

News from CureGN

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Racial Disparities and Kidney Disease



Differences between Black and White Americans when it comes to kidney disease have been frequently described. In the U.S., end stage kidney disease (ESKD) or kidney failure disproportionately affects Black Americans, as well as other minority populations. Black Americans make up approximately 13% of the U.S. population, but more than 30% of patients with ESKD in the U.S and the progression from early stage kidney disease to kidney failure among Black Americans is 3.5 times greater than in White Americans. Black people with FSGS have worse outcomes compared to White people with FSGS. How race is

defined is important in understanding how racial disparities (differences between groups) might develop and persist.

How is Race Defined?

Individuals in different races share 99.9% of their DNA, which shows there are few genetic differences between races. Race is, therefore, largely based on social rather than biologic features¹. Social features may include the family's viewpoint of their origins and the community in which a person lives.

The factors that influence racial differences in kidney disease are complex:

The diseases that are the focus of CureGN (Minimal Change Disease, IgA Nephropathy, FSGS, and Membranous Nephropathy) are driven by complex interactions of genetic and environmental factors.

For example, individuals with ancestors from sub-Saharan Africa may have a genetic reason for worse kidney health. (See future newsletter about the APOL1 gene). There are other genetic differences between families that can influence the onset and impact of disease that have no relationship to race.

Beyond the genetic explanations for racial differences, social determinants of health appear to be especially important in minorities in the U.S because they relate to worse disease in children and adults with kidney disease. These Social Determinants include:

 <p>Poverty</p>	 <p>Stress</p>
 <p>Prematurity, History of maternal-fetal deprivation</p>	<p>ABC 123</p> <p>Poor health literacy and numeracy</p>
 <p>Poor clinician-patient relationships</p>	 <p>Perceived discrimination</p>
 <p>Residential segregation</p>	 <p>Living in neighborhoods with low income and poor school graduation rates</p>



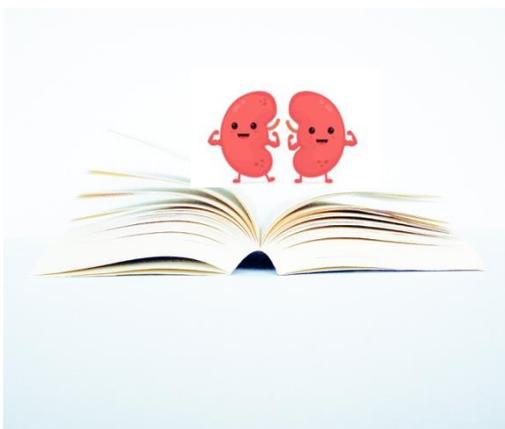
There are risks in assuming race:

There's growing concern that using the social description of race in medical care and research feed into socially defined intentional or unconscious biases in treatment of certain groups. The classic example of how racial categories can be problematic was cited by Norton¹ who described "a 26-year-old Black woman who presented with kidney disease, was thought unlikely to have IgA Nephropathy since it is relatively rare in Black people, only to have IgA Nephropathy as the true diagnosis. After the kidney biopsy, it was discovered that her mother was from Taiwan, her paternal grandmother was from Greece, and that the nephrologist had inappropriately decided on the patient's "race" and categorized her as a "Black" individual without asking about her ancestry or detailed family history."

What can we do?

Speak up: Share family medical history with your doctors as this can be important for your health care. Ask for errors in health records to be corrected.

Ultimately, changing the social factors that affect children and adults with kidney disease may be the most successful approach to improving kidney and overall patient health. As we better understand the basis for racial disparities, we will have better options to eliminate this injustice for minority children and adults with kidney disease.



References:

1. Norton JM, Moxey-Mims MM, Eggers PW, Narva AS, Star RA, Kimmel PL, Rodgers GP. Social Determinants of Racial Disparities in CKD. *Am Soc Nephrol* 27: 2576–2595, 2016.
2. Moxey-Mims M. Kidney Disease in African American Children: Biological and Nonbiological Disparities. *Am J Kidney Dis.* 72(5)(Suppl 1):S17-S21, 2018.