

extra!

George & Partners

A healthy regard for lycopene research

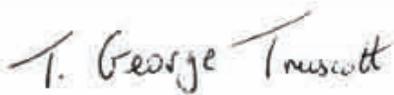
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Dear customer,

Welcome to **EXTRA!**, our new newsletter concerning the latest scientific study into tomato lycopene and its health benefits. Traditionally, we have been much better at reviewing research than communicating with our customers. We hope that the introduction of **EXTRA!** starts to redress the balance.

As you will read, food health research continues to be a very active arena, something confirmed to me in January when I was invited to the international Carotenoids conference in California. I caught up with some industry colleagues, heard what they have been working on and compared notes on our latest findings – all very interesting. Back at home, specific substances such as lycopene are being emphasised more strongly after a study demonstrated that general consumption of fruit and vegetables has little effect on cancer, and now Tesco is getting in on the act with the launch of a lycopene-rich “super tomato”!

I hope that you find **EXTRA!** interesting and enlightening. If you have any comments, questions or suggestions, we would love to hear from you. I can be contacted on freephone 08000 234 235 or via enquiries@lycoplus.co.uk



T. George Truscott
Professor of Medicinal Chemistry and
Managing Director of George & Partners Ltd

“FIVE-A-DAY” HAS LITTLE IMPACT ON CANCER

All of us have been advised for many years to eat five portions of fruit and vegetables every day to ward off cancer and other diseases including heart problems. Now a large scale study of 500,000 Europeans tells us the consumption of such a wide range of fruit and vegetables offers only a small protection against cancer (although all experts agree they still probably help the fight against heart attacks).

However, Professor Walter Willett, one of the World’s top nutrition experts from the Harvard School of Public Health, stresses in his editorial to the study that, ‘Specific substances contained in certain fruit and vegetables, if harnessed, could still have an important, protective effect. Substantial evidence suggests lycopene from tomatoes, for instance, may reduce the risk of prostate cancer’.

Comment: Professor Willett’s comments are consistent with our own findings, that it is SPECIFIC substances in fruit and vegetables that will give a protective effect. Our own research (and that of others) suggests tomato lycopene and vitamin C specifically fights all chronic diseases including those associated with the prostate, because the vitamin C reactivates ‘spent’ lycopene and hence prolongs its active life.

We also note that the study did not distinguish between cooked and uncooked tomato consumption. This is important because the body does not take up lycopene from raw tomatoes – study participants may have reported eating lots of tomatoes without any lycopene health benefits being observed.

LYCOPENE PLUS VITAMIN C IS THE BEST KNOWN DIETARY ANTIOXIDANT COMBINATION TO FIGHT CHRONIC DISEASES AND REDUCE CHOLESTEROL

A human study was reported by Dr Periago and co-workers from Germany and Spain – they investigated whether tomato lycopene fortified with vitamin C is more effective than just lycopene alone at reducing oxidative stress (which causes chronic disease).

Volunteers ingested tomato juice either with or without vitamin C for 2 weeks. Plasma and urine were analysed for carotenoids, vitamin C and lipids. The results show that the protective properties of tomatoes cannot be only due to lycopene. A synergistic effect between vitamin C and lycopene was responsible for beneficial effects such as cholesterol reduction.

Comment: Such work emphasises that the human body is complex and no anti-oxidants should be expected to act alone – appropriate combinations, such as lycopene and vitamin C, are almost certainly needed to optimise health effects.

*Our own research on human cell protection has shown lycopene plus vitamin C is particularly beneficial for protecting the cells from oxidative damage and our latest product, **Lycoplus EXTRA**, contains both lycopene and vitamin C as a result. It is gratifying to see our conclusions supported by other studies.*

TESCO LAUNCH LYCOPENE-RICH “SUPER TOMATO”

British supermarket giant Tesco has launched a tomato that offers substantially higher lycopene content than normal tomatoes. The company cites recent studies linking tomatoes and their extracts to a reduced risk of several diseases, such as prostate disease, and lowering inflammation that may cause hypertension and heart disease.

“This is the first step for Tesco into the developing world of functional foods and we plan to extend our range as public interest grows,” **Ian Reed, Produce Technical Manager at Tesco**

The new Tesco Healthy Living Tomato on the Vine variety, grown by West Sussex specialist grower Humber VHB, are said to contain 36 percent more lycopene than the standard tomato variety, Elegance. The tomato was bred in Holland from different types of tomatoes with high lycopene levels.

Comment: Whilst we are thrilled to see a company of the size of Tesco taking an interest in the health properties of tomato lycopene, we calculate that consumers will need to eat at least five average-sized “super tomatoes” every day to achieve the recommended 15mg daily intake of lycopene. Plus they will need to be cooked to breakdown the lycopene molecules into a bio-available form that the body can readily absorb.

