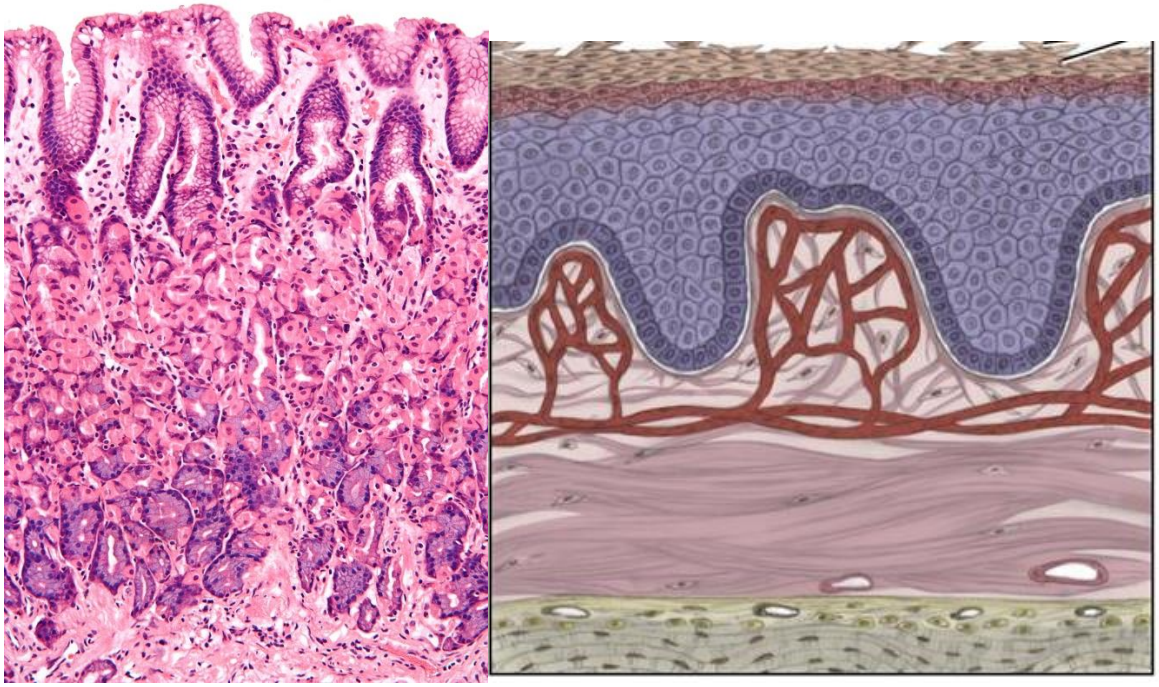
APLGO Questions for Zoom Call on NRM
Call Host: Ruth Mayne
Answers by Mary Esther Gilbert, MSc HN, BSc NSP
April 10, 2023

1. **The importance of WHY these lozenges work so well, as people may discount them because they taste like candy.**

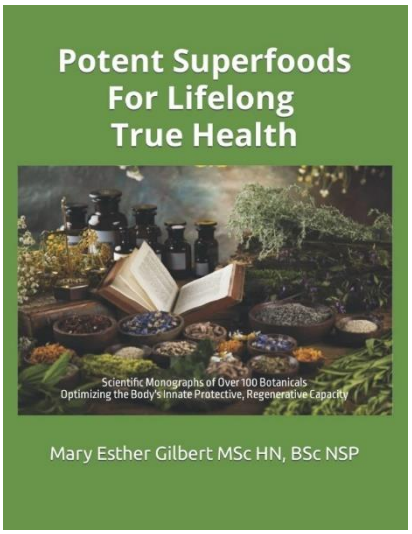
    - Immediately absorbed into the cells in the mouth.
    - Cell receptor sites immediately identify the molecular structure arrangements of C, H, O atoms.
    - Allow passage into the blood stream to be distributed where needed.



https://en.wikipedia.org/wiki/Mucous_membrane
and https://pocketdentistry.com/9-oral-mucosa/

2. **Quality of our ingredients and why that is so important, we have not found some new berry that is not tested, all our ingredients are proven correct?**

- APLGo company has definitely done their scientific homework.
- Every single botanical ingredient in the APLGO drops has been extensively tested by the scientific community, as shown in countless peer-reviewed studies.
- Every single botanical ingredient has been known by humankind throughout the world in various countries.
- Utilized by the original medical systems or healing wisdom for centuries, some for thousands of years as has been documented and carefully maintained in the ancient medical texts of China and India.



