Understanding NanoVi™ Technology

Improves cellular activity by boosting repair of oxidative stress damage.

Better cellular repair is the key to:

- Speeding recovery and regeneration
- Optimizing energy production
- Strengthening the immune system
- Promoting healthy aging
- Helping fight many chronic diseases

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NanoVi™ Technology

Improves cellular activity by assisting the protein folding process

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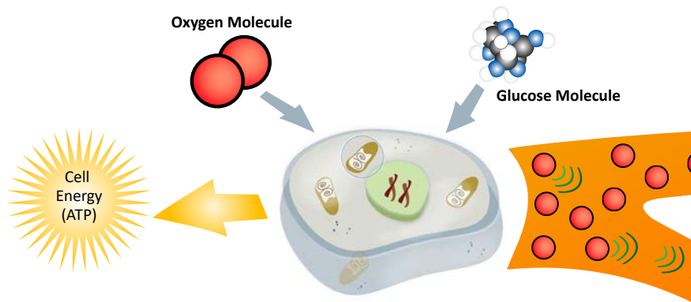
PROPER PROTEIN FUNCTIONS

Water is the most abundant molecule in the body; it surrounds and fills all cells. Embedded in cellular water are thousands of different proteins. Proteins execute and direct virtually every aspect of cellular activity. There are an assumed 900,000 unique proteins in the human body, thousands in each cell. All proteins must fold into three-dimensional shapes in a process called protein folding. Only when properly folded can proteins execute their functions.

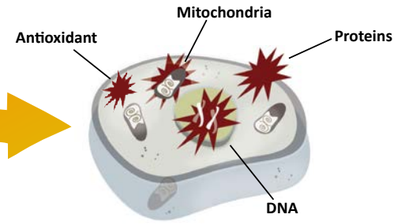


Cellular respiration uses inhaled oxygen molecules to create cellular energy (ATP). When cells create energy through aerobic cellular respiration, they also create free radicals as a byproduct. Some free radicals emerge in an excited state and release their excitation energy as electromagnetic energy. Free radicals, or reactive oxygen species (ROS), are an inevitable byproduct of energy production and cause oxidative stress.

PROTEIN DAMAGE CAUSED BY OXIDATIVE STRESS

The body produces quadrillions of free radicals every day, and many of them damage proteins and cause their 3-D structures to completely or partially unfold. When proteins lose their proper structure, they lose their function and cells become less efficient. Loss of protein function causes chronic illness, aging, and a decline in performance.

Free Radicals → *Damage Cellular Activity*



Cell activity is reduced because free radicals damage countless proteins and other cellular components.

Protein Damage Leads to Reduced Cellular Activity

Biological
- reduces utilization of oxygen
- reduces cell energy production
- reduces utilization of nutrients
- reduces vitality

Health
- leads to chronic diseases
- causes mitochondrial diseases
- slows wound healing
- reduces overall state of health

Aging
- accelerates aging in general
- causes age-related disorders
- affects concentration & memory

Sports
- undermines performance
- slows recovery
- weakens the immune system

ROS Emitted Signal

NANOVI BOOSTS THE BIOLOGICAL REPAIR PROCESS

Because ordered water is required for proteins to fold, it is a key aspect of cellular activity. Water becomes ordered when its molecules are densely packed together. In cells, an essential way to generate ordered water is with the specific electromagnetic energy emitted by excited free radicals. Now, however, NanoVi creates ordered water not only with the ROS-identical electromagnetic energy, but also with energies that have even higher absorption rates. This enhances cellular activity.

In the NanoVi device, water droplets (humidity) in an air-stream pass through absorbable electromagnetic energy – including the identical wavelength that excited ROS emit. Water droplets absorb the different energies, and layers of ordered water form on the droplet's surfaces. When these droplets are inhaled, they make contact with the mucous membranes and ultimately influence water throughout the entire body.

NanoVi uses biophysical steps to assist cellular activity and enhance cellular repair. It does this without generating free radicals (ROS), and with the ability to incorporate additional absorbable electromagnetic energies that are even more effective than the ROS-specific energy.

Bio-identical Signaling+

NanoVi augments ordered water to promote protein folding and enhance cellular activity.

PROTEIN REPAIR INDUCED BY ORDERED WATER

An essential biological process occurs when water absorbs specific electromagnetic energies. This increases the order on the water's contact surfaces. The increased degree of order enables the embedded proteins to fold and their proper functions can then be executed.

When small water containers, like cells or droplets, absorb specific electromagnetic energy, ordered water forms on their outside surfaces, and on the surfaces of components embedded in them.

Repairs Cellular Activity

In a cell, the proteins are embedded in water. It's the shift (entropy change) of the order from the water to the proteins that enables them to fold.

