

Doctor Recommendations On Healthy Aging

Chris D. Meletis, ND (with permission from cpmedical.net, access pin: 587556)

Aging can't be avoided, yet premature aging can be slowed down by our choices that are instrumental in determining to what extent aging will impact our bodies. The medical literature shows that we have the ability to age in a healthy, active manner. I share with my patients that it is not the chronological age that we should be concerned about, it is the biological age of the 75 trillion cells that make up our body that must be our focus. In fact, evidence indicates that how we age is not a predetermined conclusion but rather a choice we make based on lifestyle and nutritional factors.¹⁻²

Healthy aging is often one of the primary goals of patients, but often, they do not know where to begin to accomplish this goal. In this article, I will describe what I feel to be some of the most important concerns we face as we age. For each concern, I will share the protocol I typically use for my patients. In this article, I will limit my protocols to a maximum of the three most important products for each of the concerns.

This is meant to be an introductory discussion, and in the coming months, I will delve more deeply into each health topic mentioned below.

The First Step

In my practice, I create a foundation for health by making sure my patients are on a good multivitamin such as Extend Plus. Two other supplements that are a must for every patient that walks in the door of my practice are omega-3 fatty acids (Ethyl EPA) and Vitamin D3 since both of these nutrients play an important role in many critical aspects of health from immunity to bone maintenance to heart support. Once I have established that my patients are taking these three critical supplements, we can move on to address their most important health concerns. I typically tackle one or two of the health concerns listed below, get the body acclimated to the appropriate supplements, and then go after the other concerns affecting each patient. Likewise, you can choose the health concern most important to you as I would with my patients and proceed similarly.

All of my recommendations below are formulated to work together with one of VRP's multivitamins and are designed to work together safely.

Heart Health

This concern is more difficult than most of the others because typically I would isolate what the specific heart concern is-cholesterol and LDL oxidation, irregular heart rhythm, and/or high levels of homocysteine, fibrinogen or CRP-and provide recommendations to my patients based on that specific concern. However, if I was restricted to three products to provide a solid and broad spectrum foundation for a healthy heart I would choose CardioCare, CoQ10-H2™ and Extension Resveratrol. CardioCare is a combination of ingredients found to work in a variety of ways including protecting heart cells from damage,³ inhibiting LDL oxidation, decreasing blood flow resistance,⁴⁻⁵ and enhancing endurance exercise tolerance in heart failure patients.⁶⁻⁷

Every healthy heart program also needs to include CoQ10-H2, which, although fairly new to the supplement scene, is a must have for optimal cardiovascular health. CoQ10-H2 has been shown in clinical studies to be highly bioavailable and to offer a high degree of clinical improvement.⁸

Extension Resveratrol is a potent source of trans-resveratrol. It is impossible to read the research and not realize what an important component trans-resveratrol is to heart health and longevity in general.⁹⁻¹⁰

Cognitive Health

The number of people with dementia is projected to double between 2001 and 2040.¹¹ In my own clinical practice, my patients are concerned about preserving cognitive function as they age. For these patients, I recommend taking a proactive stance by supporting brain health throughout life. The protocol I use in my patients who want to maintain brain health includes: 1) Neuron Growth Factors (NGF™), 2) Extension IQ and 3) CDP-Choline.

I find Neuron Growth Factors to be especially helpful since the ingredients foster and support the regrowth of axons and dendrites (neurites) that form the neural communication network. These nutrients, acting individually and synergistically, stimulate the growth and “out branching” of neurites, helping to rebuild the neural networks and restore lost functions like cognition and memory in aging brains or in brains damaged by injury/trauma or disease.¹²

Extension IQ is equally important as its components have been shown to elevate levels of essential brain chemicals (neurotransmitters),¹³⁻¹⁷ while CDP Choline is a unique form of the essential nutrient choline that helps regulate bioelectrical activities in the brain, thereby improving memory.¹⁸

Stress and Sleep

I constantly urge my patients that controlling stress and receiving restorative sleep are two of the most important steps they can take to fend off the negative effects of aging. Lack of sufficient quantity and quality of sleep has been linked to an increase in heart disease risk markers including increased coagulation activity, endothelial dysfunction and inflammation⁵⁹ as well as impairments in glucose metabolism and appetite regulation, illustrating that poor sleep has wide reaching implications.¹⁹

Often, I notice that stress significantly impacts the quality and quantity of my patients’ sleep. Therefore, my recommendations for improved sleep include two stress-reducing supplements, AdaptaPhase® I and Allay™, which, respectively, can increase low levels of adrenal hormones or decrease elevated levels and exert calming and anti-anxiety effects. Adding Positrol™, which has calming and anti-anxiety effects, can directly support restorative sleep.