I cite this information in my book, “Potent Superfoods for Lifelong True Health”.

Quote from my book:

“The application of botanical medicines in Chinese and Ayurvedic medicine, as well as in other time-established cultural healing systems, is supported by a vast amount of scientific evidence, and has long gained the respect of the scientific community. Scientific evidence shows that Traditional Chinese Medicine, Ayurvedic, Native American, African (Egyptian), and other ancient traditional healing systems of the world that have been in place for thousands of years have been the ongoing interest of formal scientific study for many decades.”

3. **So many good ingredients, can we touch on a few such as Balsam pear root. It's pretty impressive, in so many areas, can you talk a bit about that?**

Balsam Pear Fruit (*Momordica charantia*)

- Protects the human body from early aging –contains potent antioxidants that protects cells against free radical damage as the result of toxins and foreign invasive substances.
- Contains alkaloids, tannins, glycosides, and natural plant sterols (precursors to thousands of regulating and monitoring hormones the body must manufacture).
- Contains important fatty acids linoleic and alpha-linolenic—help ensure proper cholesterol levels, normal growth, healthy cell membranes, helps maintain hormone equilibrium for better mental balance and behavior, and help ensure a properly working immune system.
- Improves fat metabolism, lowers blood cholesterol, cleanses the blood vessels.
- Momordica destroys bacteria and viruses, used for hypertension, hemorrhoids, stomach ulcers, diabetes, and even leukemia due to its antioxidant phytochemicals such as potent phenols, flavonoids, isoflavones, terpenes, anthraquinones, and glucosinolates.
- It improves the immune system's resistance to microbial infections and viral invasions; stimulates and activates the body's natural killer cells.
- Clinical studies show Balsam pear (Momordica charantia) causes an increase in insulin producing cells and therefore stimulates insulin secretion from the pancreas, and increases glucose uptake into the liver.

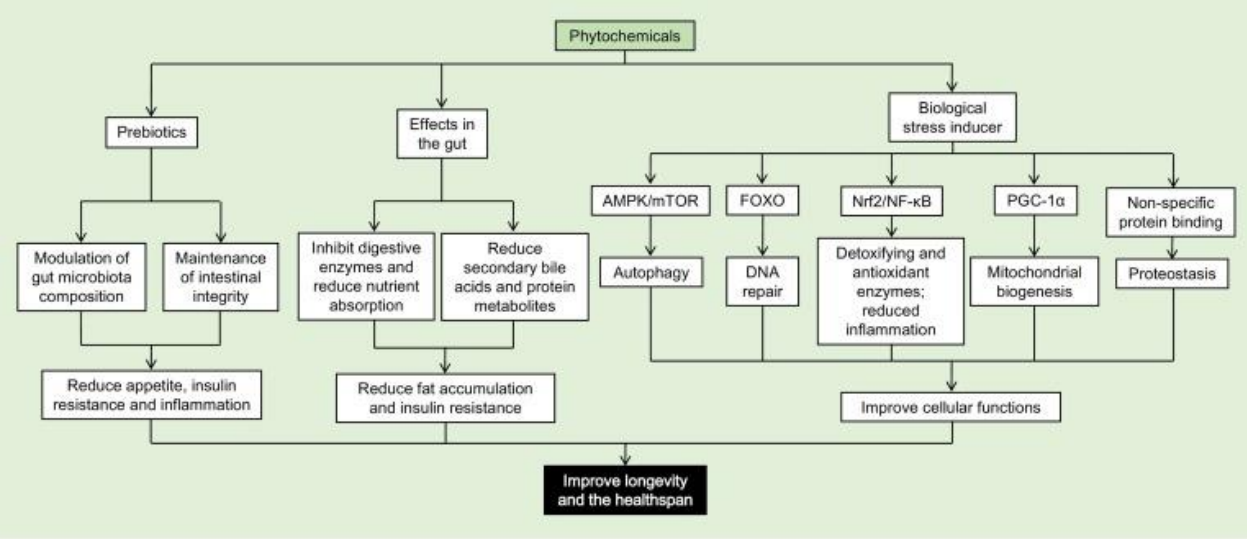
IE: binders, how they carry out toxins, and how these are a MUST when detoxing.

