

# Vitamin D – UK Next Steps

- Rufus Greenbaum - Citizen scientist  
( Interested in preventive health. My Inner Age is: Real Age-18 )
- I understand the difference between *Hypothesis* & *RCT Evidence*
- Correspondence with UK government about Vitamin D since 2009
  - DoHSC, PHE, SACN, NICE, BNF & others
  - [https://is.gd/RG\\_SACN\\_2009](https://is.gd/RG_SACN_2009)
- Organised 4 conferences about Vitamin D in 2010 & 2011
  - [www.vitamindassociation.org/events](http://www.vitamindassociation.org/events)
- Publish the Blog: [www.VitaminDUK.com](http://www.VitaminDUK.com)
- Commercially involved since 2015: [www.GreenVits.eu](http://www.GreenVits.eu)

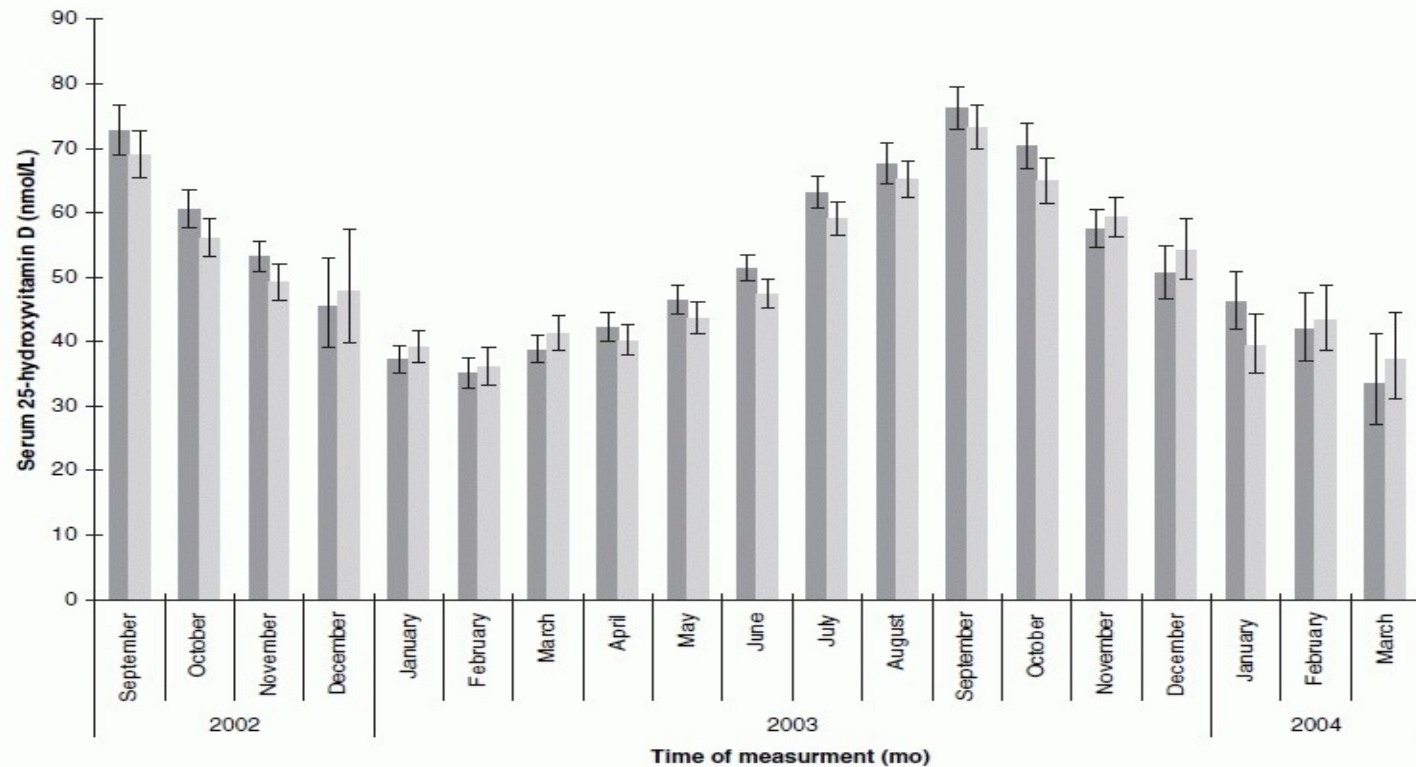
# Vitamin D - England 50-55°N

HYPOVITAMINOSIS D IN GREAT BRITAIN

863

75 nmol/L →  
Summer

35 nmol/L →  
Winter



**FIGURE 1.** Geometric mean (95% CI) monthly variation in serum 25-hydroxyvitamin D [25(OH)D] concentrations in men (■;  $n = 3725$ ) and women (□;  $n = 3712$ ) in the 1958 British birth cohort at age 45 y. The interaction between sex and month was significant [ $P = 0.02$ , linear regression analyses on log 25(OH)D].  $n$  per sex and month ranged from 17 to 340: 98 in December 2003 for women and  $<100$  for both sexes in December 2002 ( $n = 40$  M, 37 F), January 2004 ( $n = 95$  M, 75 F), February 2004 ( $n = 58$  M, 70 F), and March 2004 ( $n = 22$  M, 17 F).

