



QUARTERLY NEWSLETTER

 **SUN TEN**

www.suntenglobal.com

Osteoporosis & Osteoarthritis in TCM Therapy

Chun Yi, Lu O.M.D., LAc.

There are quite different between osteoporosis and osteoarthritis, but in traditional Chinese theory, they definite relate to each other.

OSTEOPOROSIS

Due to changing lifestyles and dietary habits, as well as the aging population, the so-called “diseases of modern civilization” have emerged early. Osteoporosis is the most popularly known, yet most overlooked disease. According to WHO, “osteoporosis-induced fractures cause a great burden to society. Hip fractures are the most serious, as they nearly always result in hospitalization, are fatal about 20%, and produce permanent disability about half the time. Fracture rates increase rapidly with age and the lifetime risk of fracture in 50 year-old women is about 40%, similar to that for coronary heart disease. In 1990, there were 1.7 million hip fractures worldwide; with changes in population demographics, this figure is expected to rise to 6 million by 2050.”

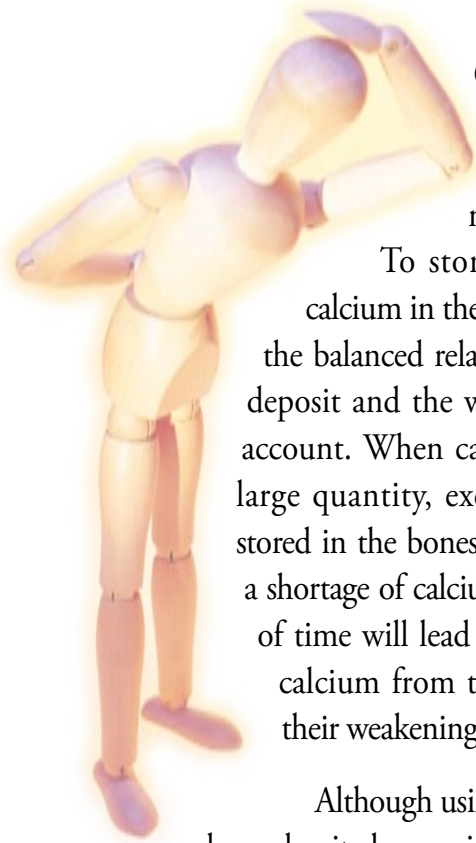
Osteoporosis is a disease characterized by lowered bone density, more and enlarged pores of the bones, porous bones with increased brittleness, and inability to resist pressure and torsion resulting in an increased likelihood of bone fractures when one is not careful. “Osteoporosis

is an invisible killer, and more horrible than cancer”. Due to osteoporosis being a “Silent” disease that shows no advanced symptoms, many people can only be aware of the problem once fracture occurs. If people do not take this problem seriously and effectively prevent it, the disease would take its toll in one’s life and finances.

During adolescence, the bones can accumulate a large quantity of calcium rapidly through exercise and diet to strengthen the skeletal system, a process called “ the accumulation of bone mass”. At the age of 35, bone mass reaches a peak, after which the ability to regenerate bone mass starts to decline, leading to osteoporosis if calcium is not immediately replenished. As far as the loss of bone mass is concerned men may lose up to 40-50% after menopause. It is scar, if 1/2 of the calcium is lost of the bone mass of the entire body.

Many people believe that osteoporosis only happens to the elderly. However, many young people have such poor life style habits as lack of exercise, smoking, drinking alcohol, coffee and soda, that can all cause weakening of bone mass.





Calcium is gradually lost during intake of a large quantity of nicotine or caffeine.

To storage and the loss of calcium in the bone mass is just like the balanced relationship between the deposit and the withdrawal of a bank account. When calcium is supplied in large quantity, excess calcium will be stored in the bones. On the other hand, a shortage of calcium over a long period of time will lead to the withdrawal of calcium from the bones, leading to their weakening.