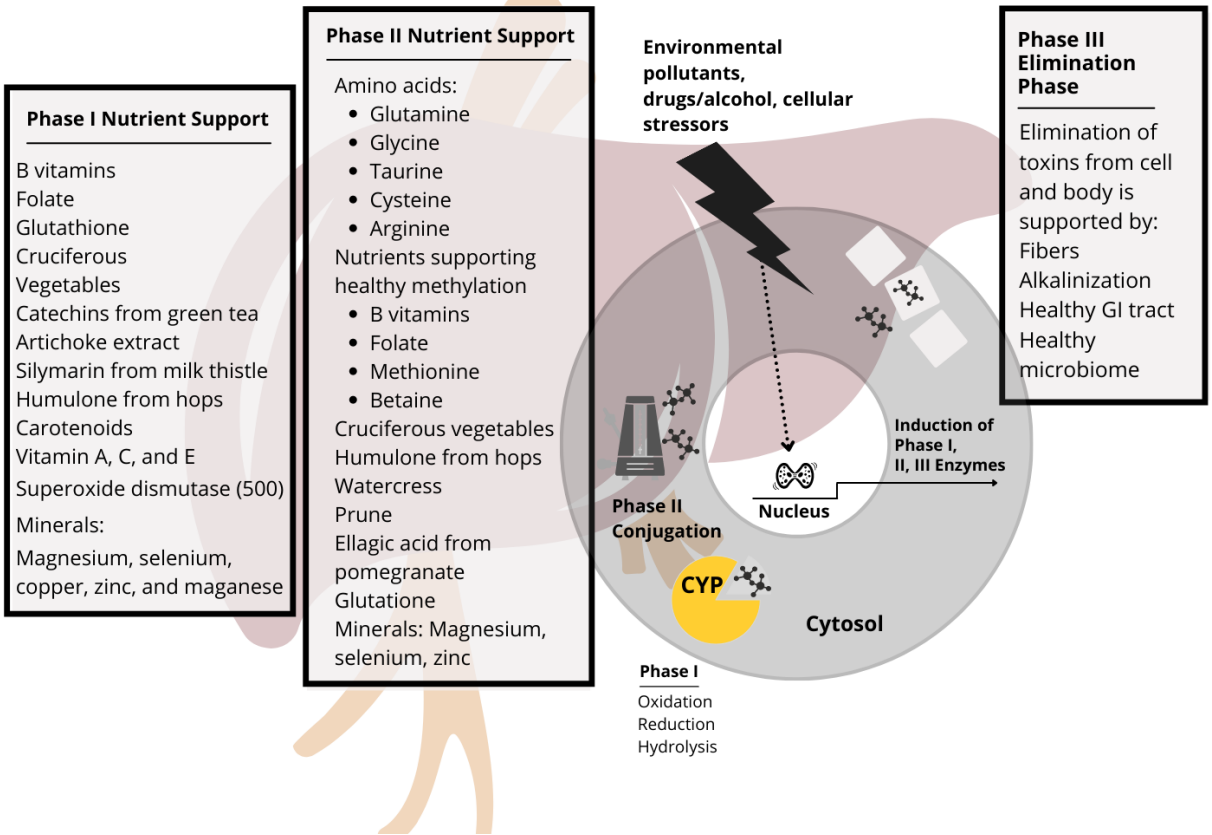
- Phytochemicals in plants have unique "binding affinities" for identified foreign synthetic compounds.
- Computerized programs can identify techniques called "molecular docking" to predict how molecules interact at cell membrane sites.
- The binding qualities of phytochemicals have long been of keen interest in developing drugs due to how they affect the behavior of a cell and impact the body's responses. https://www.sciencedirect.com/topics/pharmacology-toxicology-and-pharmaceutical-science/phytochemical
- https://www.ewg.org/research/decades-fda-knew-toxic-forever-chemicals-were-dangerous-continued-allow-their-use
- Example of how the body accumulates lead:

