

X October 2017

Simple shadow test signals when vitamin D becomes a concern

- *Six in 10 people in the UK unaware of changes in vitamin D advice more than 12 months on from announcement*
- *Simple shadow test helps to show when vitamin D supplements needed*
- *40% of people say they eat lots of fruit and vegetables to get vitamin D, despite them containing none of this essential nutrient*
- *Less than 40% take a vitamin D supplement through autumn and winter, as advised by Public Health England*
- *Nearly a fifth of people do nothing to get their vitamin D requirements, risking the health of their bones, teeth and muscles*

New research* indicates that vitamin D deficiency warnings are failing to register with the UK public, but a simple shadow test could help. It's not just our mood that can be affected as the seasons change; our ability to synthesise vitamin D is also altered, which means our levels of this essential vitamin gradually fall through the autumn and winter. This can adversely affect the health of our bones, teeth and muscles.

Research on UK adults conducted by the *Health and Food Supplements Information Service* (HSIS) found worrying levels of ignorance about vitamin D advice. Six in 10 people were not aware of any new vitamin D advice, despite Public Health England (PHE) publishing updated guidance** in July 2016 that in autumn and winter supplementation should be considered by all. Only 2.4% of people surveyed knew that we should be taking a 10 microgram daily supplement of vitamin D in autumn and winter.

Our bodies can make vitamin D when our skin is exposed to sunlight. For this to happen, the sun has to be high enough in the sky for the ultraviolet B radiation (UVB) rays that we use to make vitamin D to get through the atmosphere to us. The sun is only at the right angle (higher than 50 degrees) above the horizon between May and September from 10am to 3pm. Dietitian Dr Carrie Ruxton from HSIS said: "A helpful way to tell if the sun is high enough for you to make vitamin D is using the shadow rule - when your shadow is equal in length to your height or shorter you will get enough sunlight for vitamin D production, if it's longer you won't."

Other factors that influence the vitamin D made by the body include: time spent in the sun; the amount of cloud cover; time of day; skin colour (darker skin needs more UVB light) and the amount of skin that is exposed. All of this signals that in the UK autumn and winter we need to look for other means to make sure vitamin D levels don't fall. A long term lack of vitamin D can have a negative impact on bone health; vitamin D deficiency can lead to rickets in children and osteomalacia in adults.

Vitamin D is found naturally in very few foods; the largest amounts are found in eggs and oily fish. There are also some fortified food such as breakfast cereals and fat spreads, however none of these really provide enough for our needs. Therefore supplements are the only way to top up, and are recommended for all in the UK in autumn and winter in Government advice***.

Dr Carrie Ruxton adds: "The benefits of vitamin D for bone and muscle health are indisputable, but people struggle to know how to get enough and in the UK the time when levels from sunlight dip are sooner than many people think. However, the shadow test is a quick and easy method, when shadows are lengthening a vitamin D supplement is a simple way to keep levels up – it's essential we take control of our health and this is an easy step."

When asked how they tried to get adequate vitamin D 49% of respondents surveyed said they sat in the sun during summer; 40% ate lots of fruit and vegetables - despite them containing no vitamin D; 37% ate foods high in vitamin D including eggs and fortified cereals; 21% took a multivitamin supplement; 20% went on a summer holiday; 18% took a vitamin D supplement and 18% did nothing at all.

Public Health England advises that in spring and summer, the majority of the population get enough vitamin D through sunlight on the skin and a healthy, balanced diet. During autumn and winter, everyone will need to rely on dietary sources of vitamin D. Since it is difficult for people to meet the 10 microgram recommendation from consuming foods naturally containing or fortified with vitamin D, people should consider taking a daily supplement containing 10 micrograms of vitamin D in autumn and winter to protect bone and muscle health.

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Notes to editors

*A OnePoll omnibus survey of 2,000 UK adults aged 35 - 65 conducted in May 2017

** Public Health England advises that during autumn and winter people should consider taking a daily supplement containing 10 micrograms of vitamin D. People whose skin has little or no exposure to the sun, like those in institutions such as care homes, or who always cover their skin when outside, risk vitamin D deficiency and need to take a supplement throughout the year. Ethnic minority groups with dark skin, from African, Afro-Caribbean and South Asian backgrounds, may not get enough vitamin D from



sunlight in the summer and therefore should consider taking a supplement all year round. Children aged 1 to 4 years should have a daily 10 microgram vitamin D supplement. PHE recommends that babies are exclusively breastfed until around 6 months of age. As a precaution, all babies under 1 year should have a daily 8.5 to 10 microgram vitamin D supplement to ensure they get enough. Children who have more than 500ml of infant formula a day do not need any additional vitamin D as formula is already fortified <https://www.gov.uk/government/news/phe-publishes-new-advice-on-vitamin-d>

***<http://www.nhs.uk/Conditions/vitamins-minerals/Pages/Vitamin-D.aspx>

ABOUT HSIS

For further information or to arrange an interview with an HSIS spokesperson, please contact the HSIS press office hsis@nexuspr.com or call 020 7052 8888. Out of hours please call 07730 682111 or 07482 107207

HSIS (the Health and Food Supplements Information Service) is a communication service providing accurate and balanced information on vitamins, minerals and other food supplements to the media and to health professionals working in the field of diet and nutrition. Find out more at www.hsis.org.