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Vibrant Health's

Vibrant News

NEWSLETTER

Introducing

Joint Vibrance

The Name Says it All

Joint Vibrance is the answer to a prayer. Sore, wobbly or aching joints — so common as we hit 40 and beyond — may gradually fade with **regular** use of Joint Vibrance. It's true. Ample clinical research on Arthred™, the key ingredient in Joint Vibrance, documents the relief many people should expect.

Who Needs It

Population studies show that most of us have sustained some amount of damage to cartilage in our joints by the time we reach age 32. Many factors can affect joint health and the integrity of cartilage. Among them are diet, genetic make-up, and the way a joint has been used or abused. Each person's genetic code, for example, can influence the thickness and durability of his or her cartilage and the predisposition to arthritis. Many men with creaking knees can recall a youth spent heavily engaged in athletics and clouded in dietary ignorance. Those years set the stage for noticeable joint deterioration later in life. The irony of playing field glory for professional athletes is all too often a sadder retirement beset by nagging pains in shoulders, knees, back, elbows and/or wrists.

Mature adults, in casual conversation with friends and neighbors, usually discover that nearly everyone in their age group has at least one "hinge" that is becoming "unhinged." It may catch or grind or be sore and tight in the morning. Sometimes the joint will feel O.K. most of the time, as long as it isn't used in a certain way. We've been told, "My knee feels fine, unless I stand too long or ride in the car too long. Then the aching starts, and my knee stiffens up. I don't like it! It makes me feel like an old man."

What Can I do?

How can this happen? Age? Yes. Use? Yes. Injury?

Yes. Diet? Sometimes. Is there anything that can be done? Yes. Eat whole, natural foods. Limit sugar intake. Get adequate protein, fats and minerals in your diet. Chew the ends off chicken bones if you eat chicken. Take care of yourself — which means don't do crazy things such as jumping off the roof onto your driveway for no good reason (house fires excepted.) And take Joint Vibrance.

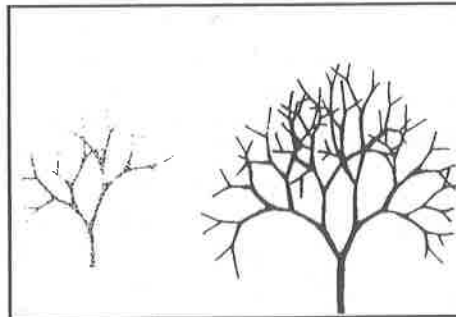
What Does Joint Vibrance Do?

Joint Vibrance will rehydrate and rebuild cartilage as long as there is still a good bit of cartilage in the joint to serve as base material. Joint Vibrance will firm up and strengthen connective tissue (cartilage, ligaments, tendons, collagen, elastin.) It will inhibit natural enzymes (elastase and collagenase) that have been trying to tear you apart for your entire life! It will help combat inflammation. The result will be a stronger, less painful, more youthful joint with a greater range of use.

Joint Vibrance is based on a new, patented hydrolyzed bovine (moo!) collagen named "Arthred™". It is enzymatically digested (hydrolyzed), pharmaceutically pure collagen that can regenerate cartilage when

taken orally *each day for six weeks or more.*

Cartilage is, after all, largely collagen. The structure, flexibility and strength of cartilage is due to collagen. Cells called chondrocytes build cartilage, and never lose their ability to do so.



no matter how old one may be. Feeding chondrocytes what they need can stimulate reconstruction of cartilage. (see Techies' Corner, p. 3)

How to Take It

The recommended dose of Arthred™ is 7 to 10 grams per day. It is very important that Arthred™ be

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Green Vibrance Meets Hydrilla



HYDRILLA VERTICILLATA is a new green food -- a fresh water plant of supreme nutrient density and bland taste. Hydrilla brings additional, stunning concentrated nutrition to **Green Vibrance**. In one month's use of **Green Vibrance** (30 doses), a consumer will benefit from 10.5 grams of Hydrilla verticillata and 10.5 grams of Chlorella, a well-known and respected green super-food. Here is how they compare. (Higher potencies in *italics*)

