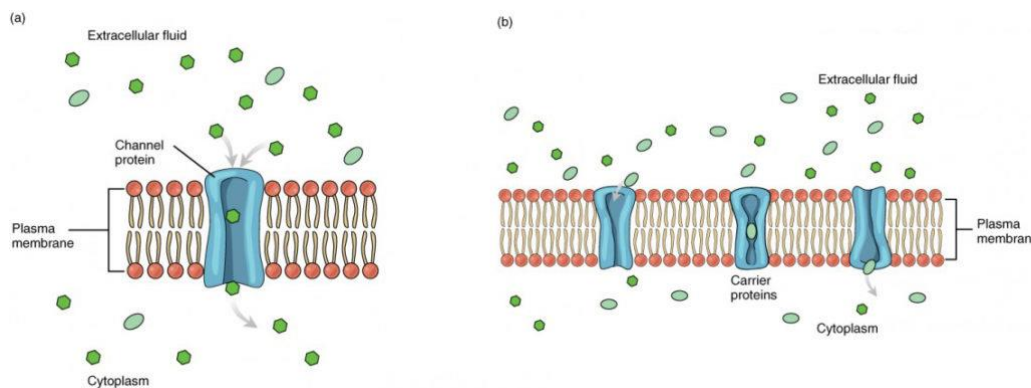


9/8/2025

1. How quickly do the beneficial nutrients from the GRW lozenge begin to work in the body?

- Immediately. The sugar coating is immediately dissolved in saliva, releasing the nano-size micronutrients into the mouth, and taken up immediately through the cells inside the mouth mucosa cell membranes, which then enter the bloodstream.
- Those negatively charged micronutrients are transported throughout the bloodstream, and arrive at cell receptor sites, where they are allowed entrance into the cell with the aid of specific **transport channel and carrier proteins** embedded in the cell membranes.
- This movement across the cell membrane is known as **active transport**, which is influenced by the cell membranes' electrical potential.

Active Transport



<https://courses.lumenlearning.com/suny-ap1/chapter/the-cell-membrane/>

2. How does the Acumullit SA® technology ensure targeted delivery of the GRW ingredients?

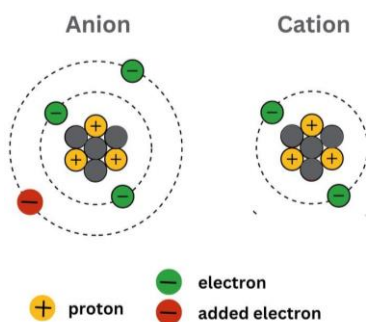
- The Acumullit SA® technology itself does not target nutrient delivery in the body.
 - It provides the capacity of the drops to lend a healthier level of negatively charged atoms in the plant molecules to flow throughout the body, which in turn delivers nutrients via the circulatory system to, under the system's built-in priorities, detects and directs them to where they are needed.
 - The Acumullit SA® storm simulation technology generates extra negatively charged ions that are taken up by the submolecular atomic structures of the plant materials, increasing their already potent antioxidant potential for the body's readiness to receive nutrients.

- The technology also causes the protective fibrous outer cell structures or plant cell membranes to rupture, and thereby releases their highly useable (readable) inner organelles into the recipe mixture.
- Our cells easily utilize the structures and genetic information of those organelles to repurpose, maintain, build and generate our own body's molecules, which may provide the missing factors the body needs to improve its functions.

Understanding the Vital Importance of the Negatively Charged Cations

- Since the SA technology increases the negative ionic charge of the plant materials to be even more effective antioxidants, their micronutrients and phytochemicals are therefore even better able to neutralize and render harmless any cell-damaging **free radicals** in the body, such as:
 - **Stress chemicals** produced under physical and mental or emotional stress that cause inflammatory reactions.
 - **Foreign substances and illness or disease-causing microbes** that enter the body and cause metabolic distress, which leads to an inflammatory cascade of system-damaging reactions, often with toxic or hazardous effects.
- **It is important to understand how the SA technology intensifies how the body is able to move nutrients to various areas of the body via its electrical energy flow.**
 - Anions (negatively charged atoms) and Cations (positively charged atoms), are those that have gained or lost electrons, respectively, and which move electrical energy flow between positively and negatively charged molecules during all cellular actions.
 - An atom containing an **unequal number of protons and electrons is charged**, and is called an ion.
 - An anion holds a negative charge; it has extra electrons.
 - A cation holds a positive charge; it has more protons than electrons or is missing electrons.
 - An anion becomes negatively charged by the gaining of electrons, allowing energy to flow and metabolic processes to be continually perpetuated in the body.
 - Once the atoms are in an ionic state, they create an electrical potential that allows the flow of energy, which creates nutrient movement and cellular actions.

