

# Phytonutrients and Natural Compounds

## FOR PROMOTING WELLNESS

Natural Anti-inflammatory Support for Safety and Effectiveness

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## CHRONIC (Persistent) INFLAMMATION

Chronic inflammation is a major factor in debilitating disease in developed countries. Persistent inflammation is frequently linked with cardiovascular disease; cancer; diabetes; Alzheimer's disease; aging; autoimmune diseases (asthma, lupus, MS); arthritis; etc. (1,2). The popular arthritic treatments, COX-2 inhibitors Vioxx, Celebrex, Bextra, and NSAID's (naprosyn) Advil have been alleged to cause increased risk of heart attack and stroke and have been under FDA review(3,4, 5,6,7,8,9,10,11,12). NSAID side effects of intestinal bleeding and kidney toxicity cause hospitalization of around 100,000 annually; some 20,000 of these die(13).

The number of arthritis sufferers is on the rise. In 1997, 47 million Americans were diagnosed and treated for joint disease. The anticipation was that by 2010 this number would rise to over 70 million. By the year 2003 that number had already reached 70 million at a medical cost of \$65 billion. The number of arthritic sufferers worldwide claims to be over 400 million (14).

## CELADRIN® AND GLUCOSAMINE

### Safe, Natural, Effective Alternatives

Celadrin® is a proprietary blend of the necessary essential fatty acids shown to help improve function and reduce pain for people struggling with aches and discomforts resulting from arthritis.

Celadrin® balances fats that contribute to proinflammatory responses with fats that are associated with anti-inflammatory agents(15). It also inhibits destructive enzymes that cause inflammation(16). The "wear and tear" seen in osteoarthritis is actually due to excess action of proteolytic enzymes that break down tissue (15,16).

Celadrin®, made with a proprietary process of esterifying oils, is an all natural ingredient scientifically reported to reduce inflammation and pain with no side effects. Published twice in the internationally acclaimed Journal of Rheumatology, Celadrin® provides youthful cell fluidity and elasticity, facilitates cushioning of bones and joints and provides cumulative and restorative benefit (17,18).

Glucosamine is made in the body and is also commercially available as a natural ingredient extracted from a carbohydrate in crustacean shells. Regular use helps maintain lubricating fluid in joints, promotes flexibility, range of motion and comfortable joint function and provides a natural building block of healthy cartilage (19,20,21,22,23).

## PHYTONUTRIENTS

Phytonutrients are biologically active constituents heavily concentrated in the skins of botanicals and are responsible for their color, flavor and scent. They are powerful anti-oxidants, but their value extends much beyond free radical protection (24).

There are dozens of catalogued phytonutrients (including anthocyanins, proanthocyanadins, carotenes, zeaxanthin, isoflavones, quercetin, bioflavonoids, beta-sitosterols) and hundreds more yet to be identified and catalogued (25,26,27).

These compounds have been reported in some studies to protect man from cancer, heart disease, diabetes, aging, Alzheimer's, cataracts, macular degeneration, arthritis and more (25,26,27,28,29). Maximum health benefits are derived from consuming a variety of botanicals with a full spectrum of colors/pigments (30,31).

## DIET EXCESSES AND DEFICIENCIES

Personal health/illness is irrefutably linked to diet. Excesses and deficiencies are rampant in America as well as other industrialized nations (32). Fresh fruits and vegetables are routinely replaced by nutrient-poor foodstuffs (28,33).

Diets are particularly deficient in FRUITS, especially the lesser known ones, richly pigmented and laden with phytonutrients (26,31). It is estimated that fewer than 17% of Americans have adequate fruit intake. The USDA recently increased its recommended fruit intake from 2-4 to 3-5 fruits daily (34,35).

## ACAI (ah-sigh-ee) BERRY AMAZON SUPERFRUIT

In late 2004, Dr. Nicholas Perricone appeared on Oprah to promote his book "The Perricone Promise: Look Younger-Live Longer in Three Easy Steps" in which he lists the Ten Super Foods to Rejuvenate the Body. He rated the Acai Berry as #1, calling it one of the most nutritious and powerful foods in the world. This deep purple, grape-sized, nutrientdense berry grows at the top of towering palm trees in the Amazon Rainforest of Brazil. **It boasts the protein profile of an egg; a fatty acid ratio similar to olive oil and has more than 30 times the antioxidant power of red wine** (36,37).

For centuries, Brazil's endogenous people have used the phytonutrient-rich Acai Berry as medicine for many conditions, including as an aphrodisiac for ancient warriors (36,37,38).

In 2004, NBC Today's Matt Lauer hosted an Amazon Rainforest road show from Brazil, reporting that locals now call the legendary Acai Berry the "Viagra of the Amazon."

Articles about the popularity of the Acai Berry appearing in the popular press include: The Times, UK, 9/20/03; Wall Street Journal, 4/18/03; The Washington Post, 8/11/02; Vogue, 6/03.

## SYNERGISTIC PHYTOBLEND OF 19 NUTRIENT-BALANCED FRUITS

In early 2005, a team of researchers and doctors released a unique formula under the brand name of MonaVie™. It merged the Acai Berry's diverse nutrient range with 18 other fruits chosen from a broad color spectrum(31) and containing catalogued, complementary phytonutrients and antiinflammatory components (31,40). One well received version of the formula includes glucosamine and Celadrin® for added anti-inflammatory support. These endogenous fruits are harvested from exotic rainforests and pristine valleys. They represent flora of the four corners of the world: South America, Asia, the Mediterranean and North America.

The stated formula goal was to achieve nutrient balance (variety and moderation), convenience, good taste and reasonable cost. MonaVie's blend includes: Acai Berry, White Grape, Pear, Acerola, Purple Grape, Aronia, Cranberry, Passionfruit, Kiwi, Lychee, Apricot, Prune, Blueberry, Bilberry, Pomegranate, Camu Berry, Wolfberry, Banana, Lychee. Each fruit was chosen because of its historical use for specific health benefits and unique phytonutrient composition that has now been validated by modern science--empirical evidence, supported by research.

The catalogued phytonutrients of these selected fruits have been reported to be useful in preventing or responding to eye problems, cancers, sexual dysfunction, immune problems, circulatory conditions, strokes, energy deficiencies, diabetes, inflammations, arthritis, intestinal problems, memory loss, urinary tract infections, DNA damage, insomnia, asthma, anxiety, among others (17,25,27,29,41).

Related studies show an association between fruit intake and decreased risk of cardiovascular disease (42). Several case-control studies indicate that intakes of selected fruits are associated with lower incidence of some cancers (43). Increased intake of fruits has also been associated with decreased blood pressure (44).

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