Although using calcium to increase bone density has received most of the media attention, it is actually a rather small player when it comes to improving bone strength. The most important thing is the body absorption rate, and in traditional Chinese medicine theory, emphasis the absorption rate is laid on various physiological functions of an organ. The organ system referred to as the kidney incorporate the genitourinary system, the basis of fluid metabolism, the ability to reproduce, and the development and maintenance of the bones. In traditional Chinese medicine theory, the osteoporosis belongs deficiency category. There is Kidney / Blood deficiency or *Qi* deficiency and following formulas are helpful to treat the osteoporosis:

Gui Lu Er Xian Jiao (Tortoise Shell & Deer Antler Syrup):

Nourishes and replenishes the *yin*, tonifies the essence, augments the *qi*, and tonifies and strengthens the *yang*. *Fire* deficiency of the kidney *yin* and *yang* accompanied by insufficiency of essence and blood in the conception and governing

vessels. The symptoms include emaciation, weakness, diminished visual acuity, aching and weakness of the lower back and knees. This formula reaches beyond the *qi* and blood to the *yin* and *yang*, and still further to the essence and marrow, in order to replenish the deepest sources of energy in the body. It is therefore most appropriate in cases of severe depletion due to prolonged illness or long-term, general debility. Depend on the patients' situations, the following modifications are recommended:

- a. For pain in the arm or upper body, add *Gui Zhi (Cinnamomum cassia)*.
- b. For foot pain or pain in the lower body, add *Mu Gua (Chaenomeles speciosa)* or *Yi Yi Ren (Semen Coix)*.
- c. For *qi* deficiency, add *Ren Shen (Radix Ginseng)* or *Ci Wu Jia (Siberian Ginseng)*

Zuo Gui Wan (Restore the Left Decoction):

This formula is a variation of *Rehmannia Six Formula (Liu Wei Di Huang Wan)* with the three draining herbs, which are *Cortex paeonia suffruticosa (Mu Dan Pi)*, *Sclerotium Wolfporia cocos (Fu Ling)*, and *Rhizoma Alisma orientalis (Ze Xie)* omitted and five tonics *Fructus Lycium barbarum (Gou Qi Zi)*, *Gelatinum Plastris Testudinis (Gui Ban Jiao)*, *Gelatinum Cornu Cervi (Lu Jiao Jiao)*, and *Radix Achyranthes bidentat (Niu Xi)* added. It can nourish the *yin*, tonifies the kidney, supplements the essence, and benefits the marrow. For deficiency of the kidney (especially the marrow and essence) with soreness and weakness in the lower back and legs, night sweats, dry mouth. This is a stronger version of the principal formula that is used in more severe cases. Depend on the patients' situations, the following modifications are recommended:

- a. For the low body energy, add *Ren Shen (Radix*

Ginseng)

- b. For the slow body circulation, add *San Qi (Radix Notoginseng)*
- c. For the weak immune system, add *Xi Yang Shen (Radix Panacis quinquefolii)*

You Gui Wan (Restore the Right Pill):

This formula is a variation of *Ba Wei Di Huang Wan (Rehmannia Eight Formula)*. The modifications include an increase in the dosage of the *yang* tonics. *Cortex Cinnamomum cassia (Rou Gui)*, omission of the three draining herbs which are *Sclerotium Wolfiporia cocos (Fu Ling)*, *Rhizoma Alisma orientalis (Ze Xie)* and *Cortex Paeonia suffruticosa (Mu Dan Pi)*, and the addition of blood and essence-tonics, which are *Fructus Lycium barbarum (Gou Qi Zi)*, *Cornu Cervi gelatin (Lu Jiao Jiao)*, *Semen Cuscuta chinensis (Tu Si Zi)*, *Cortex Eucommia ulmoides (Du Zhong)*, and *Radix Angelica sinensis (Dang Gui)*. This formula can warm and tonify the kidney *yang*, replenish the essence, and tonify the blood. This formula is used in exhaustion from long-term illness, and aching and weakness of the lower back and knees. This is kidney *yang* deficiency with waning of the *fire* at the gate of vitality. The root aspect of this condition, kidney *yang* deficiency, causes such symptoms as aversion to cold, coolness of the aching and weakness of the lower back and knees, of the lower extremities. Depend on the patients' situations, the following modifications are recommended:

