

BioTools

A TWO-SUPPLEMENT SYSTEM DESIGNED FOR YOUR SPECIFIC STAGE OF LIFE.
FEATURING ADVOCARE BIOTUNE™ AND BIOCHARGE™



\$69.95
(30 day supply)
W2800

\$55.96 \$41.97

BioCharge™

Amino Acid, Vitamin & Herbal Supplement

KEY BENEFITS:

- Helps with cellular and muscle repair, accelerating recovery*
- Promotes lean muscle mass and performance*
- Provides a caffeine-free source of energy*

IS THIS YOU?

- A Baby Boomer (born between 1946 and 1964)
- Trying to maintain an active lifestyle but the body's warranty seems to have expired
- Concerned about losing muscle mass and declining athletic performance
- Lacking energy
- Finding it difficult to recover from exercise and workouts
- Feeling older than you want to feel

THE ISSUE:

Baby boomers number 78 million people and are experiencing difficulties with the aging process on a massive scale. Some are desperately trying to maintain an active, healthy lifestyle but find that it is difficult with a body that is telling you that its warranty has expired. Others are suffering the consequences of poor lifestyle choices and are drifting into old age overweight, out of shape and accumulating health problems.

One of the characteristics of Baby Boomers is the difficulty in recovering from exercise and being able to perform at a level that they expect to. This challenge is a part of aging that can be hard to accept. Aging is associated with a loss of muscle mass, increased adipose tissue & reduced energy. "Boomeritis" is a term created to describe the aches, twinges and pangs that are a hallmark of aging; conditions that are all too common with the Boomer population. While some may still expect to be performing at their best, others are wondering why it is hard to get off the couch and where did that ache come from?

These conditions are a result of a combination of poor nutrition and a gradual shift in our body's ability to maintain a constant state of genetic control. Naturally occurring substances in food can help restore balance to how our genes work, by modifying which genes are turned on and which ones are turned off. We use our genetic resources effectively and appropriately when we are young and vital. However, with aging we lose some of that control, and this is mediated by changes in molecular tags on our DNA or proteins that wrap our DNA. These tags are called the epigenome.

THE SOLUTION: BioCharge™

BioCharge™ is designed to facilitate the restoration of our epigenome status to a more youthful setting.* This anti-aging action is accomplished through antioxidant rich botanicals combined with B vitamins and [branched](#)

chain amino acids (BCAAs).* BCAAs are critical for activation of genetic resources in skeletal muscle and adipose tissue. During exercise the presence of BCAAs helps promote the genetic code that leads to lean body mass, improved muscle performance and recovery.

Delayed recovery from exercise is a hallmark of aging. For those who do not maintain an active lifestyle, twinges, aches, stiffness and pains may be a common and constant companion. An imbalance in the epigenome is a major contributor to these events. In addition to the BCAAs, the botanicals in BioCharge™ are known to help correct these imbalances in the epigenome and provide anti-inflammatory actions.*

Taurine and B vitamins within BioCharge™ address the loss of energy that Baby Boomers feel.* Non-jittery energy that is focused and sustained is a characteristic of these components.* Since some Boomers can be less tolerant of some of the effects of caffeine, BioCharge™ is caffeine free.

Key Ingredients:

Branched-chain amino acids (BCAAs) are the name given to L-leucine, L-isoleucine, and L-valine. Of these three, L-leucine is most important for the actions that the product is designed for: prevention of muscle mass loss with aging (sarcopenia), maintenance of exercise quality and intensity and faster recovery from workouts.* Given this dominance of L-leucine, the ratio of the BCAAs is formulated to 4:1:1 (leucine: isoleucine: valine).

There are a number of polyphenolic-rich botanicals present in BioCharge™. These complex, plant-based ingredients are well known for their antioxidant properties as well as for the effects on gene expression via the epigenome.

Cat's claw (*Uncaria tomentosa*) is a traditional medicine from the Amazon rainforest. Historically it is a vine whose bark is brewed into a tea for treating various inflammatory disorders. **Cat's claw** balances immune function and is an excellent adaptogen.

Grape seed extract is a polyphenol-rich ingredient that is particularly rich in proanthocyanidins. These are short chains (called oligomers) of catechins or flavanols, which exert profound effects of gene expression and are powerful antioxidants. There are numerous research reports documenting benefits in various states of inflammation.*

Green tea leaf extracts (*Camellia sinensis*) are rich in catechins, and the most widely studied is epigallocatechin gallate (EGCG). There is a vast array of studies documenting the effects of green tea extracts, especially EGCG and other catechins, on gene expression leading to a restoration and maintenance of health. Joint health, heart health, and cognitive and mental functions and chemoprevention are some of the attributes of dietary supplementation with these catechins.*

The **B vitamins** as well as **folic acid**, in addition to providing a non-caffeinated source of energy, are also highly effective agents that provide positive support to the epigenome. Animal studies have indicated that diets supplemented with these nutrients can reverse the genetic disposition to obesity, diabetes and cardiovascular disease in the Agouti mouse model. Molecular tags on the agouti gene responsible for controlling satiety were corrected by these nutrients.