<https://academic.oup.com/ajcn/article/85/3/860/4633120>

# ***Vitamin D - Actions depend on the definition !***

## ***If Target is:***

## ***Action required:***

25 nmol/L

Current UK definition of *Deficient*

- No problem
- No preventive action required

50 nmol/L

Current UK definition of *Adequate*

- Minor Deficiency for a few months
- No preventive action required

75 nmol/L

Everyone is deficient all year round

*- now what action is required ?*

100-150 nmol/L

Everyone is very deficient all year round

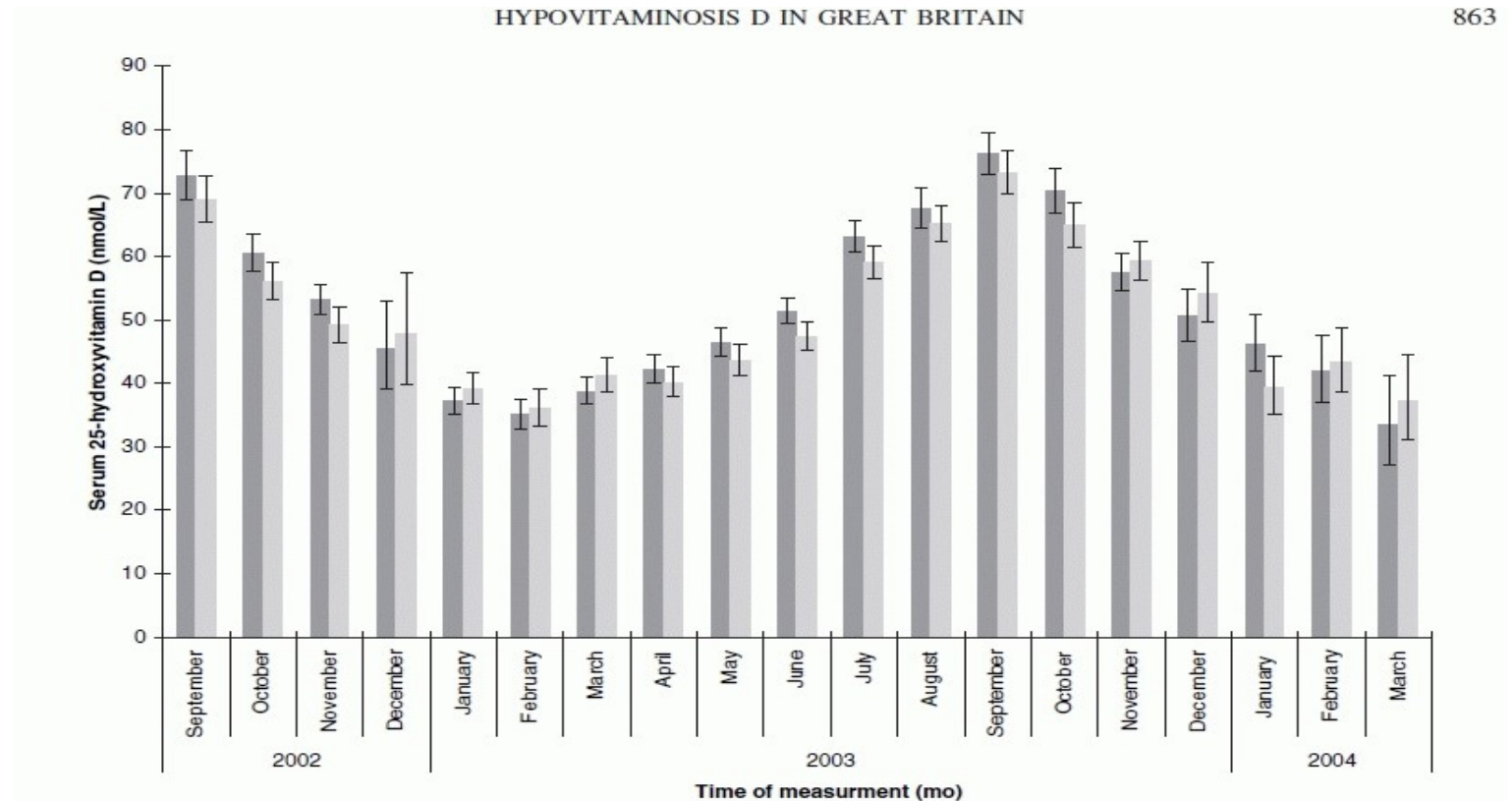
*- now what action is required ?*

# Vitamin D – England 50-55°N

100-150 nmol/L  
Target ->

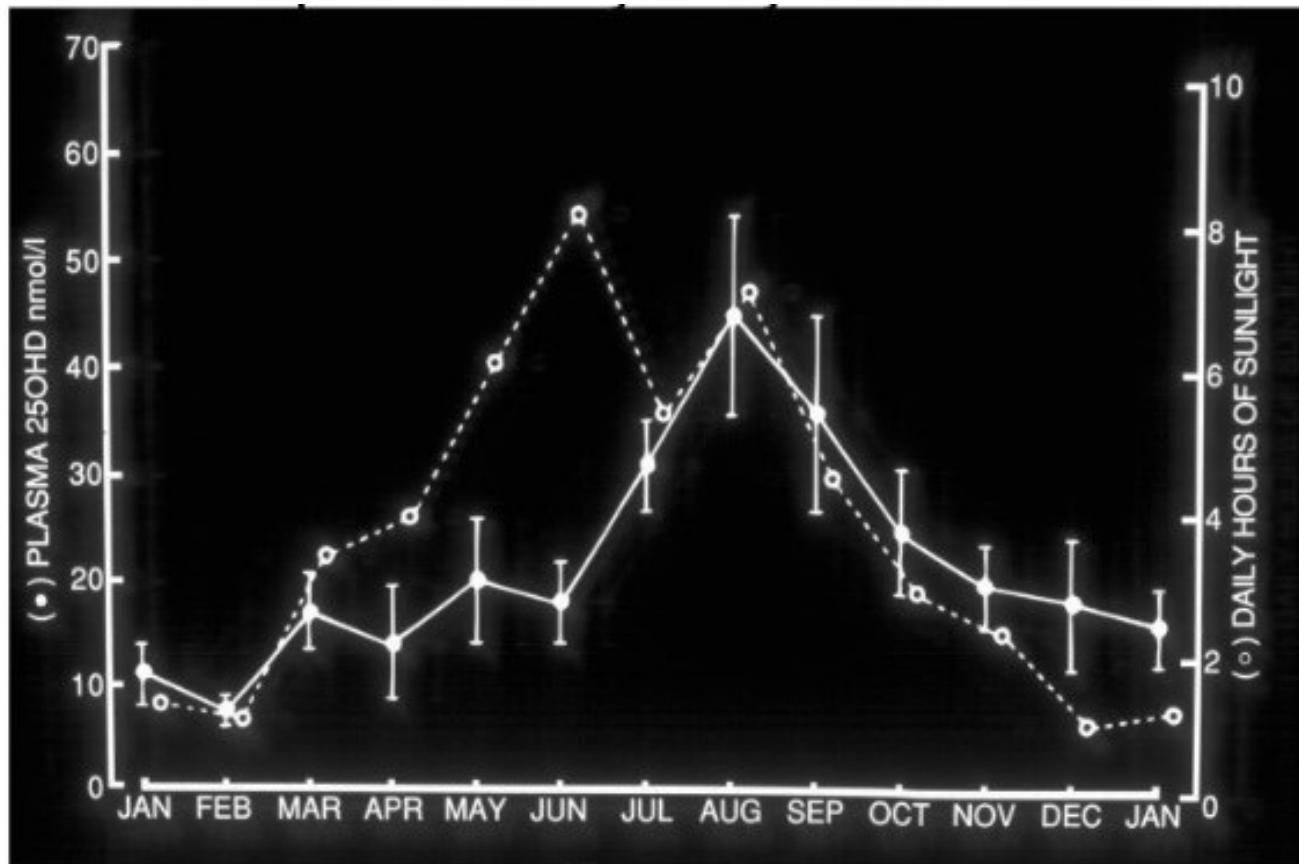
**Increase  
blood level  
4-6 times !**

25 nmol/L  
Deficiency ->



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# Vitamin D – Scotland 56-57°N



# Vitamin D – 2 key facts

*In order to understand the importance of Vitamin D you need to accept these 2 key statements as facts:*

- *If your blood level of Vitamin D is less than 100 nmol/L then you are liable to suffer from some of 88 different health conditions.*
- *Vitamin D is a potent steroid pro-hormone made in your body from sunlight or supplements and very little can be obtained from food – it is not a Nutrient*

Most doctors have wrongly been taught that only a very low level of Vitamin D is required, and that this is only to avoid problems with bones and muscles.