Nutrient	Hydrilla	Chlorella
Beta carotene	<i>19,593i.u.</i>	5,838i.u.
Vitamin B-1	<i>26.25 mg.</i>	0.1575 mg.
Vitamin B-2	0.084 mg.	<i>0.483 mg</i>
Vitamin B-3	<i>5.25 mg.</i>	2.52 mg.
Vitamin B-5	<i>11.36 mg.</i>	0.147 mg.
Vitamin B-6	<i>35.91 mg.</i>	0.147 mg.
Vitamin B-12	<i>1.05 mg.</i>	0.126 mg.
Calcium	<i>1,460.7 mg.</i>	21 mg.
Magnesium	<i>76.13 mg.</i>	21 mg.
Potassium	<i>244.65 mg.</i>	33.6 mg.
Phosphorus	29.74 mg.	<i>70.35 mg.</i>
Iron	<i>35.8 mg.</i>	16.8 mg.
Zinc	6.3 mg.	6.3 mg.
Manganese	24.47 mg.	N/A
Copper	0.22 mg.	N/A
Cobalt	0.43 mg.	N/A
Molybdenum	14.7 mcg.	N/A

Hydrilla is especially valuable to true vegetarians. Vitamin B-12, Iron and Calcium are commonly supplied by animal foods (e.g. milk, cheese, meats) in an omnivorous diet. Among other functions, the three nutrients are responsible for maintaining mental health (cognition, attention span, neuronal life), for delivery of oxygen to cells, and for the maintenance of strong bones and resilient connective tissue. Adequate amounts of B-12, iron and calcium are difficult to obtain in vegan diets. **Green Vibrance**, with its new complement of Hydrilla verticillata, delivers significant potencies of these "animal factor" nutrients from truly vegetable sources. **Green Vibrance** is a strong guardian of optimal health for vegans and omnivores alike.

Hydrilla also boosts the beta-carotene content of **Green Vibrance**, delivering even more anti-oxidant, anti-aging, anti-pollution protection than before. The naturally high content of B-vitamins will fuel and protect neurological tissue and support overall metabolism.

Consumers appreciate our 15 billion dairy-free probiotics per serving. They love the taste of **Green Vibrance**.

TECHIE'S CORNER (A NATURAL SEDATIVE)

Serious Joint Info

Cartilage is a specialized fibrous connective tissue that contains numerous collagenous fibers embedded within a firm matrix of chondrin, a protein-carbohydrate complex. Due to the firm chondrin matrix, the connective tissue is able to function as a structural support. At the same time, the presence of fibers within the matrix imparts a certain amount of flexibility to cartilage.

The original fibers and matrix of cartilage are formed by cells called chondroblasts. Each chondroblast becomes surrounded by the fibers and matrix that it produces. As a result, the cartilage-forming cells eventually occupy a small space called the lacuna. When cartilage formation is complete, the chondroblast produces only enough matrix to maintain the cartilage. These mature cells are then called chondrocytes. The chondrin matrix is nonvascular. The only blood supply to cartilage is provided by blood vessels that are found in the inner layer of the perichondrium, a fibrous connective tissue membrane that covers the external surface of all cartilaginous structures (with the exception of the articular cartilage of joints). This being the case, nourishment of chondrocytes depends upon the diffusion of nutrients through the chondrin of the matrix from the capillaries that are located within the perichondrium or from the synovial fluid of joint cavities. Similarly, waste materials must diffuse from the cells to the vascular perichondrium. Cartilage is divided into three types, based upon variations in its fibrous structure: hyaline, elastic, and fibrocartilage.

