

APLGO Product Call – ALT With Tina McMullen Malsom

5/8/23

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ALT's main focus is on the immune system and its ability to respond effectively to allergens and pollutants that are inhaled and affect the respiratory system, and to the inflammatory responses of the body against invasive and foreign microorganisms, and foreign particles.

1. What are the benefits from the ingredient, pine nut? Research shows:

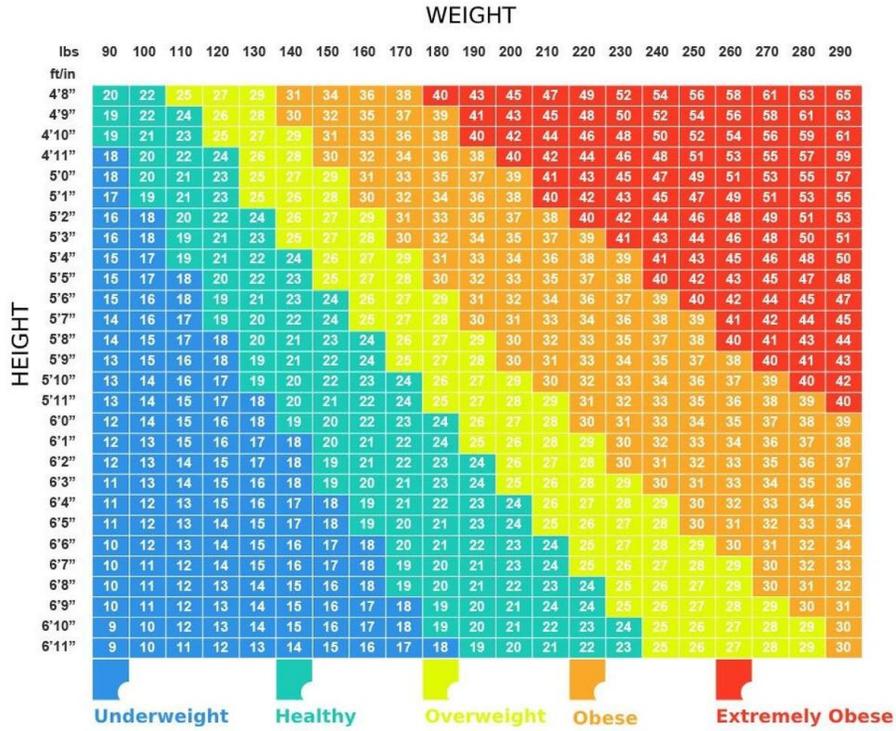
- Stomach ulcer, anemia, atherosclerosis, and duodenum disorders, tuberculosis.
- High in polyunsaturated fatty acids, omega 3's:
 - Linoleic fatty acid.
 - Proper body fat balance and weight regulating effects, maintaining healthy body fat mass index. (Stored body fat may hold fat-soluble synthetic pollutants that can affect the immune system.)
 - Lowering LDL cholesterol effect, improves blood composition.
 - Protects against atherosclerosis (hardening of the arteries).
 - Help prevent and reduce gallstones (gallbladder digests fats).
 - Help normalize nervous system, cardiovascular system, digestive system, liver functions, urinary system and water regulation through the kidneys.
 - Anti-inflammatory properties.
- Essential amino acids needed to help make proteins (messenger proteins, enzymes, hormones, immune complexes, cells that compose all organs, fluids, and structures).
- Contains various tocopherols (vitamin E complexes) and flavonoid phytonutrient complexes for healthy, strong, pliable blood vessels.
- PUFA's contain vitamin E, help in the formation of milk in nursing mothers. A deficiency ceases lactation; is important for a child's growth and development.

Reference:

Ros E. (2010). Health benefits of nut consumption. *Nutrients*, 2(7), 652–682. <https://doi.org/10.3390/nu2070652>.
<https://www.mdpi.com/2072-6643/2/7/652>

Takala, R., Ramji, D. P., & Choy, E. (2023). The Beneficial Effects of Pine Nuts and Its Major Fatty Acid, Pinolenic Acid, on Inflammation and Metabolic Perturbations in Inflammatory Disorders. *International journal of molecular sciences*, 24(2), 1171. <https://doi.org/10.3390/ijms24021171>. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9861571/>

Body Fat Mass Index Chart vs Overall Body Weight



<https://iifyb.com>

<https://www.cnet.com/health/whats-the-difference-between-bmi-and-body-composition/>

