Energy Generation Requires Nutrients

The body requires many nutrients in order to perform the complex biochemical processes necessary to convert food into energy. Some of these nutrients, such as the B-vitamins, are familiar to us. However, there are many other substances that are essential to this process that are less well known. One of these is Coenzyme Q10 ("CoQ10") an enzyme that helps transform food into energy. The body uses the energy-generating process takes place in structures called mitochondria—tiny power plants. Inside these energy-producing structures, fats, sugars, and amino acids are transformed into adenosine triphosphate (ATP), an energy molecule that provides the cells with the "energy currency" of the body. Almost all biochemical activity in the body needs ATP to provide the energy to catalyze the reactions. The body must produce an astounding 100,000 times its own weight in ATP every day, just to provide the energy to catalyze the reactions. ATP provides the energy currency for the following crucial metabolic functions:

- synthesis of cellular components including cholesterol and proteins (formed primarily by the liver)
- nerve conduction (in the brain and peripheral nerves)
- energy for muscular contraction (of the heart and skeletal muscles)
- thousands of enzymatic biochemical reactions.

Support for Key Functions

In its role as a generator of energy, CoQ10 is critically important to all cells and systems but it’s particularly critical for organs and body systems that use large amounts of energy, such as the heart, brain, and skeletal muscles. CoQ10 supports a house with many rooms, CoQ10 is the heart of the orchestra, the champion of your own health. By educating yourself on the powerful nutritional value of CoQ10, you have taken the first step in being the champion of your own health.

The Game: Since the 1970s, scientists have been researching the effects of CoQ10 on the health of the oral tissues. Although the mechanism of action is not known, research has established that CoQ10 has a profound ability to preserve and maintain the health of the gums.

Antioxidant Properties: CoQ10 plays an additional vital role in our metabolism as an antioxidant to protect the lipids in our cell membranes. Studies have shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses. Laboratory studies have also shown that CoQ10 is more effective than vitamin E, beta carotene or lycopene in safe doses.

Free Radical Scavenger: Most simple organic molecules are formed as relatively straight-forward carbon and hydrogen chains. At the end of many organic molecules, however, there lie structures as a switch. If the wrong switch is flipped—such as a free radical—as a free radical or other molecule "morph" into a compound that is undesirable. Free radicals are those single electron molecules that drift through the body until they find an "open" molecular structure and lock onto it, bringing about an alteration. Our DNA can be affected this way. Alteration of cells can lead to oxidative stress.

CoQ10’s power as a scavenger molecule lies in the way it locks onto a molecule before a free radical can, lending it an electron. The organic molecule is no longer reactive to free radicals. That’s a strong protective power at the cellular level, so it’s important to have a molecule with good mobility within the bloodstream.

Energy Insurance

The body is an energy dynamo giving people the capacity for a vibrant enjoyment of life. But many of us are too tired to even notice that vibrancy passing by. Coenzyme Q10 is a profoundly vital molecule, with importance throughout the body. It is one of a handful of compounds that can be called true cornerstones of health. Source Naturals has identified twelve deep, interrelated metabolic systems that are crucial for understanding and meeting the health challenges that face us in today’s world. Of these twelve Systemicare™ systems, seven are strongly supported by CoQ10 supplementation: Energy; Inflammation Response; Antioxidant Defense; Liver/Detoxification; Circulation; Cognition/Nerves; and Immunity.
Coenzyme Q10 Energizes Your Body

The body is an energy gym giving people the capacity for a vibrant enjoyment of life. But many of us are too tired to even notice that vibrancy passing by. Coenzyme Q10 is a profoundly vital molecule, with importance throughout the body. It is one of a handful of compounds that can be called true cornerstones of health. Source Naturals has identified twelve deep, interrelated metabolic systems that are crucial for understanding and meeting the health challenges that face us in today’s world. Of these twelve Systems Care™ systems, seven are strongly supported by CoQ10 supplementation: Energy; Inflammation Response; Antioxidant Defense; Liver/Detoxification; Circulation; Cognition/Nerves; and Immunity.