HYALINE CARTILAGE Cartilage that contains many closely packed collagenous fibers that are dispersed evenly throughout the matrix is hyaline cartilage. Hyaline cartilage has a glassy appearance and is smooth and very firm, but pliable. The most abundant type of cartilage in the body, it is found primarily in places where strong support is needed and yet some flexibility is desirable. In particular, hyaline cartilage forms most of the embryonic skeleton which is gradually replaced by bone. It also makes up the costal cartilages that attach the ribs to the sternum (breastbone) and that allow the thorax to expand during respiration. The cartilage rings of the trachea are also hyaline cartilage, as are the articular cartilages on the ends of bones where two bones meet to form a joint. Joint cartilages protect the bones from wear, and provide smooth, moist surfaces that permit body movement with minimal friction.

ELASTIC CARTILAGE There is a need for some body structures to furnish firm but elastic support. This is the function of elastic cartilage. Elastic cartilage contains collagenous fibers like hyaline cartilage, but the fibers are not as closely packed. In addition, elastic cartilage contains a generous network of elastic fibers. This cartilage forms the external ear, the epiglottis and auditory (Eustachian) tubes.

FIBROCARILAGE The construction of fibrocartilage differs from hyaline cartilage in that its collagenous fibers are arranged in thick bundles, giving the matrix a coarse appearance. Actually, fibrocartilage somewhat resembles dense regular connective tissue. Because the fibers are not compacted as much as those in hyaline cartilage, fibrocartilage is slightly compressible. This makes it beneficial in regions that support the body weight or that are subjected to heavy pressures. It forms the intervertebral discs, which provide cushions between each vertebra; the articular discs, which are located within the knee joint; and the pad of the pubic symphysis to create a partially moveable joint between each pelvic bone.

(Continued from page 1)

taken consistently for at least 6 weeks or longer. Why? Because cartilage is a non-vascular tissue. The only blood supply to cartilage is provided by vessels embedded in the inner layer of a fibrous membrane (perichondrium) that covers the outer surface of all cartilaginous structures *except* the cartilage of flexible, "articular" joints. These include the knees, elbows, shoulders, wrists, etc. — the very joints where most of us have problems.

Why You Must Take It Every Day

Without capillaries mainlining the healing power of Arthred™ and the other ingredients of Joint Vibrance directly into cartilage, the healing amino acids, peptides, trace nutrients and co-factors must slowly diffuse through the structural matrix of cartilage from synovial fluid lubricating joints and from the capillaries of the perichondrium. If one uses Joint Vibrance every day (VERY IMPORTANT), he or she will literally push the river of nourishment, urging more of the healing nourishment over, through, and deep into cartilage. Eventually it will seep down to the chondrocytes, and repair will begin. The wait is worth it!

Regeneration usually begins at about six weeks. Our experience shows, however, that some improvement can be felt at about three weeks. Each case is different though, particularly in the highly individual realm of joint health. We all have a personal genetic script to follow, and we have all used our bodies differently over the years. Let us know how Joint Vibrance serves you. We'd love to hear your success story.

What's In Joint Vibrance

The daily dose of Joint Vibrance is one scoop in apple or grape juice (recommended). In that scoop will be Arthred™, of course, at the sure-to-work dosage of ten grams. To the base of Arthred™, we have added glucosamine HCL, 1.5 grams. The hydrochloride form is used instead of sulfate because the HCL molecule is smaller, thereby delivering more actual glucosamine in the 1.5 grams than would a sulfate form. Research shows that HCL may also be more bioavailable.

Glucosamine has been heralded as *the* supplement for healing and rebuilding cartilage, as was Chondroitin sulfate A (CSA) before it. In fact, glucosamine is a major constituent of hyaluronic acid. Hyaluronic acid is an acidic mucopolysaccharide present in the extracellular (outside the cells) ground substance of connective tissues. It is famous for attracting and holding moisture. It also is complexed to other protein-sugars during construction of ground substances in connective tissues. Dietary glucosamine then is notable for its ability to increase hyaluronic acid supplies, leading to re-hydration of cartilage and the build-up of its adhesive ground substance (chondrin.)

