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Cellfood®

LONGEVITY DNA Regenerating Formula

Cellfood® LONGEVITY is a unique formulation that assists the body in:

- Slowing down the ageing process, by reducing homocysteine in the bloodstream;
- Extending longevity, by supplying nucleic acids for regenerating the DNA of the cells; and
- Supplying the cells with additional cellular energy (Adenosine triphosphate - ATP).

SLOWING DOWN THE AGEING PROCESS

Research has shown that ageing is caused by the loss of parts of the DNA in the nucleus of a cell, which then disables the cell from protecting, repairing and replicating itself. 1 & 2

Therefore, by slowing down the loss of these specific chemical parts, known as **methyl groups**, this would slow down the ageing process.

Dr Kilmer McCully, a Harvard cardiologist, discovered that these methyl groups were lost in proportion to the increased level of **homocysteine** in the bloodstream. Homocysteine is a normal amino acid produced during the process of digesting food; however, when there are deficiencies in a diet, its levels can rise abnormally, making it toxic and damaging; e.g. responsible for ageing and some major diseases.

"McCully came to realise that homocysteine, rather than cholesterol, might be a fundamental independent risk factor of arteriosclerosis and atherosclerosis, and therefore of heart attacks and strokes. And he went on to prove that it is." (p.11 3; also 4 5 6)

Further research showed that this surplus of toxic homocysteine that accumulates in one's bloodstream is, apart from certain genetic factors, because of **dietary deficiencies** of five essential nutrients: Vitamins B6 & B12, Zinc, Folic Acid, and Trimethylglycine. 7

Therefore, if we have an adequate amount of these five nutrients in our daily diet, our metabolic systems can naturally keep homocysteine at a low risk level; thereby

slowing down the loss of methyl groups and the ageing process; and reducing our risk regarding many major diseases.

"A comprehensive research study at the University of Bergen in Norway, published in 2001 in the American Journal of Clinical Nutrition, measured the homocysteine levels of 4,766 men and women aged 65 to 67 back in 1992, and then recorded any deaths over the next five years, during which 162 men and 97 women died. They then looked at the risk of death in relation to their homocysteine levels. Remarkably, they not only reconfirmed the relationship between heart attacks, strokes and high levels of homocysteine, but also found that 'a strong relation was found between homocysteine and all causes of mortality'." (p. 15 3; also 8)

"Your level of homocysteine is an accurate predictor of how long you are going to live, whatever the eventual cause of death may be!" (p.15 3)

Cellfood® LONGEVITY contains the five essential nutrients for reducing elevated levels of homocysteine in the bloodstream.

REDUCING HOMOCYSTEINE

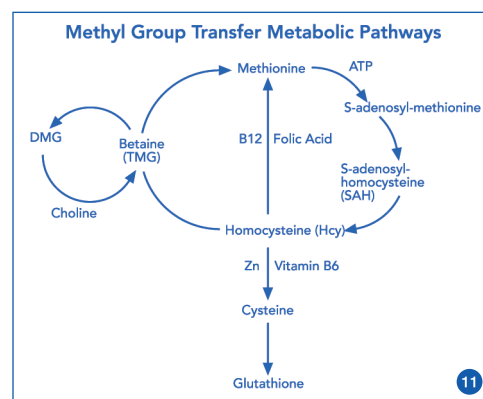
Homocysteine Levels: The level of homocysteine in the bloodstream can be measured by means of a relatively easy and inexpensive blood test; and is an excellent indicator of your state of health. Below is a list of homocysteine levels and the corresponding risk levels.

Homocysteine Levels 9
Below 6.3 = Very Low Risk
6.4 – 9.0 = Low Risk
9.1 – 15.0 = High Risk
+ 15.0 = Very High Risk

Studies show that levels above 6.3 units contribute significantly to the ageing process and are directly linked to over 100 diseases. (pp.35 – 42 10)

Reducing Elevated Homocysteine Levels 7:

There are three metabolic pathways in the body that can reduce the level of homocysteine by naturally converting it into usable substances.



