

Menopausal Arthritis

Joint Health effects of Estrogen Modulation mitigated by High Triterpene Shea Nut Extract (HTSNE)

- Reduce inflammation by 9-times
- Improve cartilage retention by 44%
- Increase bone retention by 10%
- Alleviate Pain by 45%

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Menopause Related to Arthritis/Joint Pain:

Many of us consider the occasional unpleasant physical effects of menopause a major pain—but did you know that menopause can actually *cause* joint pain? And not just menopause, but anything that disrupts estrogen production in the body, including drugs that are utilized to reduce estrogen activity following breast cancer and surgical procedures to remove ovaries. Doctors are learning that the *natural* estrogen your body makes plays more roles than reproduction: it impacts the strength of your bones; it impacts your perception of pain; it impacts levels of inflammation in the body, particularly inflammation of the joints.

Gradual loss of estrogen production during menopause is a natural occurrence, and

many women experience very few uncomfortable physical symptoms of this change. But for most women, menopause brings some level of discomfort, and for an unfortunate few, the loss of estrogen seems to disrupt several areas of health that once had functioned smoothly—including the joints.

The reverse is true, too. During pregnancy, when estrogen levels are very high, a woman’s ability to withstand pain increases significantly. Perhaps this is a gift of Mother Nature, to prepare a woman’s body for childbirth.

As early as 1925, researchers Cecil and Arthur published a paper in the *Journal of the American Medical Association* describing serious joint pain developing 2-5 years following menopause and calling it “Menopausal Arthritis.” In Asia, where hot flashes associated with menopause are not

common, the number one reported complaint during and after menopause is backache, generalized aches and joint stiffness. And in women taking estrogen reducing drugs or treatments following breast cancer, about 5 to 10% drop out of therapy due to joint and muscle pain.

Estrogen Supplementation:

One would think the easy solution would be to put estrogen back into the body, and all these aches and pains would disappear. Unfortunately, that is not the case. Doctors looking at women treated with estrogen for post-menopausal pain found it seldom helped, and sometimes actually made the problem *worse*. You are not alone if this seems counter-intuitive. It turns out that estrogen is not a single substance, but a complex family of hormones. The three major groups are estrone, estradiol and estriol, but there are more than 20 sub groups. In our bodies, this estrogen soup is tailored to exactly the needs of the moment and an hour later can change to accommodate bodily changes.

Think of it as a wardrobe. In the estrogen closet are pants, skirts, blouses, sweaters, hats, jackets, vests, scarves and dresses to meet all your attire needs. Some days you may need more pants and sweaters, and others more scarves and dresses.

Pharmaceutical estrogen is one type of estrogen only, and does not flex to accommodate bodily needs. So adding supplemental estrogen is like expecting a

sweater to serve all your attire needs. Is it cold out? Here's a sweater. Going swimming? Here's a sweater. Going to a nightclub? Here's a sweater.

Additionally, the increase in heart attack and breast cancer risk may discourage many women from considering use of pharmaceutical estrogens.

Managing Inflammation and inflammatory response:

The better answer is to *deal directly* with reducing overall inflammation, which in turn will reduce or even eliminate joint and muscle aches and pain. The extra added benefit is that by reducing overall inflammation, you reduce your risk for *dozens of diseases*—everything from heart disease to Alzheimer's to cancer.

The good news is that there are many ways to reduce inflammation *naturally*. Fat cells contribute to inflammation, so losing even 4 or 5 pounds can make a measurable difference in how you feel. High sugar and red meat consumption are both linked to inflammation, so incorporating more fish, fruits and vegetables can have a big impact. Yoga and non-joint stressing water exercises can help considerably.

And something surprising—the pit of a ripe fruit found in West Africa. Shea nuts are not nuts at all but pits of the fruit of the shea tree. Traditional African medicine has known about shea nut oil's (sometimes called butter) healing properties for

centuries. Shea nut oil has been used in cooking and baking in both Africa and Europe. You may have seen cosmetics and moisturizers that incorporate shea nut oil, or shea butter. The reason is that it is more than an excellent moisturizer—it *reduces inflammation*.