Weight Management

Obesity is at epidemic proportions in the United States. Statistics from the United Health Foundation indicate that in 9 years, 43 percent of Americans will be obese²⁰—particularly alarming given that obesity is a significant risk factor for and contributor to increased morbidity and mortality, most importantly from cardiovascular disease (CVD) and diabetes.²¹

In helping my patients with weight management issues, I always look for the cause behind the weight gain. If it is stress related, then I incorporate Cortisol Control. The stress hormone cortisol is associated with increased appetite, fat accumulation and obesity²²⁻²³ and the ingredients in Cortisol Control have been shown to be highly effective in balancing high cortisol levels, controlling stress-induced symptoms, such as depression, anxiety, irritability, emotional ups and downs, concentration difficulties, restlessness and insomnia.²⁴⁻²⁵ I usually test my patients by having them take a salivary hormone test to determine their cortisol levels and adrenal function. In patients whose cortisol levels are high and who have weight issues, Cortisol Control has proven to be an effective part of a weight management program. Everyone reading this is urged to take and submit the Cortisol Panel salivary hormone test in January to allow plenty of time to receive results so that I can discuss the health impact of your results during a special February webinar.

I often combine Cortisol Control with Glabrinex™ in order to help reduce the accumulation of visceral fat. Activation of the stress response is associated with weight gain, particularly visceral fat accumulation.²²⁻²³ Visceral fat is linked to cardiovascular disease and is now thought to play a role in the development of metabolic syndrome.²⁶

Another supplement I find helpful in overall weight loss is MCT (Medium Chain Triglycerides) Oil caps. Now that the liquid fill capsules are available, I find that it takes away the resistance that patients had to taking the liquid form. MCTs have been shown to enhance thermogenesis, are minimally stored as fat, contribute to enhanced metabolism to burn more calories and suppress the appetite.²⁷⁻³⁰

Additionally, I always recommend to my patients concerned with weight loss that they increase their exercise.

Blood Sugar Control

Even if we never contract full-blown diabetes, as we age, our bodies become more prone to insulin resistance. Insulin resistance is one of the most widespread health problems of our time and often is associated with seemingly unrelated diseases such as Alzheimer's, cardiovascular health, rheumatoid arthritis and certain forms of cancer.³¹⁻³³

Furthermore, high blood sugar itself is linked to various aspects of cardiovascular health, including strokes.³⁴ High blood sugar is also linked to weight gain and controlling blood sugar can work complementary to the weight loss suggestions I mentioned above.

I often put my patients who want to maintain healthy blood sugar levels on GluControl™, which I have found to be extremely effective for improving insulin sensitivity, supporting healthy blood sugar levels and improving carbohydrate tolerance.

Combining GluControl with chromium and AGEBlock®, I have found, can result in even better effects. Advanced glycosylation end products, or AGEs for short, are damaging compounds formed by the attachment of sugars (glycosylation) onto biological proteins or lipids. AGE formation and accumulation is greatly accelerated with high levels of circulating sugars and oxidative stress. Hyperglycemia (elevated blood sugar) increases glycosylation and therefore the formation of AGEs, which react with proteins and lipids creating cross-linkages, causing them to become less elastic and accelerating the aging process. AGEBlock contains powerful cross-link and AGE inhibitors including carnosine, benfotiamine, N-acetyl cysteine, yerba maté, guava and (R)-lipoic acid.³⁵⁻⁴¹

Bone and Joint

Arthritis and osteoporosis are two common degenerative diseases that significantly impact the ability of my patients to participate in enjoyable physical activities. The science shows that low bone mineral density is much more than a factor that disrupts the quality of life—it's also an independent risk factor for stroke and death.⁴²

My top choice for improving bone health in my patients is Osteoflavone Complex, which includes three well-known bone-supporting nutrients, vitamin D3, calcium hydroxyapatite and vitamin K, along with ipriflavone. Ipriflavone improves calcium metabolism in bone by fusing itself to specific binding sites in precursor cells and mature osteoclasts, the cells that break down bone. As a result, ipriflavone alters bone calcium flux and inhibits bone resorption.

