

Vitamin D does not boost kids' brainpower, study finds

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High levels of vitamin D do not seem to boost teens' academic performance, indicates research published online in the *Journal of Epidemiology and Community Health*.

Some previous research has linked higher levels of the vitamin to enhanced brainpower (cognitive function) in adults.

The authors wanted to find out if the same was true of children, and what impact different types of the vitamin - sourced mainly from sunlight (vitamin D3) or from plants (vitamin D2) - might have.

They base their findings on just over 3000 children whose vitamin D3 and D2 levels were measured when they were nine years old, on average.

All the children were part of the Avon [Longitudinal Study](#) of Parents and Children (ALSPAC), which is tracking the [long term health](#) of a large group of children born in the early 1990s.

The childrens' [academic performance](#) in English, maths, and science was then assessed between the ages of 13 and 14, and again between the ages of 15 and 16 in terms of grades obtained in GCSE exams.

Higher vitamin D3 levels were more common among children from more affluent backgrounds, while higher levels of vitamin D2 were more common among those from more [disadvantaged backgrounds](#).

Their results showed that [vitamin D3](#) levels were not associated with better academic achievement.

And higher levels of [vitamin D2](#) were linked to poorer performance in English in 13 to 14 year olds and fewer A* to C GCSE grades obtained at the ages of 15 and 16.

The authors say their findings back up other vitamin D research in children, and suggest that perhaps the benefits of the vitamin on adult brainpower don't emerge until later in life.

This may be either because the vitamin has more of an impact on the ageing brain, or because it is the cumulative lifelong effect that is more important, they say.

Or it could be a question of reverse causality, whereby those with poorer brainpower spend less time outdoors and so have lower levels of the vitamin in their blood to start with.

Several studies have shown a link between vitamin D and neurological functions and viability, as well as various other aspects of health, the authors point out.

"These [studies] have resulted in calls for changes to public health guidance regarding extreme protection against UV exposure," they write

"However, our results suggest that protection of children from UVB exposure, which has been associated with low levels of vitamin D, but which protects against skin damage and skin cancer, is unlikely to have any detrimental effect on academic achievement," they conclude.

Provided by British Medical Journal

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