  Reference: M Samuel Collin, Senthil Kumar Venkatraman, Naveensubramaniam Vijayakumar, V Kanimozhi, S Muhammad Arbaaz, R G Sibiya Stacey,

Jogannagari Anusha, Rajan Choudhary, Vladislav Lvov, Gabriel Ibrahin Tovar, Fedor Senatov, Sivasankar Koppala, Sasikumar Swamiappan. Bioaccumulation of lead (Pb) and its effects on human: A review, Journal of Hazardous Materials Advances. Volume 7. 2022. https://doi.org/10.1016/j.hazadv.2022.100094. https://www.sciencedirect.com/science/article/pii/S277241662200050X

- Actions of phytochemicals for returning the body's homeostasis or biochemical balance.

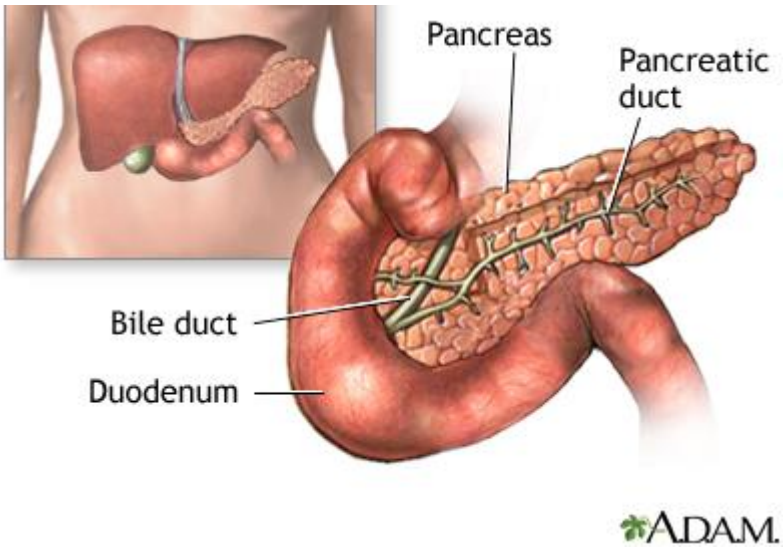




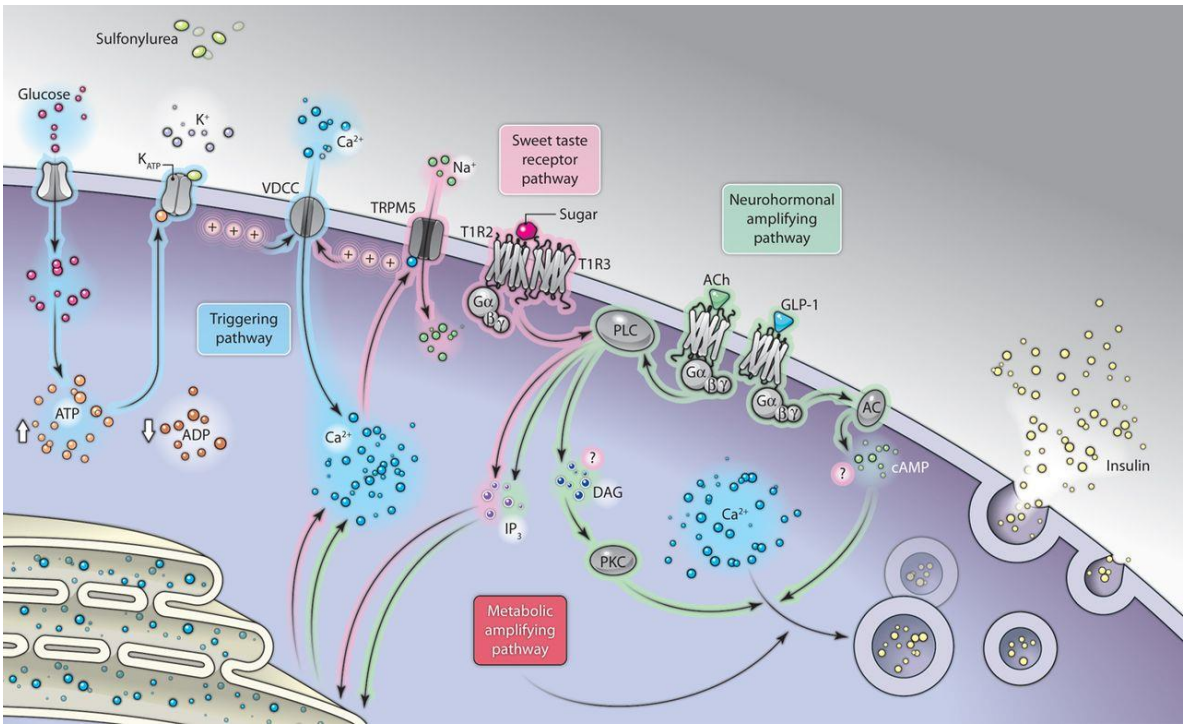
https://www.metagenicsinstitute.com/wp-content/uploads/2022/01/Liver-Cell-Detoxification-Mechanisms.png

