Addressing bone density is not enough...

**Breakthrough reverses osteoporosis by actually rebuilding bone**

*by Melissa Hickle*

If you’re approaching or past menopause, you’re probably already paying a lot of attention to your bones and your risk of osteoporosis. And you’re probably doing everything right—well, everything we knew was right before the newest bone-health breakthrough hit the scene.

Let’s run down the list:
- Weight-bearing exercise? Check.
- A healthy diet? Check.
- Calcium-regulating supplements (like Tango’s Osteophase, recommended several years ago in the Members Alert—see the December 2004 issue in the archive at www.hsibaltimore.com)? Check.

These can all go a long way toward boosting your bone density.

For some time now, osteoporosis has been defined by low bone-mineral content (low bone density). So drugs treating osteoporosis have been developed to preserve the mineral content of bones.

But it turns out that boosting your bone density is only half the picture—in fact, if you’re mineralizing your bones without addressing the underlying structure, you could actually be increasing your risk of fracture.

Thankfully, this new breakthrough supports the whole spectrum of bone health—by actually helping to rebuild the very structure of your bones. And it’s the very first supplement of its kind to do so.

HSI medical adviser Dr. Martin Milner brought this one to me, saying “I have never seen a natural-medicine product better developed to specifically address the underlying limitations preventing bone remodeling and osteoporosis reversal.”

**Why just increase density when you can actually rebuild bone?**

The strength of your bones is about more than density—it’s about the integrity of the bones’ architecture—the bone matrix. In fact, after the age of 50, the bone matrix declines before bone density, leaving bones weak and fracture-prone.

And the continued strength of that matrix comes from a process called bone remodeling. Bone is living tissue that is constantly being broken down and rebuilt. Osteoclast cells remove old and damaged bone tissue, then osteoblasts and osteocytes create a new bone matrix—the web-like architecture of bone. This matrix incorporates minerals to give bone its density and hardness. The process ensures your bones’ structural integrity. This reduces your risks of fractures and osteoporosis.

During your younger years, the remodeling process leans toward bone formation, increasing bone growth until peak bone mass is reached around age 30. In your mid-thirties, the rate of removal of weak bone starts to exceed that of new bone formation, meaning that you’re slowly losing bone over time.

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Ostera
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time. The bone matrix (sort of the frame the bone is built upon) weakens. If you’re taking supplements to mineralize and increase bone density, this hardening of partially formed or incomplete bone matrix means your chances of fracture are greater.

Once you hit menopause, lower levels of estrogen and progesterone start to affect the process of bone remodeling. Bone tissue starts to go through the turnover process at a higher rate—increasing fracture risk by decreasing matrix quality without having much effect on density.

Inflammatory agents that increase resorption (the breakdown of old bone cells) and suppress bone formation are no longer kept in check by estrogen. Because of this, you could actually lose up to 20% of your bone mass in the first five to seven years after the onset of menopause.

Up until now, women have been increasing bone density with calcium and vitamin D supplements. But this does nothing for the remodeling of the bone matrix. Fortifying a weak matrix doesn’t change the matrix itself—meaning bones are still weak despite your best efforts.

This is where Ostera comes in.

**Rev up your body’s bone-building cells**

Recently, there’s been a shift. The new thinking is that certain body chemicals—scientists call them “biochemical markers”—tell us more about a woman’s osteoporosis risk. Bone density tests only measure 20% of the skeleton, but these biomarkers show what’s going on with the whole thing, as well as with the bone remodeling process. They hint at turnover rate, formation of bone, resorption of bone, and formation of new bone.

The level of the hormone osteocalcin (OC) is especially telling. This hormone controls the deposit of new bone. As osteoclasts destroy old bone, OC is released into the bloodstream. The more OC in the bloodstream, the faster the turnover of bone—and the higher your risk of fracture.

While Dr. Milner told me it’s too soon to verify bone remodeling in his practice (Ostera is just that new!), a clinical trial, the results of which were published earlier this year, proves how well it works by examining the biomarkers associated with bone remodeling.

In the trial, 77 post-menopausal women—45 with metabolic syndrome and 32 who were generally healthy—participated. Both the trial group and the control group were instructed to follow a Mediterranean diet and exercise aerobically 150 minutes per week. Both groups did those things, but while the trial group also took Ostera twice daily. None of the subjects took calcium supplements or a multivitamin that might have contained calcium and/or vitamin D during the 14-week trial period.