1) **Vitamin B6** and **Zinc** convert homocysteine into **Glutathione**, a powerful anti-oxidant that maintains the integrity of red blood cells, has anti-ageing properties, and aids in the breakdown of fats that contribute to atherosclerosis. (p. 48 12)

2) **Vitamin B12** and **Folic Acid** convert homocysteine into **Methionine**, an amino acid that assists the breakdown of fats in the liver and arteries that might obstruct blood flow to the brain, heart, and kidneys. It is a powerful anti-oxidant that inactivates free radicals, and detoxifies the body of heavy metals. It is also beneficial for people with osteoporosis; and for women using oral contraceptives, because it promotes the excretion of excess oestrogen. (p. 49 12)

3) **Trimethylglycine (TMG)** converts homocysteine into **Methionine** and **Choline**. Choline is needed for proper transmission of nerve impulses from the brain through the central nervous system, for cardiovascular health, and for gall bladder regulation, liver function, and lecithin (brain fuel) formation. (p. 18 12)

Cellfood® LONGEVITY contains all the homocysteine-reducing nutrients: Vitamin B6, Zinc, Vitamin B12, Folic Acid, and TMG.

Benefits of Reducing Homocysteine Levels:

In 2001, the American Journal of Clinical Nutrition (8) reported that, associated with every 5 point reduction in a homocysteine level, there was:

- 50% reduced risk of cardiovascular death;
- 49% reduced risk of death from all causes; and
- 26% reduced risk of death from cancer.

Now, although a person can slow down the ageing process by lowering the level of homocysteine in the bloodstream; this is only part of the longevity process.

EXTENDING LONGEVITY

Apart from slowing down the loss of these methyl groups, it is important for the body

to **replace methyl groups** that have already been lost, in order to not only slow down ageing, but to **extend longevity**. 2

Normally, methyl groups are replaced in the body when the food that we eat is converted into **nucleic acids**, which are the chemical building blocks used by the cells for regenerating DNA and RNA (the messenger part of the DNA of a cell); so that the cells protect, repair and replicate themselves appropriately. 7

Under normal circumstances, our bodies produce sufficient nucleic acids for cells to function optimally; however, for many of us, because of our fast-track life-styles, pollution, poor management of stress and diets, our methyl groups are daily being eroded faster than normal; and no amount of good nutrition can adequately replace these permanently lost methyl groups.

Fortunately, Dr Max Oden's ground-breaking longevity research showed that extended longevity can be achieved by nucleic acid supplementation; and since his work, many other studies have validated this. 13

In order to extend longevity, Cellfood® LONGEVITY contains a full spectrum of nucleic acid bases to assist the body in replacing needed methyl groups.

REGENERATING DNA

Nucleic Acids: When food is ingested, the DNA and RNA elements are intensely metabolized by intestinal bacteria. Over 95% of the nucleic acids are then degraded by the intestinal lining before reaching the bloodstream. These are further broken down in the liver; and over 99% of the purine bases are broken down to uric acid before being absorbed into the bloodstream.

Therefore, only about 1% of ingested DNA and RNA bases becomes available for the numerous functions required of them by all the cells of the body.

Under ideal conditions (ideal diet and life-style), this amount of nucleic acids is sufficient for a person's body to regenerate the appropriate amount of DNA and RNA so that the person can function optimally throughout a normal life-span of over 100 years of age.

However, under current conditions (fast-track life-style, pollution, poor management of stress and diets, etc.), the demand for DNA and RNA often exceeds the body's production capacity from ingested food. This is particularly so in times of continuous stress, when excessive amounts of cortisol are secreted. (p.876 13)

In these situations, it is extremely beneficial for a person to take supplemental DNA and RNA bases in order to maintain nucleic acid pools at adequate levels for optimal cellular rejuvenation, repair, replication and

well-being.

Amino Acids – DNA & RNA Precursor

Support: In addition to the pure individual DNA and RNA bases, Cellfood® LONGEVITY contains the amino acids that the body uses to make nucleic acids from scratch. Providing these amino acids (glutamine, serine, glycine, and aspartic acid - among others), further boosts the capacity of cellular metabolism to maintain its nucleic acid pool.