- a. For loss body fluids and dry mouth, add *Xi Yang Shen (Radix Panacis quinquefolii)*
- b. For sleep disorders, add *Suan Zao Ren (Semen Ziziphi spinosae)* or *Bo Zi Ren (Semen Platycladi)*
- c. For increase body defensive mechanism, add *Huang Qi (Radix Astragali)*



Liu Wei Di Huang Wan (Rehmannia Six Formula):

The characteristic of this formula is the combination of three tonics with three draining herbs. The three tonic herbs, which are *Radix Rehmannia preparata (Shu Di Huang)*, *Fructus Cornus officinalis (Shan Zhu Yu)*, and *Rhizoma Dioscorea opposita (Shan Yao)*. The three draining herbs, which are *Rhizoma Alisma orientalis (Ze Xie)*, *Cortex Paeonia suffruticosa (Mu Dan Pi)*, and *Sclerotium Wolfiporia cocos (Fu Ling)*. This formula reinforces the *yin*; tonifies the liver and kidney. Related symptoms are: soreness and weakness of the lower back and knee joints; steaming bone sensation and heat sensation in the palms and soles. Depend on the patients' situations, the following modifications are recommended:

- a. For the lower back and knee sore, add *He Shou Wu (Radix Polygoni multiflori)*
- b. For reduce inflammation and increase immunity, add *Jiao Gu Lan (Herba Gynostemmae pentaphylli)*
- c. For boost energy and raise the energy levels, add *Ren Seng (Radix Ginseng)*

Even though this formula is regularly taken middle-aged and older people, but it can help prevent aging, promote health and prolong life if taken by younger population.

If you display any of the following symptoms, you may already have osteoporosis: constant sore waist and back pain, difficulty in walking, occasional acute pain, hunch back, slow curling of the back during walking or even becoming shorter, and osteoporosis-induced fractures to vertebra, wrists, hip joints, and shoulders. The treatment of

bone fractures is risky and associated with terrible concomitant disease resulting in heavy psychological and financial burdens. Therefore, early prevention and self-protection against osteoporosis becomes significantly important.

Many studies indicate that proper outdoor exercise, especially adequate weight training, can increase the strength of the skeletal and muscle systems. Jogging, mountain climbing or sports are very good choices for younger adults, while walking, hiking or other mild exercises are good for seniors. As a TCM practitioner, we strongly suggest that people use some herbal supplement to maintain the body. While body function is improved, it can help formation of nutrition into the body to promote the absorption of calcium.

Osteoporosis is fearsome only because many people do not understand or have an incorrect understanding of it. As osteoporosis quietly erodes the bone mass of everybody without their knowledge, everyone should take this problem seriously and effectively prevent osteoporosis and its complications.

OSTEOARTHRITIS

A growing number of people are suffering from degenerative joint issues as osteoarthritis. In western medical theory, osteoarthritis is a disorder leading to the structural or functional failure of the joints, and involves the advancing loss of cartilage. In traditional Chinese medical theory, osteoarthritis is caused by blood stagnation and blood stasis. An

ancient adage said: “Stagnation will cause pain.” The blood carries nutrients to all parts of the body, while the blood quantity and quality disorder the problems will occur.

Osteoarthritis is typically illustrated by stiff and painful joints, often worse in the morning, after exercise or after resting. Moving the joints may reduce the pain but often sufferers find it difficult to get full range of motion in the joints and notice a creaking or grinding sound. As osteoarthritis advances, joints may appear swollen and muscles may become weaker.

Interestingly, most people with early osteoarthritis don't have noticeable symptoms, but x-rays are the best early evidence. Studies have shown that fewer than 10% of patients with moderate or severe osteoarthritis in finger joints also reported pain or stiffness. Since there are no nerve structures in cartilage, the pain associated with osteoarthritis is likely the result of irritation of other tissues in and around the affected joints.