Ions



CurlyArrows
Chemistry Simplified

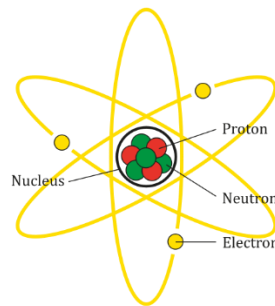
<https://curlyarrows.com/definitions/ion-chemistry>

- The APLGO plant materials are carefully handled to remain metabolically active *in order to accept more electrons* when subjected to the simulated electrical storm environment in the large containers holding the ingredients.



APLGO, 2025

- A neutral atom has an equal number of protons and electrons and has no electric charge.



A.G. Caesar, 2018. Wikimedia Commons

- When a plant has extra electrons and is negatively charged, it can donate to an ailing cell or tissue to enable it to repair and regenerate itself, and continue its perpetual life processes.
- *APLGO's unique technology maintains the energy-active plant phytonutrient compounds, making them able to donate their extra electrons to unstable molecules in the body that cause cellular damage (free radicals), and are therefore neutralized and rendered less harmful or easier to eliminate.*

An Atom



AGS Andrew / Adobe Stock and Remotevfx / Adobe Stock

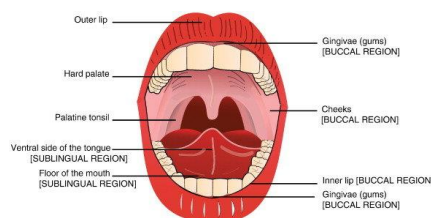
<https://bigthink.com/starts-with-a-bang/quantum-reason-neutral-atoms/>

- **Nutrients reach their anticipated targets when the plant nutrient factors are identified and directed to where they are needed in order for true nourishment/corrective functioning to take place.**

- Once the plant nutrient factors and plant cell constituents of the drops enter the blood stream, the DNA instructions in our cells, along with the nervous system signaling, identify their presence in the body and direct them to where they are needed.
- In the body's hierarchy of priorities combined with the affinity the various body systems have for the varied phytochemicals in the individual botanicals, the operating instructions in our DNA will identify those areas in the body and direct processes to fulfill their nourishment/functional needs, such as:
 - Aiding in the DNA repair and cell functioning maintenance.
 - Involvement in the renewal of accurate cell replication processes.
 - Helping to ensure proper cell turnover rates and accurate transcription of our genetic code into newly forming cells.
 - Providing the critical nutrients needed for detoxification, effectively ridding the body of toxins and helping to destroy foreign pathogens.
 - Aiding the body's monitoring systems that mobilize to properly attenuate inflammation (brain-nervous system, immune and hormonal systems).

3. How long do the negative ions work in the body after taking the lozenge?

As the drops are dissolving and the nutrients are released in the mouth, they are immediately absorbed through the mouth's buccal mucosa or tissues lining the inside of the cheeks, and into the blood stream where they are circulated and directed to where the DNA determines they are needed, to be absorbed into any of our 37 trillion cells.



Research Gate - Jean-Pierre Amorij – 2025

https://www.researchgate.net/figure/The-anatomy-of-the-oral-cavity-The-sublingual-and-buccal-regions-for-vaccine-delivery_fig3_262979308

This inner cell environment is where these actively charged nutrients provide the molecules that enable all cells to produce the energy molecule, ATP, which continuously fuels all cellular actions. About 1 billion molecules of ATP are present in a single cell at any given moment.

The process of nutrient absorption and conversion to energy via the ATP energy production cycle is continuous and instantaneous as the transfer of electrons between molecules during the ongoing electron transport chain process of producing the energy molecule, ATP, is continuously generating millions of ATP molecules every second while we are awake.

Each cell uses about 10 million ATP molecules per second and recycles its ATP molecules about every 20-30 seconds. During sleep, the body continues to produce energy, although the metabolic rate slows down to about 15%.

With the drops' negatively charged viability like energy-active whole foods, a daily supply of negative ions in these items provide a regular stream of life-perpetuating nutrients. When these nutrients cease to be provided to the body, there will be diminishing amounts of both ATP synthesis and ATP recycling.

This means the body would be less able to continue the proper cell-replicating processes that perpetuate life, leading to degenerative health, rapid aging, and probable system malfunctioning.

The First Law of Thermodynamics states that “the flow of energy never stops”, that energy can be converted from one form to another. When you take in energy from the energy stored in food, and when the body uses energy, it does not disappear, but merely changes form.

Energy Stored (in the form of body fat) =

Energy Intake (food) – Energy Output (electron transport chain producing the body’s unit of energy molecule ATP)

Living organisms, including humans, create perpetual energy by taking in energy from energy-active foods, where it is transformed into our own energy and released through cellular respiration, heat, water, and carbon dioxide.

