

Lay Summary: <https://doi.org/10.1038/s41430-026-01760-z>

Background

Vitamin D is important for keeping our bones healthy and supporting the body's normal functions. Low vitamin D levels are common around the world, particularly in older people and people with darker skin. However, we know relatively little about how vitamin D levels change throughout the year in these groups.

We looked at vitamin D levels in two groups of people living in Northern Britain:

- Adults aged 65 years and over
- Adults aged 18 years and over from ethnic backgrounds with darker skin

Participants were screened between December 2024 and August 2025 as part of a study looking at vitamin D supplementation. A small blood sample was collected using a finger-prick dried blood spot test, which was then analysed to measure vitamin D levels.

What did we find?

A total of 299 people took part in the screening.

More than half (54.8%) of the older adults had low vitamin D levels. Among people from ethnic minority groups with darker skin, this was even higher, at 72.1%.

Importantly, vitamin D levels did **not** improve during the summer months. This suggests that simply getting more sunlight may not be enough to correct low vitamin D levels in these groups.

What does this mean?

Low vitamin D levels are very common among older adults and people with darker skin living in northern Britain, even during the summer.

These findings suggest that relying on sunlight alone may not be enough to maintain healthy vitamin D levels in these higher-risk groups and that other approaches, such as dietary sources or supplementation, may need to be considered.