CAROMIN® PALM MIXED CAROTENOID COMPLEX WITH HIGHEST LEVEL OF ALPHA-CAROTENE
(A wholesome bouquet of α-carotene, β-carotene, γ-carotene, lycopene and other carotenoids)

A Compilation of Studies On The Beneficial Effect of Palm Mixed Carotene Complex Vis a Vis Alpha-Carotene

1) “Intakes of carotene, especially alpha-carotene from food and supplements are significantly and inversely associated with risk of ovarian cancer, predominantly in post-menopausal women”


2) “Palm oil carotene concentrate (Caromin) may prevent the development of hormone-dependent breast cancers”


3) “Palm oil carotene concentrate (Caromin) caused dose-dependent inhibition of estradiol stimulated growth of MCF-7, estrogen receptor positive human breast cells”


4) “Various natural carotenoids were proven to have anticarcinogenic activity. Alpha-carotene showed higher potency than beta-carotene to suppress experimental carcinogenesis. Based on these results, multi-carotenoids (mixture of natural carotenoids) seems to be of interest to evaluate usefulness for practice in human cancer prevention”

5) “According to the results, vitamin A, alpha-carotene and lycopene were associated with strong inverse relationships with stomach cancer”


6) “Atherosclerosis risk gradually decreased with increasing plasma alpha and beta-carotene concentrations. This study provides further epidemiological evidence of a protective role of high alpha- and beta-carotene in early atherogenesis”


7) “Alpha-carotene and lycopene intakes were significantly associated with a lower risk of lung cancer. The association with beta-carotene, lutein and beta-cryptoxanthin intakes were inverse but not significant”


8) “Among the various individual carotenoids considered, inverse associations were observed for alpha-carotene, beta-carotene and lutein/zeaxanthin”


9) “Higher serum level of alpha-carotene was significantly associated with decreased risk of cervical dysplasia. Decreased risk observed for the highest tertiles of beta-carotene and zeaxanthin/lutein were not statistically significant”

10) “Alpha-carotene is a better antioxidant than is beta-carotene in phosphatidyl choline vesicles. It may, therefore be useful in limiting free radical mediated peroxidative damage against membrane phospholipids in vivo”


11) “The presence of alpha-carotene does not affect the bioavailability of beta-carotene from palm oil”


12) “Research work is now expanding beyond beta-carotene in an effort to understand what happens to all pigments found in human diet. The results emphasize the importance of the broad spectrum of carotenoids in the diets and relates to supplementation products currently being designed for the marketplace”


13) “Combined administration of palm carotene and green tea polyphenols might be a candidate chemoprevention strategy for pancreatic cancer in humans”


14) “Antioxidant activity of carotenoids in multilamellar liposomes assayed by inhibition of formation of thiobarbituric acid-reactive substances was in the ranking : lycopene > alpha-tocopherol > alpha-carotene > beta-cryptoxanthin > zeaxanthin = beta-carotene > lutein”

15) “Feeding of palm oil carotene to mice prevents chromosomal damage in bone marrow and reduction of white blood cell counts and enhances survival following x-ray irradiation. These results indicate that feeding of palm oil carotene may have radioprotective effects by way of its antioxidant activity and/or vitamin A activity”

Umegaki, K, et al., “Feeding of palm oil carotene to mice prevents chromosomal damage in bone marrow and reduction of white blood cell counts and enhances survival following x-ray irradiation”, Poster presented at the International Society for Fat Annual Symposium, 1997.

16) “When the cases were separated into esophageal, laryngeal and oral-pharyngeal cancer, both alpha-carotene and beta-carotene were consistently and strongly associated with reduced risk at each site”


17) “These findings suggest that feeding mice with palm carotene prevents radiation-induced damages by way of its antioxidant activity and/or vitamin A activity”


18) “Alpha-carotene showed higher potency than beta-carotene in suppressing experimental carcinogenesis. Further studies on various natural carotenoids besides beta-carotene should be continued to obtain more information about potential of natural carotenoids in the field of cancer prevention”


19) “Lycopene, lutein, alpha-carotene and palm carotenones (a mixture of alpha-carotene, beta-carotene and lycopene) inhibited the development of colonic aberrant crypt foci but beta-carotene did not”

20) “Palm fruit carotene had no mutagenic activity in vitro and in vivo tests”


21) “Palm fruit carotene intake prevents skin lipid peroxidation caused by UV irradiation”


22) “Carotene intake especially palm fruit carotene, prevented skin lipid peroxidation in hairless mice”


23) “These results indicate that both alpha- and beta-carotene have chemopreventive effects on croton oil-induced tumor promotion in skin tumorigenesis”


24) “After in vitro induction of lipid peroxidation in liver homogenates by azo-initiator of peroxyl radicals, an inverse correlation between tissue carotenoid level and accumulation of lipid peroxidation products was observed: alpha-carotene > lycopene > beta-carotene”

25) “Alpha-carotene but not beta-carotene reduced the number of lung tumors per mouse compared to control group. This higher potency of the anti-tumor-promoting action of alpha-carotene compared to beta-carotene was confirmed in other experimental systems. These studies suggest that not only beta-carotene but also other types of carotenoids such as alpha-carotene may play an important role in cancer prevention”


26) “The presence of carotenoids in vivo inhibited benzo(a)pyrene metabolism (a probe of chemical carcinogenesis). The order of antioxidative activity was palm oil (with carotenoids) > beta-carotene > canthaxanthin > palm oil without carotenoids”


27) “Natural carotene sample obtained from palm oil was proved to suppress the promoting stage of two-stage carcinogenesis of mouse skin and also inhibit the proliferation of human malignant tumor cells such as neuroblastoma GOTO cells, stomach cancer HGC-27 cells and pancreatic cancer PANC-1 cells. Among the major constituents of palm carotene, alpha-carotene showed stronger antiproliferative effect than beta-carotene. Results indicate that further investigation for not only beta-carotene but also other kinds of natural carotenoids such as alpha-carotene should be carried out”

IN SUMMARY

In recent years, the importance of mixed carotenoids as opposed to beta-carotene alone has been increasing and gaining recognition.

The above only highlights some of the research carried out with palm mixed carotenoids (alpha-carotene, beta-carotene, gamma-carotene and lycopene). There are many other positive research and publication on lutein, zeaxanthin and as well as lycopene.

In our many years of experience in carotenoids, the question “Which one is best?” was always asked. We believe that no specific carotenoid is the best. All the carotenoids (alpha, beta, gamma-caroten, lycopene, lutein, zeaxanthin, etc) must be present in significant level in cells/tissues in natural proportions to function synergistically and confer the health benefits associated with carotenoids.

What is important is not so much the individual carotene, but the combined power of all carotenoids that result in the best health for all.