



# FAST FACTS ABOUT FULL MOTION

Osteoarthritis is the most frequent cause of physical disability among adults, impacting both quality of life and finances. Osteoarthritis affects more than 40 million Americans and more than half the U.S. population age 65 or older. Glucosamine is an amino sugar that exists naturally in our body. It is the building block of molecules that gives structure and resilience to cartilage and it is essential for the function and integrity of joints. Glucosamine has been shown to be effective in reducing pain and other symptoms associated with osteoarthritis and to stimulate the regeneration of joint cartilage.

## WHY A GLUCOSAMINE SUPPLEMENT

- **Prevent osteoarthritis.** Glucosamine is the building block of proteoglycan, one of the main structural components of cartilage. Studies show that glucosamine stimulates cartilage cells (chondrocytes) to produce proteoglycans, thus normalizing cartilage metabolism and keeping it healthy.
- **Slow down the breakdown of cartilage** Studies have shown that glucosamine may inhibit the activity of enzymes responsible for breakdown of cartilage. Glucosamine may also have anti-inflammatory action.
- **Help build, repair and regenerate cartilage to reverse the osteoarthritis process.** Studies have shown that glucosamine can stimulate chondrocytes to begin producing healthy new cartilage matrix. Glucosamine has been shown to stimulate the regeneration of experimentally-induced cartilage damage.
- **Reduce pain and other symptoms associated with osteoarthritis.** Many studies have shown the effectiveness of glucosamine in relieving pain associated with osteoarthritis. Studies show that joint tenderness and restriction of movement also improve with glucosamine supplementation. While glucosamine alone does not produce the immediate dramatic reduction in pain associated with over-the-counter pain relievers and anti-inflammatory drugs like Tylenol® or Advil®, its ability to reduce pain is consistent and increases throughout its use, leading to long-term improvement.
- **Glucosamine is quickly and efficiently absorbed** from the intestinal tract and is rapidly incorporated into joint cartilage. Studies using tagged glucosamine to allow scientists to follow the compound through the subject's bodies, found that glucosamine did indeed travel to the joints and incorporated itself into the cartilage to help stimulate new cartilage growth.

## WHY GNLD FULL MOTION

- **Provides 1500 mg of glucosamine,** the “therapeutic” dose shown in studies to reduce pain and stiffness associated with osteoarthritis.
- **Pharmaceutically pure, biologically functional glucosamine** from Glucosamine Hydrochloride—easy to digest and sulfite-free—minimizing digestive discomfort and allergic reactions.
- **Natural, high-quality source of purified glucosamine.**
- **Herbal Comfort Complex,** an exclusive blend of Bromelain, White Willow, and Boswellia, ingredients strongly associated with the body's natural mechanisms for minimizing joint pain and inflammation.
- **Regenerative Mineral Complex,** an exclusive blend of synergistically critical Zinc, Boron, and Silica, key minerals for joint health.
- **3D Advantage,** which provides optimal bioavailability through maximum Disintegration, Dissolution, and Dispersion.
- **Formulated under the direction of the SAB using leading edge science.**



<b>Supplement Facts</b>		
Serving Size 3 Tablets	Servings Per Container 30	
Amount Per Serving	% Daily Value	
Zinc (as Zinc gluconate)	15 mg	100%
Glucosamine hydrochloride*	1500 mg	†
Silica (from Bamboo extract ( <i>Bambusa vulgaris</i> )(stem))	30 mg	†
Boron (as Boron citrate)	6 mg	†
Proprietary HCC	756 mg	†
Boswellia extract ( <i>Boswellia serrata</i> )(plant); Bromelain (from pineapple); White Willow extract ( <i>Salix alba</i> )(bark)		
† Daily Value not established.		

Other ingredients: Microcrystalline cellulose, stearic acid, sodium croscarmellose, hydroxypropyl methylcellulose, magnesium stearate, triacetin and natural color.  
\*Contains shellfish (lobster, shrimp and crayfish)

 Lot #  
Best If  
Used By  
510

### LATEST SCIENCE TO SUPPORT FULL MOTION

- British Journal of Sports Medicine, 2003: The effect of glucosamine supplementation on people experiencing regular knee pain.
- Web MD, 2004: Glucosamine may stop knee arthritis in women.
- Alan R Gaby, MD. 1999: Natural treatments for arthritis.
- American Botanical Council, 2005: Use of nutritional supplements in osteoarthritis.
- Food Chem Toxicology, 2005: Glucosamine effects in humans: a review of effects on glucose metabolism, side effects, safety considerations and efficacy.
- The Lancet, 2001: Long-term effects of glucosamine sulphate on osteoarthritis progression: a randomized, placebo-controlled clinical trial.
- Drugs and Aging, 2005: Disease modifying therapies for osteoarthritis: current status.
- Annuals of Pharmacotherapy, 2005: Glucosamine long-term treatment and the progression of knee osteoarthritis: systematic review of randomized controlled.