Furthermore, Cellfood® LONGEVITY also contains the amino acids, proline and lysine, that may play a role in preventing the growth of tumours in the body. 15

Other Important Nutrients for DNA and RNA:

Vitamin B12: "Its most important function is to act as a coenzyme for producing deoxyribonucleotides (DNA), a step that is necessary in the replication of genes." (p.811 14)

Folic Acid: "Perhaps its most important use in the body is in the synthesis of purines and thymine, which are required for formation of DNA. Therefore, folic acid, like vitamin B12, is required for replication of the cellular genes." (p.811 14)

The formulation of Cellfood® LONGEVITY contains all the DNA and RNA bases, all the precursor amino acids (as well as proline and lysine), as well as vitamin B12 and folic acid.

LONGEVITY – A DUAL APPROACH

Making use of these two critical discoveries **firstly**, the reduction of homocysteine in the bloodstream - in order to slow down the ageing process 11; and **secondly**, the supply of additional nucleic acid bases to the body in order to replenish the methyl groups of the DNA - in order to **extend longevity** 13; Dr Todd Ovokaitys, M.D. (U.S.A.), developed Cellfood® LONGEVITY, a unique anti-ageing and longevity formulation, for both reducing elevated levels of homocysteine, and supplying the body with additional nucleic acids. (see **FORMULATOR**).

Cellfood® LONGEVITY is now being distributed throughout the world, and is benefiting thousands of users.

CELLULAR ENERGY - ATP

When formulating Cellfood® LONGEVITY, Dr Ovokaitys also added adenosine triphosphate (ATP) to his formulation. The following are extracts from a clinical study that he conducted in 2002 15:

"ATP is perhaps the most important of all the nucleic acid derivatives in the body. Its effects are so powerful and essential to cellular function, a description of its unique properties warrants special attention. Cellfood® LONGEVITY has an especially rich supply of ATP in a highly bio-available form."

"ATP is the fundamental currency of every cell in the body. Virtually every activity in the body that requires energy uses ATP as the source of power. Whether the function is building complex molecules from building blocks, maintaining the electric potential of cell membranes, or allowing muscle fibres to contract for mobility, speed, and strength; it is ATP that provides the electrochemical fuel." (14)

"The most efficient production of ATP occurs through aerobic metabolism in the mitochondria of the cell (the engine of the cell). Aerobic means that oxygen is used to completely burn fuel for maximum ATP production. However, when glucose is broken down through anaerobic metabolism (without oxygen), each molecule of glucose gives rise to only 2 molecules of ATP.

"Because Cellfood® boosts cellular oxygen delivery, the ATP in Cellfood® LONGEVITY has an ideal environment for further boosting cellular energy; and so, the complete combustion of a glucose molecule yields a rich harvest of **36 molecules of ATP.**" (15 & p.78 15)

"Muscle Performance: Skeletal muscle requires abundant quantities of ATP for muscular contraction. Supplemental ATP has been described as an 'explosive performance enhancer'."

By using Cellfood® LONGEVITY, muscle endurance, performance, and recovery can be significantly boosted.

"Cardiac Strengthening: The cyclic contraction of the cardiac muscle is highly ATP-intensive and thrives on aerobic metabolism. The combined oxygenation and ATP delivery-effects of Cellfood® LONGEVITY provide the heart with an enhanced energy supply for efficient function."

"Neurological Effects: ATP is the primary fuel that drives learning, memory, and concentration functions. ATP is essential to maintain the membrane potentials that permit nerves to integrate and transmit signals throughout the central and peripheral nervous system."

"Lung Function: ATP administration has numerous beneficial effects on lung function, particularly the delicate lining membranes of the airways and alveoli. The alveoli form a large membrane through which capillary blood can pick up a new supply of oxygen and unload carbon dioxide with every breath.