If in a nutrient-deficient state through a lack of food intake, the body will convert its own expendable tissues to provide energy for the brain and other vital organs.

This is why the body needs a regular supply of energy-active, nutrient-rich whole foods, which includes a vast range of active phytochemical nutrients that the APLGO drops offer.

4. What is the recommended duration for using GRW lozenges to experience optimal immune support?

Unlike drugs, nutrients take time to arrive at the cell sites that compose the various organs, tissues, fluids, and structures and perform the functionally corrective work.

The immune system generates and sets in motion signaling proteins, chemical messengers that stimulate inflammatory actions such as cytokines and C-reactive proteins, and activates the mobilization of inflammatory proteins, enzymes, hormones, and others.

While the phytochemical compounds in APLGO’s botanical ingredients are utilized or felt immediately, other positive effects have reportedly been experienced in over a period of days.

Depending on a person’s state of health, level of nourishment, age, gender, and lifestyle factors, GRW is a healthy **part** of building and maintaining a healthy immune system, although the regenerative, restorative process of affected body systems and respective systems’ cell turnover rates takes time.

The longer the body is supplied with nutrient factors like those in GRW as well as a nutrient-dense, nutritionally balanced daily diet, the better able the immune system can function.

5. Are there any specific times of day that are best for taking GRW lozenges to maximize their benefits?

The body does its best regenerative and repair work while sleeping. GRW before bedtime would maximize the beneficial effects of the botanicals’ plant compounds.

However, if one is taking several per day, it’s best to space them out throughout the day as well as before going to sleep for the night.

6. How does the absorption of nutrients from the GRW lozenge compare to other forms of supplements?

The main difference is that 99% of supplements on the market do not hold a negative ionic charge in the botanicals like the APLGO drops do, and are therefore not immediately or rapidly absorbable.

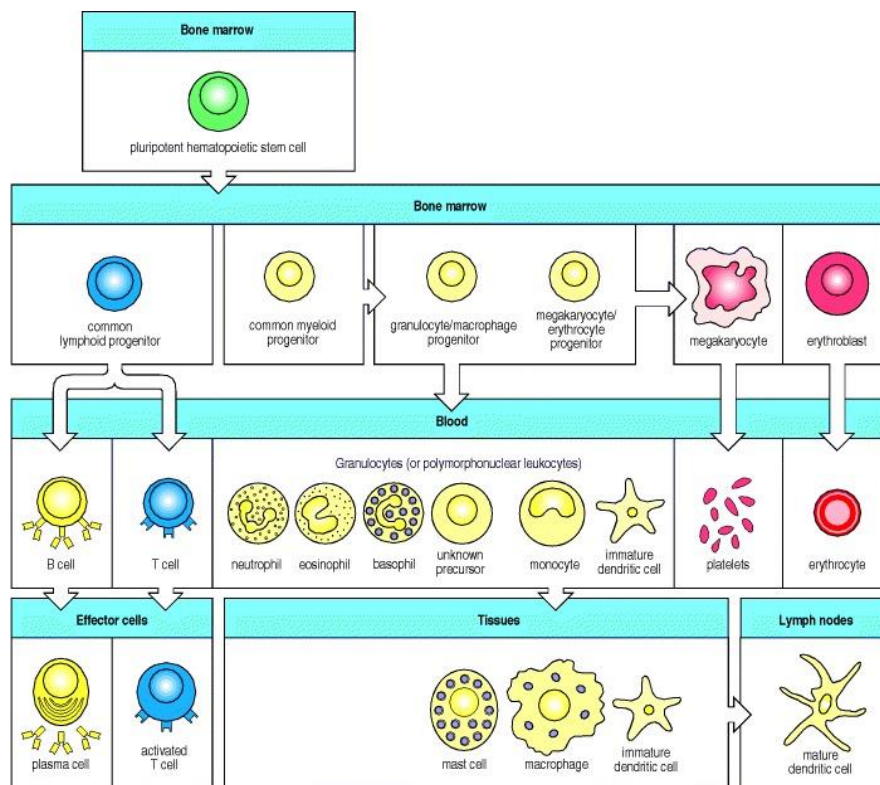
Other supplements can contain synthetically manufactured isolated vitamins and inert minerals, which are poorly absorbed because they are missing the other augmenting nutrient factors that allow cellular absorption.

Some supplements containing whole food ingredients and digestive enzymes can be highly utilized, although not as thoroughly as a whole raw plant food.

The viable, active plant compounds in the APLGO drops have the potential for being completely utilized.

7. What makes the plant-based extracts in GRW particularly effective for immune system enhancement?

- The plant cell components and the phytochemical complexes in its botanical materials are found to help the body generate immune cells, which production begins in the bone marrow.