# THE FULL MOTION STORY

*Nature's comprehensive nutritional solution for optimal joint health and comfort.*

The most effective way to overcome the lack of available glucosamine for joint repair, regeneration, maintenance and thus reclaim lost comfort, flexibility and mobility is the direct dietary supply of high purity, pre-formed glucosamine. This is exactly what Full Motion is formulated to do. Each dose delivers the nutritionally significant contribution of glucosamine the body needs to maintain healthy cartilage levels in the face of repeated strenuous exercise or to repair and regenerate damaged cartilage associated with aging.

## A SUPPORTING CAST FOR MAXIMUM EFFECT AND BENEFIT:

In addition to the most pure, biologically functional form of glucosamine available, each dose of Full Motion delivers;

**Herbal Comfort Complex (HCC) to boost the body's natural anti-inflammatory capacity and provide additional comfort.**

- White Willow – Reduces pain and inflammation.
- Boswellia – Supports connective tissue and joint structure.
- Bromelain – Reduces swelling of joints and muscles.

**Regenerative Mineral Complex (RMC) to help assure an abundance of biologically critical minerals necessary for healthy cartilage.**

- Zinc – Stimulates both growth and calcification involved in the synthesis of collagen.
- Boron – Reduces calcium loss and bone demineralization, restores boron concentrations in bone and synovial fluid
- Silica – Supports bone growth.

**3D Advantage - Through the application of GNLD's leading edge manufacturing technology Full Motion delivers our "3D Advantage". This unique technology focuses on and maximizes the three critical steps of digestion and optimal bioavailability:**

- Disintegration – Tablets quickly breakdown in the stomach.
- Dissolution – Active ingredients quickly dissolve within the stomachs contents.
- Dispersion – Active ingredients disperse widely as stomach contents move into the intestine, maximizing bioavailability and user benefit.

By assuring these critical steps take place quickly and efficiently our "3D Advantage" makes Full Motion the leader of the pack when it comes to product performance and user benefit.

## LEADING EDGE SCIENCE DELIVERS AN UNBEATABLE COMBINATION FOR JOINT HEALTH:

Full Motion was formulated under the direct participation of GNLD's Scientific Advisory Board. The combination of ingredients that make up Full Motion are based on leading edge science that shows direct supplementation of Glucosamine, the primary cartilage building block, can support healthy joint function and regenerate lost or damaged cartilage. The result is comfort, flexibility and mobility.....Full Motion.

## FULL MOTION THE 3D ADVANTAGE

What happens to a nutritional supplement after it enters your stomach is not something most people think about. But in fact events that take place in the stomach and digestive tract are critical to product performance and user benefit.

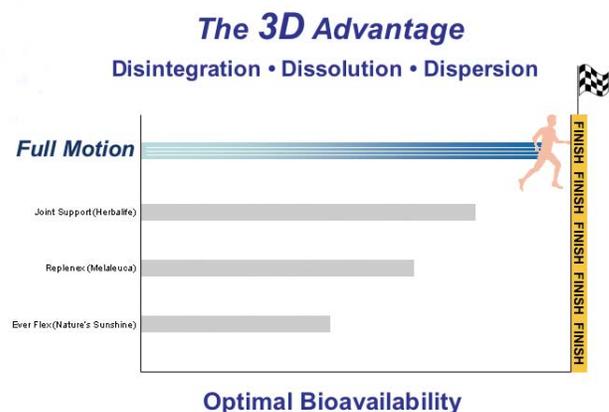
Through the application of GNLD's leading edge manufacturing technology Full Motion delivers our "3D Advantage". It focuses on and maximizes these three critical steps of digestion and optimal bioavailability: Disintegration - Dissolution - Dispersion.

Disintegration means once consumed the Full Motion tablets quickly breakdown in the stomach.

Dissolution means once broken down the active ingredients in Full Motion quickly dissolve within the stomachs contents.

Dispersion means that once dissolved the active ingredients in Full Motion disperse widely as stomach contents move into the intestine, maximizing bioavailability and user benefit

The 3D Advantage makes Full Motion the leader of the pack when it comes to product performance and user benefit.





## CELLULAR NUTRITION AND THE TRE-EN-EN CONNECTION

Both the production of glucosamine and the further step resulting in the production of cartilage are activities carried out in specific cells of the body. These unique cells have the capacity to create or “biosynthesize” tissue or building blocks of all the tissues of the body. Their efficiency and effectiveness at performing these life-giving or life sustaining tasks has a very direct effect on health, vitality and longevity.

Cellular efficiency at performing these highly specific tasks can be influenced by several factors. Certainly supply of the nutrients needed to fulfill that task is a fundamental criteria. Nothing can be made if its components are not available.

Aside the supply requirement however the functional integrity and efficient operation of the cell itself play critical roles. Like all the other cells that make up our bodies, the cells that manufacture glucosamine and those that manufacture cartilage (chondrocytes) have to first be capable of sustaining themselves. For cells to sustain themselves they must be able to take in nutrients, produce life-sustaining energy and eliminate waste from that activity. Secondary to that they must be able to take in the building block components of what they manufacture and excrete or secrete that substance to the body.

Nutrient intake and waste elimination at the cellular level is regulated by the cells membrane. Science has shown that the efficiency of the membrane directly effects cellular energy production and “nutrient utilization efficiency”.

