



## **Vitamin D supplementation protects against acute respiratory tract infections.**

An article published in the British Medical Journal in 2017 showed that Vitamin D supplementation protects against acute respiratory tract infections, otherwise known as chest infections especially in patients who are Vitamin D deficient.<sup>1</sup>

## **Vitamin D deficiency is common in people with Rett Syndrome.<sup>2</sup>**

People with Rett Syndrome are also at increased risk of respiratory tract infections.

Breathing related problems including respiratory infections, aspiration and respiratory failure are the leading causes of death in children and adults with Rett Syndrome, including atypical Rett Syndrome.<sup>3</sup>

The good news is that multi vitamin supplements or commercial formulas can improve vitamin D levels.

## **If you are the parent or carer of a person with Rett Syndrome, and you haven't already, please do speak to your GP about prescribing a multi-vitamin for that person.**

Although Vitamin D levels can be tested in the blood, as there is already evidence that people with Rett Syndrome have an increased risk of Vitamin D deficiency and Vitamin D deficiency is a general concern for doctors UK-wide, testing may not be necessary for it to be considered **reasonable** to want to ensure that your person with Rett has a daily multi-vitamin, whether prescribed or over the counter.

Most people get little Vitamin D in their diet. Our main source of Vitamin D is sunshine. However, Vitamin D can only be made in our skin by exposure to sunlight when the sun is high in the sky. Therefore, in most of the UK from November to March, and in Scotland from October to April, Vitamin D can not be made from sunshine.

Vitamin D deficiency can cause symptoms that may not be immediately apparent, such as:

- Difficulty thinking clearly
- Bone pain
- Muscle weakness
- Soft bones that may result in deformities, or which may cause complications for people having scoliosis surgery.
- Unexplained fatigue

It can also contribute to low bone mineral density, with one study in 2013, estimating that 30% of girls and women with Rett have fractures by the age of 30.

You can find the Royal National Orthopaedic Hospital's Vitamin D dosage guide for children and young people [here](#).

This includes general information about Vitamin D as well as information about over the counter vitamins for children and young people. As well as liquids and tablets, oral spray is also available.

*Please note that Reverse Rett does not endorse any particular commercial products. You should always speak to your doctor before starting any new supplements for your child/adult family member with Rett Syndrome.*

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<sup>1</sup> Martineau Adrian R, Jolliffe David A, Hooper Richard L, Greenberg Lauren, Aloia John F, Bergman Peter et al. Vitamin D supplementation to prevent acute respiratory tract infections: systematic review and meta-analysis of individual participant data BMJ 2017; 356 :i6583

<sup>2</sup> Motil KJ, Barrish JO, Lane J, et al. Vitamin D Deficiency is Prevalent in Females with Rett Syndrome. Journal of pediatric gastroenterology and nutrition. 2011;53(5):569-574. doi:10.1097/MPG.0b013e3182267a66.

<sup>3</sup> Tarquinio DC, Hou W, Neul JL, et al. The changing face of survival in Rett syndrome and MECP2-related disorders. Pediatric neurology. 2015;53(5):402-411. doi:10.1016/j.pediatrneurol.2015.06.003.

