease are high in individuals of African and Caribbean descent. This could be attributed to genetic variants in the APOL1 gene found only in individuals with recent African or Caribbean ancestry. These variants greatly increase rates of hypertension-associated kidney failure, FSGS, HIV-associated nephropathy, and other forms of nondiabetic kidney disease.

## What is APOL1 FSGS?

Every human being inherits 2 copies of the APOL1 gene, one from each parent. Sometimes, there is a mutation in one or both of the APOL1 genes. Those that inherit two mutations of the APOL1 genes have 10x the risk for developing kidney disease, including a rapidly-progressive form of FSGS. These mutations, or variants, of the APOL1 gene are only found in people of African or Caribbean ancestry.

**31M**  
**Americans**  
are affected by some  
form of kidney disease  
in the USA

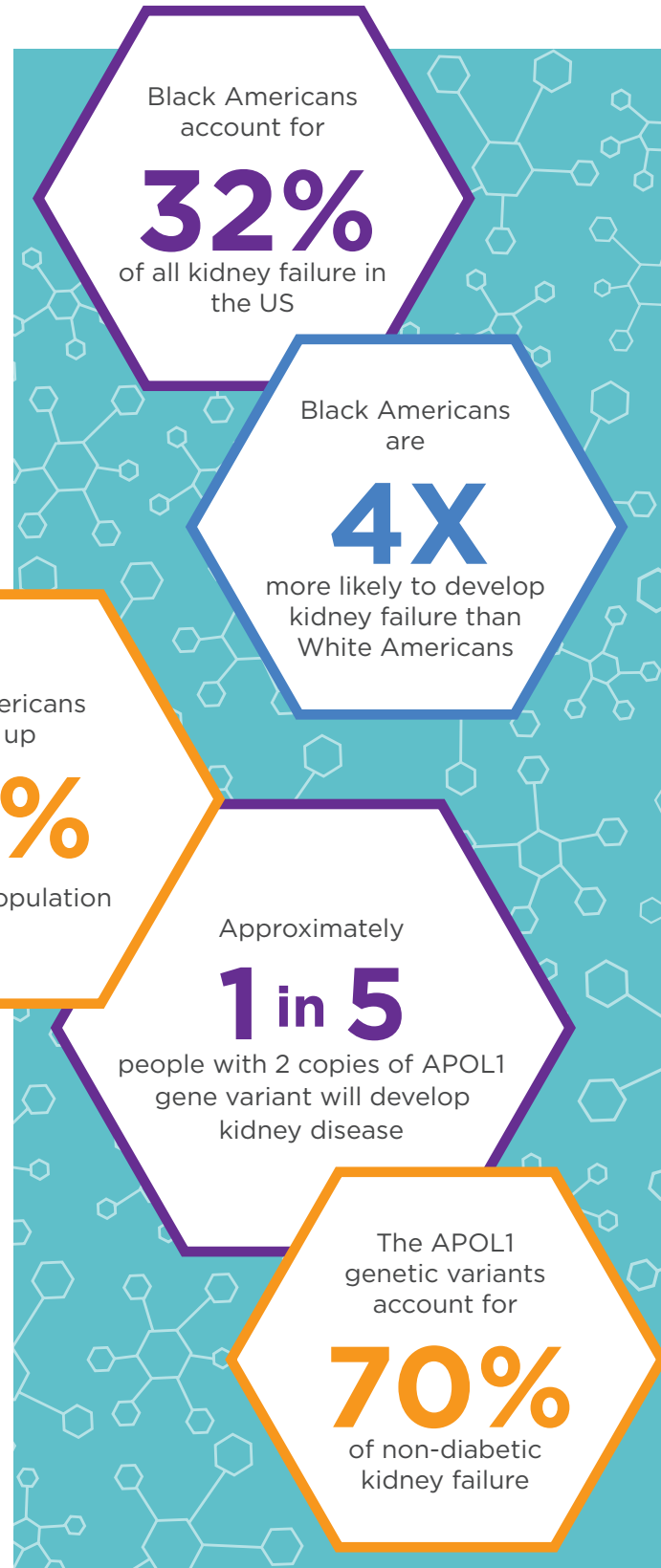
Approximately  
**4 in 10**  
Black Americans on dialysis  
have kidney failure  
caused by APOL1

Black Americans  
make up  
**13%**  
of the US population

Approximately  
**1 in 5**  
people with 2 copies of APOL1  
gene variant will develop  
kidney disease

Many people with the high-risk APOL1 genotype do not show any signs or symptoms of FSGS until kidney failure is approaching.

Knowing if you have the APOL1 gene variants is the key to unlocking the mystery of kidney disease in people with African and Caribbean ancestry.



### References:

Friedman, D.J. & Pollak, M.R. (2020, July). APOL1 nephropathy: From genetics to clinical applications. *CJASN*. <https://doi.org/10.2215.CJN.15161219>

NephCure Kidney International website (5 May 2019). *The Genetic FSGS Discovery Trailblazing Possible Kidney Disease Treatment*.