

September 2021 Newsletter



MS in African Americans

Historically, the medical community has held to the premise that MS primarily affects Caucasians, particularly those of Northern European descent. However, researchers are uncovering new information about the disease in other racial and ethnic populations that suggests the disease is more common in people of color than originally thought. In addition, there is evidence that MS symptoms, disease course and the efficacy of treatments vary among minority groups.

A [2013 study](#) looked at three years of data from more than 3.5 million members of the Kaiser Permanente Southern California health plan and identified 496 people who were diagnosed with MS during that time. Results suggest that African Americans have a 47 percent higher risk of MS compared with Caucasians, while Hispanics and Asians have a 58 percent and 80 percent lower risk than Caucasians, respectively. Interestingly, the higher risk in African Americans was seen only in women, while the lower risk for Hispanics and Asians was seen in both sexes. These data show that African American women have triple the risk of MS that African American men do. Similarly, [researchers](#) at the Department of Veteran's Affairs Medical Center found that among U.S. military veterans, Black people have the



highest incidence of MS out of all races and ethnicities in the study group. Their data show the incidence of MS in females of all races is three times that of their male counterparts.

There is mounting evidence that MS symptoms tend to be more severe and disease progression is more rapid in African Americans. Studies performed in [2010](#) and [2016](#) found that African Americans with MS have a more severe disease course than Caucasian Americans. [Investigators](#) at the University of Southern California found that Black people with MS are more likely to have disease involving the eyes or spinal cord than white people, both of which predict greater disability. The study team notes this greater tendency toward disability is also related to lower access to healthcare in general, and MS specialists in particular, in Black communities. [Researchers](#) at John's Hopkins School of Medicine suggest that both brain and retinal (eye) atrophy happen faster in African Americans than in Caucasians with MS and suggest that African Americans with MS may benefit from a more aggressive therapeutic approach.

A number of studies suggest that MS disease modifying therapies (DMTs) are less effective in African Americans than Caucasian Americans with MS, although it's important to note



that the evidence is limited in this area due to the [lack of diversity in clinical trials](#) for MS treatments (resulting in a low number of minority participants in these studies). [Researchers](#) at the Medical University of South Carolina found that African Americans with MS have a poorer response to DMTs in general than Caucasian people with MS.

Investigators state that more research is needed to confirm these results. The [EVIDENCE study](#) compared the response to interferon beta-1a treatment (Avonex and Rebif) in 36 African Americans with MS and 616 white people with MS. Results showed the Black participants experienced more exacerbations and were less likely to remain exacerbation free. They also developed more new MS lesions on MRI. Despite the small sample size, African American participants appeared less responsive to treatment than white participants. Researchers state that it is difficult to base these differences solely on response to treatment given the potential difference in MS disease course in African American people with MS. According to an [abstract](#) that was presented at a recent American Academy of Neurology (AAN) meeting, the rate of [B cell recovery](#) differs in Black people and white people with MS taking B cell depletion therapies like rituximab

(Rituxan) or ocrelizumab (Ocrevus). Investigators looked at the medical records of 168 people, of whom 134 had MS (61 identified as Black, 60 identified as white). Six to twelve months after treatment, 76 percent of Black participants had B cells reappear in the blood, compared to 33 percent of white participants. Further study is necessary to determine whether or not this type of treatment wears off more quickly in African Americans with MS.

A [recent study](#) sheds light on the disease experience of Black people with MS. Researchers interviewed 19 African American women about the disease's effect on their lives. Many reported that their MS diagnosis was a surprise to them and their doctors because of the common belief that MS is a "Caucasian disease." For this reason, many participants felt their diagnosis had been delayed while their physicians initially focused on other diseases considered more typical in African American individuals. Results suggest other challenges African Americans with MS face include living with losses related to social and family activities, independence, and employment. Key coping strategies included coming to grips with the diagnosis, working through MS challenges, and pushing forward. Participants also indicated that taking care of themselves and their faith was of great benefit. [The Black MS Experience Summit](#) is a program offered by the National MS Society. This three-day virtual event gives the Black MS community an opportunity to connect with others who understand the distinct experience of life with MS as a Black person. The Summit features leading MS experts who can speak to this experience to offer support, guidance and updates in research.



It's important to note that a wide variety of environmental, genetic and social factors may all contribute to the onset of MS and worsen outcomes. For example, a [2019 study](#) found that MS is 38 percent more prevalent in the Northeast than in the South. One reason for this is that people who live in cold northern climates are less likely to expose their skin to sunlight (which enables the natural production of vitamin D) and vitamin D deficiency is a risk factor for MS. Interestingly, the [MS Sunshine Study](#) supports the conclusion that sun exposure reduces the risk of MS in African Americans and Hispanics, however results suggest this effect is independent of

vitamin D levels. According to investigators, higher blood levels of vitamin D were associated with a lower risk of MS in white people only. The [genetics of MS](#) are also complex, with as many as 200 different genes involved. To complicate things further, there is [evidence](#) that the genetic makeup of nearly all African Americans reflects a mixture of ethnic groups. For example, due to the history of slavery in the United States, Black Americans often have Northern European ancestors. They may also have Native American or Asian forebears. Differences in the use and receipt of health services, cultural beliefs, and distrust of the medical profession may also contribute to worse outcomes.

Regardless of race, it's important for anyone at risk of developing MS to recognize its symptoms and seek diagnosis and treatment early, when it's most effective. [Read on](#) to learn more about the work that the [MS Minority Research Engagement Partnership Network](#) is doing to increase diversity in MS research so its findings apply to and benefit people of all ethnic and racial backgrounds. Through efforts like this, everyone living with the disease can receive the best care!