At the beginning of the trial, both groups had elevated OC levels, indicating an increase in bone turnover rate and an increased risk for osteoporosis. At the end of the trial, the levels had gone up by 16.4% in the control group. The trial group, however, saw a significant decrease of 31%. Among women with metabolic syndrome, the increase in the control group was even higher (22.6%), but the trial group saw the same decrease as the women without metabolic syndrome.
The other biomarkers associated with bone remodeling and osteoporosis showed impressive results. P1NP, a marker of bone formation, significantly increased with use of Ostera, and significantly decreased in the control group. And IGF-1, a marker for vertebral fracture risk in postmenopausal women, increased significantly with Ostera (by 21.2%), which means they faced lower risk of fracture. The control group saw a decrease of 13.1%. An increase in IGF-1 in women with low estrogen is very impressive.

Serum vitamin D went up by 16.2% in the test group and decreased by 14.6% in the control group over the course of the trial.

As part of the trial, researchers also looked at estrogen levels. They found that these levels didn’t change on an observable level, meaning that the positive effects on the bone-remodeling-related biomarkers didn’t have anything to do with estrogen—it was all due to Ostera.

Overall, researchers concluded that a combination of the low-glycemic Mediterranean diet, exercise, and Ostera positively affected bone remodeling in postmenopausal women with low estrogen levels. They suggest that you could gain even more positive results with mineralization support and weight-bearing exercise.

Four bone-boosting powerhouse ingredients in one formula

The benefits of Ostera come from a quartet of natural agents that are proven bone savers.

Rh iso-alpha acids (RIAA), derived from hops, modulate substances involved in bone degradation. Inhibition of these substances has been shown to promote bone formation and prevent the inflammation that accelerates bone loss.

Berberine acts in a similar way. It inhibits the activity of osteoclasts, the cells that take part in the breakdown of bone tissue. It’s also been suggested that berberine can positively influence the formation of osteoblasts, cells that build up bone tissue.

Then there’s vitamin D, which you know for going hand-in-hand with calcium. In addition to helping the body absorb calcium for mineralization of bone, it also plays a role in regulating bone turnover. Low vitamin D intake has been linked to increased fracture risk and increased rates of bone loss.

Finally, vitamin K plays a major role in the metabolism of bone proteins that are central to bone quality, integrity, and support of overall bone mass. Regular intake of vitamin K has been linked with increased bone mineral density; it also has been shown to have a positive effect on bone remodeling.

The vitamin K in Ostera may interact with a common blood thinner, Coumadin (wayfaring sodium). If you are taking this medication, contact your physician before starting on Ostera. Too much vitamin K in a high-dark-green-leafy-vegetable diet and/or from supplementation can excessively thicken blood. If you have a tendency toward forming blood clots or need to thin your blood for other reasons such as coronary artery disease, contact your physician before taking Ostera.

It’s an all-natural formula without serious adverse effects. Combined, the four components in Ostera help your body actually rebuild bone, instead of just increasing the density of bone that is already there.

Ordering information for Ostera is in the Member Source Directory on page 8.

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Citations available upon request and on HSI website
Never worry about being too far from the bathroom—total GI support with just one scoop a day

by Melissa Hickle

The woman was in tears when she walked through Dr. Jim Fox’s office door. Her husband’s gastrointestinal woes were starting to worry her, but he was too stubborn to talk to anyone about them. She just didn’t know what to do.

Dr. Fox had seen this kind of thing before. Patients who were seeking serious nutritional support but hadn’t found a solution. So he calmed the woman down, and handed her a bag with two scoops of his “miracle formula,” with the instruction to give it to her husband. And to come back for more if it did any good.

Two days later, she was back. And her husband, who had refused to talk to anyone about his discomfort, was with her. He had taken the two doses, and told Dr. Fox that he felt great. The man became emotional as he thanked the doctor—glad to finally have something that worked.

Throughout this second meeting, Dr. Fox tried to hide his surprise. He knew his formula worked, but was astonished that this man felt such a difference in only two doses.

When you’re stricken with gastrointestinal problems, you might pop something to take care of the discomfort temporarily, but what if you could start actually healing and soothing the digestive tract—addressing GI discomfort before it starts?

Now you can, with a comprehensive formula with ingredients backed by clinical research and years of traditional use. The supermarket shelves might be loaded with probiotics, prebiotics, and enzymes these days, but this goes beyond all those things—instead of taking multiple products each day, all you have to do is mix up one delicious beverage.