Ordered water is essential for repairing cellular damage and increasing cellular activity because it assists and restores protein functions.

Repair of Protein Damage Leads to Improved Cellular Activity

Biological
- increases utilization of oxygen
- improves cell energy production
- improves utilization of nutrition
- improves vitality

Health
- used to address disorders
- improves cell detoxification
- accelerates cell regeneration
- improves the general state of health

Aging
- slows the aging process
- promotes healthy aging
- enables better quality of life

Sport
- improves physical performance
- shortens recovery time
- strengthens the immune system

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SCIENTIFIC ORIGIN OF NANOVI™ TECHNOLOGY

Early 1900s – Proteins were identified as the workhorses of the cells; it was determined that proteins must fold into 3-D structures to function and that this folding process is based on entropy change. The sum of all protein function is called cellular activity.

Mid 1900s – Free radicals, more precisely, reactive oxygen species (ROS), including singlet oxygen, were identified as the cause of oxidative stress damage to proteins and other cell components. Unrepaired damage leads to loss of performance, aging and to chronic illness. Additionally, researchers identified that singlet oxygen emits a characteristic electromagnetic energy - the ROS-specific signal.

Mid 1980s – Researchers at the German Fraunhofer Institute explored singlet oxygen technologies with the goal of emitting the ROS signal in water to affect biological systems. Unfortunately, singlet oxygen producing technologies require a catalyst whose output is imprecise with respect to quantity and reliability.

Late 1990s – It was recognized and proven that ordered water is formed when specific electromagnetic energies, such as the ROS-specific signal, are absorbed by water. This ordered water is also call Exclusion Zone (EZ) water or the 4th phase of water.

Late 1990s – It was determined that in cells, the process of protein folding is triggered by the formation of ordered water on the surfaces of unfolded proteins. It causes the change of entropy that enables protein folding. Because proteins are embedded in the cell's water, the order (level of entropy) of the cell's water is essential for cellular activity.

Late 2000s – Eng3 corporation developed and patented NanoVi™, a unique non-catalytic technology to produce ordered water vapor using the bio-identical ROS-specific signal to assist protein folding and therefore to improve cellular activity. This is called **Bio-identical Signaling.**

Late 2000s – University research confirmed the quality and quantity of the NanoVi's non-catalytic technology. It is several magnitudes more efficient than any catalytic technologies. NanoVi is the only technology that continually verifies and monitors the absorbable signal. It does this without harmful singlet oxygen.

Early 2010s – Placebo-controlled studies and other research on humans and in vitro verified the effectiveness of NanoVi for cellular repair and regeneration.

Late 2010s – Eng3 developed NanoVi **Bio-identical Signaling+** technology to further improve the generation of ordered water vapor. Independent tests and University studies confirmed the increase in the generation of ordered water vapor when additional highly absorbable wavelengths are combined with the bio-identical signal.

OXIDATIVE STRESS: LOST PROTEIN FUNCTION AND CELLULAR DECLINE

Oxidative stress is unavoidable and leads to the loss of protein function. Unfortunately, repair is limited by the body's ability to produce the ROS-signal, and thus the ordered water. When damage exceeds repair, it is recognized as:

- loss of performance
- slower regeneration after physical exertion
- lower energy, burn out, and fatigue
- reduced concentration and mental clarity
- deterioration in sleep, mood, and stress resilience
- aging
- age-related disorders
- ultimately, a diminished quality of life and health

Most chronic diseases are associated with oxidative stress. When cellular repair declines, it can result in chronic diseases including:

- Cardiovascular diseases
- Cancers
- Chronic respiratory diseases
- Diabetes
- Neurodegenerative diseases
- Autoimmune diseases
- Mental and behavioral disorders

REPAIR AND REGENERATION: RESTORED PROTEIN FUNCTION

By assisting the ability of proteins to fold and thus to regain function, more damage is repaired faster. The beneficial effects can be recognized in:

- less accumulated oxidative stress damage
- improved cellular activities and vitality
- increased oxygen utilization
- stronger cell energy production
- improved cell metabolism
- strengthened immune system

NANOVI™ BOOSTS CELLULAR REPAIR AND REGENERATION

NanoVi™ devices are proven to produce ordered water vapor, improve protein function and positively influence cellular activity.
NanoVi™ devices rely on a biophysical process that does not introduce chemicals or substances of any kind.
NanoVi™ devices are used around the world by health professionals, home users, and businesses. Areas of application include:

- **Performance** - increasing and optimizing physical and mental performance
- **Wellness** - promoting vitality, healthy aging, and quality of life
- **Health** - addressing disorders associated with oxidative stress and age-related problems

The statements in this brochure have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any specific disease.

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