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## **Beta Carotene and smokers - what is really going on?**

If you smoke (even though you know you shouldn't) and if you take beta carotene, in an attempt to counteract the effects of smoking, then after recent news reports, you may be wondering why you bother. Can it really be true that taking beta carotene when you are smoker actually increases your risk of lung cancer?

As we all know, smoking is something that - if we want to stay in good health - we should not do; it can lead to an increased risk of certain types of cancer, shorten lifespan, bring on emphysema and other lung conditions and many other things. With all of this knowledge in the public domain and cigarette companies being successfully sued for damages by smokers and their families, it is surprising that cigarettes are even still for sale.

Many people, though, finding themselves unable to kick the dreaded habit reason that if they improve other parts of their lifestyle, then they can minimise their exposure to the risks of smoking. As part of this rationale, they take nutritional supplements, particularly antioxidants such as vitamins A, C, and E.

There have been many studies carried out on the effects of various supplements on the health of smokers, but a couple of recent studies of the effects of beta carotene have been causing alarm as they seem to suggest that a smoker increases the risk of lung cancer by taking this antioxidant product.

As usual, though, the full story did not manage to quite get into the mass media; the main fact that was disregarded in the search for a news story to sell more papers is that there have been many studies that have shown the benefit to health of beta carotene supplements.

The other major factor is that the studies that have shown possible risks used synthetic beta carotene, not natural. This is important because synthetic beta carotene has been shown to inhibit the uptake of other carotenoids (such as lycopene and cryptoxanthin) that are strongly associated with lower cancer risk.

Over the time period of the studies, this inhibition of the uptake of the other carotenoids would explain a statistical increase in lung cancer rates, or - seen another way - why beta carotene failed to reduce lung cancer rates.

Natural beta carotene, though, is not associated with the inhibition of other carotenoids and, indeed, actually contains several other naturally-occurring carotenoids. These factors avoid the competitive problems of the synthetic form and allow for the complex of carotenoids to protect one another and function synergistically - as they do when one consumes carotenoid-rich foods.

So, to sum up - smoking is bad for you and should be avoided. If you do smoke and want to take supplements to counterbalance its effects you should make sure that you take natural rather than synthetic beta carotene. You should also make sure that you take other antioxidants - especially vitamin E - to maximise your protection.

*As with so many things, it would seem that natural is better!*