Danish scientists were intrigued by this activity and set about discovering how and why this happens. The researchers isolated the inflammation fighting component of shea oil/butter, the shea triterpenes. They found that the triterpene content of shea oil was extremely active against inflammation. But triterpene levels in shea oil range from 3 to 6%. What would happen if they could somehow *dramatically increase* triterpenes and use them as medicine?

They did just that and created an ultra-pure shea nut extract that was more than 70% triterpenes. They tested this high potency extract and found it was extraordinarily safe and effective. It compared to things like ibuprofen and even steroid medications in its ability to reduce inflammation in a laboratory setting—with *none of the dangerous side effects*. In fact, there are **over 30 clinical studies and scientific examinations** that prove high triterpene shea nut extract (HTSNE) is safe and effective.

After testing proved beyond a doubt that high triterpene shea nut extract was safe for humans, doctors began examining how this new substance would work on

arthritis—a disease with a great deal of inflammation. The early findings were borne out.

Clinical Findings:

Dr. Phil Cheras led a study on people with arthritis, divided into two groups. One received high triterpene shea nut extract, and the other a placebo (or sugar pill). Then they measured and compared things like pain, stiffness, and certain biomarkers of inflammation, cartilage and bone destruction found in the blood. The results exceeded the researcher's expectations.

In the highest inflammation sub-group, the findings were remarkable:

- **Inflammation:** the 3 biomarkers of inflammation (TNF-a, IL-6, and C-reactive protein) **fell 24 to 31%**.
- **Bone:** Markers of bone destruction **fell over 9%**.
- **Cartilage:** CTX-2, a measure of cartilage (the connective tissue between the bones of a joint, which prevent them from rubbing together and causing pain/inflammation/loss of mobility) destruction fell over 28%, while the marker *increased* over 17% in the placebo group. This means the total change between the groups for cartilage destruction was **over 46%**.

And, these results were realized after only 15 weeks of treatment. The researchers

speculate that results would be *even better* with longer term use.

Other interesting outcomes from this study were a reduction in cholesterol and a 6-7 point reduction in diastolic blood pressure. This is important because cholesterol and high blood pressure can interfere with the microcirculation necessary to help inflammation resolve inside the joints, which intensifies the anti-inflammatory effect further.

Additional testing showed high triterpene shea nut extract had no risk of ulcers and stomach damage whatsoever, even at *much* higher than recommended dosages. Aspirin and other analgesics, as well as steroids, are well proven to cause stomach damage and ulcers.

So why does this special extract work without side effects? Scientists theorize that shea nut extract has the unique capability to moderate *several* pathways of inflammation at once. Unlike drugs that target specific paths for blockade, this extract gently modulates virtually all pathways, allowing them to return to homeostasis, or balance. No pathways are blockaded, so no serious adverse effects. In other words, high triterpene shea nut extract works *with* your body instead of *against* it.

Other human studies have found a very significant impact on **pain reduction—over 50%** compared to placebo, when taken 2

weeks prior to and one week after strenuous exercise and muscle strain.

High triterpene shea nut extract had such impressive safety and efficacy studies that out of *hundreds* of applications in 2004, it was one of **only 7 new supplements approved** for use in the USA by the Food and Drug Administration.

Conclusion

High Triterpene Shea Nut Extract (HTSNE) offers menopausal females, and individuals on estrogen modulating regimens, an all natural, safe and effective solution for the joint pain, stiffness and loss of mobility common when joint-protective estrogen levels fall off.

- Reduces inflammation by 9-times
- Improves cartilage retention by 44%
- Increases bone retention by 10%
- Alleviates Pain by 45%

In order to realize the benefits of HTSNE, it is important to remember the following:

- HTSNE produces results when you consume the recommended active dose each and every day. Initial benefits will be realized after 30-60 days of dosing; continued benefits will be realized by continuing the regimen, each and every day.
- All shea and HTSNE products are not the same – look for a standardized active ingredient of at least 70% shea triterpenes. The dose used in clinical trials is 2,250 mgs of HTSNE (70% shea triterpene concentration; 3 - 750 mg softgels per day).

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