**Energy Insurance**

CoQ10 is a product of nature, critical for every cell in the body. It is a coenzyme required in the electron transport chain, a metabolic process that powers the cell. The resulting ATP (adenosine triphosphate) provides energy for all bodily functions.

**Myriad Functions of CoQ10**

Several complex metabolic pathways are required in order for the body to transform food into ATP and energy that we can feel and use. First, digestion breaks down large molecules of protein, carbohydrates, and fat into smaller components. Those components are then further transformed by processes like glycolysis and the Krebs’ cycle. ATP needs from the food we eat.

**Energy Generation Requires Nutrients**

The body requires many nutrients in order to perform the complex biochemical process that converts food into energy. Some of these nutrients, such as the B-vitamins, are well known. One of these is CoQ10 (“CoQ10”) an enzyme that helps transform nutrients into energy. Within each cell, the energy-generating process takes place in structures called mitochondria—tiny power stations, fats, sugars, and amino acids are transformed into adenosine triphosphate (ATP), an energy molecule, through a process called the electron transport chain. Mitochondria contains CoQ10’s power as a scavenger molecule lies in its ability to preserve and maintain the health of the oral tissues. Although the oral health is a part of overall health, the relationship between oral health and systemic health is only beginning to be understood.

**Support for Key Functions**

In its role as a generator of energy, CoQ10 is critically important to all cells and systems. Its antioxidant properties make it a powerful inhibitor of free radicals, which are chemical fragments that are highly reactive and can cause oxidative stress in the body. Free radicals can contribute to the aging process, as they can damage cellular components, leading to increased cell death and tissue damage.

**The Game Since the 1970s, scientists have been researching the effects of CoQ10 on the health of the oral tissues. Although the mechanism of action is not known, research has established that CoQ10 has a profound ability to preserve and maintain the health of the gums.**

**Antioxidant Properties: CoQ10 plays an additional vital role in our metabolism as an antioxidant to protect the lipids in our cell membranes from free radicals. Laboratory studies have also shown that CoQ10 is more efficient than vitamin E, beta carotene or lycopene in safe guarding cell membrane lipids from oxidation by peroxides. As a molecule, CoQ10 resembles Vitamin K in its chemical structure. Its cellular behavior is similar to that of Vitamin E in the way it absorbs into cells, functioning as an antioxidant.**

**Free Radical Scavenger: Most simple organo-molecules are formed as relatively straightforward carbon and hydrogen chains. At the end of many organic molecules, however, there lie structures that are a small electron—such as a free radical—on oxidation.】

**Ways to Enjoy the Benefits of CoQ10**

CoQ10’s power as a scavenger molecule lies in the way it locks onto a molecule before a free radical can, lending it an electron. The organic molecule is no longer reactive to free radicals. That’s a strong protective power at the cellular level, so it’s important to have a molecule with good mobility within the bloodstream.

**Energy Insurance**

CoQ10 power in cells is under study in the energy production, critical such as the liver, brain and muscles, all of which need large amounts of energy to function. Therefore, Source Naturals produces CoQ10 as a stand-alone product and we include CoQ10 in significant quantities in many of our premium formulas.

**Source Naturals Offers Many Ways to Enjoy the Benefits of CoQ10**

Because CoQ10 is an important enzyme and supplementation can benefit a wide range of persons, Source Naturals continues to expand our offering of CoQ10 delivery systems.
**Coenzyme Q10** Energizes Your Body

Energy Generation Requires Nutrients

The body requires many nutrients in order to perform the complex biochemical processes that convert food into energy. Some of these nutrients, such as the B-vitamins, are familiar to us. However, there are many other substances essential to this process that are less well known. One of these is **Coenzyme Q10** ("CoQ10"), an enzyme that helps transfer electrons into energy. In the body, the energy-generating process takes place in structures called mitochondria—tiny power plants. Inside these energy-generating stations, fats, sugars, and amino acids are transformed into adenosine triphosphate (ATP), an energy molecule. ATP is then used by the cells for energy. CoQ10 is a profoundly vital molecule, with importance throughout the body. It is one of a handful of compounds that can be generated by the body. Without CoQ10, the body cannot function. Without CoQ10, the body cannot generate energy.