*If you persist with this belief, then you will probably reject all the assertions and evidence that higher levels are needed for better health.*

Read more about this here:

[www.greenvits.eu/blogs/b/vitamin-d-2-key-statements](http://www.greenvits.eu/blogs/b/vitamin-d-2-key-statements)

[www.grassrootshealth.net](http://www.grassrootshealth.net)

[www.vitamindwiki.com](http://www.vitamindwiki.com)

[www.is.gd/proofvitd](http://www.is.gd/proofvitd)

# Vitamin D – Health Outcomes

There is good evidence that people with dark skin have lower blood levels of Vitamin D than people with light skin

– *and that when their levels are equalised then their health outcomes become similar.*

See: [www.is.gd/BlackHealth](http://www.is.gd/BlackHealth)

If you live further away from the equator than 30° north or south than you cannot make enough Vitamin D from the sun all year round

– and in your winter you will need to find another light source of UV-B or take Vitamin D supplements

See: [www.is.gd/shadowrule](http://www.is.gd/shadowrule)

Here is a delightful TED talk by Professor Nina Jablonski about the effect of health and skin colour

<https://www.youtube.com/watch?v=QOSPNVunyFQ> ( 15 minutes )

Many people who live an outdoor life near the equator, like African Maasai warriors or Hawaii lifeguards, have blood levels of 100-150 nmol/L. An American doctor who walks on a Florida beach without a shirt every day has a Vitamin D level of 117 nmol/L

# Vitamin D – My test results

*I take 5,000 IU of Vitamin D3 each day:*

## Your Results:

**Total vitamin D: 143.5 nmol/L**

**Status: Adequate** ●

**25-hydroxyvitamin D<sub>3</sub>: 140.7 nmol/L**

**25-hydroxyvitamin D<sub>2</sub>: less than 2.8 nmol/L**

## Interpretive Guide:

### Reference Interval (nmol/L)

Less than 15

15 – 30

30.1 – 50

Greater than 50

### Vitamin D status

Severe Deficiency ●

Deficiency ●

Insufficiency ●

Adequate ●

<- ???



# Vitamin D – How Much Do I Need ?

The amount of Vitamin D required to raise the 25(OH)D levels of the average UK person to the lower limit of 100 nmol/L:

<u>Season</u>	<u>Dose ( micrograms )</u>	<u>Dose ( IU )</u>
Winter	100 micrograms/day	4,000 IU/day
Summer	50 micrograms/day	2,000 IU/day

- *Compliance may be better with a weekly supplement of 20,000 IU*
- *Obese people should increase the dose ( maybe double required )*
- *People who cover their bodies should take the full winter dose all year long*
- *Without a “Loading Dose”, 25(OH)D takes 90-120 days to stabilise*
- *The dose / response varies for about 10% of the population*
- *Study of 3,500 people taking large doses at: [www.grassrootshealth.net](http://www.grassrootshealth.net)*
- *Supplementation required for life ( not a 1-off top-up like iron )*
- *Whole family should be tested or supplemented*

# Vitamin D – Next Steps

- *Monitor and supplement Vitamin D levels to > 100 nmol/L*
  - \* *Benefit / Cost is massive for the people at risk*
  - \* *This is an “Easy / Hard” challenge*
  - \* *Each step is easy - making it happen everywhere is hard !*
- *National Action ?*
  - \* **Experts: NICE / SACN / NERVTAG / SAGE / PHE**
  - \* **Politicians: Secretary of State for Health & Social Care / Health Ministers**
  - \* **Blood Test Laboratories**
- *Local Action ?*
  - \* **All Doctors & Nurses**
  - \* **Pharmacists**
  - \* **Public Health Directors**
  - \* **Health Visitors & Midwives**
  - \* **Care Home staff**
- *Health Insurance Companies ?*
  - \* **BUPA / PPP / WPA would benefit from wide supplementation**

# **Vitamin D – For more Information**

**Scientific Opinion on the Tolerable Upper Intake Level of Vitamin D  
European Food Safety Agency ( EFSA )**

**<https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2012.2813>**

**Experts Call-To-D\*Action**

**Grass Roots Health**

**<https://www.grassrootshealth.net/project/our-scientists/>**

**Proof That Vitamin D Works**

**Vitamin D prevents or treats 88 Health Conditions**

**<https://vitamindwiki.com/Proof+that+Vitamin+D+Works>**

# Vitamin D – *Next Steps*

**Who**                      **Everyone**

**What**                     **Boost Your Vitamin D to 100-150 nmol**

**Why**                      **Live longer in better health**

**Where**                   **Everywhere**

**When**                   **Now !**

# Vitamin D – Learn More

[www.VitaminDUK.com](http://www.VitaminDUK.com)

[www.VitaminDwiki.com](http://www.VitaminDwiki.com)

[www.GrassRootsHealth.net](http://www.GrassRootsHealth.net)

[www.VitaminDAssociation.org/events](http://www.VitaminDAssociation.org/events)

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