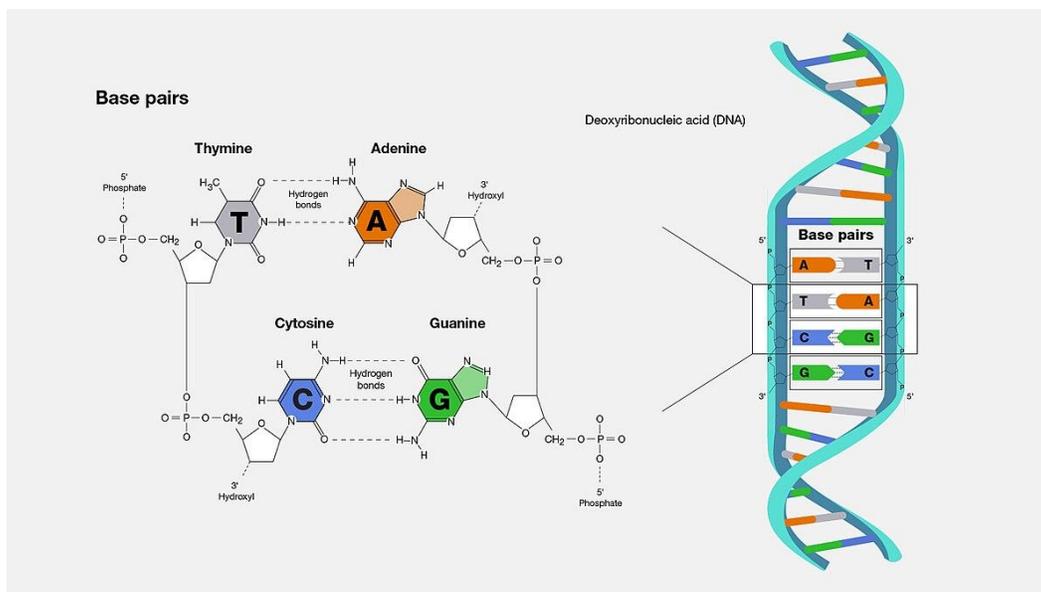
2. What is astragalus (*Astragalus membranaceus*), and what are the benefits?



Wikimedia, PFAF Plant Database, Steven Foster, 2014

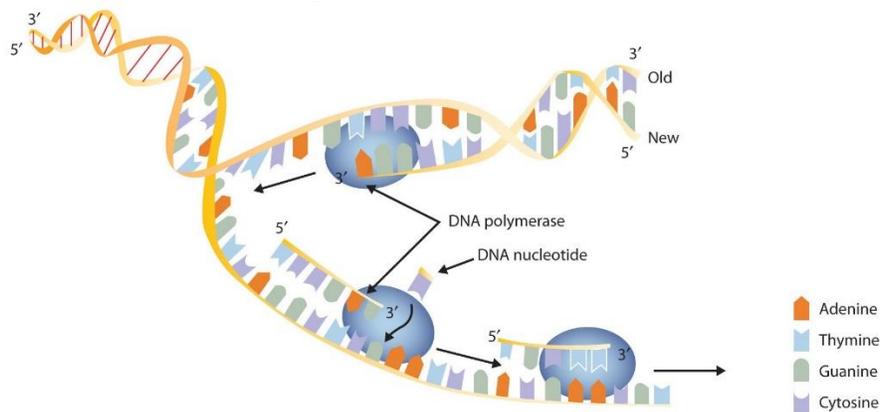
- Shown to inhibit the inflammatory enzyme, cyclo-oxygenase 2 (COX-2), and inflammatory proteins such as reactive oxygen species (ROS) mobilized during an immune system response.
- Shown to help control cell replication DNA transcription into newly forming cells, including immune cells.

Properly Ordered Base Pairs in Human Cell DNA



Wikipedia - Darryl Leja for the National Human Genome Research Institute

Cell Replication – Forming a New Cell as an Accurate Replica of the Mother Cell



[https://chem.libretexts.org/Courses/Georgia_Southern_University/CHEM_1152%3A_Survey_of_Chemistry_II_\(GSU_-_Dr._Osborne\)/09%3A_Nucleic_Acids/9.03%3A_DNA_Replication_and_Transcription#:~:text=In%20DNA%20replication%2C%20each%20strand,synthesis%20of%20an%20RNA%20sequence.](https://chem.libretexts.org/Courses/Georgia_Southern_University/CHEM_1152%3A_Survey_of_Chemistry_II_(GSU_-_Dr._Osborne)/09%3A_Nucleic_Acids/9.03%3A_DNA_Replication_and_Transcription#:~:text=In%20DNA%20replication%2C%20each%20strand,synthesis%20of%20an%20RNA%20sequence.)