For patients who are concerned about joint health, I recommend Nutri-Joint, which is a combination of glucosamine sulfate, MSM, chondroitin sulfate, and type II collagen, all known for their ability to restore joint mobility and flexibility.

In clinical practice, I also find it very helpful to use Back in Action™ for patients who experience painful joint issues, back pain and muscular injuries. The combination of turmeric, boswellia serrata, dl-phenylalanine and nattokinase, all found in Back in Action, is very useful in helping with pain reduction and regaining mobility.

Gastrointestinal

Gastrointestinal concerns can crop up throughout life, but as my patients age they tend to experience more GI disorders. Many gastrointestinal disorders, such as colorectal cancer, appendicitis, diverticular disease and inflammatory bowel disease, show age-specific incidence, and prevalence rates increase substantially with increasing age.⁴³

I emphasize to my patients that the key to a healthy GI tract is to 1) support the cells of the intestines, 2) consume a good probiotic and 3) ensure healthy digestion by consuming a digestive enzyme blend.

GI Cell Support is a critical component of the gastrointestinal-supporting regimen I typically recommend to my patients. The ingredients in GI Cell Support work by serving as fuel for the cells that line the colon,⁴⁴ lessening intestinal irritation,⁴⁵ improving the synthesis of the gastric and intestinal mucosa's protective glycoprotein cover,⁴⁶ and by soothing and protecting mucous membranes from local irritation by creating a protective layer.⁴⁷

No GI-supporting regimen would be complete without a good probiotic and in my practice I combine BioPRO™ with GI Cell Support to help heal the intestinal tract. The combination of prebiotics and probiotics in BioPRO I find to be particularly effective.

As we grow older, our bodies often have a harder time digesting foods. Therefore, a third important recommendation is to incorporate Digestive Enzymes. I particularly like the blend of vegetarian-derived digestive enzymes (lactase, lipase, amylase, protease and cellulase) in Digestive Enzymes and have noted that they can decrease bloating, flatulence and gastrointestinal discomfort.

Although my intent was to stay with three products for each concern, fiber is so essential to the health of the GI tract that I must add EZ Fiber™ to my recommendations for digestive support. I caution my patients to also remember that increased fiber intake, while extremely important, should not be taken at the same time as supplements or medications because fiber can lessen absorption.

Inflammation

An overwhelming array of evidence in the medical literature indicates that every disease mentioned above is linked to inflammation. I have read large bodies of research that support the fact there is a symbiotic relationship between aging, inflammation and chronic diseases such as cancer.⁴⁸ Inflammation also has been linked to cardiovascular disease⁴⁹ as evidenced by the role that C-reactive protein (CRP) plays in cardiovascular conditions. CRP is a marker for inflammation and high levels of it are thought to indicate increased risk for and worse outcomes during heart disease.⁵⁰ Inflammation may also be involved in osteoporosis⁵¹ and Alzheimer's disease,⁵² and markers of low-grade inflammation are strongly related to metabolic syndrome variables independently of obesity.⁵³

As a way to determine the extent of inflammation occurring in my patients, I will often test their CRP levels. Patients whose CRP levels are high can definitely benefit from anti-inflammatory supplements, but all of my patients, regardless of their particular health concerns, can take a proactive stance against inflammation and supplement with anti-inflammatory nutrients such as the powerful inflammation-fighting botanicals found in Advanced Inflammation Control. These botanicals have been found to reduce neutrophil-induced inflammation,⁵⁴ suppress the inflammation factor nuclear factor kappa Beta (NFkB) activation in human T cells (immune cells),⁵⁵ inhibit 5-lipoxygenase (5-LOX), which converts arachidonic acid to the highly inflammatory leukotrienes,⁵⁶ and inhibit cyclooxygenase-2 (COX-2).⁵⁷

For individuals who have more specific inflammation-related challenges such as knee injuries, joint pain or muscle aches, I will often add UniZyme™ into the protocol. My patients have had good results with this non-animal proteolytic enzyme blend, which possesses powerful anti-inflammatory action.

Detoxification

If our bodies are working overtime to detoxify harmful compounds then no matter what anti-aging regimen we employ it will be less effective. Consequently, I urge my patients to consume a glutathione-boosting nutrient. I especially like Liposomal Glutathione, a form of glutathione wrapped in a tiny lipid bubble called a liposome. Liposomal Glutathione is an excellent way to keep glutathione stable and make it available for use in cells.

Toxins such as mercury are removed from the body by direct conjugation with glutathione. Once bound to glutathione, toxins become water soluble and can be transported out of the cell and out through the liver for excretion.