"ATP increases secretion of surfactant in the alveoli that keeps the alveoli from collapsing when the breath is exhaled, preserving breathing integrity. The bronchial tubes are lined with tiny brush-like cilia that are constantly sweeping particulates that get into the lung upward and outward. ATP increases the ciliary beat frequency, and the secretion of mucus and water from the bronchial lining, to help keep the lungs clear at all times."

"Cellular Immunity Enhancement: Natural killer cells and cytotoxic T-cells are subtypes of effector lymphocytes that have a vital role in immune defense against tumours and virus-infected cells. Recent research suggests that ATP may play an important role in the mechanism through which these effector cells eliminate the target abnormal cells."

"Anti-tumour Effects: In test tube studies, adding ATP has shown the ability to inhibit the growth of several types of human cancer cell lines. The types of cancer cells inhibited include pancreatic cancer, colon cancer, melanoma, androgen-independent prostate cancer (i.e. not responsive to male hormone manipulation, the most aggressive variant), breast cancer, myeloid and monocytic leukemia (bone marrow derived tumours of blood forming cells), and multi-drug resistant colon cancer. Thus, ATP may be broadly beneficial in supporting anti-tumour cell biology.

"Administering ATP may also enhance the effectiveness of cancer chemotherapeutic agents, increasing the anti-tumour effect of a given dose, or greatly reducing the dose required for a therapeutic effect."

"Sexual Function: In human tissue studies, the administration of ATP and adenosine has been found to induce the smooth muscle relaxation that is essential for erectile function."

Containing both ATP and adenosine, Cellfood® LONGEVITY provides these elements known to support optimum sexual function."

"In diabetic men, erectile dysfunction is common through several mechanisms. The erectile tissue of diabetic men has been found to be especially sensitive to the smooth muscle relaxation effects of ATP, offering them an avenue of recovery of erectile functioning."

"Whether it is delivering the nutrients to repair and preserve the health of tissues, or boosting energy and performance, Cellfood® LONGEVITY is designed to enhance quality of life across the board." 15

LASER ENHANCEMENT TECHNOLOGY

Often, as a result of the manufacturing processes (e.g. heating, drying, extracting, etc.), many of the ingredients in a nutritional supplement product become denatured, making them less effective. The reason for this is that the distorted molecular shapes of the ingredients, e.g. enzymes and amino acids, cannot be easily assimilated through the receptors of the cells, resulting in up to 99% of the nutrients simply being excreted by the body. 15

In order to address this, Dr Todd Ovokaitys, M.D., developed and patented worldwide a unique Laser Enhancement Technology (also referred to as Photo Acoustic Resonance) whereby the molecular shapes of nutrients are restored and homogenized so that up to 99% of the treated nutrients can be assimilated by the cells.

This high assimilation rate of the laser enhanced nutrients was validated by means of X-ray Crystallography that was conducted by Professor Jan Boeyens at the Witwatersrand University, R.S.A. 15

"It is not the nutrients that you ingest that improves your condition, it is only nutrients that are assimilated into your cells, where they can be used, that can transform your life". Dr Todd Ovokaitys 15

CELLULAR DELIVERY SYSTEM ABSORPTION and ASSIMILATION

The absorption of the nutrients in Cellfood® LONGEVITY into the bloodstream, and their assimilation into the cells, are maximized due to the following:

Micro-Activation™ - Ionic Colloids: The nutrients in Cellfood® LONGEVITY are in ionic colloidal form. **Colloidal** means that the particle sizes of the nutrients are minute, below 10 nanometers in diameter (this is because of the **Micro-Activation™** technology used in preparing the nutrients).

This results in them becoming **ionic**, that is, taking on a negative-charge (due to the phenomenon in physics known as the "Brownian Movement), which results in all the colloidal particles repelling each other, and therefore remaining in **suspension** in the liquid. This is an ideal situation, resulting in all the nutrients being equally distributed and present throughout the liquid.

When the product is taken, these negatively-charged ionic colloids are attracted to the positively-charged mucous membranes of the mouth, throat and oesophagus. Because of continuous bio-chemical metabolic processes in the human body, it carries a small positive electromagnetic charge.