- Shown to help control how cells communicate to ensure a cell's survival during onslaught of pathogenic organisms (viruses, bacteria) and pollutants.
- Found to be an effective anti-inflammatory:
 - Shown to help stimulate and regulate various **immune responses** to control actions of cytokine inflammatory and other inflammatory proteins.
 - Found to help maintain proper homeostasis in the digestive system: the stomach, intestinal, colon environments.
 - Protects tissue linings in the intestinal tissues against injuries, toxic chemicals, infectious microorganisms.
 - Helps increase superoxide dismutase (SOD) activity, an enzyme that scavenges and destroys superoxide free radicals.
- Found to help regulate body fluid balance, help eliminate excess extracellular fluids that cause edema or abnormal tissue swelling, including those **in respiratory tract and lungs**.
- Widely used in Asia to help prevent side effects of chemotherapy.
- Shown to help prevent liver damage.
- Anti-bacterial, antiviral, **immunostimulant**, helps adaptivity to stress.
- Found to protect the adrenal glands, helping to control blood sugar, burn protein and fat, regulate blood pressure and reactions to illness or injury.
- Found to enhance bone marrow white blood cell production activity such as increasing the destruction of invading bacteria, viruses, or other invasive particles. through phagocytosis (literally digesting those invading agents).
- Shown to improve circulation.

3. Would you say ALT is just more of a seasonal drop, or one for the entire year?

- Botanicals in ALT help maintain and protect the respiratory system, immune system, and circulatory and detoxification channels in the body.
- Can be taken seasonally; however, why not maintain and aid the body's strong protective actions every day, all year long, year after year.
- Maintaining the body's response to inhaled foreign particles, stress biochemicals, immune-compromising pollutants and invasive microorganisms should be a conscious daily focus.

4. Is it better to take ALT in the morning, or the evening?

- The body does its best repair and regenerative work while sleeping.
 - Utilizing plant DNA for repair work—the splicing actions of impaired DNA functions of any cell, including immune cell functions.

Exacting Similarities Between a Human Cell's Enzyme and the Same Enzyme in Watercress

Cytochrome C Oxidase Subunit 6B is one of 12 enzymes in both plant and human cells. These enzymes are important in converting foods to energy by the process of converting sugar and oxygen into water and carbon dioxide during the cell respiration process.

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Human Cytochrome C Oxidase subunit 6B: TGTTCAGAAAGGCAATGACCGCTAA
Plant Cytochrome C Oxidase subunit 6B:  TATCACAGATGTGTAGCTGCTAA

AGGAGGCGATATCTCTGTGTGCGAATGGTACCAGCGTGTGTACCAGTCCCT
GGGTGATGATGCTCCAGAATGCGATAAGTTTGCAAAGTTTATCGATCTCT

CTGCCCCACATCCTGSGGTACAGACTGGGATGAGCAACGGGCTGAAGGCAC
TTGCCCCAGCGAATGSGGTTGATAGGTGGAACGAGCAAAGAGAAAATGGAAC

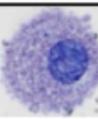
GTTTCCCGGAAGAT
ATTCCCTGGTCCCTCT
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<https://www.thetech.org/ask-a-geneticist/articles/2005/can-you-compare-human-and-plant-dna/>

- Utilizing protein-generating sites from plant endoplasmic reticulum as templates for improving protein functions in human cells—including immune cells.
- Nothing in the drops contains nervous system sedation effects; therefore, can be taken any time of day.
- After sleep, the immune system becomes more active as the circulatory system becomes more active, including its inflammatory responses.
- The circulatory system delivers immune cells throughout the body to perform their tasks, including being stimulated into actions of anti-inflammatory responses to allergens and any circulating foreign particles.
- Considering the phytonutrient compounds that help attenuate the inflammatory responses of the immune system and their symptoms upon the respiratory system, taking an ALT drop in the morning is also beneficial.

