Curcumin and Turmeric 500 mg
Physician Formulated Concentrated Curcuminoid Extract

October, 2005, Lyle Loughry

Turmeric (Curcuma longa) is a plant native to south India and Indonesia. Curcumin is the substance that gives the spice turmeric its yellow color. Curcumin contains many powerful antioxidants and anti-inflammatory compounds. Most people who ingest curcumin, either in the spice, Turmeric, or as a nutritional supplement, fail to receive all of curcumin's benefits, because it is poorly assimilated by our bodies. Curcumin and Turmeric Concentrated Curcuminoid Extract was developed by Ray Sahelian, M.D., is made from the highest quality curcumin and turmeric raw material available, and contains a powerful, 95% concentrated extract of the antioxidants found in the turmeric root; curcuminoids, (including curcumin, demethoxycurcumin and bisdemethoxy-curcumin). Through its antioxidant mechanisms, curcumin supports colon health, exerts neuroprotective activity and helps maintain a healthy cardiovascular system. Best of all, curcumin has no known side effects in human beings--even in large amounts.

Curcumin induces multi-faceted biological effects, including, but not limited to:

Curcumin and Alzheimer’s disease:
Alzheimer’s disease (AD) involves amyloid (Abeta) accumulation, oxidative damage and inflammation, and risk is known to be reduced with increased antioxidant and anti-inflammatory consumption. Curcumin has potent anti-amyloidogenic effects for Alzheimer’s beta-amyloid fibrils (fAbeta) in vitro, in addition to destabilizing preformed fAbeta in the central nervous system. Both are attractive therapeutic targets for the treatment of Alzheimer’s disease (AD), and studies suggest that curcumin could be a key molecule for the development of therapeutics for AD. Curcumin was found to suppress oxidative damage, inflammation, cognitive deficits, and amyloid accumulation in laboratory studies. When fed to
aged Tg2576 mice with advanced amyloid accumulation, curcumin labeled plaques and reduced amyloid levels and plaque burden. Hence, curcumin directly binds small ss-amyloid species to block aggregation and fibril formation in vitro and in vivo, even in low doses. Whether curcumin supplements help reduce the incidence of Alzheimer's disease or help improve this condition is yet to be proven, and research continues in this area.

**Curcumin and Avian (Bird) Flu:**
The dreaded Avian (bird) flu that some are warning could be the next pandemic is scary because people with strong, healthy immune systems can be infected by the H5N1 flu strain. This particular flu strain can cause the immune system to OVER-react through what is called a "cytokine storm". This "storm" is called Tumor Necrosis Factor Alpha, or TNF-a or TNF for short. TNF-a is very effective where cancer is present in the body, but in this instance it begins to proliferate out of control when the body is infected with this H5N1 strain. Like other autoimmune diseases, the immune system turns on the body, and in this particular case, it attacks the lungs, and the probability of death is 50%. With this killer virus you must also be prepared to "regulate" the immune system in the event Bird Flu is contracted. A simple and effective strategy for survival is to keep the immune system strong and able to fight off attacks from harmful microorganisms, anytime, but also to be able to put on the brakes, so to speak, and control and even stop this "cytokine storm". Dr. Sahelian’s Cur-cumin and Tumeric Concentrated Curcuminoid Extract is known to "explode" this dangerous "cytokine storm", and would be an important component in any successful defense strategy.

**Curcumin and Melanoma:**
Curcumin, found in the spice turmeric, interferes with melanoma cells. Tests in laboratory dishes show that curcumin made melanoma skin cancer cells more likely to self-destruct in a process known as apoptosis. It is known that Nuclear factor-kappaB plays a central role in cell survival and proliferation in human melanoma. The studies, carried out at the Department of Experimental Therapeutics, The University of Texas M. D. Anderson Cancer Center, Houston, Texas, used curcumin, an agent with known, potent, NF-kappaB-inhibitory activity and little toxicity in humans. The conclusions reached were that Curcumin does have potent antiproliferative and proapoptotic effects in melanoma cells.
Curcumin and Cancer:
Curcumin exhibits anticancer activity in rodents and in humans. Its efficacy appears to be related to induction of glutathione S-transferase enzymes, inhibition of prostaglandin E(2) (PGE(2)) production, or suppression of oxidative DNA adduct \((M1G)\) formation. The same research team that found curcumin interferes with melanoma cells also found curcumin helped stop the spread of breast cancer tumor cells to the lungs of mice. The curcumin suppressed two proteins that tumor cells use to keep themselves immortal. Studies evaluating the role of curcumin and cancer continue to advance at a fast rate. Tests have already started in people, too, said Bharat Aggarwal of the Department of Experimental Therapeutics at the University of Texas M.D. Anderson Cancer Center in Houston, who led the study. "What’s exciting about this agent is that it seems to have both chemopreventive and therapeutic properties. Earlier studies suggest that people who eat diets rich in turmeric have lower rates of breast cancer, prostate cancer, lung cancer and colon cancer. Aggarwal’s team is also testing curcumin against pancreatic cancer and multiple myeloma. This study was funded by the U.S. Department of Defense’s Breast Cancer Research Program.

