The Next Generation of Joint Care:

High Triterpene Shea Nut Extract (HTSNE) offers breakthrough results for joint health

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

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Inflammation… it helps and it hurts

Inflammation. Inflamed. To set afire. This describes quite well the feeling in our skin, or joints, or muscles—the redness, pain and suffering. But what we may forget is what happens if the fire remains unchecked: our house may burn to the ground. Inflammation is not just *painful*, it is *destructive*. Chronic inflammation causes tissue damage, accelerated aging, and sets the stage for very serious diseases. Inflammation is connected to almost *every leading cause of death*, from heart disease to cancer to Alzheimer's Disease and more.

While our first inflammation warning signal may be a sore shoulder or a red patch of skin, damage can occur without our conscious awareness. That is why addressing inflammation in the body can have such *profound* effects on our health and longevity. Now there is an all natural, clinically validated solution to this dilemma, derived from a traditional African cure made more effective by Danish pharmaceutical science.

But what is this process that can be simultaneously life-saving and life-threatening? Inflammation is a tool used by our immune system to protect us from attack and heal our injuries by rushing fluid and immune system cells to the damaged site. Inflammation that occurs and resolves quickly is called "acute" inflammation and is usually beneficial. However, inflammation that lingers for months and years is called "chronic," and does far more harm than good.

It may seem a contradiction that we need inflammation to stay alive, yet it can also be life threatening. However, there are many processes in the body that are similarly contradictory. We need to have blood sugar or we will die, but if our blood sugar is too high, it is a life-threatening situation. Cholesterol is needed for some very important bodily functions, but if LDL cholesterol is oxidized and at very high levels, it will clog our arteries and

contribute to heart disease or even a heart attack. When it comes to our health, it almost always comes back to the basic concept of homeostasis, or **balance.** Like Goldilocks and the Three Bears, our body doesn't want too much or too little—it wants it *just right.* Straying from the balance our body craves for optimal health nearly always has disastrous consequences. But getting it *just right* is easier said than done.

We live in a world that nearly drowns us in inflammatory triggers. The foods we eat, the extra weight we carry, the lack of daily physical labor, as well as environmental toxins, chemical exposure and allergens—all these things contribute to *unrelenting* high levels of irritation, immune challenges and inflammation. Add to that autoimmune diseases in which our immune system malfunctions, causing tissue and skeletal damage, and chronic infections, like hepatitis, Lyme's Disease, and herpes, and you have a recipe for an inflammation perfect storm.

Remember when we said that inflammation is a *tool* of the immune system? Maybe it is better to say that it is a *servant* of the immune system, because it does what the immune system instructs. The instruction relies on a variety of signaling molecules to impart the message to its servants to gear up, multiply and go where they are sent. These signals are so powerful that the inflammatory messengers can multiply *a thousand fold* in a matter of seconds.

The first step in reducing inflammation to more normal and healthy levels is to find a way to temper and soften these signals so that the servant goes to sleep and rests until it is actually needed.

Prescription and over the counter ("OTC") drugs work because they blockade some of the signaling pathways that result in inflammation. You may have heard of some of these pathways—COX-1, COX-2, and LOX are some of the best known. This seems like a good idea, but what has been found is that blockading *anything* in the body has unexpected, often dangerous, consequences. Aspirin, ibuprofen, and naproxen are some OTC drugs that block COX-1 and COX-2. Unfortunately, blocking these compounds *also* interferes in our stomach lining's ability to regenerate and our gastro-intestinal system's ability to protect itself. What is the result? Chronic gastritis, peptic and duodenal ulcers, blood loss, and even perforated ulcers that resulted in blood poisoning and death. It is estimated that **16,500 people die** each year because of side effects of these drugs.

Scientists tried to fix this by creating drugs that *only* blocked COX 2, because it was known that COX-1 is needed for stomach health. This backfired, too, because these drugs ended up causing kidney, blood pressure and heart problems—including death. Because of this, one COX-2 inhibitor called Vioxx was removed from the market as unsafe. The other well-known COX-2 drug, celecoxib (brand name Celebrex), remains available, with additional health warnings.

HTSNE: Pharmaceutical steroid results, safely and naturally

The strongest drugs used to reduce inflammation are called steroids. They also have the most dangerous side effects, including suppressing the immune system, which leaves one vulnerable to a whole host of infections, as

well as bone destruction, psychosis, and fatal cardiovascular events.

These drug experiments have shown us that blockading or shutting down natural functions in the body is risky at best and can have **dangerous side effects**. But chronic, unchecked inflammation is dangerous, too, so how should we proceed? Must we trade one set of dangers for another?

For a long time, those have been the only options available to many sufferers. Then a group of Danish scientists became interested in a simple African fruit used in traditional medicine—Shea fruit (*Butyrospermum parkii*). Shea has a pit from which shea oil (or butter) and other substances can be extracted. In fact, shea oil has been used historically in cooking for many years. People called this pit a shea "nut," even though it is not a nut at all. Shea nut oil or butter was added to many skin products because it not only softens, it soothes rough skin. These scientists wondered what was in this shea nut that was so soothing, and found it to be a group of substances called shea triterpenes, which have an amazing natural anti-inflammatory activity. Shea triterpenes account for about 3-6% of shea nut oil. These medical researchers wondered if they could intensify the inflammation-fighting capabilities of shea triterpenes if they somehow concentrated them into a high triterpene shea nut extract. After many years of work, they succeeded in creating an extract that achieved an unprecedented *70% concentration*—or about **10 to 20 times more powerful** than shea oil alone.