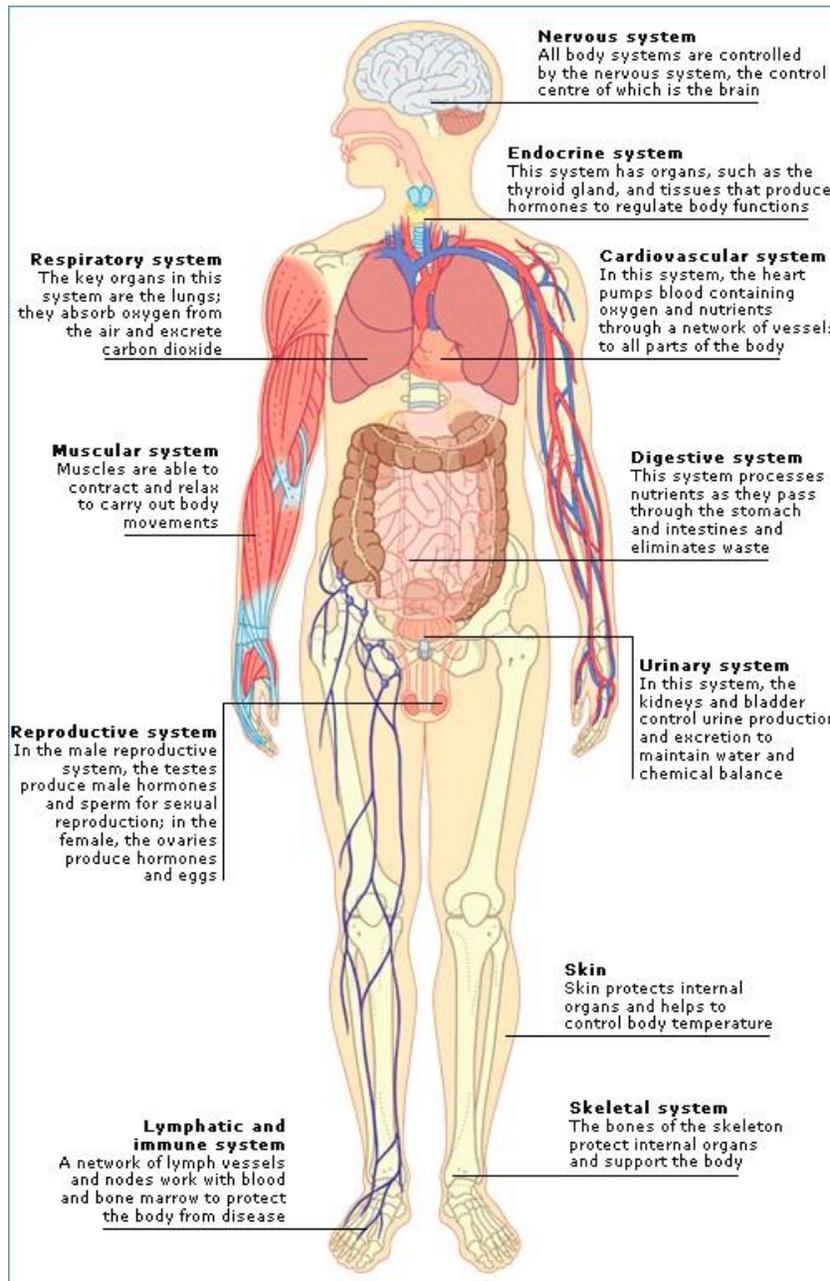
5. For someone that does not have allergy symptoms, could ALT still benefit them?

- Other health benefits from the nutrient factors in the other botanicals in ALT:
 - Improved circulation throughout all body systems, indicating oxygen and nutrient delivery for the regeneration, repair, and therefore their proper functional maintenance.
 - ALT contains phytochemical compounds that assist in the normal functions of the lymph and skeletal systems that generate **immune cells**.