Developed by Dr. Fox after years of clinical experience, Advanced GI Support is brought to you by NorthStar Nutritional. And it’s the most advanced formula on the market for optimal GI health. Advanced GI Support can help heal your gut, soothe your digestive-tract lining, promote regularity, and support proper immune function.

Twentieth years of clinical experience in one GI breakthrough

Dr. Jim Fox has been a chiropractor and teacher for more than 20 years. And in those two decades, he’s found that proper nutrition is perhaps the most important part of staying healthy, especially when it comes to the GI tract.

Dr. Fox’s evidence-based nutrition is supported by thousands of happy patients. And most of them have one thing in common: By the time he’d figured out everything each patient needed, they were all packing their medicine cabinets with six or seven bottles of supplements—just to support proper GI function.

As you can imagine, there were problems. His patients quickly tired of having to sort through so many different pills, taken with food, without food, before bed, in the morning…how could they ever keep track?

But they had to take all of those things to promote optimal GI function. Dr. Fox knew he had to get everything into one product. So he “cobbled together” a formula based on his years of clinical experience. He learned what worked and what didn’t, and finally met his ultimate goal: something patients could safely take long-term.

And what he came up with became NorthStar Nutritional’s Advanced GI Support. It’s easy to take because it’s a delicious powdered drink mix. That’s great, sure, but the best part is that, soon after Dr. Fox had hit upon this formula, his patients were seeing improvement within the first week. He has some patients who have been taking the formula that became Advanced GI Support for 10 years now—they’ve left their bouts of GI distress in the past. And they don’t have to take another thing for GI support—this formula truly does have everything you need to keep your digestive system running smoothly.

Soothe your gut wall and help support your immune system

The amino acid glutamine is your GI tract’s main fuel. It’s also been shown to play a role in immune health (the GI tract is really at the heart of your immune system). This effect has been shown in patients with glutamine-enriched nutrition.

Study participants receiving glutamine-enriched tube feedings demonstrated a significant rise in the ratio of two types of T-cells compared with controls. Now, most of the studies on glutamine have used IV feeding. But it is known that glutamine is well absorbed orally, and the theory is that oral supplementation could have some of the same effects as the method used in these studies.

Other studies on intravenous glutamine have shown that it can help protect gut cells and help maintain the integrity of the intestinal wall. Again, it’s thought that oral supplementation would have similar effect.

Oral glutamine has been studied for its ability to help promote proper inflammatory response in epithelial cells (the cells that line structures in the body). It was shown to help maintain the integrity of the mucous lining.
membranes lining the GI tract. Presumably, this occurred due to a reduction in GI permeability, which protects the mucosal layer from dietary and environmental toxins.

Feed probiotics to promote healthy levels of beneficial GI bacteria

You’ve probably heard the word “probiotic” tossed around for a couple of years now—these beneficial bacteria have become such a hot topic that they’re being added to all kinds of things. Just walk through the dairy aisle and almost every container of yogurt boasts the presence of probiotics, which can help keep your GI system running smoothly and your immune system strong.

But you might not have heard of an equally important substance—prebiotics. These nonviable food components are fermented in the colon by those beneficial bacteria. They’re poorly digested in the small intestine, but once they’re fermented, they become food for probiotics. This category includes many indigestible fibers, including arabinogalactans.

Found in a variety of plants, arabinogalactans have actually been approved by the FDA for use as a dietary fiber. And they’re one of the best prebiotics you can find—because they have a branched structure, they ferment more slowly than other carbohydrates. They last longer and may actually contribute to a larger increase in probiotics.

So, they feed those beneficial bacteria. This would be enough to make arabinogalactans a star in Advanced GI Support. But they actually do more. For one, they’ve been shown to enhance digestion. And they also may contribute to a decrease in pH in the colon. A high pH may actually provide a more suitable environment for pathogenic bacteria, so it’s good to keep it low.

Defend gastric and intestinal tissue from free radical damage

N-acetyl glucosamine (NAG) might sound familiar, but it’s actually quite different from the glucosamine sulfate used in joint supplements. NAG is an integral part of outer cell walls, and is important to the process of communication between cells.

It’s also involved with the building of glycoproteins and glycosaminoglycans (GAGs), which are crucial to the mucosal barrier defense in the intestines. When these GAGs break down, they can degrade intestinal tissue. While the evidence is preliminary, in a small pilot study on NAG, 12 children with intestinal discomfort and cramping were treated with 3-6g of NAG orally. Marked clinical improvement was seen in 66% of the patients.

