

# Review of: "Vitamin D 1 Alpha-Hydroxylase Deficiency"

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**Potential competing interests:** No potential competing interests to declare.

The definition of this genetic disorder is good, but perhaps the reader might depart more enlightened wrt its importance, if the below were added (fielders choice).

One of the most important roles of 1,25 (OH)<sub>2</sub>D, the end product of this enzyme aka CYP27B1, is to upregulate the catabolic enzyme CYP24A1, which degrades both 1,25(OH)<sub>2</sub>D and 25(OH)D. CYP27B1 is mitochondrial based. Therefore, any shortfall in mitochondrial function, e.g., Chronic Fatigue Syndrome, Long Covid, can compromise its function and the storage form, 25(OH)D, might reflect an overestimate of the active form.