Prostate cancer is an important public health problem in the United States. At Missouri University Center for Phytonutrient and Phytochemical Studies, University of Missouri, Columbia, seven phytoestrogens found in common herbal products were screened for estrogen receptor binding and growth inhibition of human prostate tumor cells. In a competitive 3H-estradiol ligand binding assay using mouse uterine cytosol, curcumin displaced 85% of estradiol binding. From growth inhibition studies in LNCaP cells, apigenin and curcumin were the most potent inhibitors of cell growth. In PC-3 cells, curcumin was the most potent inhibitor of cell growth, proving to be effective inhibitors of prostate tumor cell growth.

Curcumin and Leukemia:
Turmeric, a spice used extensively in Asia as a key ingredient of curry, may be protecting children against leukemia. Curcumin inhibits the multiplication of leukemia cells in laboratory studies and seems to protect against damage caused by cigarette smoke and eating certain processed foods.

Curcumin and the Heart:
In various studies, Curcumin has been found to modulate free radical quenching in myocardial ischaemia in rats. One particular study (Int J Biochem Cell Biol. 2004 Oct;36(10):1977-90), the effect of single oral dose of curcumin, administered 30 minutes before and/or after the onset of ischaemia, was investigated by assessing oxidative stress related biochemical parameters in rat myocardium. Curcumin pre and post-treatment (PPT) was shown to decrease the levels of xanthine oxidase, superoxide anion, lipid peroxides and myeloperoxidase while the levels of superoxide dismutase, catalase, glutathione peroxidase, glutathione-S-transferase activities were significantly increased after curcumin PPT. The significant improvements effected by curcumin in these findings provided evidence that curcumin protected the rat myocardium against ischaemic insult.

Curcumin and chromosomal mutations:
Curcumin is a major chemopreventive component of turmeric. In a study examining the antimutagenic potential of curcumin on chromosomal aberrations in Wistar rats (Shukla Y. Industrial Toxicology research Centre, P.O. Box 80, M.G. Marg, UP 226001, Lucknow, India) the antimutagenic potential of curcumin was evaluated using in vivo chromosomal aberration assay in Wistar rats. Cyclophosphamide (CP), a well-known mutagen was given. Curcumin was given through gastric intubation for seven consecutive days prior to CP treatment. The incidence of aberrant cells was found to be reduced by both the doses of curcumin when compared to CP treated group. The study revealed the antigenotoxic potential of curcumin against CP induced chromosomal mutations.

Curcumin and Human Neuroblastoma:
As reported in Anticancer Research, 2004 Mar-Apr;24(2B):987-98, Neuroblastoma (NB) is an aggressive childhood cancer of the peripheral nervous system whose prognosis, especially for high stage NB patients, is poor. In recent studies utilizing curcumin and resveratrol, they were found to induced a dose- and time-dependent decrease in cell viability, cell cycle arrest and induction of apoptosis (cell death). Observations suggest that the cytotoxicity, cell cycle arrest and apoptosis induced by curcumin and resveratrol in NB cells may be mediated via functionally activated p53 and merit further study.

Curcumin and cataracts:
In studies done in 2004, Wistar rat pups treated with curcumin before being administered with selenium showed no opacities in the lens. The lipid peroxidation, xanthine oxidase enzyme levels in the lenses of curcumin and selenium co-treated animals were significantly less when compared to selenium treated animals. The superoxidase dismutase and catalase enzyme activities of curcumin and selenium co-treated animal lenses showed an enhancement. Curcumin co-treatment seems to prevent oxidative damage and found to delay the development of cataracts.

**Curcumin and Diabetes Mellitus:**

In this research, the effect of turmeric and its active principle, curcumin, on diabetes mellitus were studied in a rat model. Alloxan was used to induce diabetes. Administration of turmeric or curcumin to diabetic rats reduced the blood sugar, Hb and glycosylated hemoglobin levels significantly. Turmeric and curcumin supplementation also reduced the oxidative stress encountered by the diabetic rats. Moreover, the activity of sorbitol dehydrogenase, which catalyzes the conversion of sorbitol to fructose, was lowered significantly on treatment with turmeric or curcumin, revealing that curcumin was effective in attenuating diabetes mellitus related changes.

**Curcumin Supplement Facts:**

- Serving Size: 1 Capsule
- Servings per container: 60

**Each 500mg Capsule Contains:**

- Curcumin: 400 mg * (95% curcuminoids)
- Turmeric - 100 mg *

Curcumin and Turmeric 500 mg

$17.00
For more information, or to place an order, contact Lyle at ultrahealth@cs.com, and anywhere in the U.S. call TOLL FREE 800-829-9913.

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