4. **Some people are confused how our lozenges that have 1.7g of beet sugar can actually help regulate blood sugar.**

- Plant phytochemical compounds called proanthocyanidins are known as hypoglycemic agents.
- Proanthocyanidins help limit the process of the formation of body fat where excess calories or energy intake are otherwise converted and stored as fat deposits in fat cells.
- Also help reduce inflammatory conditions.
- Help modulate pancreatic beta cells' insulin production, the hormone that is secreted into the blood stream to reduce raised levels of blood sugar or blood glucose by stimulating glucose uptake into the cells where it is utilized for energy production.



https://medlineplus.gov/ency/article/000305.htm



Science Signaling https://www.science.org/doi/10.1126/scisignal.2003325

- Compare amount of carbohydrates in everyday foods: https://www.med.umich.edu/1libr/MEND/CarbList.pdf

- The amount of carbohydrates the body of one in normal health can handle at one meal:

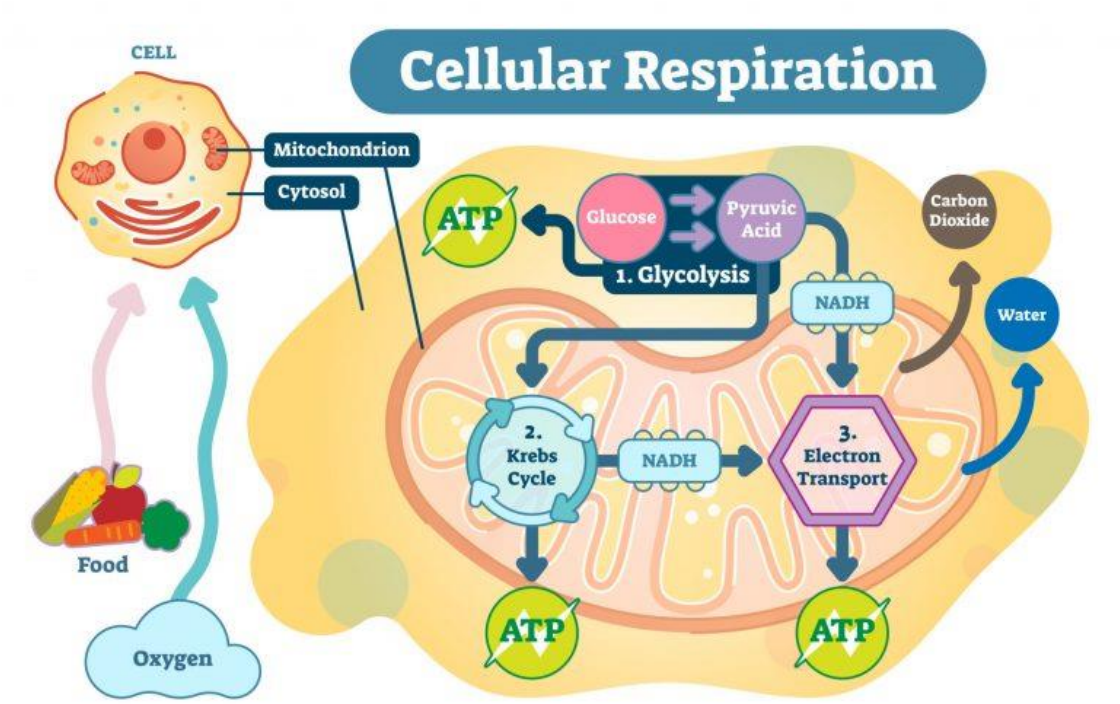
For Weight Loss Vs Weigh Maintenance

Women	30-45 grams (g) per meal	45-60 grams (g) per meal
Men	45-60 grams (g) per meal	60-75 grams (g) per meal