Another component of Advanced GI Support that contributes to maintaining the integrity of the intestinal mucosal barrier is zinc carnosine. One of the greatest properties of zinc carnosine is its ability to survive the acidic environment of the stomach. This allows its soothing properties to take effect over a longer period of time.

Animal studies have shown that zinc carnosine helps protect mucous defense mechanisms and protects against free-radicals. In human clinical trials, it proves its worth time and again.

In one study, mice were supplemented with zinc carnosine for seven days prior to having intestinal irritation induced. Animals that received 5mg/mL of zinc carnosine had 75% more irritation reduction compared to placebo.

A human trial recreated these results. Ten people were given 75 mg/day of zinc carnosine before having intestinal permeability induced with indomethacin, a non-steroidal anti-inflammatory. The zinc carnosine was able to soothe the effects of the indomethacin almost completely, showing that it has the ability to help maintain gut integrity.

Generations of traditional wisdom protect your GI health

Of course, I said Advanced GI Support contains everything you need to keep your gut healthy and your immune system chugging along. And the rest of the formula helps to do just that.

Deglycyrrhizinated licorice has long been valued in both Eastern and Western medicine for its soothing and coating properties. It’s able to help calm irritation in the gut.

Most people recognize aloe vera leaf extract as a soothing substance—you’ve probably put aloe on sunburn, but maybe you didn’t know it could be just as good inside as it is outside.

In one study, rats with induced irritation were treated with aloe gel. The rats that were given aloe for 15 days had a significant reduction in irritation of the intestinal lining as compared with the control animals.

Studies have shown that aloe has benefits for the normal intestine, including enhanced digestive function and bulking of the stool. A small human trial with 10 subjects showed that it promoted healthy levels of yeast in the intestine. An in vitro study showed that a whole leaf extract was able to enhance the population of beneficial bacteria in the colon.

Slippery elm bark was traditionally used by Native Americans for its soothing properties on the mucous membranes of the digestive tract. Modern herbalists still use it today, often to promote respiratory health. Slippery elm bark contains viscous fiber, which helps regulate bacterial flora, lower bowel transit time, and absorb toxins.

A polymer in slippery elm, called mucilage, becomes a slick gel

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How long has it been since you got a good night's sleep? I mean a really good night's sleep. No hourly glances at the clock, no lying awake worrying about money—just deep, restful sleep. The kind of sleep that leaves you ready to take on a new day.

Been so long you can't even remember?

Maybe you’ve just resigned yourself to sleepless nights and insomnia. After all, what’s the alternative? Prescription sleep medications? Well, sure, if you don’t mind dealing with a long list of possible side effects including:

- “hangover” (feeling fuzzy-headed, nausea, and trouble waking up the morning after using the prescription drug)
- addiction
- tolerance (more and more of the drug is needed to get the original effect)
- chemical taste (a surprising 34% of people using Lunesta reported this strange sensation in one study)
- sexual side effects (some sleep aids can alter hormone levels, impacting your sex drive and menstrual cycle)
- sleep walking and even sleep eating (noted particularly with Ambien)

Looking at that list, I’d probably rather just deal with the lack of sleep, too. Thankfully, though, we don’t have to. Not when there’s an all-natural sleep solution, trusted for thousands of years in traditional Chinese medicine and backed by brand-new research. It’s a solution that will leave you feeling rested and refreshed, without any of the dangers of prescription sleep drugs.

Enhanced sleep and reduced fatigue—with zero side effects

The search for a good night’s sleep is not a new one. After all, sleep is a huge part of our overall health—it boosts immunity, reduces risk of diabetes and heart disease, and can even keep you slim.

In fact, for thousands of years in China, people have been relying on two very special herbs for anxiety, nervousness, and sleep-related problems. And these herbs are finally gaining recognition in the United States, thanks to new studies that prove their power against insomnia and other sleep problems.

*Magnolia officinalis* bark comes from a species of magnolia tree native to the mountains and valleys of China. It’s been used for generations for anxiety as well as for asthma and allergies. And *Ziziphus spinosa*, believed to “calm the spirit,” has enjoyed long use against irritability and insomnia as well as heart palpitations.

A new study tested a blend of *Magnolia officinalis* bark and *Ziziphus spinosa* seed for tolerability and efficacy with volunteers with mild to moderate sleep difficulties. Participants were given the opportunity to be included in the study if they had difficulty falling asleep, awoke one to three times in the middle of the night, and/or felt tired during the day due to a lack of sleep.