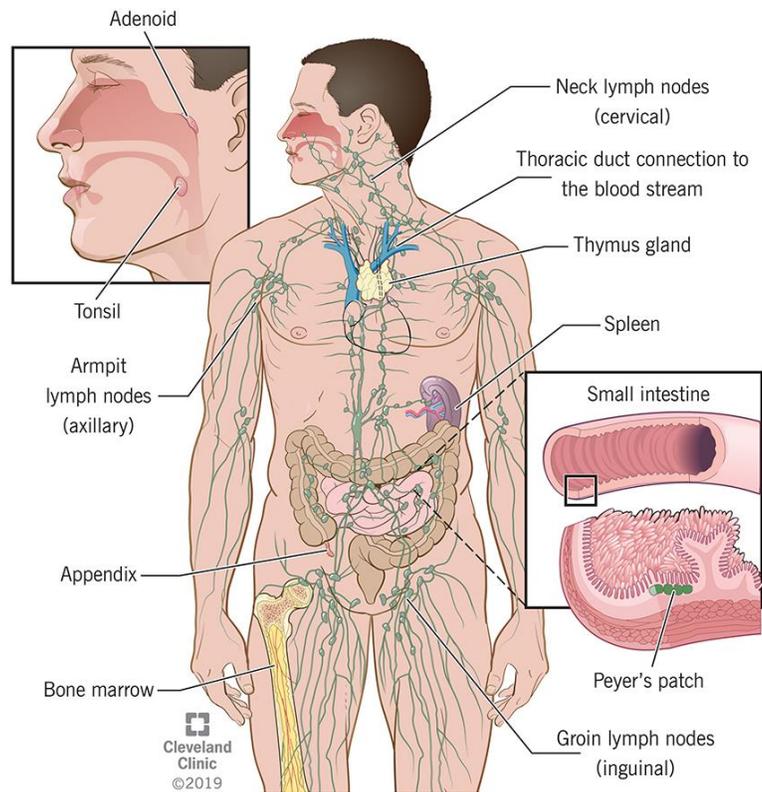
Cell	Image	% in adults	Nucleus	Functions	Lifetime	Main targets
Macrophage*		Varies	Varies	<ul style="list-style-type: none"> • Phagocytosis • Antigen presentation to T cells 	Months – years	<ul style="list-style-type: none"> • Various
Neutrophil		40-75%	Multi-lobed	<ul style="list-style-type: none"> • Phagocytosis • Degranulation (discharge of contents of a cell) 	6 hours – few days	<ul style="list-style-type: none"> • Bacteria • Fungi
Eosinophil		1-6%	Bi-lobed	<ul style="list-style-type: none"> • Degranulation • Release of enzymes, growth factors, cytokines 	8-12 days (circulate for 4-5 hours)	<ul style="list-style-type: none"> • Parasites • Various allergic tissues
Basophil		< 1%	Bi- or tri-lobed	<ul style="list-style-type: none"> • Degranulation • Release of histamine, enzymes, cytokines 	Lifetime uncertain; likely a few hours – few days	<ul style="list-style-type: none"> • Various allergic tissues
Mast cell		Common in tissues	Central, single-lobed	<ul style="list-style-type: none"> • Degranulation • Release of histamine, enzymes, cytokines 	Months to years	<ul style="list-style-type: none"> • Parasites • Various allergic tissues
Lymphocytes (T cells)		20-40%	Deeply staining, eccentric	<ul style="list-style-type: none"> • T helper (Th) cells (CD4+): immune response mediators • Cytotoxic T cells (CD8+): cell destruction 	Weeks to years	<ul style="list-style-type: none"> • Th cells: intracellular bacteria • Cytotoxic T cells: virus infected and tumour cells • Natural killer cells: virus-infected and tumour cells
Monocyte		2-6%	Kidney shaped	Differentiate into macrophages and dendritic cells to elicit an immune response	Hours – days	<ul style="list-style-type: none"> • Various
Natural killer (NK) cell		15% (varies) of circulating lymphocytes and tissues	Single-lobed	<ul style="list-style-type: none"> • Tumour rejection • Destruction of infected cells • Release of perforin and granzymes which induce apoptosis 	7-10 days	<ul style="list-style-type: none"> • Viruses • Tumour cells

<https://aacijournal.biomedcentral.com/articles/10.1186/s13223-018-0278-1>

- Help maintain the glandular system that generates regulating hormones that direct immune and many other bodily processes.
- Help maintain a normal digestive system that may be affected by inflammatory responses and may prevent nutrient absorption.
- Help maintain a normal functioning urinary system that regulates all body fluids, including the circulation of immune response proteins and immune cells.

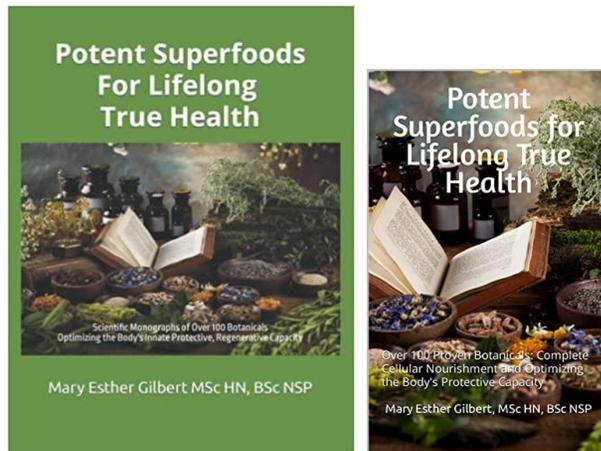


- Help normalize the immune functions.
- Help protect the integrity of the DNA genetic codes of instructions in every cell.
- Help maintain pliable and strong blood vessels.
- Found to have antimicrobial: antibacterial, antiviral, anti-parasitic, anti-fungal properties



Source reference:

Gilbert, M. E. (2021). Potent Superfoods for Lifelong True Health. Tucson, AZ: Holistic Choices Publishing



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