https://www.uhhospitals.org/services/clinical-nutrition-services/patient-resources/diet-information/carb-counting-nutrition-guide

5. **How is it that NRM or for that matter any of our other lozenges can help maintain or boost energy?**

- Glucose is the unit of energy used by every cell in the body.
- How energy is produced:

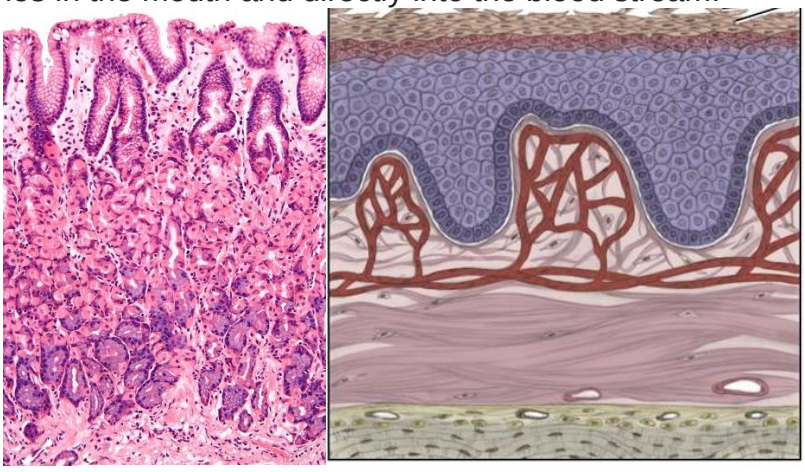


https://www.biologyonline.com/dictionary/glucose

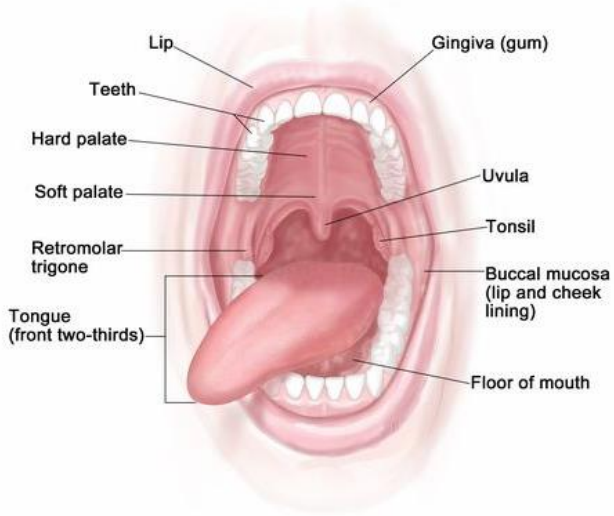
- Phytonutrient compounds aid in the energy production cycle in every cell such as:
    - Chlorogenic acid in **dandelion**.
    - Eleutherosides in ***Eleuthero*** **(Siberian) ginseng**: *"Eleutherosides in Eleutherococcus accelerate metabolism, improve the conversion of carbohydrates into energy, help to split fat molecules to reduce fats to fatty acids for energy production, help regulate blood glucose levels, and lower LDL (low density lipoprotein) cholesterol. Eleutherosides aid in the body's metabolic processes, and include derivatives of lignans, coumarins, and phenylpropanoids."* (Gilbert, 2021)
    - Organic acids in **meadowsweet**: citric, malic, quinic, succinic, and tartaric acids, important intermediates in many metabolic pathways, including energy production.

