



April 1 - May 15 2007

SHOW SPECIAL!

If it meets
the Olympic
testing
standards,
it's good
enough
for us!

The
**Infectious
Hospital**

Give yourself a
fighting chance

STRONG BONES:
The most absorbable
bone support supplement

[Cancer Prevention Products]

D-RIBOSE:
Rid Yourself of Fibromyalgia and Fatigue

Rid Yourself of Fibromyalgia and Fatigue with D-Ribose



Fatigue or a lack of energy may actually reflect reduced energy in our cells, rather than the 'just getting older' symptom.

The key to boosting cellular energy is to provide your cells with the necessary fuel needed to function at peak performance. The enzyme adenosine triphosphate (ATP) is the major source of energy for all cells. With a simple five-carbon molecule found in every cell of the body called D-Ribose, or simply 'ribose'. D-Ribose's main function is to regulate the production of ATP. D-Ribose also supplies extra energy for exercise, and restores energy after sustained exertion.

D-Ribose can be made naturally in the body, but it's a slow process limited by several enzymes that are lacking in heart and muscle cells. As age increases, ATP levels decrease, making it hard for our cells to keep up. When body stresses such as heart or muscles are challenged from a lack of oxygen, they can benefit from a D-Ribose boost to restore ATP levels.

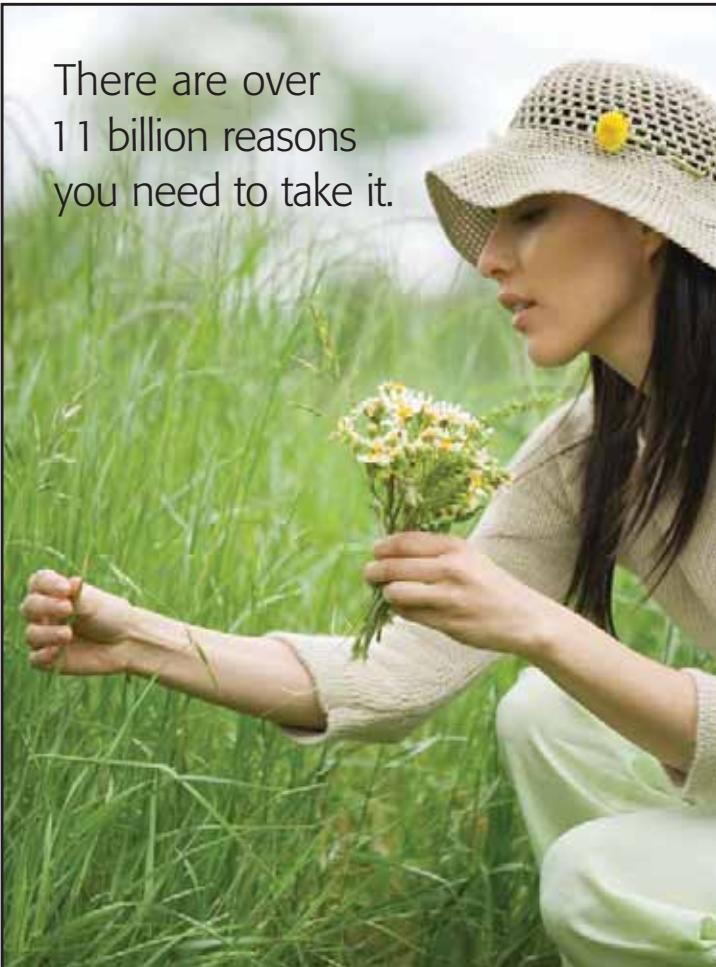
A two week treatment erases debilitating pain and fatigue
Although scientists are not sure what causes fibromyalgia, many people experience symptoms of pain, fatigue, sleep disturbances, depression and anxiety. It is estimated that fatigue occurs in about 90 per cent of people who have fibromyalgia. Until now, there have been few tools to help these patients as it's often difficult both to diagnose and to treat. However, researchers found that **D-Ribose** can provide significant improvement, as seen in the following

case study published last year in the journal *Pharmacotherapy*:

At 37, Kris, a veterinary surgeon and researcher at a major university, became so debilitated from fibromyalgia she had to give up her practice. But then she joined a clinical study on fibromyalgia and began taking 5 grams of **D-Ribose** two times per day (10 grams per day). Within one week, she felt better. Within two weeks, she was back at work in the operating room. Over the course of the following month, she continued to improve. After one month, however, Kris stopped her treatment. Ten days later, she was totally debilitated again and could no longer perform surgery. So she began **D-Ribose** treatment for a second time, again with dramatically positive results, and has remained symptom-free as long as she takes the supplement regularly.