In western medical theory, recent evidence suggests that certain enzymes are involved in the destruction of cartilage and bone. The loss of glycosaminoglycans (molecules that help hold water) by cartilage may also play a role in causing osteoarthritis. Although osteoarthritis can occur by itself, it may also be the result of other conditions such as joint injury or repetitive joint stress, meniscus injury and its surgical repair, and joint inflammation.



There are many natural ways to treat degenerative joint problems. These natural ways include weight loss, low impact exercise, a diet high in antioxidants, heat therapy and nutritional supplement and the traditional Chinese supplementation, which relate to improve the circulation and energy.

Furthermore, we agree that traditional Chinese medicines and other natural ways are significantly safer than NSAID's (e.g. ibuprofen, piroxicam). Often traditional Chinese medicine prescribed for osteoarthritis: *Shu Jing Huo Xue Tang* (*Clematis* and *Stephania* Combination), *Shen Tong Zhu Yu Tang* (*Cnidium* & *Chiang Huo* Combination) and *Yi Yi Ren Tang* (*Coix* Combination) typically works in about eight weeks, and reduces pain at least 50 %, but often leaves patients pain free.

Shu Jing Huo Xue Tang (*Clematis* and *Stephania* Combination) contains *Niu Xi* (*Achyranthes*), *Dang Gui* (*Angelica sinensis*) and *Tao Ren* (*Prunus persica*) in very specific ratio intended to activate the blood and dispels blood stasis, induce downward movement of the blood, and strengthen the tendons and bones. *Shu Jing Huo Xue Tang* (*Clematis* and *Stephania* Combination) also contains *Chuan Xiong* (*Rhizoma Chuanxiong*). The clinical experiences found in *Chuan Xiong* helps reduce pain and improve joint function. *Shu Jing Huo Xue Tang* (*Clematis* and *Stephania* Combination) also contains other compounds, which contribute to reduce joint pain, and believed to reduce inflammation and swollen of the joint lining. Depend on the patients' situations, the following modifications are recommended:

- a. For pain in the arm or upper body, add *Gui Zhi* (*Cinnamomum cassia*).
- b. For foot pain or pain in the lower body, add *Mu Gua* (*Chaenomeles speciosa*) or *Yi Yi Ren* (*Semen*

Coix).

- c. For *qi* deficiency, add *Ren Shen* (*Radix Ginseng*) or *Ci Wu Jia* (*Siberian Ginseng*)

The other recommended formula for osteoarthritis is *Shen Tong Zhu Yu Tang* (*Cnidium* and *Chiang Huo* Combination). The ingredients of this formula included the following herbs: *Tao Ren* (*Semen Prunus persica*), *Hong Hua* (*Flos Carthamus tinctorius*), *Wu Ling Zhi* (*Excrementum Trogopteri seu Pteromi*), *Niu Xi* (*Radix Achyranthes bidentata*) and *Dang Gui* (*Radix Angelica sinensis*), this group of herbs can activate the blood, dispel blood stasis, and alleviate pain; *Chuan Xiong* (*Rhizome Ligusticum chuanxiong*) and *Mo Yao* (*Gummi Commiphora molmol*) can activate the blood and promote the flow of *qi* to alleviate pain; *Di Long* (*Lumbricus*) use to unblocks the meridians and alleviates pain; *Qiang Huo* (*Herba Artemisia annua*), *Qin Jiao* (*Radix Gentiana macrophylla*) can dispel wind-dampness and alleviate pain; *Xiang Fu* (*Rhizoma Cyperus rotundus*) is help to promotes the flow of *qi* to alleviate pain; and *Gan Cao* (*Radix Glycyrrhiza uralensis*) use to harmonizes the action of all ingredients and minimizes pain. This specific formula of traditional Chinese medicine has proven in dozens of human clinical trials to improve joints function in most people with mild to moderate osteoarthritis. This formula can activates the blood, promotes the flow of *qi*, dispels blood stasis, unblocks the meridians, disperses wind-dampness, and alleviates pain. Depend on the patients' situations, the following modifications are recommended:

- a. For slight fever, add *Cang Zhu* (*Atractylodes lancea*) or *Hunag Bo* (*Cortex Phellodendron amurense*).
- b. For Weakness, add *Huang Qi* (*Radix astragalus*).