Conclusion

I find that in my patients, addressing the factors mentioned above leads to optimal health and will ultimately lead to a more active lifestyle throughout the senior years. Giving each of the supplements mentioned above a chance to work is essential for the success of the healthy aging regimens discussed here. One must also keep in mind that, since we are all unique biochemical beings, that supplement regimens appropriate for many people may not be what a particular individual needs in order to achieve his or her health goals. Therefore, some experimentation may be necessary to find the supplements that will work for each individual.

References

1. Morris MC, Evans DA, Tangney CC, Bienias JL, Wilson RS. Associations of vegetable and fruit consumption with age-related cognitive change. *Neurology*. 2006 Oct 24;67(8):1370-6.
2. Vaynman S, Gomez-Pinilla F. Revenge of the "sit": how lifestyle impacts neuronal and cognitive health through molecular systems that interface energy metabolism with neuronal plasticity. *J Neurosci Res*. 2006 Sep;84(4):699-715.
3. Ling S, Luo R, Dai A, Guo Z, Guo R, Komesaroff PA. A pharmaceutical preparation of *Salvia miltiorrhiza* protects cardiac myocytes from tumor necrosis factor-induced apoptosis and reduces angiotensin II-stimulated collagen synthesis in fibroblasts. *Phytomedicine*. 2009 Jan;16(1):56-64.
4. Kumar A, Kaur H, Devi P, Mohan V. Role of coenzyme Q10 (CoQ10) in cardiac disease, hypertension and Meniere-like syndrome. *Pharmacol Ther*. 2009 Jul 25. Published Online Ahead of Print.
5. Malaguarnera M, Vacante M, Avitabile T, Malaguarnera M, Cammalleri L, Motta M. L-Carnitine supplementation reduces oxidized LDL cholesterol in patients with diabetes. *Am J Clin Nutr*. 2009 Jan;89(1):71-6.
6. Doutreleau S, Mettauer B, Piquard F, Rouyer O, Schaefer A, Lonsdorfer J, Geny B. Chronic L-arginine supplementation enhances endurance exercise tolerance in heart failure patients. *Int J Sports Med*. 2006 Jul;27(7):567-72.
7. Pittler MH, Guo R, Ernst E. Hawthorn extract for treating chronic heart failure. *Cochrane Database of Systematic Reviews*. 2008, Issue 1.
8. Langsjoen PH, Langsjoen AM. Supplemental ubiquinol in patients with advanced congestive heart failure. *BioFactors*. December 2008;32:119-128.
9. Baur JA, Pearson KJ, Price NL, et al. Resveratrol improves health and survival of mice on a high-calorie diet. *Nature*. 2006 Nov 16;444(7117):337-342.
10. Barger JL, Kayo T, Vann JM, et al. A low dose of dietary resveratrol partially mimics caloric restriction and retards aging parameters in mice. *PLoS ONE*. 2008 Jun 4;3(6):e2264.
11. Jagger C, Matthews R, Lindsay J, Robinson T, Croft P, Brayne C. The effect of dementia trends and treatments on longevity and disability: a simulation model based on the MRC Cognitive Function and Ageing Study (MRC CFAS). *Age Ageing*. 2009 May;38(3):319-25; discussion 251.
12. VRP Staff. Brain Regeneration. Key Nutrients Support The Growth of Brain Cell Neurites and Dendrites. *Vitamin Research News*. Available at www.vrp.com.
13. Babb SM, Wald LL, Cohen BM, Villafuerte RA, Gruber SA, Yurgelun-Todd DA, Renshaw PF. Chronic citicoline increases phosphodiesterases in the brains of healthy older subjects: an in vivo phosphorus magnetic resonance spectroscopy study. *Psychopharmacology (Berl)*. 2002;161: 248-54.
14. Geller SJ. Comparison of a tranquilizer and a psychic energizer. *JAMA* 1960;174:89-92.
15. Grioli S, Lomeo C, Quattropiani MC, Spignoli G, Villardita C. Pyroglutamic acid improves the age associated memory impairment. *Fundam Clin Pharmacol*. 1990;4(2):169-73.
16. Szatmari SZ, Whitehouse PJ. Vinpocetine for cognitive impairment and dementia. *Cochrane Database Syst Rev*. 2003; CD003119.
17. Xu SS, Gao ZX, Weng Z. Efficacy of tablet huperzine-A on memory, cognition, and behavior in Alzheimer's disease. *Zhongguo Yao Li XueBao*. 1995;16:391-395.
18. Agnoli A, Bruno G, Fioravanti M, et al. Therapeutic approach to senile memory impairment: a double-blind clinical trial with CDP choline. In: Wurtman RJ, Corkin S, Growden JH, eds. *Alzheimer's Disease: Proceedings of the Fifth Meeting of the International Study Group on the Pharmacology of Memory Disorders Associated with Aging*. Boston: Birkhauser. 1989: 649-654.
19. Knutson KL. Impact of sleep and sleep loss on glucose homeostasis and appetite regulation. *Sleep Med Clin*. 2007 Jun;2(2):187-197.
20. www.unitedhealthfoundation.org, accessed December 15, 2009.
21. Pi-Sunyer X The medical risks of obesity. *Postgrad Med*. 2009 Nov;121(6):21-33.
22. Black PH. The inflammatory consequences of psychologic stress: relationship to insulin resistance, obesity, atherosclerosis and diabetes mellitus, type II. *Med Hypotheses*. 2006;67(4):879-91.
23. Pasquali R, Vicennati V. Activity of the hypothalamic-pituitary-adrenal axis in different obesity phenotypes. *Int J Obes Relat Metab Disord*. 2000 Jun;24 Suppl 2:S47-9.
24. LaValle, J. and Hawkins, E. *Relora—The Natural Breakthrough to Losing Stress-Related Fat and Wrinkles*. North Bergen, NJ: Basic Health Publications; 2003: 16.
25. Bhattacharya, S. et al. Anti-stress activity of sitoindosides VII and VIII, new acylsterylglucosides from *Withania somnifera*. *Phytother Res*. 1987, 1: 32-37.