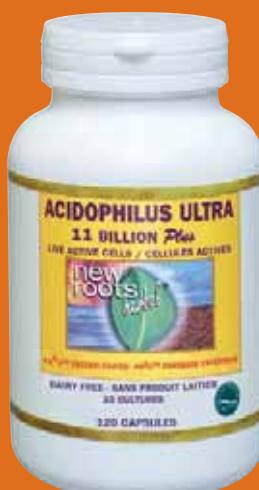
Although this is only one example of how **D-Ribose** benefited a fibromyalgia sufferer, it does suggest that this is a good area for researchers to pursue. While there is no official explanation as to why **D-Ribose** is so effective for this condition, it could go back to its roots in ATP production. People with fibromyalgia have lower levels of ATP and a reduced capacity to make ATP in their muscles. The effect of **D-Ribose** on the production of ATP may be the link to reducing the strain in affected muscles and

There are over
11 billion reasons
you need to take it.



ACIDOPHILUS ULTRA

STOMACH ACIDS CAN DESTROY
UP TO 99% OF PROBIOTICS
IN ORDINARY CAPSULES.



ACIDOPHILUS ULTRA - a unique formulation of 10 probiotic cultures - uses **PH⁵D** enteric-coated capsules to bypass stomach acids and deliver 11 billion cells to your intestines. Once there, ACIDOPHILUS ULTRA cleans, protects, aids in protein digestion, stimulates the immune system and completely replenishes your gastro-intestinal system. Knowing all that, it's hard to imagine a reason why you're not taking it.



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PREVENTION & CURE

allowing patients to return to their previously active lifestyles.

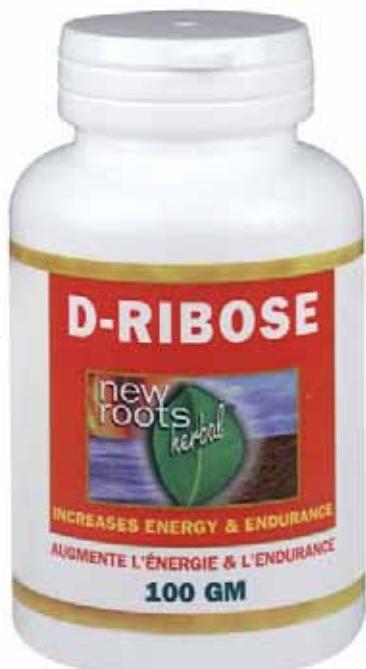
There are other nutrients that, like **D-Ribose**, are necessary for ATP production. One is malic acid, which also helps to combat fibromyalgia's chronic muscle soreness. Another is magnesium. But adding **D-Ribose** has sparked even better results. This one case study suggests that boosting ATP production with **D-Ribose** supplementation may in fact aid and assist in improving energy levels and help support conditions like fibromyalgia and fatigue.

Side-effect-free at 12 times the standard dose **D-Ribose** has almost no side-effects, with thousands of patients having taken **D-Ribose** in doses up to 60 grams per day. How can we be so sure that **D-Ribose** is safe? Well, first, **D-Ribose** is made naturally by the body and works with the body's own chemistry. Glucose, the main sugar of the body, is converted to **D-Ribose** within the cells. The amount of **D-Ribose** recommended for supplementation is very small: only about 5 grams one to three times per day. And finally, there's virtually no chance of over-supplementation: Like B vitamins, your body safely eliminates what it doesn't need. The only warning is that it may cause over stimulation if taken too close to bedtime.

Maintenance doses of 1 to 5 grams per day should be enough to maintain normal ATP levels. **D-Ribose** comes in a powder form that can be mixed with water: 5 grams is about one teaspoonful of the powder. For fibromyalgia sufferers, try 5 grams two or three times daily.

Although **D-Ribose** is a sugar, for those of you watching your carbohydrate intake, including diabetics, **D-Ribose** does not act like glucose in raising blood sugar. In fact, it causes a brief dip in glucose, which then normalizes.