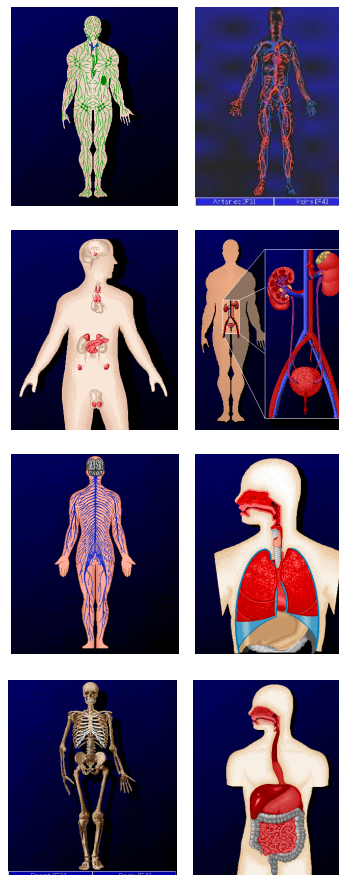


(Janeway, 2001)

GRW's Phytonutrient, Cellular Health Maintenance and Corrective Effects

- **Immune Cell Production:** T-Cells, Macrophages; saponins, triterpenes, polysaccharides, flavonoids.
- **Detoxification:** proanthocyanidins.
- **Cardiovascular Functions:** flavonoids.
- **Mitochondria Energy Production:** adenosine.
- **Antioxidants:** phenolic acids
- **Neutralize Free Radicals (Toxins), Anti-aging, Anti-inflammatory:** plant sterols lupeol, campesterol, beta-sitosterol.
- **Stress-relieving Properties:** sitoindosides and acylsterylglucosides.
- **Hormone Precursors:** alkaloids, tannins, glycosides, and natural plant steroids.
- **Clear Blood Vessels:** anthocyanins

(Gilbert, 2023)



GRW Botanical Ingredients

Aloe Vera Leaf (Gel)
 Ashwagandha Root
 Astragalus Root
 Balsam Pear Fruit (Bitter Melon)
 Bilberry

Cranberry
 Currant
 Husk Tomato (Ground Cherry)
 Olive Leaf
 Pomegranate Seed

Purple Coneflower Root
 Reishi Mushroom
 Rowanberry
 Grape Flavoring
 Grape Skin Extract Coloring

Reference

Gilbert, M. E. [*The APLGO Product Reference Nutritional Health Guide*](#). 2024. Holistic Choices Publishing, Tucson, AZ.

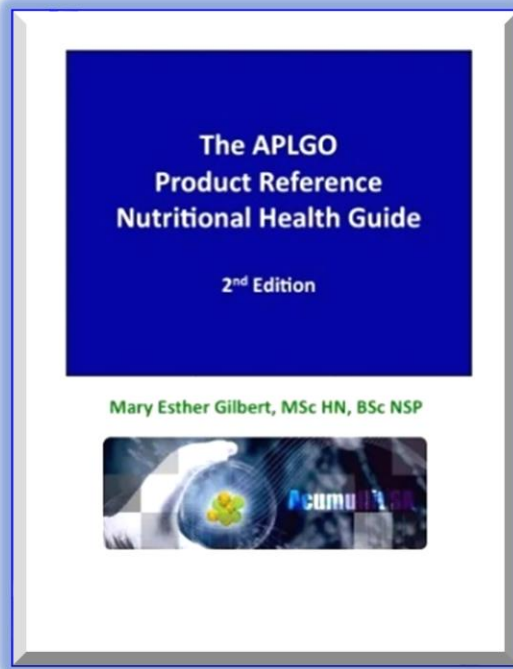
Janeway CA Jr, Travers P, Walport M, et al. Immunobiology: The Immune System in Health and Disease. 5th edition. New York: Garland Science; 2001. The components of the immune system. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK27092/>.

APLGO Product Reference Nutritional Health Guide

2nd Edition

By Mary Esther Gilbert, MSc, BSc HN, BSc NSP
Founder, True Health Mastery Institute of Holistic Personal Health Management

Science-Backed Product Knowledge Desk Reference
The Essential Reference Source for Your Success

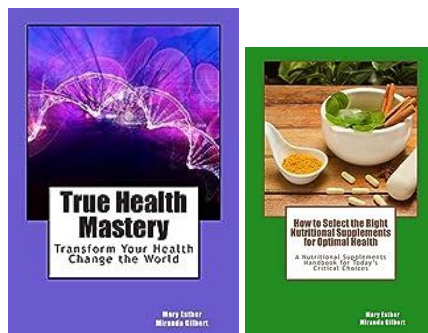


<https://www.holisticchoices.com/apl>

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- Stunning photographic illustrations.
- About APLGO's proprietary, unprecedented, production technology.
- Extensive dictionary-encyclopedia section.
- Complete phytonutrient database describing health benefits in APLGO drop botanicals.
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