The re-infusion of water into cartilage caused by glucosamine will plump it up to restore

some of its shock-absorbing properties. This is a welcome synergistic effect built into Joint Vibrance.

Chondroitin is another acidic mucopolysaccharide like hyaluronic acid, but contains galactosamine instead of glucosamine. Its sulfate form (CSA) is also a major component of cartilage as part of the protein-carbohydrate matrix (chondrin) in which abundant collagen fibers are embedded.

Both glucosamine and CSA are in Joint Vibrance in recognition of their *value* to connective tissue, but (contrary to distorted or misinterpreted news stories) neither is a rapid or efficient rebuild of cartilage. **Specific nutrients must be utilized by chondrocytes to build new cartilage. Glucosamine and Chondroitin sulfate by themselves are NOT those nutrients.** More than thick, moist ground substance is needed.

Building Cartilage

Cartilage regeneration requires collagen built from the amino acids **proline, hydroxyproline, Hydroxylysine, and Glycine**, for example. Arthred™ supplies them in Joint Vibrance. Enzymes reliant on calcium, manganese, zinc, copper and other nutrients do the work. CSA stimulates chondrocytes to fuller activity, and helps maintain cartilage's chondrin matrix, but if the other raw materials are not present in sufficient quantities, cartilage will not be constructed.

If, for example, one takes 1.5 to 3 grams of glucosamine HCL and/or CSA each day forever into the future, some restoration of cartilage may occur. But the rate of repair will be more reliant upon the availability of all required nutrients and on the condition of the cartilage in the joint needing rehabilitation, than on the amount of CSA and glucosamine.

The synergistic balance of Joint Vibrance extends into the mineral pack of **calcium, manganese, magnesium, zinc and boron**. All are here in highly bioavailable forms. Calcium plus vitamin C (also part of the Joint Vibrance formula) are needed to form hydroxyproline, a major structural amino acid of connective tissue. Arthred™ supplies a good portion of **hydroxyproline**, so the Joint Vibrance synergists, calcium and vitamin C, expand upon that supplemental dose by supporting the body's own production.

Boron helps guarantee that calcium will be retained for use in hydroxy-proline synthesis. Studies have repeatedly demonstrated that inadequate dietary boron causes one to slip into negative calcium balance, where more calcium is lost each day in the urine than is retained in the body. The other two trace minerals, zinc and manganese, are required to "set" and strengthen connective tissue.

Quelling Inflammation

Many damaged or deteriorating joints become inflamed. Several herbal components in Joint Vibrance may help control the discomfort. **Boswellic acid, curcuminoids, and proanthocyanidins (OPCs)**

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(...Hydrilla...Continued from page 3)

They respect our formula and the care taken in manufacturing. Our sources of supply are some of the finest and most respected in our industry. We honor you and them by assembling the components of **Green Vibrance** into the industry's "benchmark" green food product.

Green Vibrance moves on beyond the competition and copy-cat products with the addition of Hydrilla.

Green Vi-  **brance** led the way.

A Tree Grows in Japan

Black Pine Nut and Cone Extract

Immune Boosting Power May Help Cancer & HIV Patients

EVERY CULTURE has its own folk medicine, or so it seems. The Japanese are no different. There is a long standing tradition of the use of a decoction (hot water extraction or tea) of certain pine cones to improve the condition of patients with stomach cancer. Researchers at Showa University in Tokyo and at their research center in St. Petersburg, Florida began investigation into this folk remedy for cancer during the 1980's.

A series of nine polysaccharides were eventually isolated from certain species of pine nuts and cones, and were investigated. Neutral polysaccharides showed no anti-cancer activity, but the acidic polysaccharides did. Five were shown to have antitumor effects with those labeled KS6 and KS7 the strongest. Although largely made up of mannose, galactose and glucose molecules, other saccharides (sugars) may be present in the structure of these complex molecules. Analysis of the effective polysaccharides also indicates the absence of sulfur and nitrogen, but the possible existence of polyphenols in the molecules. The group of active acidic polysaccharides has been concentrated in a freeze dried extract marketed by MATSU in this country.