6. **Absorption: why do these lozenges work so fast that people see results in just a few moments?**

- Immediate delivery of nutrient factors through the buccal mucosal cell membranes in the mouth and directly into the blood stream.



Anatomy of the Oral Cavity



National Cancer Institute
https://www.cancer.gov/publications/dictionaries/cancer-terms/def/buccal-mucosa

7. **Certifications and white papers; what sets these apart from other products on the market.**

- Firstly, it is the technology that sets the APLGO drops apart from other products, as well as their absorbability and useability (bioavailability) factors.

- Certifications are issued to a company as the result of investigations performed by accrediting agencies that determine whether products are up to those agencies' specific highest quality standards.

- Types of white papers:

    - Commercial white papers – purpose is to direct the reader toward making a decision based on information provided. These types of white papers are written by a company's in-house writing staff or by a freelance writer under contract. The marketing staff is involved in sales angles, deciding the parameters in presenting the message and/or facts. The author may or may not have a background in the topic or product.

    - Academic white papers – intent is to contribute to the body of scientific knowledge and build on evidence from previous work, presenting the positive and negative aspects or strengths and weaknesses toward establishing a greater picture and clarity on a subject, and to encourage further research.

      Academic papers should remain neutral on a subject, and not be influenced by parties of specific interest in any research outcome. Academic papers are in an academic hierarchy and considered the most credible. Scientific white papers are submitted for review by peers who are also scientists of the utmost qualifications. Not all papers, however, are based on evidence-based, scientific factual data.

      Some so-called academic white papers are actually part of corporate sales funnels, some are written by various organizations with special interests and are not always neutral. Rather, they are written with the slanted goal of persuasiveness. These types of white papers may or may not be a complete picture or may contain inaccurate or misinformation, and may or may not be helpful to the targeted audience or consumer.

    - Government policy white papers or documents – created to provide information for the introduction of Bills and other proposed policies.

    - Any individual who does any research on his/her own and documents findings through observations, empirical data gathering, and produces a report is free to create a "white paper" to present information to a given entity. This includes medical providers.

- “White papers” are not the same as formal scientific research conducted under strict guidelines of the scientific community at the scholarly university level.
    - Formal scientific reports contain the results of scientific studies performed by qualified and verifiable scientists. Such scientific papers are submitted for review and consideration for publication in scientific journals throughout the world, which are recognized in the worldwide scientific academia for contributing to the scientific factual knowledge of the world.
- A precursor to formal scientific studies performed by qualified scientists following the specific world standard of scientific research protocols may be a reported in the form of a case study.
    - A person that gathers information about a test subject or test subjects on specific sets of parameters to determine a preliminary conclusion of an outcome, yet remains neutral. This is not considered a legitimate formal study, although collectively, the potential assertion, if done collectively, may formulate a preliminary theory that may (or may not) draw attention or interest from the scientific academic community.
- Whether white papers are reports on case studies, or other types of white papers listed above, when it comes to legitimate, reliable factual data, none compare to properly orchestrated scientific research, particularly, the peer-reviewed scientific studies that are compiled into a formal review of the most credible scientific research methods and their reported findings.

8. Are these meant to fully replace other vitamins and mineral supplements?

- No. The drops are a plant DNA and phytonutrient supplement, which work to repair our own DNA and improve all system processes that begin at the cell level.
- The daily diet must include an array of fresh fruits, vegetables, root vegetables, beans, legumes, whole grains, leafy greens, herbs, spices, animal-derived protein sources—in order to receive all vitamins and minerals. A whole food supplement is also important to ensure all nutrients are provided to the body daily.

9. Is there a better time to take NRM based on if you’re diabetic or non-diabetic?

- Diabetics must monitor their blood sugar levels throughout the day.
- Diabetics must keep track of how many grams of carbohydrates they take in at a meal and daily. https://www.uhhospitals.org/services/clinical-nutrition-services/patient-resources/diet-information/carb-counting-nutrition-guide
- Diabetics must eat other foods to help regulate blood sugar levels:

    - Animal-derived proteins (leaner meats and poultry)
    - Proper proportions of whole food fats (raw nuts, seeds, small amounts of plant oils high in omega 3 fatty acids, real butter, some meat drippings).
    - Herbs and spices.
    - Leafy greens.
    - Vegetables
    - Fruits and berries.