So whether you have fibromyalgia, low energy, or simply want to enhance your workouts, you can recharge your cellular batteries with New Roots Herbal's **D-Ribose**.



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The Infectious Hospital

Give yourself a fighting chance

Clostridium difficile, commonly called C. difficile, is a bacterium that causes diarrhea and other serious intestinal conditions. It is the most common cause of infectious diarrhea in hospitalized patients in the industrialized world.

Background (Health Canada)

C. difficile is one of the most common infections found in hospitals and long-term care facilities. C. difficile bacteria are found in feces. People can become infected if they touch items or surfaces that are contaminated with fecal traces, then touch their mouth or nose. Health care workers can spread the bacteria to other patients or contaminate surfaces through hand contact.

The use of antibiotics increases the chances of developing C. difficile diarrhea because antibiotics alter the required levels of good bacteria found in the intestines and colon to fight off bad bacteria such as C. difficile. When there are fewer good bacteria, C. difficile can thrive and produce toxins that can cause an infection. In hospital and long-term care settings, the combination of a number of people receiving antibiotics and the presence of C. difficile can lead to frequent outbreaks.

A study in Quebec showed that a stronger strain of the bacteria may be present in hospitals in the province. The study found that C. difficile was indirectly responsible for 108 deaths during a six-month period. Also, recently in a hospital in St. Hyacinthe, Quebec the bacteria was responsible for another sixteen deaths. While many of these patients were seniors and other factors contributed to their deaths, younger patients were also affected.

Symptoms of C. difficile:

- watery diarrhea (at least three bowel movements per day for two or more days);
- fever;
- loss of appetite;
- nausea; and
- abdominal pain or tenderness

Health Risks of C. difficile

Most commonly, the infection causes diarrhea, which can lead to serious complications, including dehydration and colitis. In some cases, it can be fatal. For people with mild symptoms, no treatment is needed. The symptoms usually clear up once the patient stops

using antibiotics. In severe cases, medication and even surgery may be needed.

Minimizing Your Risk

As with any infectious disease, washing your hands often in warm soapy water for at least 20 seconds is a good defense against bacteria such as C. difficile. Also, supplementing **New Roots Herbal's Hospital Bacteria Defense** can help prior to visiting or being admitted. Taking **Hospital Bacteria Defense** three days prior to entering an infectious zone offers the best protection against C. difficile.

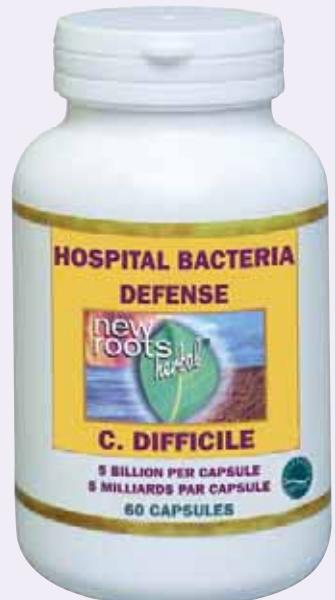
Hospital Bacteria Defense is composed of Saccharomyces boulardii, considered a non-pathogenic, non-colonizing baker's yeast species, which is very closely related to brewer's yeast. **Hospital Bacteria Defense** contains 5 billion cells per capsule. The S. boulardii, although is recognized as yeast and is not related to the Candida species.

Hospital Bacteria Defense is used to prevent diarrhea associated with antibiotic use. C. difficile is a gram-positive anaerobic bacterium that is now recognized as the major causative agent of colitis (inflammation of the colon) and diarrhea that may occur following antibiotic intake. C. difficile infection represents one of the most common hospital (nosocomial) infections around the world.

HOSPITAL BACTERIA DEFENSE:

A unique probiotic that provides resistance to C. difficile.

- Survives stomach acids
- Not adversely affected or inhibited by antibiotics
- Can be taken with other probiotics
- Does not alter or affect normal intestinal flora
- Attacks and kills Candida albican cells





If it meets the Olympic testing standards, it's good enough for us!