Next came years of pharmaceutical testing for safety and effectiveness. What they found exceeded all their expectations. In scientific testing with experimental inflammation, this high triterpene shea nut extract was *equal in effectiveness* to ibuprofen and even a type of steroid called dexamethasone. In fact, there are over **30 clinical studies and scientific examinations** that prove high triterpene shea nut extract is safe and effective.

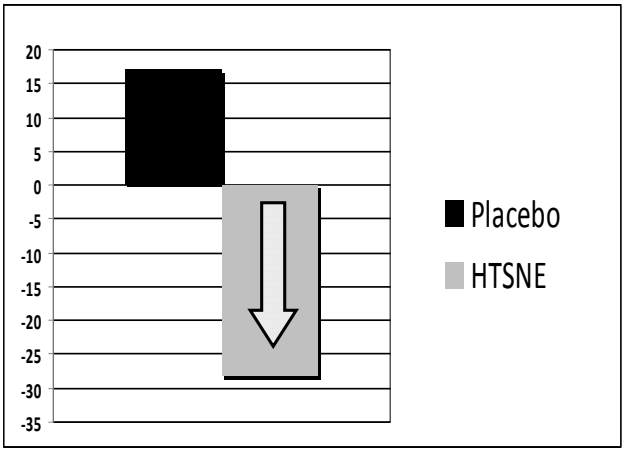
After testing proved beyond a doubt that high triterpene shea nut extract was safe for humans, doctors began examining how this new substance would work on arthritis—a disease with a great deal of inflammation.

Dr. Phil Cheras, world-renowned osteoarthritis researcher with the Australian Centre for Complementary Medicine, Education and Research, completed a study on 117 people with osteoarthritis of the knee and/or hip. For 15 weeks, he gave the active group three 750 mg softgel capsules of high triterpene shea nut extract, standardized to a minimum of 70% triterpenes. At the end of the study, he compared the active group to the placebo group by measuring pain and looking at blood biomarkers of inflammation and tissue destruction.

Compared to the placebo group, the shea nut group had *very* significant positive results.

In the highest inflammation group, the 3 biomarkers of inflammation (TNF-a, IL-6, and C-reactive protein) **fell 22 to 24%.** Markers of bone destruction **fell over 9%.** CTX-2, a measure of cartilage (a type of connective tissue very important to our joints) 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 this was after only 15 weeks of treatment. The researchers speculate that results would be *even better* with longer term use.

Changes in CTX-2, a Marker of Collagen Destruction



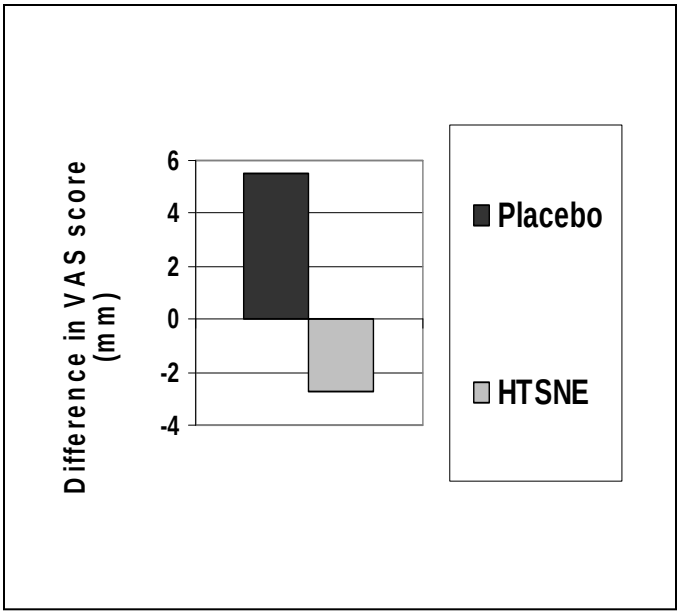
Other interesting outcomes from this trial were a reduction in cholesterol and a 6.3 mmHG reduction in diastolic blood pressure. This is important because cholesterol and high blood pressure can interfere with the microcirculation necessary to help inflammation resolve inside the joints, which intensifies 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.

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 on high triterpene shea nut extract have been in the realm of sports medicine regarding post-exercise pain and inflammation. The extract had 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.

Exercise Induced Pain and Inflammation Measurement—Placebo vs High Triterpene Shea Nut Extract



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.

No adverse effects, no nut allergies (shea nut is actually a fruit pit), no known contraindications --yet a powerful impact on unhealthy inflammation.

Conclusion

Shea nut is a timely gift from nature. Because excessive and chronic inflammation contributes to virtually all chronic diseases, restoring inflammatory balance can have a meaningful impact on longevity—both quality *and* quantity of life. By bridging the worlds of folk wisdom and modern science, Danish scientists have been able to create something unique yet completely natural. High triterpene shea nut extract holds the promise for better tomorrows. All you need to do is take the first step today.

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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).

Clinical Trials and Studies: High Triterpene Shea Nut Extract (HTSNE)

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