- When the daily diet encompasses the full range of sugar-balancing nutrients above, the drops can be taken at any time since they only contain less than 2 grams of sucrose per drop.

10. Knowing that everyone is different, will NRM keep you up at night if taken to late in the day?

- Since NRM does not contain caffeine, they should not be a direct cause of insomnia or restlessness, although may be a contributing factor.
- Other contributing factors: state of emotions, stress, anxiety, excitement, digestive disruptions, amount of caffeine intake before sleep hours, disruption of daily routine, jet lag, time changes, dehydration and associated discomforts, aches and pains, unsupportive bed, pillow, etc.

11. Is state of health a factor in why some people do not see results as quickly as others?

- Yes. The healthier the individual, the less likely there can be a dramatic change in how one feels.

- Less healthy individuals may not notice specific anticipated changes since the body has its own set of priorities, and may be utilizing the nutrient factors in the drops for addressing other nourishing/regenerative/repair work of higher priority elsewhere in the body.

12. Are there benefits of taking NRM (or any of our lozenges) long term?

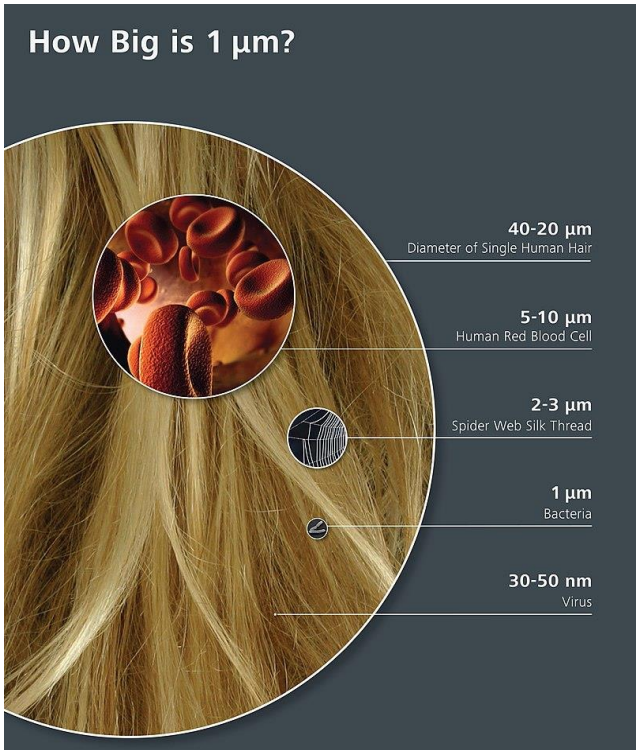
- Yes. All nutrient components in the drops are highly beneficial to the body, and are likely to be utilized completely for any number of the multiple trillions of cellular processes that occur to be alive and thrive.

13. Plant DNA & human DNA do they work together, how well and does our body recognize the plant DNA in our lozenges.

- Human DNA reads the DNA of plants and decides which gene sequences it can use to splice into the human DNA genes that have gotten damaged or become out-of-sequence.

14. Let's discuss the WHY behind the molecule size and why they [vitamins and larger macrominerals] are not abundant in our lozenges.

- Molecular size of vitamins – average 59.8 nanometers
- Molecular size of organic (plant-derived) minerals – are small enough to pass through a 500 Dalton sieve filter.
- Molecular size of phytonutrients – 5 µM (micrometers or microns, or millionth of a meter)
- Molecular size of plant cell organelles – 10-100 micrometers long.
- 1 nanometer = 1,000th micrometer
- 1,000 kiloDaltons = 1 micron or micrometer.



Zeiss Microscopy – Wikimedia Commons

15. Are there live viable enzymes in NRM and all our lozenges?

- According to the information provided by the corporate offices of APLGO in 2017, the drops were evaluated as to their viability, confirming that there were active enzymes and active metabolites of negatively charged ions in the plant materials and plant cell constituents.