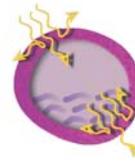
It has also been shown that membrane efficiency is directly affected by the quality and quantity of specific lipids (fats) in the diet. When these specific lipids are deficient or available to the body in sub-adequate amounts cellular efficiency is compromised. Conversely, when an abundance of the most appropriate lipids are present in the diet cellular efficiency is enhanced.

### THE TRE-EN-EN CONNECTION

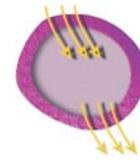
**GNLD: PIONEERS OF CELLULAR NUTRITION**  
**“WE ARE ONLY AS HEALTHY AS OUR CELLS.”**

The energy you have every day comes from your cells, but today’s modern diet is stripped of cell-powering nutrients known as lipids and sterols. Without these essential food factors, your cell membranes can become impermeable, making it difficult for nutrients to get in and waste to get out.

More than 45 years ago, doctors discovered that people with chronic fatigue could benefit dramatically from receiving a unique blend of lipids and sterols. That amazing formula came to be known as Tre-en-en® Grain Concentrates: the world’s 1st product proven to increase cellular efficiency.



Unhealthy Cell



Healthy Cell

Tre-en-en® remains at the leading-edge of cellular nutrition, and it forms the foundation of GNLD’s Formula IV® and Formula IV Plus, still the very best products you can find that deliver nutrition way down at the cellular level.

Thus, in addition to assuring cartilage producing chondrocytes have sufficient glucosamine to allow them to repair or regenerate cartilage it is nutritionally essential to assure their cell membranes have the abundance of specific lipids necessary for them to function efficiently and produce the needed cartilage for joint repair.

### HEALTHY JOINTS: THE OMEGA-3 CONNECTION

The most common situation that accompanies a loss of cartilage is joint inflammation. In fact, joint inflammation can precede cartilage loss/osteoarthritis and be an early indicator of potential problems that might occur in the future.

One of the most common causes of joint inflammation is a dietary imbalance of the critical fatty acids. These fatty acids are the building blocks of the body’s natural biochemicals that regulate its inflammatory/anti-inflammatory balance.

This occurs when our diets contain too much of one type of fatty acid; omega-6, which supports inflammatory capacity, and not enough of another; omega-3 that regulates anti-inflammatory capacity. When there are insufficient anti-inflammatory omega-3 fatty acids biochemistry becomes biased toward inflammation. This in turn causes unnecessary inflammation at points of motion or weight bearing, our joints.

Research has shown that the omega-3 fatty acids found in fish and fish oil (EPA and DHA) can significantly reduce localized joint inflammation and the discomfort and loss of motion that can cause.

GNLD offers 2 perfect omega-3 fatty acid supplements; Omega-3 Salmon Oil and Omega-3 Concentrate. Both deliver the exact form of the omega-3 fatty acids the body needs to support its anti-inflammatory functions and eliminate localized joint inflammation and discomfort caused by this imbalance.

And both GNLD omega-3 supplements come from Nature’s richest and most “biocompatible” human food chain sources. Each meets GNLD standards for purity, potency and consistency. Each has been tested and retested to assure that the toxins associated with some fish; such as mercury, cadmium, pesticides and the like, are never a concern.

To maximize your joint comfort, flexibility and overall health just follow the directions on the label and add GNLD Omega-3’s to your diet.



## OTHER KEYS TO OPTIMAL JOINT HEALTH

### OTHER KEY NUTRIENTS FOR JOINT HEALTH

A low fat, high fiber diet providing optimal levels of vitamins, minerals and other food factors is the basis of good health, and this applies to the joints as well.

In addition to those nutrients included in Full Motion the following have been shown to be particularly helpful in arthritis:

- **Salmon Oil:** Omega-3 fatty acids have a powerful anti-inflammatory effect. Double-blind placebo controlled clinical studies have shown that omega-3 fatty acids can benefit people suffering from arthritis.
- **Vitamins E and C** protects cartilage from further damage caused by the inflammation. Both nutrients act as cellular antioxidants quenching free radicals generated by inflammatory reactions. Vitamin E has an anti-inflammatory effect and vitamin C is essential for building collagen, the main structural protein of joint cartilage.
- **Vitamin D** may halt the progression of joint damage.

### OTHER IMPORTANT STEPS FOR MAXIMIZING JOINT HEALTH

- Regular moderate, low-impact exercise is critical to retain mobility, keep joints flexible and build the strength of supporting muscles. Swimming laps, water aerobics and other aquatic exercises are especially helpful because they involve minimal stress on weight-bearing joints.
- Rest! It is important to recognize when to stop or slow down.
- Protect joint to prevent strain or stress on painful areas. Knee braces, splints and shock-absorbing shoes can provide extra support to weakened joints.
- Weight control to prevent extra stress on weight bearing joints. The force of one knee with each foot strike is two to three times as great as the body weight, so weight loss of just 11 pounds takes 22 to 33 pounds off the knee. A healthy diet and regular exercise help reduce weight.