LYCOPENE DECREASES ATHEROSCLEROSIS

Atherosclerosis (also known as arteriosclerotic vascular disease or ASVD) is a condition in which artery walls thicken due to a build-up of fat, cholesterol, calcium, and other substances found in the blood. Over time, this plaque hardens, limiting the flow of oxygen-rich blood to vital organs and can lead to serious problems, including heart attack, stroke, or even death.

Korean researchers recruited women aged between 31 and 75 and took blood samples in order to measure their blood levels of lycopene, as well as other carotenoids.

The results (in line with previous reports) showed that lycopene had superior antioxidant capability and led to a decreased atherosclerotic risk compared with other antioxidants such as beta-carotene both in vitro and in humans.

Comment: We are aware of several ongoing lycopene studies into diseases related to Atherosclerosis and will report their findings in future editions of EXTRA!

Other Supplement Headlines

SELENIUM LINKED TO INCREASED CHOLESTEROL

A new study led by the University of Warwick Medical School and involving scientists from the Universities of Madrid, Surrey, Johns Hopkins, Baltimore and Tufts, Boston reports that consuming too much selenium (regularly promoted as a health ingredient) can have adverse effects on cholesterol levels.

The scientists reached this conclusion after examining the relationship between plasma selenium concentrations (levels of selenium in the blood) with blood lipids (fats in the blood). Higher plasma selenium (≥ 1.20 mmol/L) was associated with increased non-HDL cholesterol levels (the "bad" cholesterol most closely linked to heart disease).

ABOUT GEORGE & PARTNERS

George and Partners Limited is the collective brainchild of Professors Jim Barber F.R.S., George Truscott D.Sc., F.R.S.E. and Dr Fritz Boehm M.D., three internationally renowned lycopene experts who, over the last 30 years, have published more than 800 scientific papers between them.

The company specialises in lycopene-based "nutraceuticals", tracking the latest research findings from around the world, particularly relating to prostate cancer, breast cancer and heart disease. The company is also active in the field of skin anti-aging.

Ask George ...

Professor George Truscott dips into his correspondence and answers some recent customer questions.

Are there any side effects of taking Lycoplus EXTRA ?

No, although I would not recommend Lycoplus EXTRA, or any other lycopene supplement, to anyone who is allergic to tomatoes.

Does Lycopene help everyone with prostate disease?

No, the Kings College Hospital (London) trial with Lycoplus (men with established prostate disease) suggested that about 67% were helped (reduction of PSA velocity) but 33% were not. However, there were no deleterious effects on anyone.

Lycoplus EXTRA is twice the price of LycoPlus – why?

The natural tomato lycopene that we use in our "nutraceutical" products is the major component cost. There is 3 times as much tomato lycopene in each dose of Lycoplus EXTRA compared to the older LycoPlus and consequently we have had to increase the price, although the cost is still under 50p per day. We have considered using a cheaper, synthetic lycopene alternative but some studies have suggested that the additional nutrients contained in natural tomato extract are contributors to the health benefits. We continue to keep this situation under review.

Some products claim to contain large amounts (up to 40mg) of 'lycopene extract'. How does this compare to 15mg of lycopene in Lycoplus EXTRA?

'Lycopene extract' is usually only 6% lycopene, so 40mg of extract typically contains only 2.4mg of lycopene. Lycoplus EXTRA contains 15mg of lycopene, our recommended daily amount. You would need to consume 250mg of 6% lycopene extract to achieve the same dosage!

MIXED NEWS ON CHOCOLATE

Dark chocolate (which is polyphenol-rich) may protect DNA from oxidative damage, preventing artery hardening and heart disease. A recent Italian study at the University of Milan adds to the science supporting the cardiovascular benefits of polyphenol-rich chocolate. No benefit was seen for milk chocolate.

Comment: For chocolate lovers, like myself, the bad news is that the amount of dark chocolate you need to eat per day is probably only about one small square – if we eat much more then the fat and sugar would negate the benefits of the polyphenols anti-oxidants!

We will bring you more detail on these and other stories in future editions of EXTRA! Plus, we are working on a new website that will give us the space to expand on the most important food health research findings from around the world.

NEXT ISSUE: LYCOPENE AND THE SKIN – UV protection and anti-aging research...

ABOUT LYCOPUS EXTRA

Lycoplus EXTRA is the latest product from George & Partners. It contains 15mg of tomato lycopene in each capsule, our revised recommended daily intake, plus 60mg of vitamin C which the company's own research has shown reactivates "spent" lycopene in the body, enhancing and prolonging the effect of the supplement.

Lycoplus EXTRA can be purchased directly from George & Partners. £28 including VAT, post and packaging for 2 months' supply (60 capsules)



Please call us on freephone **08000 234 235** or visit www.lycoplus.co.uk