**Myriad Functions of CoQ10**

Several complex metabolic pathways are required in order for the body to transform food into ATP and energy that we can feel and use. First, digestion breaks down large molecules of protein, carbohydrates, and fat into smaller components. Those components are then further transformed by processes like glycolysis and the Krebs’ cycle. CoQ10 is a key enzyme in the Electron Transport Chain - the final stage in the conversion of the cell's metabolic pathways.

A. **CoQ10** provides 90 percent of our body's ATP needs from the food we eat.

B. ATP provides the "energy currency" for the following crucial metabolic functions:
   - synthesis of cellular components including cholesterol and proteins (formed primarily by the liver);
   - nerve conduction (in the brain and peripheral nerves);
   - energy for muscular contraction (of the heart and skeletal muscles);
   - thousands of enzymatic biochemical reactions.

**Support for Key Functions**

In its role as a generator of energy, CoQ10 is critically important for all cells and systems but it's particularly critical for organs and body systems that use large amounts of energy, such as the heart, liver and skeletal muscles. CoQ10 has a profound ability to preserve and maintain the health of the gums.

**Antioxidant Properties**: CoQ10 has a profound additional role in our metabolism as an antioxidant to protect the heart's internal structures from oxidative stress. Laboratory studies have shown that CoQ10 is more than twice as effective as vitamin E, beta-carotene or lycopene in safe antioxidant defense. As a molecule, CoQ10 resembles Vitamin K in its chemical structure. Its cellular behavior is similar to that of vitamin E in the way it absorbs into cells, functioning as an antioxidant.

**Free Radical Scavenger**: Most simple organic molecules are formed as relatively stable, carbon and hydrogen chains. At the end of many organic molecules, however, there lie structures such as a double bond. If the wrong electron—such as a free radical—locks on, the molecule can be damaged by free radicals. Free radicals are those single electron molecules that drift through the body, until they find an "open" molecular structure and lock onto it, bringing about an alteration. Our DNA can be affected this way. Alteration of cells can lead to oxidative stress.

**CoQ10** serves as a scavenger to protect against oxidative stress. Its ability to absorb into cells, functioning as an antioxidant, is a key characteristic of CoQ10.

**Heart**: Since the 1970s, scientists have been researching the effects of CoQ10 on the health of the oral tissues. Although the mechanism of action is not known, research has established that CoQ10 has a profound ability to preserve and maintain the health of the gums.

**Liver**: CoQ10 is an essential nutrient for the liver and other organs that use large amounts of energy. Liver studies have shown that CoQ10 is more effective than vitamin E, beta-carotene or lycopene in safe antioxidant defense. As a molecule, CoQ10 resembles Vitamin K in its chemical structure. Its cellular behavior is similar to that of vitamin E in the way it absorbs into cells, functioning as an antioxidant.

**Skin**: CoQ10 is a coenzyme that has been compared to a "home assistant" or a "co-enzyme" like Vitamin E, in that it is naturally occurring, and is necessary for normal functioning of the body. Without it, many functions will occur in the body, and our body systems won't work optimally.

**Energy Insurance**: People in today's world are more active, but we are also more stressed. Of these twelve SystemsCare™ systems, seven are strongly supported by CoQ10 supplementation.