Of the 145 individuals studied, 86.9% rated the patented herbal extract as relaxing, 82.8% said it helped them get restful sleep, and 82.8% rated it as effective in reducing fatigue. None of the participants reported any significant adverse events.

A separate laboratory study explored how this formula works. Researchers found that it works because it binds to those receptors in the human brain and nervous system that naturally promote relaxation and sleep.

The researchers concluded that this proprietary blend of extracts of *Magnolia officinalis* bark and *Ziziphus spinosa* seed was well tolerated and found to effectively assist individuals with mild to moderate sleep difficulties.

Soothe your sleepless nights from every angle

This blend is now available in a new formula called SLEEPsolve from the Harmony Company. SLEEPsolve’s key ingredient is a proprietary blend of a patented extract of the bark of *Magnolia officinalis* and an extract of the seeds of *Ziziphus spinosa*.

SLEEPsolve also includes three other proven sleep aids.

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Depression may play a role in the development of visceral fat deposits that accumulate in excess between organs in the abdomen—a condition that increases the risk of developing type 2 diabetes and heart disease. According to a new study, this link was especially pronounced among women.

Researchers speculate that depression may trigger production of cortisol (known as a “stress hormone”) and inflammatory compounds that play a key role in visceral fat development.

Folate may relieve symptoms of allergies and asthma. When researchers from Johns Hopkins measured folate blood levels in more than 8,000 subjects, they found that subjects with the highest levels of the B vitamin reported fewer respiratory and allergic symptoms and lower levels of immune system antibodies that spike in response to allergens. Noting that their research adds to previous evidence that folate may help control inflammation, the Hopkins team will next mount a placebo-controlled study in which folic acid (the synthetic form of folate) will be given to patients with asthma and allergies.

And, in case you didn’t see it in the e-Alert…

Video games might be wasted on the young, but not the elderly. Psychology researchers recruited 40 subjects between the...
GI health
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when mixed with water. This gel coats and soothes the stomach and intestines, helping reduce irritation, and may also contain antioxidants.

Used in European medicine for over 2,000 years, marshmallow root is known for its ability to help soothe intestinal irritation and inflammation. It’s been used as a traditional remedy for episodes of indigestion, diarrhea, and constipation. Marshmallow root also contains the soothing polymer mucilage.

Finally, there’s stevia. You’ve probably seen it pop up on the supermarket shelves lately, but don’t be fooled—the form approved by the FDA as a sweetener is really a fraction of the whole herb. The stevia in Advanced GI Support is the real deal, which means you get all the benefits. The sweetness of this substance is only half the story—in vitro and animal trials have shown that stevia possesses antidiarrheal properties. It may also inhibit the contractile motion of intestinal smooth muscle, which means it could be beneficial in addressing diarrhea.

The most advanced formula you can get for optimal GI health

NorthStar has built a reputation for being on the cutting edge of natural health, and Advanced GI Support is no exception. It’s the only formula of its kind to pack in so much for your GI health—no more rows of bottles in the medicine cabinet.

And you don’t have to wait for results. Dr. Fox told me that he’s still surprised at how quickly Advanced GI Support works for his patients—and he developed it!

Ordering information for Advanced GI Support is in the Member Source Directory on below.

Citations available upon request and on HSI website

MEMBER SOURCE DIRECTORY

Ostera, Center for Natural Medicine Dispensary. Ph (888)305-4288; www.naturalmedicineweb.com. A bottle of 60 tablets is US$39.96. Call and mention that you are an HSI member for a 20% discount.

Advanced GI Support, NNorthStar Nutritionalis. Ph (888)856-1489 or (915)855-5415; www.northstarnutritionalis.com. A 30 day supply for HSI members is only US$59.95 plus US$6.95 shipping and handling—an exclusive $30 discount off the regular price of $89.95. Shipping is US$14.95 outside the USA. Additional duties and fees may apply upon delivery. Not available in Australia or Austria). HSI members are entitled to an exclusive 90-day extended guarantee. Ask for code G650K801 when ordering.

SLEEP Solve, The Harmony Company. Ph (800)820-9693; www.theharmonycocompany.com. A bottle of 30 tablets is regularly $29.95 plus $9.95 S&H. Harmony is offering a 10% SLEEPsolve discount for HSI members plus FREE SHIPPING and a 90-day guarantee. Ask for order code: HSISLEEP

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