**Foundations of Health and Immunity - Updated! November 2020**

When we are surrounded by changes to our way of life, restrictions and fear, it’s easy to forget important truths. Urgent action may seem more important than long-term investment in health. The NHS and politicians are of course focussed on treating the ill, hospital capacity, and vaccines for specific immunity. Vaccine roll-out is almost upon us.

But what about the long-term determinants of health and general immunity? Farmers get the environment and feed right for their stock – so what can we do for ourselves? Sleep, sunshine, food, vitamins, exercise and rest are all important.

The Department of Health now advised Vitamin D supplementation throughout winter. Living in Europe, there’s not enough sunshine from September to March for our bodies to make vitamin D (a prohormone) at all – now known to have important effects throughout the body, including the immune system – and many of us spend our days indoors. If we have darker skin, our bodies make less, even in sunshine due to the blocking effect of the melanin pigment. PHE has recently advised Vitamin D supplementation for everyone during this winter: 400iu (10micrograms) daily. Larger doses may be helpful (up to 4000 units daily), as many people are deficient, advises retired GP Dr Chris Health FRCP MRCGP in Essays in Good Practice – this could be for up to 3 months to restore depleted levels. One can argue that even in summer, many people get insufficient sunlight on the skin – at least 20 minutes total on a substantial area of the body is needed.

High quality sleep in darkness is paramount. Eight hours is good, darkness ensures melatonin production, especially the earlier we start. [www.healthandself.care](http://www.healthandself.care) pp47-48. Put your devices onto airplane as well, for added benefits, as well as avoiding blue light in the evening.

High quality food, including fresh vegetables and fruit, provides nourishment for the body. Chewing food and eating slowly support good digestion. Sensible sunshine on the skin, fresh air and exercise are vital.

Biology and medical school teach about deficiency diseases, not about optimum health. Anti-oxidants such as Ascorbic Acid AA (Vitamin C) are important in several aspects of the immune system, especially our first line of defence, T Cells <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5707683/> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869442/> (It’s B cells that produce antibodies - and if an invading virus has already been neutralised by competent T cell immunity, the energy expensive B cell specific immunity is not activated –there’s no need!) Interestingly, in the family of mammals, humans, apes, guinea pigs and bats lack the last enzyme to produce our own AA so we all rely on it from food alone. Whereas goats can produce 13g a day! In vitro virucidal, AA in vivo helps support the immune system under pressure. And many guinea pig owners supplement their pets’ diets….

As a GP in Chard, patients shared with me their home health practices, including the use of Vitamin C, found helpful to shorten the duration of viral illnesses. We used this for many years with anecdotal benefit in aborting colds – 0.5 – 1 gram, twice daily. A review in 2017 by Hemila is **Vitamin C and Infections** Harri Hemila, 2017 Nutrients <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5409678/> backs up our anecdotal use, whilst high dose is supported by the NIH National Cancer institute as safe - Contraindications apparently only are G6PDH deficiency, caution in pre-existing renal disease

One day a week away from work is important for refreshment, to release sympathetic drive and move onto parasympathetic rest, repair and digest

Good health long term requires attention – it doesn’t happen by accident – but we mustn’t let the urgent make us forget the important [www.healthandself.care](http://www.healthandself.care) pp157-8. Go Well!

Dr Andrew Tresidder