**References**

1) Folkers et al., BACOG, Elsevier, 1977
Energy Generation Requires Nutrients

The body requires many nutrients in order to perform the complex biochemical processes necessary to convert food into energy. Some of these nutrients, such as the B-vitamins, are familiar to us. However, there are many other substances that are essential to this process that are less well known. One of these is Coenzyme Q10 (CoQ10)** in an enzyme that helps transform organic molecules into energy. The cell, in a way, functions as a small powerhouse. It uses a chemical process known as oxidative phosphorylation, which generates cellular ATP, to release energy fromorganic molecules. As cells continue to grow and use more ATP, the cell’s energy-generating process takes place in structures called mitochondria—tiny power plants. Inside these energy-generating stations, fats, sugars, and amino acids are transformed into adenosine triphosphate (ATP), an energy-rich molecule that the cell uses to power reactions.

CoQ10 is a molecule that has been compared to vitamin E because it is like a vitamin in that it is naturally occurring, and is necessary for normal functioning of the human body. However, it is more potent than vitamin E because it is needed in a far wider range of human tissues and can be used to create a variety of cellular energy reactions.

Myriad Functions of CoQ10

Several complex metabolic pathways are required in order for the body to transform food into ATP and energy that we can feel and use. First, digestion breaks down large molecules of protein, carbohydrates, and fats into smaller components. Those components are then oxidized or broken down by a biochemical process known as glycolysis and the Krebs cycle. CoQ10 is a key enzyme in the Electron Transport Chain - the final stage of the cellular respiration process. The pathway generates 90 percent of our body’s ATP needs from the food we eat.

ATP provides the “energy currency” for the following crucial metabolic functions:

- synthesis of cellular components including cholesterol and proteins (formed primarily by the liver);
- nerve conduction (in the brain and peripheral nerves);
- energy for muscular contraction (of the heart and skeletal muscles);
- thousands of enzymatic, biochemical reactions.

Support for Key Functions

In its role as a generator of energy, CoQ10 is critically important to all of our cells and systems but it’s particularly critical for organs and body systems that use large amounts of energy, such as the heart, brain, liver, and skeletal muscle. CoQ10’s power as a scavenger molecule lies in its ability to protect cells from oxidative stress.

The Gums: Since the 1970s, scientists have been researching the effects of CoQ10 on the health of the oral tissues. Although the mechanism of action is not known, research has established that CoQ10 has a profound ability to preserve and maintain the health of the gums.

Antioxidant Properties: CoQ10 plays an additional vital role in our metabolism as an antioxidant to protect the lipids in our cell membranes from oxidation. Laboratory studies have also shown that CoQ10 is more efficient than vitamin E, beta carotene or lycopene in safeguarding LDL cholesterol from oxidation by peroxides. As a molecule, CoQ10 resembles Vitamin K in its chemical structure. Its cellular behavior is similar to that of Vitamin E in the way it absorbs into cells, functioning as an antioxidant.

Free Radical Scavenger: Most simple organic molecules are formed as relatively straight-forward carbon and hydrogen chains. At the end of many organic molecules, however, there lie structures like a switch. If the wrong electrons—such as a free radical—lock onto a compound that is undesirable, free radicals are those single electron molecules that drift through the body, until they find an “open” molecular structure and lock onto it, bringing about an alteration. Our DNA can be affected this way. Alteration of cells can lead to oxidative stress.

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Energy Insurance

CoQ10 is needed in body tissues where energy production is critical, such as the liver, brain and muscles, all of which need large amounts of energy to function. Therefore, Source Naturals produces CoQ10 as a stand-alone product and we include CoQ10 in significant potencies in many of our premium formulas.

Source Naturals Offers Many Ways to Enjoy the Benefits of CoQ10

Because CoQ10 is an important enzyme and supplementation can benefit a wide range of persons, Source Naturals continues to expand our offering of CoQ10 delivery systems.

References

3) Kamimura et al., Chemical, Biological and Biomedical Aspects of Coenzyme Q, Elsevier, 1984.
4) Packer, L., Oxidative Stress and Aging, Biobehavioral, Verlag.