The species *Origanum minutiflorum* that grows in the higher altitudes of the Turkish mountains contains more than 73% carvacrol, and even up to 93.00%. This has been demonstrated by scientific research carried out by Anadolu University, at the department of pharmacology. The research developed by their Center for Breeding Research on Cultivated Plants, Institute of plant analysis in Quedlinberg, Germany, in the first document published in an international journal called Elsevier, confirmed that the average carvacrol content of *Origanum minutiflorum* oil was 82.9%. In another study at the department of pharmacology in Ankara University on the 25th of January, 1996, it was further verified and published that the carvacrol content (*Origanum minutiflorum* a to c) reached 90.7% and 92.95% respectively. It was also verified to be naturally occurring without the use of any synthetic chemicals or solvents. There

are over 21 species of *Origanum* growing wild in Turkey alone and the altitude of where they grow can determine their carvacrol content.

Here at New Roots Herbal we access the same laboratory equipment, brand and model, that is used for drug testing on Olympic athletes. Montreal hosts the headquarters for Olympic drug testing and their lab confirms and or verifies any disputes that may arise in these sporting events. With these sophisticated instruments, we achieve the most precise test results possible today.

C93 Oregano Oil uses a specific species (*origanum minutiflorum*) of wild oregano found only in the highest altitudes of the Mediterranean mountains. It is cold pressed, steam distilled, chemical free and assayed to contain a minimum of 91-95% carvacrol. Oregano oil quality is determined by its carvacrol content and we use the purest natural carvacrol concentration of any oregano oil available on the planet.

Oregano oil is used for the management of many ailments including fighting off various colds, flues, bacteria, viruses, parasites and fungus.

WILD MEDITERRANEAN OREGANO OIL **C 93**

Highest carvacrol content available: 93%.

- Kills off colds, flu, viruses, bacteria, fungal and so much more!
- Heals bladder, kidney and other infections
- Treats cold sores, toothaches, dandruff and gum disorders
- Taste the difference!



**Origanum minutiflorum O. Schwarz et P.H. Davis
Ucucu Yagmin Bilesimi ve Antimikrobiyal Aktivitesi**

Chemical composition and antimicrobial properties
of the essential oil of *origanum minutiflorum*
O. Schwarz et P.H. Davis

Bilesikler	Sample 1	Sample 2
trisiklen	% 0.002	% 0.002
α -pinen+ α -luyen	0.341	0.294
kamfen	0.067	0.052
β -pinen	0.044	0.035
sabinen	0.004	eser
Δ 4-karen	0.003	0.003
Δ 3-karen	0.015	0.013
mirsen+ α -fellandren	0.377	0.312
α -terpinen	0.078	0.108
limonen	0.050	0.039
β -fellandren	0.048	0.040
cis- β -osimen	eser	eser
γ -terpinen	0.614	0.445
trans- β -osimen	eser	0.004
p-simen	1.254	1.001
terpinolene	0.026	0.031
$\ddot{\text{o}}$ kaliptol	0.508	0.229
3-oktanon	eser	eser
3-oktanol	0.012	0.034
fentan	0.124	0.159
trans-sabinen hidrat	0.965	0.758
linalol	0.063	0.040
cis-sabinen hidrat	0.258	0.234
cis-p-menten-1-ol	0.049	0.024
bornil asetat	eser	-
terpinen-4-ol	1.150	0.529
trans-p-menten-1-ol	0.108	0.067
borneol	0.389	0.200
α -terpineol	1.100	0.716
karvon	0.075	0.080
geraniol	eser	eser
timol	0.248	0.216
karvakrol	90.784	92.950
bilinmeyen	1.224	1.388



Characterisation of essential oil plants from Turkey by IR and Raman spectroscopy

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Typical gas chromatographic composition of the individual investigated essential oil plants collected in Turkey

Species	Main volatile components (%)			
	Carvacrol	Thymol	<i>p</i> -Cymene	γ -Terpinene
<i>Thymbra spicata</i>	62.3		9.4	17.4
<i>Thymbra spicata</i>	71.7		8.5	9.8
<i>Satureja thymbra</i>	41.6		7.7	14.0
<i>Satureja cuneifolia</i>	72.3		6.4	5.8
<i>Origanum minutiflorum</i>	82.9			
<i>Origanum syriacum</i>	60.5		7.4	
<i>Origanum onites</i>	69.0	5.7	5.1	
<i>Coridophthymus capitatus</i>	60.4	8.8	6.7	9.2
<i>Origanum spyleum</i>	35.4	41.0	11.0	5.4
<i>Origanum vulgare</i>	39.1	22.2	9.3	15.5
<i>Satureja cilicia</i>	18.9	22.8	19.5	14.4
<i>Satureja cuneifolia</i>	10.1	10.1	19.3	19.2
<i>Thymus zygoides</i>		42.6	16.8	

New Roots Herbal's Wild Mediterranean Oregano Oil C93 is available in 15 ml, 30 ml and 60 ml formats.