Another recommended formula for osteoarthritis is *Yi Yi Ren Tang* (*Coix* Combination).

The main function of this formula is affliction of wind-cold-dampness marked by painful joints and accompanied by numbness also difficulty in stretching and swelling in the joints. The ingredients of this formula include the following herbs, which are *Ma Huang (Herba Ephedra sinica)*, *Yi Yi Ren (Semen Coix lacryma-jobi)*, *Gui Zhi (Ramulus Cinnarmomum Cassia)*, *Cang Zhu (Rhizoma Atractylodes lance)*, *Dang Gui (Radix Angelica sinensis)*, *Shao Yao (Radix Paeonia lactiflora)* and *Zhi Gan Cao (Radix Glycyrrhiza uralaensis preparata)*. This formula contains blood-activating herbs. *Ma Huang (Herba Ephedra sinic)* can dispels wind-cold and promotes urination to relieve edema; *Yi Yi Ren (Semen Coix lacryma-jobi)* has the functions to promote urination to eliminate dampness and relaxes the muscles to relieve spasms; *Gui Zhi (Ramulus Cinnarmomum Cassia)* and *Cang Zhu (Rhizoma Atractylodes lance)* can dispels wind-cold-dampness, and unblocks the meridians, also can strengthens the spleen; *Dang Gui (Radix Angelica sinensis)* and *Shao Yao (Radix Paeonia lactiflora)* can nourishes the blood and promotes blood circulation and alleviates pain; finally add the *Zhi Gan Cao (Radix Glycyrrhiza uralaensis preparata)* to harmonizes the action of all ingredients. Depend on the patients' situations, the following modifications are recommended:

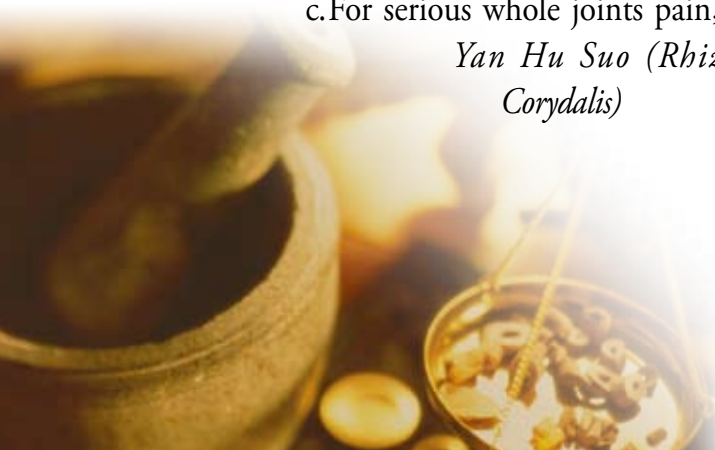
- a. For upper joints pain, add *Ge Gen (Radix Puerariae lonatae)*
- b. For lower joints pain, add *Chuan Niu Xi (Radix Cyathulae)*
- c. For serious whole joints pain, add *Yan Hu Suo (Rhizome Corydalis)*

Data suggest that an increasing number of people will suffer osteoporosis or degenerative joint problems, so it is very important that sufferers understand the various treatment choices available to them. As more clinical data is published regarding the health benefits of natural treatment, such as, Chinese herbal medicine, more people are using the natural treatments to instead the surgery or NSAIDs.

Osteoporosis and osteoarthritis are categorized in traditional Chinese medical theory as kidney deficiency. The kidney stores the reproductive essence. Furthermore, the kidney supplies the bone with marrow, while the bone is filled and nourished with marrow that will be derived from the vital essence of the kidney. There are a number of factors that can lead to osteoporosis and osteoarthritis, most of main reason of bone loss will occur naturally as you get older. Therefore, maintain the body to keep young and get the right thing (food, medicine, supplement and so on) to eat is an important part of traditional Chinese medical theory.

