

# How Vitamin D Levels Affect Diabetes Risk

Too little vitamin D could increase the risk for diabetes for Black Americans.

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Black Americans with low levels of [vitamin D](#) could face a higher risk of developing diabetes, according to two new studies.

Vitamin D is often referred to as the “sunshine vitamin” because, although it can also be found in foods, the body produces it in response to exposure to sunlight.

The studies found a connection between low vitamin D levels in the blood and a resistance to [insulin](#), which is a precursor to diabetes.

It had already been established that low levels of vitamin D in the blood "are associated with an increased risk of [diabetes](#) in white populations, but our research strongly suggests that this relationship also holds true for African Americans," said Amaris Williams, PhD, a coauthor on both studies and a postdoctoral scholar in the Division of Endocrinology, Diabetes and Metabolism at Ohio State University, in a [HealthDay article](#).

This is significant because people with darker skin, such as African Americans, produce more melanin, which impedes the body's ability to produce vitamin D. Indeed, [a study by The Cooper Institute](#) suggests that as many as 76% of African Americans have a vitamin D deficiency.

Researchers examined two major heart-health studies that tested patients' blood for 25-hydroxyvitamin D, the biological “precursor” of active vitamin D.

First, researchers examined vitamin D levels in more than 3,300 Black adults in the [Jackson Heart Study](#). Results showed that over a median of 7.7 years, 584 people developed diabetes.

To confirm these results, researchers went on to examine 5,600 participants in the [Multi-Ethnic Study of Atherosclerosis \(MESA\) study](#), which included various racial and ethnic groups, including Black, Latino, white and Chinese Americans.

After observing participants throughout a nine-year period, the MESA study found a person's odds of developing diabetes increased as their blood levels of vitamin D decreased. Williams noted that

this result was “similar across races and ethnicities.”

The authors of the Jackson Heart Study concluded: “Given the increased prevalence of diabetes in the AA [African-American] population, it is important to develop biomarkers of diabetes risk and targets for diabetes prevention therapies. Thus the further investigation of the role of vitamin D in diabetes is warranted to advance diabetes equity.”

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<http://beta.docker.realhealthmag.com/article/vitamin-d-levels-affect-diabetes-risk>