26. Meletis CD. Metabolic Syndrome: Novel Botanical Inhibits This Modern Day Threat to Heart Health. Vitamin Research News. Available at www.vrp.com.
27. Baba, N., Bracco, E.F., Seylar, J., Hashim, S.A. Enhanced thermogenesis and diminished deposition of fat in response to overfeeding with diets containing medium chain triglycerides. *J Am Soc Clin Nutrition*, 1981, 34:624.
28. Scalfi L, Coltorti A, Contaldo F. Postprandial thermogenesis in lean and obese subjects after meals supplemented with medium-chain and long-chain triglycerides. *Am J Clin Nutr* 1991 May;53(5):1130-3.
29. Yost TJ, Eckel RH. Hypocaloric feeding in obese women: metabolic effects of medium-chain triglyceride substitution. *Am J Clin Nutr* 1989 Feb;49(2):326-30.
30. Stubbs RJ, Harbron CG. Covert manipulation of the ratio of medium- to long-chain triglycerides in isoenergetically dense diets: effect on food intake in ad libitum feeding men. *Int J Obes Relat Metab Disord* 1996 May;20(5):435-44.
31. Razay G, Vreugdenhil A, Wilcock G. The Metabolic Syndrome and Alzheimer Disease. *Arch Neurol*. January 2007;64 (1):93-96.
32. Chung CP, Oeser A, Solus JF, Avalos I, Gebretsadik T, Shintani A, Raggi P, Sokka T, Pincus T, Stein CM. Prevalence of the metabolic syndrome is increased in rheumatoid arthritis and is associated with coronary atherosclerosis. *Atherosclerosis*. 2007 Jan 29; [Epub ahead of print].
33. Stattin P, Bjor O, Ferrari P, Lukanova A, Lenner P, Lindahl B, Hallmans G, Kaaks R. Prospective Study of Hyperglycemia and Cancer Risk. *Diabetes Care*. 2007 Mar;30(3):561-567.
34. Gilmore RM, Stead LG. The role of hyperglycemia in acute ischemic stroke. *Neurocrit Care*. 2006;5(2):153-8.
35. Petricic J, Kalodera Z. Galegin in the goats rue herb: its toxicity, antidiabetic activity and content determination. *Acta Pharm Jugosl*. 1982; 32(3):219-23.
36. Mang B, Wolters M, Schmitt B, Kelb K, Lichtinghagen R, Stichtenoth DO, Hahn A. Effects of a cinnamon extract on plasma glucose, HbA, and serum lipids in diabetes mellitus type 2. *Eur J Clin Invest*. 2006 May;36(5):340-4.
37. Hipkiss AR. Would carnosine or a carnivorous diet help suppress aging and associated pathologies? *Ann N Y Acad Sci*. 2006 May;1067:369-74.
38. Reddy VP, Garrett MR, Perry G, et al. Carnosine: a versatile antioxidant and antiglycating agent. *Sci Aging Knowledge Environ*. 2005 May 4;2005(18):pe12.
39. Loske C, Neumann A, Cunningham AM, et al. Cytotoxicity of advanced glycation endproducts is mediated by oxidative stress. *J Neural Transm*. 1998;105(8-9):1005-15.
40. Hsieh CL, Yang MH, Chyau CC, et al. Kinetic analysis on the sensitivity of glucose- or glyoxal-induced LDL glycation to the inhibitory effect of Psidium guajava extract in a physiologic system. *Biosystems*. 2007 Mar;88(1-2):92-100.