REFERENCE

- Hong-Yen H, Chau-Shin H. *Commonly Used Chinese Herb Formulas*. 4th ed. Taiwan: Oriental Healing Arts Institute, 1990.
- Dan B, Randall B. *Chinese Herbal Medicine Formulas & Strategies*. USA: Eastland Press, Inc. 1990.
- American Pharmaceutical Association. *Handbook of Nonprescription Drugs*. 11th ed. Washington, D.C.: American Pharmaceutical Association, 1996.
- Peng HR and Xiang P. ed. *The Dictionary of Chinese Herbal Formulas*. Vol. X. Beijing, The People's Medical Publishing House, 1997. 



Natto *New Ally in Anti-Cardiovascular Disease?*

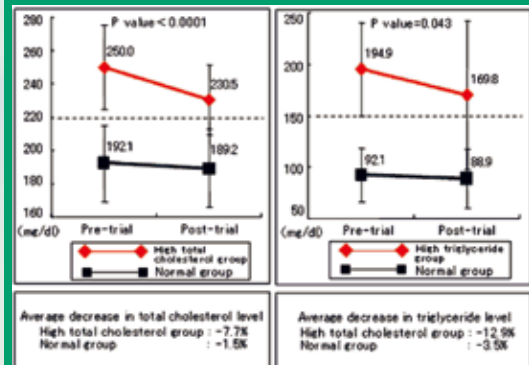
Natto is a popular traditional Japanese food for more than 1000 years. It is made from soybeans fermented by a healthy bacterium called natto bacillus, and appears sticky with strong smell and taste. Nutritional wise, Natto is very healthy food low in cholesterol and sodium. It also contains a good source of protein, vitamin K, magnesium and copper, and a very good source of iron and manganese.

In 1980, Dr. Hiroyuki Sumi of Chicago University Medical School discovered a potent enzyme with strong fibrinolytic (blood clot clearing) activity in natto, which is later known as the nattokinase. Nattokinase not only directly clears blood clots (thrombi) but also breaks down accumulation of fibrin that has been associated with heart disease.



Researchers from National Cardiovascular Center of Japan tested natto on 61 senior citizens, average ages of 65. Results confirmed that there were a 10% or greater decrease in total cholesterol, in the blood; In addition, there were also 10% or greater decrease in body mass index (BMI), waist/hip ratio, abdominal girth, percentage of body fat, and blood pressure (sitting, at rest). **National Cardiovascular Center (Osaka, Japan)**

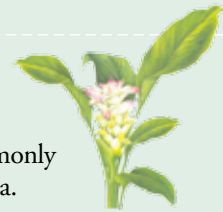
Changes in total cholesterol and triglycerides levels



Average decrease in total cholesterol level: -7.7% in the high cholesterol group, -1.5% in the normal group. Average decrease in triglyceride level: -12.9% in the high triglyceride group, -3.5% in the normal group.

Turmeric *Protection Against Liver Damage*

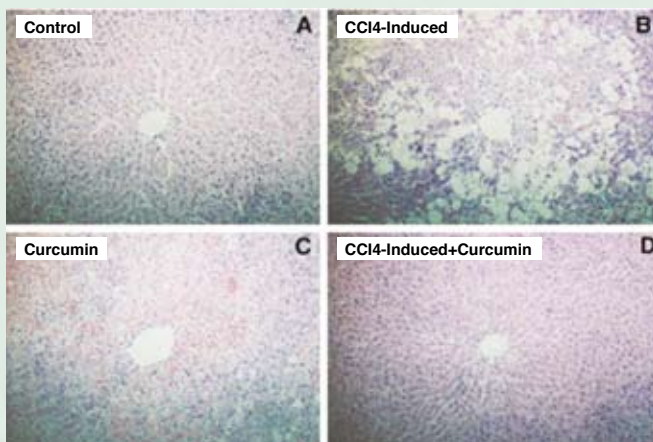
Turmeric, also known as yellow ginger, is a flowering plant in the ginger family, commonly used as a food coloring. It is one of the basic ingredients in curry & yellow mustard in India.