Taurine is an amino acid by product that is an antioxidant, provides energy, and aids in mental focus.

Directions For Use:

Mix the contents of one stick pack into 4 fluid ounces of water, slightly shake or stir. May adjust amount of water to suit taste.

Caution:

This product is not intended for pregnant or nursing women.

Keep out of reach of children.

BioTune™

KEY BENEFITS:

- Promotes internal balance and healthy aging*
- Encourages youthful responses to physical stress and challenges*
- Formulated with a unique nutrient/herbal blend that helps support cardiovascular, bone and joint, and gastrointestinal systems.*

IS THIS YOU?

- A Baby Boomer (born between 1946 and 1964)
- Trying to maintain an active lifestyle with a body that is losing its warranty
- Is your quality of life suffering from poor eating habits and too little exercise
- Are you worried about being healthy as you age
- Are twinges and stiffness limiting your lifestyle
- Do you find that normal activities are not as easy as they were in your youth

THE ISSUE:

Baby boomers number 78 million people and are experiencing difficulties with the aging process on a massive scale. Some are desperately trying to maintain an active, healthy lifestyle but find that it is difficult with a body that is telling you that its warranty has expired. Others are suffering the consequences of poor lifestyle choices and are drifting into old age overweight, out of shape and accumulating health problems.

Many of the signs of aging that Baby Boomers experience relate to the results of chronic inflammation. This is different from acute inflammation, which is a process for defense and repair. Chronic inflammation results from a system that is out of balance, where repair is superseded by processes that promote tissue injury and persist for long periods of time. Some of these events may be visible, like joint pain and stiffness. Others are silent, such as the processes leading to cardiovascular disease and loss of cognition and mental functions with aging, for example.

If our genetic resources led to harmony and health when we were young and vital, why then are we not benefiting in the same way with these same genetic resources to maintain health as we age?

THE SOLUTION: BioTune™

Ingredient research has shown that nutrients in BioTune™ are able to help restore the use of genetic resources.* They do not change the DNA code - we inherit that code from our parents. But how we use that code has a large bearing on our health.

Think of the genetic code like the hardware in a computer. It does not change and is the same in all cells, whether they are skin, nerves, liver or muscle. However, what tells those cells to act in the correct manner and perform their assigned roles and functions are a series of molecular switches called the "epigenome". If the DNA is the hardware, then these switches are the software that determines how cells act and function.

Over time, or due to poor nutrition and environmental factors the software program can shift in its performance. This dysfunction in our cellular software can contribute to the problems that we collectively call Boomeritis and other conditions associated with aging.

The ingredients in BioTune™ are naturally occurring substances with ingredient research support demonstrating their actions as guardians of the epigenome. These materials possess complex chemical structures and work in a variety of ways, with the combination bringing diverse approaches to health and wellness through a multitude of actions.* The end result is a more youthful feeling that results from synchronizing your genes with nature.*

Key Ingredients:

Curcumin is the active chemical in the spice turmeric (*Curcumin longa*). Curcumin is well known for its anti-inflammatory properties, mediated through its actions on gene expression, but its limitations have centered on its bioavailability - absorption from the gut and distribution to the rest of the body. The BCM-95 extract used in BioTune™ was developed to address these limitations and as a result there are excellent systemic actions of curcumin with this specific extract.*

Amla is a fruit (*Emblica officinalis*), sometimes called Indian gooseberry, which is rich in antioxidants such as Vitamin C, and has a long history of use in Ayurvedic medicine (the traditional medicine of India). Many epigenetic switches are sensitive to oxidants and Amla balances the cellular redox state to limit the deleterious actions of oxidants on health.*

Cat's claw (*Uncaria tomentosa*) is a traditional medicine from the Amazon rainforest. Historically it is a vine whose bark is brewed into a tea for treating various inflammatory disorders. **Cat's claw** balances immune function and is an excellent adaptogen.

Boswellic acid is a resin extract of *Boswellia serrata*, and has been used throughout the Middle East, northern Africa and India as an anti-inflammatory botanical for thousands of years. Indeed, it was once known as frankincense. **Boswellic acid** has been used in traditional medicines for fever, rheumatism, gastrointestinal afflictions and mental health.

Grape seed extract is a polyphenol-rich ingredient that is particularly rich in proanthocyanidins. These are short chains (called oligomers) of catechins or flavanols, which exert profound effects of gene expression and are powerful antioxidants. There are numerous research reports documenting benefits in various states of inflammation.

Quercetin is a flavonol that is a profound antioxidant found in various fruits, onions and buckwheat. It has been implicated in cardiovascular health where it not only limits the epigenetic processes involved in vascular hardening but also promotes exercise tolerance and efficient use of energy by mitochondria. There are several clinical trials currently under way evaluating its potential chemopreventive properties.

Ellagic acid is a polyphenolic antioxidant, supported by research, that plays a role in maintaining cardiovascular health, joint health and function, and may have chemopreventative properties. Fruits often combine ellagic acid with gallic acid to form gallotannins, which are then broken down upon digestion. Berries and fruits like pomegranate are rich in ellagic acid and anthocyanins.

