The Changing Role of Vitamin Supplementation
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“Food should be our medicine and medicine should be our food,” said Hippocrates many centuries ago. He was right, and the concept of eating right for optimum health has not changed since then; the only thing that has changed since is everything else.

The world population has since increased sixfold, and in this time the industrialisation of farming has had a major effect on the type of food we eat. Whilst technology and mass transport have made the world smaller, they have also enabled obscene changes to the natural path of food from field to mouth. When was the last time you bought locally-grown fruit from a market stall?

These accelerated changes are not without consequence. Pesticide use, prevalent in the last half-century, has seen a massive degradation of the soil in which we grow crops; this means a lower nutrient content in every type of grain we eat. Selenium, one of the most important minerals to combat oxidant damage, is deficient in most people in the UK. Oranges from the supermarket are often more than a year old by the time you eat them – chemicals injected into them slow the ripening process but leave them bereft of vitamins. It is not unusual for an orange on a supermarket shelf to have *zero* Vitamin C.

Add to this the busy parents who, with no time to cook and fooled by the derisory ‘healthy balance’ labels on the front of the package, serve up microwave meals to their children on a daily basis and the problem becomes very evident – top trainer Cain Leathem summed it up best when he coined the phrase Overfed and Undernourished. If you ever want to see the evidence of this, take one look at a class of 10-year-olds; you may well be shocked. This problem has two solutions – one would be to move to a less advanced part of the world and live of the fat of the land. Most people, finding the first option impossible, overcome the problem with the more realistic second option; vitamin supplementation.

Correct vitamin supplementation is a very predictable, extremely cost-effective way of restoring optimum health. Overcoming vitamin deficiency gives rise to many beneficial changes within the body, including increased energy levels, incomparable levels of immune system resistance and a tangible boost to the health of the skin and hair. Specific conditions can be improved or completely eliminated with targeted supplementation.

Of course, I said *correct* vitamin supplementation. Simply going down to the vitamin aisle of your local supermarket and choosing a multivit will not make an impact on your health; although some is better than none. At the time of writing, no UK supermarket stocks good quality vitamin supplements; conscious individuals must take a trip to health shops or order from the internet.

So what is the difference between ‘good quality’ and ‘poor quality’ multivits? There are two

main issues to be aware of:

1. Supermarket multivits are generally created with the one remit of providing all the RDAs (Recommended Daily Allowances) at the minimum of cost. So it is therefore no surprise that they then do this. This is a problem because the RDAs are a joke; they were created in the 1930s by the government as a minimum requirement for sedentary people to avoid basic ailments like skirvy and rickets. They bear no relation to the optimal requirements of active people today. Consuming only the RDAs will leave you quite deficient. Intelligent companies that produce good quality vitamins will always try to match up the amounts to the requirement of the customer – this ensures you get far more than the pitiful RDAs; enough to make a real difference.
2. These already-inadequate amounts will not be utilised in the body properly when contained in a supermarket vitamin. This is because they do not contain all the ingredients for effective use by the body. In nature, most vitamins are found together with other substances called co-enzymes – these are required for proper absorption and utilization within the body and if these are not present your supplementation will be inefficient at best. The better companies spend time and money researching the importance of these co-enzymes and so ensure that their products contain them. An example of the difference in quality of products can be found in the Vitamin B complex – whereas a supermarket multivitamin will contain small amounts of B1, B2, B3, B5, B6, B12 and one co-enzyme, Folic Acid, a good quality equivalent will have the same substances but in much more appropriate quantities, adding a full range of co-enzymes like PABA (para-amino-benzoic acid), choline, biotin and inositol.
3. The extra research by the better brands ensures you multivit includes other substances yet to be recognised by the RDA list but have been shown to be vital for optimum health. These means substances like Molybdenum, an important anti-oxidant, and others like Lutein and Xeaxanthin, which help to maintain the state of your eyes.

It is worth mentioning that single-substance supplementation is quite inept. Although a magazine may have singled out a particular substance as their fad of the week, on its own it will be a waste of time and money. All vitamins depend on other vitamins, minerals or co-enzymes for proper absorption. Who would have thought a Thiamin deficiency could cause deficiencies in Zinc, responsible for over 100 different biological reactions in the body? Zinc requires copper to be absorbed, but copper is influenced by the amount of iron, the absorption of which is regulated by vitamin C, which needs pyridoxine and cobalamin, themselves dependent on other substances such as Thiamin and B complex co-enzymes. A good multivitamin will give you a full range of substances.

Of course, regardless of how good your supplement is, there is no reason to cut back on good food. Whilst the ‘healthy eating pyramid’ has been repeatedly exposed as a sham, a varied diet in accordance with nature’s intentions is still vital. This means a good balance between the macronutrients (proteins, carbs and fats) and as many micronutrients (minerals and vitamins) as possible from a variety of sources like fruits and veg, but also other sources, including grains and meats. Whilst relying on food sources alone leads to a shortfall for optimum health, the closer your daily activity and dietary intake is to that experienced by our healthy caveman ancestors, the more immune you will be to 21st century disorders like back pain, obesity, diabetes, etc. To summarise, vitamins

supplements should be used as just that, not to replace sensible dietary choices.

This is the flagship argument of those that oppose vitamins supplementation in the diet; this group can be split into two camps. One is the worried politicians, who are keen not to upset the applecart and mulishly stand squarely behind the three-meals-a-day five-portions-of-fruit-n-veg, (but will still take vitamins themselves in case they are wrong!). These fools worry that, if they were to publicly back supplementation, the public would feel aggrieved that their leaders had allowed their soil to be destroyed and the mainstream media would accuse them of blaspheming against the hollowed 'balanced diet'. They should not worry themselves – correct supplementation goes hand in hand with eating right (hence the term supplementation rather than replacement) and members of the Reagan administration actually admitted many years ago that the nutrient content of soil has diminished 40% due to overfertilisation.

The other type is the fanciful idealists, who basically do not like change and, without a shred of scientific evidence to hide behind, stubbornly cling to their gut feeling that a 'balanced diet' is all we need to fortify us. To date, not one single person in the anti-supplementation camp has ever been able to create a diet available to Western society that contains enough nutrients to meet even the paltry RDAs.

I admit I see the appeal of getting all my necessary nutrients from a good diet because it feels more wholesome (nicer, even). Unfortunately, science does not back up this viewpoint; whilst it may have been possible for our grandparents, we do not have the luxury of this choice. Science shows that active individuals who do not supplement have deficiencies in abundance, yet these are the people that need it most. Overcoming these shortfalls leads to a more balanced body. Chromium enables better insulin response and therefore more stable blood sugar levels; Calcium overcomes bone and muscle wastage; Choline produces a lipotropic effect on the liver, causing an increase in the usage of fat for fuel; the list goes on, and we have not even covered the Cs! Moreover, we start to work as nature intended us to.

Do not be put off supplementing with vitamins for the sake of 'keeping it natural'; the irony is that, together with a sensible diet dictated by your body's requirements, correct vitamin supplementation shifts the nutritional climate closer to that intended by nature than the Western diet alone ever could. Food should still be our medicine and medicine should still be our food, only now we would be wise to take little steps to neutralize the damage done by commercial farming.

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