Wild Mediterranean Oregano Oil C93 kit (shown right).



Strong Bones:

A superior bone support supplement



The importance of adequate calcium in preventing osteoporosis is imperative. Although calcium cannot work alone in creating strong healthy bones, it is one of the main constituents of bone mass. Living bone is a complex tissue composed of calcium, phosphorus, magnesium and over 20 trace minerals. Calcium and phosphorus at a 2 to 1 ratio, predominantly as crystal structures, are called hydroxyapatite. In addition, bone strength depends on collagen and connective-tissue factors called "glycosaminoglycans." All of these elements are lost in osteoporosis, not just calcium.

Absorbing calcium

The physiological balance of the mineral structure, organic constituents and whole bone extract of the calcium hydroxyapatite was found to be a more beneficial form of calcium, seeing as it is the same structure as human bones. A ten-year British study showed that was indeed the case. Microcrystalline calcium hydroxyapatite (MCHA), an extract from bovine bone, was found to be an extremely bioavailable form of calcium. The superiority of MCHA, compared to traditional forms of calcium, was shown in a number of controlled calcium balance and calcium absorption studies. The whole bone extract was exceptionally well absorbed, producing more prolonged levels than soluble calcium salts such as calcium citrate, HVP chelate or gluconate. **MCHA was uniquely found to not only prevent further loss of bone, but also restore bone mineral content.** It was also surprisingly well tolerated. Unlike calcium carbonate, MCHA did not produce stomach upset.

Proper processing is the key

It is important not to confuse Microcrystalline Calcium Hydroxyapatite with bone meal. Although MCHA is derived from bovine bone, Strong Bones from New Roots Herbal uses only MCHA that goes through a special freeze-dried process to retain all the minerals and organic residues in their natural ratios. Bone meal products, on the other hand, have been heated or treated with chemical solvents destroying many beneficial nutrients. Studies showed this special freeze drying process demonstrated superior calcium absorption and utilization. The organic components of the bone collagen, mucopolysaccharides, amino acids and the complete natural crystalline structure, appear to contribute to the enhanced absorption and bone uptake of calcium.

Regular bone meal is often obtained from the bones of older cows, which typically have unacceptable levels of lead, hormones, antibiotics and other toxic contaminants. Strong Bones utilizes MCHA that has been sourced from New Zealand, a BSE free country. These cows are free-range fed only in fields where pesticides, herbicides and inorganic fertilizers are illegal for use. MCHA should also not be confused with the hydroxyapatite derived from phosphate rock. Although the hydroxyapatite (calcium phosphate hydroxide) compound that is present in bone also occurs in phosphate rock, it does not have the absorbable structure or organic constituents of MCHA.

The microcrystalline structure of New Roots Herbal's MCHA

contributes to calcium absorption by providing a large surface area from which the minerals in their organic matrix can be easily released and absorbed within the intestine.

MCHA and the risk of osteoporosis

Microcrystalline calcium hydroxyapatite compound has numerous advantages over other forms of calcium, making it a favorable choice of those who wish to supplement calcium as part of an overall approach to the prevention of osteoporosis. It is exceptionally well absorbed and tolerated. Unlike other calcium supplements, MCHA provides physiological amounts of bone matrix components, making it a comprehensive bone support supplement. The importance of adequate calcium uptake for skeletal health particularly for women entering menopause can be the key to the prevention of osteoporosis. New studies indicate that calcium uptake is important even before menopause commences.