Green tea leaf extracts (*Camellia sinensis*) are rich in catechins, and the most widely studied is epigallocatechin gallate (EGCG). There is a vast array of studies documenting the effects of green tea extracts, especially EGCG and other catechins, on gene expression leading to a restoration and maintenance of health. Joint health, heart health, and cognitive and mental functions and chemoprevention are some of the attributes of dietary supplementation with these catechins.

Alpha lipoic acid is an organo-sulfur compound that was first used clinically to restore liver function in patients with various liver diseases in the 1970's. It has been shown to promote the proper cellular use and transport of glucose, and has been used to manage cognitive function and balance blood glucose levels.

Resveratrol is a phytoalexin produced by several plants when stressed by attacks from viruses or fungi. Resveratrol has a remarkable anti-aging collage of properties from extending lifespan in various animals to counteracting the activation of up to 144 genes in response to high fat diets. While resveratrol has numerous benefits in various animal models of disease (gastrointestinal, diabetes, heart disease, cancer, Alzheimer's disease), there is no clinical support at this time for these applications. Resveratrol is a natural product with powerful epigenetic properties but further research is required to place its role in human health in perspective. Resveratrol is found in wine, especially red wine, and this has led to speculation that it is a critical factor explaining the "French Paradox" of lower cardiovascular disease despite a high fat diet. However, resveratrol levels in wine and grapes are considerably lower than what has been used in experimental studies. Current supplies used in supplements are derived from Japanese knotweed.

Zinc and **selenium** are metals that are used by critical antioxidant enzymes within the body. They are important in converting dangerous free radicals into harmless substances, thereby protecting cells from oxidative stress. They are indirectly involved in epigenetics by lowering the tone of redox sensitive transcription factors (proteins that promote gene expression) or via the activity of "finger proteins" that directly bind to DNA.

Directions For Use:

Take two capsules daily. May be consumed with or without food.

Caution:

This product is not intended for pregnant or nursing women.

Keep out of reach of children.

** These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.*

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BioCharge™

SUPPLEMENT FACTS

Serving Size: 1 stick pack (0.18oz/5g)
[makes 4 FL OZ prepared]
Servings Per Container: 30 stick packs per carton

	Amt Per Serving	% DV
Vitamin B6	6mg	300%
Folic acid	400mcg	100%
Vitamin B12	250mcg	4200%
Pantothenic Acid	20mg	200%
Taurine	500mg	*
L-Leucine †	2g	*
Isoleucine †	500mg	*
Valine †	500mg	*
Cat's Claw extract (bark - <i>Uncaria tomentosa</i>)	100mg	*
Quercetin	100mg	*
Green tea extract (leaf - <i>Camellia sinensis</i>)	50mg	*
Grape seed extract (<i>Vitis vinifera</i>)	25mg	*

†Percent daily values (DV) are based on a 2000-calorie diet.
* Daily Value not established.

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OTHER INGREDIENTS: NATURAL BLACKBERRY FLAVOR, CITRIC ACID, BLACK CURRANT EXTRACT (FOR COLOR), SUCRALOSE, SILICON DIOXIDE.

†Ajinomoto Ajipure instantized branched chain amino acids

Directions For Use: Mix the contents of one stick pack into 4 fluid ounces of water, slightly shake or stir. May adjust amount of water to suit taste.

Caution: This product is not intended for pregnant or nursing women.

Keep out of reach of children.

For maximum freshness store product in a cool, dry place.

BioTune™

SUPPLEMENT FACTS

Serving Size: 2 Capsules
Servings Per Container: 30

	Amt Per Serving	% DV
Zinc (as methionine Opti-Zinc®)	5mg	33%
Selenium (as selenium amino acid chelate)	20mcg	29%
Curcumin (<i>Curcuma longa</i>) –BCM-95® extract	200mg	*
Amla extract (fruit - <i>Emblica Officinalis</i>)	200mg	*
Cat's claw extract (bark - <i>Uncaria tomentosa</i>)	200mg	*
Boswellic acid extract (<i>Boswellia serrata</i>)	100mg	*
Grape seed extract (seed - <i>Vitis vinifera</i>)	100mg	*
Quercetin	100mg	*
Ellagic acid (from pomegranate extract) (fruit - <i>Punica granatum</i>)	80mg	*
Green tea extract (leaf - <i>Camellia sinensis</i>)	50mg	*
Alpha-lipoic acid	50mg	*
Resveratrol (from <i>Polygonum cuspidatum</i>)	10mg	*

*Daily Value (DV) not established.

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OTHER INGREDIENTS: GELATIN, RICE FLOUR, SILICON DIOXIDE, MAGNESIUM STEARATE (VEGETABLE SOURCE)

Directions For Use: Take two capsules daily. May be consumed with or without food.

CAUTION: THIS PRODUCT IS NOT INTENDED FOR PREGNANT OR NURSING WOMEN.

KEEP OUT OF REACH OF CHILDREN.

For maximum freshness store product in a cool, dry place.

BCM-95® registered trademark
Dolcas-Biotech LLC