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## Q&amp;A

**Modified Citrus Pectin, Melatonin and More**

**Q:** *Your recent article on modified citrus pectin (Life Extension, March 2004) states that certain types of cancer cells, like breast and colon, contain the galectin-3 molecule. Do liver cancers also contain this molecule?*

It appears so. An evaluation of liver biopsies for galectin-3 expression found that patients with hepatocellular carcinoma often expressed fairly high levels of this lectin.<sup>1</sup>

**Q:** *I take your Fiber Food Caps product. After reading the article about modified citrus pectin (Life Extension, March 2004), I was wondering if Fiber Food has the same effects as modified citrus pectin.*

Modified citrus pectin differs from Fiber Food. Modified citrus pectin is pectin that has been “chopped” into smaller molecules, making it more absorbable, more able to inhibit certain toxins in the body, and possibly more cancer preventive than other fiber supplements.



**Q:** *A friend read a news article indicating that melatonin can decrease blood pressure. Is this true?*

Yes. A recent study indicates a possible link between repeated bedtime use of melatonin and reduced nocturnal blood pressure.<sup>2</sup> This study examined 16 men with untreated hypertension who were given a single oral dose of melatonin (2.5 mg) at bedtime for three weeks. The repeated use of melatonin nightly reduced systolic and diastolic blood pressure during sleep by 6 mm Hg and 4 mm Hg, respectively. By contrast, a single dose of melatonin had no effect on blood pressure. The researchers concluded that additional studies are needed to determine which patients would benefit most from melatonin.



**Q:** *Do you know of any supplements that increase one's sperm count?*

Several supplements can help with sperm count and fertility. The most important and basic of these is the mineral zinc, which is involved in virtually every aspect of the male reproductive system. Proper zinc levels are necessary for sperm formation and motility, as well as testosterone metabolism. In one study of 37 infertile men with low sperm counts and testosterone levels, 22 increased their sperm count from 8 million to 20 million when given 60 mg of zinc for 45 days.<sup>3</sup> These men also saw an increase in their testosterone levels. Other supplements that can help increase sperm count include selenium, arginine, vitamin C, and

carnitine. For more information and reference studies, please refer to “Increasing Male Fertility and Longevity” in the July 2003 *Life Extension*. Finally, a complete hormonal blood test, such as the Male Panel test, can help you determine the cause of your low sperm count.

**Q:** *I had a blood clot in my leg several years ago, but have been fine ever since. I have taken vitamin K for over a year without any problems. Could vitamin K be contraindicated for me?*

Vitamin K can help prevent blood clots by preventing platelet aggregation. This process differs from coagulation. Vitamin K helps activate proteins S and C, two factors that can reverse clotting. While the PDR for Nutritional Supplements gives no indication that vitamin K is contraindicated for those suffering from blood clots, vitamin K is contraindicated for those taking Coumadin®. You should consult your doctor before taking vitamin K. Refer to Life Extension’s Thrombosis Prevention Protocol in the Disease Prevention and Treatment book to learn more about preventing abnormal blood clots.





The herbs in Natural Prostate Formula can help protect against prostate problems.

**Q:** *I am 60 years old. I completed a full regimen of external beam radiation for prostate cancer three years ago, and have a PSA (prostate-specific antigen) level that ranges from 0.3 to 0.6. Should I use your Natural Prostate Formula? My impression is that this product is mainly for men who currently have problems like enlarged prostate or cancer.*

As a prostate cancer survivor, you may wish to consider taking preventive measures. The herbs in Natural Prostate Formula can help protect against prostate problems. The formula contains saw palmetto and nettle root, which can interfere with the conversion of testosterone to the hormone dihydrotestosterone, or DHT. DHT can bind to prostate cell membranes, causing the cells to grow out of control, and also can induce prostate cells to start dividing. If cell membrane receptors are blocked, DHT cannot latch on to the cell. The herb pygeum can help reduce prostate swelling (edema) and interfere with protein kinase C activity to inhibit the proliferation of prostate cells. Rapidly growing benign and malignant cells both require the protein kinase C enzyme.

**Q:** *I was thinking of ordering Super MiraForte, but I found a study that indicated that chrysin does not work well as an aromatase inhibitor. Is this true?*

The study results probably reflect poor absorption of chrysin, not the function of chrysin. In a study funded by the Life Extension Foundation, 22 male subjects were given 750 mg of chrysin and 10 mg of bioperine (a pepper extract known to increase absorption rates of chrysin) twice daily for 30 days.<sup>3</sup> Compared with their baseline testosterone and estradiol levels, the subjects' free testosterone levels rose by 40% and their estradiol levels decreased by as much as 40%. These results offer evidence that herbal extracts such as chrysin can inhibit testosterone's aromatization to estrogen.

Researchers in India examined the effect of chrysin on age-related testosterone deficiency. In their study, aging rats were given 1 mg/kg of chrysin per day for 30 days.<sup>4</sup> Those receiving chrysin experienced a significant improvement in overall sexual function compared to the control group. The rats receiving chrysin exhibited increased libido and sperm count, greater fertilization potential, and greater litter size when they were allowed to interact with proven pro-estrous female rats. The researchers concluded that bioflavonoids such as chrysin are an effective way to counter aging's deleterious effects on male sexuality. Aromatase-inhibiting drugs like Arimidex® work faster and sometimes better than chrysin in lowering excess estrogen levels.

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## References

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