Turmeric also has long been used as an anti-inflammatory. In the Ayurvedic medicine, turmeric is applied after a cut or bruise. Nowadays, curcumin is identified as the active ingredient in turmeric root extracts which has been shown to exert wide scope of health supporting effects, particularly liver protective activity due to its antioxidant mechanisms.

Research has shown that curcumin can offer protection against alcohol or chemical induced liver toxicity in *in vivo* studies. The curcumin treated data showed a significant prevention in fatty liver and liver damage in ethanol or methane tetrachloride induced model, revealing that curcumin has protective effects against alcohol or chemical induced liver toxicity.

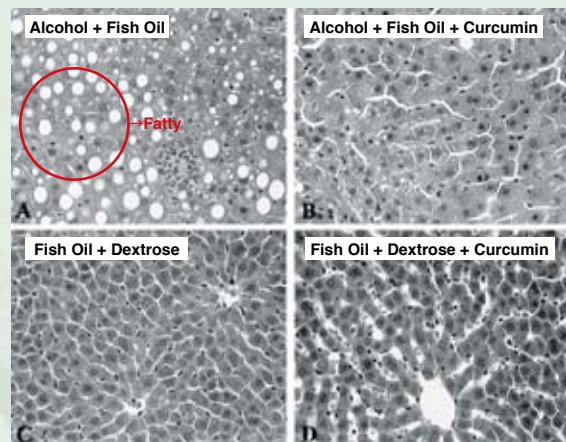
Curcumin prevents chemical induced liver damage via anti-inflammatory & anti-oxidation mechanism



Hematoxylin and eosin staining of liver section from (A) control data (vehicle); (B) methane tetrachloride (CCl₄) treated data; (C) CCl₄-treated with curcumin; and (D) data administered with curcumin alone. Curcumin (200 mg/Kg P.O.) was given before and 2 hr after CCl₄ administration & protects against acute liver injury; extended necrotic areas & distortive liver around portal triads.

Biochimica et Biophysica Acta v1770, p989

Curcumin prevents alcohol induced liver fatty liver & liver injury via anti-inflammatory & anti-oxidation



Hematoxylin and eosin staining of liver section from (A) alcohol and fish oil administered data; (B) alcohol, fish oil administered and curcumin treated data; (C) fish oil and dextrin administered data; and (D) fish oil, dextrose administered and curcumin treated data. Curcumin (75 mg/Kg P.O.) was given with fish oil and ethanol diet to induce fatty liver. Note the absence of necrosis, inflammation, and reduction of fatty liver (D) compared to lack of curcumin (A)

Biochimica et Biophysica Acta v1770, p989

Need a good night sleep?



HERBright

HERBright Sleeping Disorders Care

Sweet Dream™

(Zizyphus Combination)

Strong calming effect to relax mind and improve sleeping quality and time.



620mg / Tablet
90 Tablets / Bottle



500 mg / Capsule
60 Capsules / Bottle

NeuroCalm™

(Semen Platycladi)

Help reduce sleeping difficulties by disperse anxiety and stress.

Australia and New Zealand
Health World Limited
TEL: 61-7-3260-3300
hworld@healthworld.com.au

Eastern Canada
Gerbo Inc.
TEL: 1-450-742-8317

Western Canada
Bema Botanical Solutions
TEL: 1-604-913-9198
info@bemaherbs.com

France, Spain, Andorra, and Portugal
Harmonia | Naturalesa
TEL: 376-737-060
harmonianet@harmonianet.com

Israel
Moav Medical Clinic
TEL: 972-77-202-8100
gidl@moavmedic.com

Malaysia
Sun Ten Pharmaceutical MFG(M) SDN BHD
TEL: 603-6272-1928
sunten@tm.net.my

Switzerland, Germany, Austria, Liechtenstein
Complemedis AG
TEL: 41-62-836-40-70
info@complemedis.ch

UK and Ireland
Herbprime Co., Ltd.
TEL: 44-161-872-1118
0800-310-1588
order@herbprime.com

USA
Brion Herbs Corporation
TEL: 1-949-587-1238
service@brionherbs.com

USA
Hello Medical Supplies, Inc.
TEL: 1-408-433-3355
sales@heliomed.com