The ability of the pine cone polysaccharides to cause tumor death is not linked to any directly lethal action by the extracts against tumor cells. Instead, the polysaccharides stimulate the host animal's own mechanisms to rid its body of the cancer. We are, in effect, talking about a profound immune stimulant in the form of very special pine cone polysaccharides. The KS7 polysaccharide has been most intensely examined. It is now believed that it activates macrophages and granulocytes to such a level that they scavenge tumor cells.

In AIDS tests carried out at the Virology Depart-





OUCH! Curcuminoids to the Rescue


Wonderful yellow/orange curcuminoids do wonderful things. Perhaps one of the reasons curcuminoids are so brilliantly yellow is to catch your attention. After all, they have been languishing within the Indian herb, Turmeric, for a long time while other polyphenols have gone on to fame and fortune. Curcuminoids' kin include proanthocyanidins (OPCs) from pine bark and grape seed, Silymarin from milk thistle, ginkgo flavonoglycosides from Ginkgo biloba, and other plant materials. They are all known as antioxidants, and all improve capillary circulation. A degree of activity in controlling inflammation is native to them all too.

Curcuminoids are strong antioxidants and potent anti-inflammatory agents. They perform these feats effectively, safely, *and cheaply*. Curcuminoid extract, at a whopping 95+% curcuminoids, is far less expensive than any of the above mentioned cousins. Perhaps that is why curcuminoids are being recognized last: No one could believe something so good could be so inexpensive! Look on them as the poor man's OPC — or rather the smart shopper's OPC.

The contingent of smart shoppers should include hay fever sufferers, arthritics, weekend warriors hobbling with sports injuries, and anyone else who would like to teach free radicals a lesson — not people lose in the streets, but the free radicals at work in the human body. Quenching free radicals is often a job that goes unnoticed. We don't feel free radicals dying when they are snuffed out.


But we do feel when joint or muscle inflammation is reduced. Here is where curcuminoids can step ahead of its relatives. So when you're feeling an ache or a pain due to inflammation from an injured  joint or strained muscle, give one or two capsules of curcuminoids 95+ a chance to  help.

ment of Showa University Medical Science Institute in Florida, KS7 suppressed growth of the AIDS virus in cultured T cells by 70 to 90 percent. Uninfected t cells pre-treated with exposure to KS7 for 7 days survived at least 200% longer than expected after infection. Researchers concluded that the polysaccharide blocks invasion by the AIDS virus either directly or by stimulating the release of some other cellular protectant.

The value of Japanese pine nut and cone extracts continues to grow. Later research now indicates that it may not only be of value in nutritional programs supporting AIDS and cancer patients. Showa University in Tokyo has published (*Anticancer Res.*, 11 (2):881-8, Mar-April, 1991) that "these antitumor substances were also potent antiviral agents against human immunodeficiency virus, herpes simplex virus and influenza virus; they induced antimicrobial activity against Staphylococcal aureus, Escherichia coli, Pseudomonus aeruginosa, Klebsiella pneumoniae and Candida albicans, and induced antiparasite activity against Hymenolepis nana in mice. Continued testing in different mammalian species in the future will provide man with an indication of the true value of these pine cone ex-  tracts for humans.

(*Joint Vibrance - Continued from page 2*)--

are all known to do some or all of the following toward controlling inflammation:

- Scavenge free radicals
 - Inhibit mast cell degranulation
 - Reduce histamine release
 - Neutralize leucotrienes
 - Cross link damaged collagen fibers to reduce capillary leakage
- OPCs also give Arthred™ and the other regenerative nutrients in Joint Vibrance a better chance to work by inhibiting elastase and collagenase enzymes. Who are these villains mentioned parenthetically earlier? They are enzymes we all make that break down our own collagen and elastin, major structural components of connective tissue. By slowing  them down, OPCs give the rebuild- ing process a better chance to get ahead. OPCs addition-