41. Lunceford N, Gugliucci A. Ilex paraguariensis extracts inhibit AGE formation more efficiently than green tea. *Fitoterapia*. 2005 Jul;76(5):419-27.
42. Nordström A, Eriksson M, Stegmayr B, Gustafson Y, Nordström P. Low Bone Mineral Density Is an Independent Risk Factor for Stroke and Death. *Cerebrovasc Dis*. 2009 Dec 1;29(2):130-136.
43. Goldacre MJ. Demography of aging and the epidemiology of gastrointestinal disorders in the elderly. *Best Pract Res Clin Gastroenterol*. 2009;23(6):793-804.
44. Miller AL. Therapeutic considerations of L-glutamine: a review of the literature. *Altern Med Rev*. 1999;4:239-48.
45. Tewari SN, Wilson AK. Deglycyrrhizinized liquorice in duodenal ulcer. *Practitioner*. 1973;210:820-3.
46. Burton AF, Anderson FH. Decreased incorporation of 14C-glucosamine relative to 3H-N-acetyl glucosamine in the intestinal mucosa of patients with inflammatory bowel disease. *Am J Gastroenterol*. 1983;78:19-22.
47. Burton AF, Anderson FH. Decreased incorporation of 14C-glucosamine relative to 3H-N-acetyl glucosamine in the intestinal mucosa of patients with inflammatory bowel disease. *Am J Gastroenterol*. 1983;78:19-22.
48. Ahmad A, Banerjee S, Wang Z, Kong D, Majumdar AP, Sarkar FH. Aging and Inflammation: Etiological Culprits of Cancer. *Curr Aging Sci*. 2009;2(3):174-186.
49. Hulsmans M, Holvoet P. The vicious circle between oxidative stress and inflammation in atherosclerosis. *J Cell Mol Med*. 2009 Nov 28. Published Online Ahead of Print.
50. Schaan BD, Pellanda LC, Maciel PT, Duarte ER, Portal VL. C-reactive protein in acute coronary syndrome: association with 3-year outcomes. *Braz J Med Biol Res*. 2009 Dec;42(12):1236-41.
51. McLean RR. Proinflammatory cytokines and osteoporosis. *Curr Osteoporosis Rep*. 2009 Dec;7(4):134-9.
52. Pluta R, Ułamek M, Jablonski M. Alzheimer's mechanisms in ischemic brain degeneration. *Anat Rec (Hoboken)*. 2009 Dec;292(12):1863-81.
53. Yudkin JS, Juhan-Vague I, Hawe E, Humphries SE, di Minno G, Margaglione M, Tremoli E, Kooistra T, Morange PE, Lundman P, Mohamed-Ali V, Hamsten A. Low-grade inflammation may play a role in the etiology of the metabolic syndrome in patients with coronary heart disease: the HIFMECH study. *Metabolism*. 2004 Jul;53(7):852-7.
54. Sekiya N, et al. Suppressive effects of Stephania tetrandra on the neutrophil functions in patients with rheumatoid arthritis. *Phytother Res*. 2004;18:247-49.
55. Ye J, et al. On the role of hydroxyl radical and the effect of tetrandrine on nuclear factor-kappa B activation by phorbol 12-myristate 13-acetate. *Ann Clin Lab Sci*. 2000;30:65-71.
56. Sailer E, et al. Acetyl-11-keto-[beta]-boswellic acid (AKBA): structure requirements for binding and 5-lipoxygenase inhibiting activity. *Br J Pharmacol*. 1996;117:615-18.
57. Newmark T, Schulick P. Beyond Aspirin. Hohm Press, Prescott AZ 2000, Ch. 9.