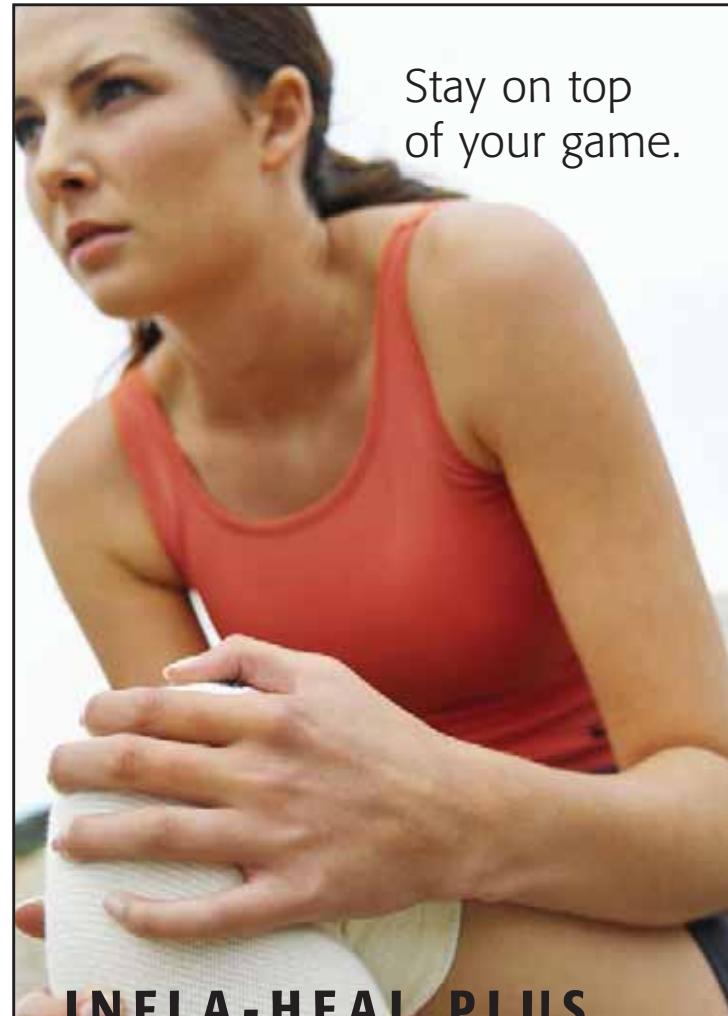
How much calcium do you need?

The diets of most North Americans supply on average, 450 to 550 mg of calcium daily. These levels are well below the recommended daily allowance of 800 mg. For menopausal women, the daily recommendation is up to 1,500 mg of elemental calcium. There are several factors to consider when choosing a calcium supplement. All forms of calcium contain different amounts of pure calcium, called the elemental value. Even if a particular source of calcium is high in elemental value, it does not mean it is absorbable. Usually, calcium with the highest elemental value is the least absorbable because the molecular structure is indigestible. There are still good sources of calcium. Calcium citrate and HVP chelate are soluble in water, which makes them far more bioavailable than calcium carbonate. These forms are considered safe and better tolerated with the intestine compared to pure calcium carbonate. Microcrystalline Hydroxyapatite, the naturally occurring form found in your bones is known as the most readily available source of calcium and is often the choice of doctors for the risk prevention of osteoporosis.

New Roots Herbal's Strong Bones is available in 90, 180 and 360 capsules.

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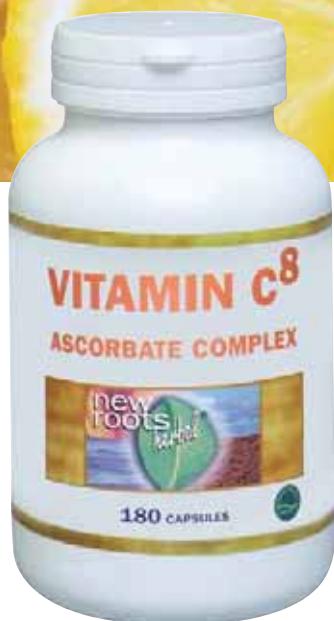
PREVENTION & CURE

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ASCORBATE COMPLEX



Are you getting the strongest, smartest and most effective Vitamin C formula available?



VITAMIN C⁸ OFFERS THE MOST ADVANCED FORMULA WITH 8 FORMS OF VITAMIN C TO ENSURE YOUR BODY ABSORBS THE VITAMIN C IT NEEDS.

The humble orange is a great source of vitamin C. Yet, for your body to truly get all the benefits of vitamin C, it needs to get it from more than one source. Only VITAMIN C⁸ offers 8 assisted pathways of absorption & retention to help enhance your immune strength, provide a good source of electrolytes and replenish your energy before or after workouts. Plus, it offers the added benefits of 3 cups worth of green tea per capsule! Get VITAMIN C⁸ and get the most out of your vitamin C.

