

## **APLGO Product Q & A**

**AIR and BTY with Ruth Mayne and Mary Esther Gilbert, MSc HN, BSc NSP**

**September 9, 2024**



### **AIR and BTY**

**Beauty - More Than Skin Deep**

**Cellular Nourishment and Normal Daily Detoxification**

**Clear Circulation, Unobstructed Pathways; Physical Energy**

**Mental Clarity and Mental Energy**

**Sense of Well-Being, Calmer Reactions to Stress**

### AIR and BTY - Body Systems Facilitated

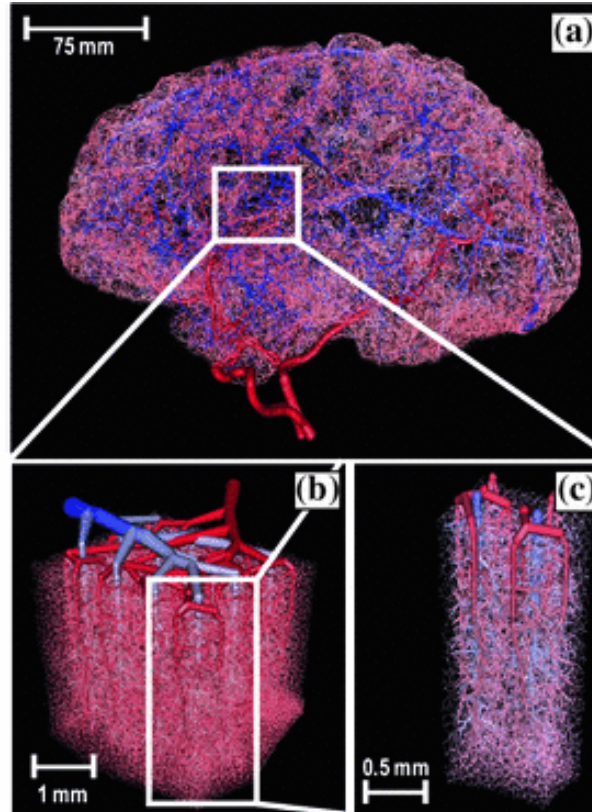
| Ingredients                                | Circulation or Micro-circulation                                                              | Organs that Generate Immune Cells, Anti-Inflammatory, Antimicrobial, Antioxidant                                                                                              | Urinary, Kidneys, Bladder                                         | Integumentary (Skin), Normal Detoxification, Protection | Digestion, Colon, Normal Cleansing, Detoxification                    | Respiratory Airways, Clearing                                  | Cellular Protection, Repair, Regeneration                                      | Fat, Glucose, Hormone Metabolism, Glands                                   | Stress, Cognitive, Mental Performance, Neuro-protection                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
|                                            | Heart, Blood Vessels, Brain Function, Organ Blood Flow, Skin, Eyes, Libido, Energy Production | Nose and Throat Mucous Membranes, Tonsils, Lymph Vessels and Nodes, Thymus Gland, Spleen, Bowel or Colon, Mucous Membranes in Bladder and Colon, Genitals, Bone Marrow, Skin. | Normal Flushing, Detoxifying, Regulating Water and Blood Pressure | Clearing Capillaries, Hair Follicles, Surface Pores.    | Large Intestine Microbial Environment., Gastrointestinal Tract, Liver | Oxygen Delivery Through Nose, Throat, Trachea, Lungs, Alveoli. | Cells Comprise All Tissues, Organs, Structures, Immune Cells, Bone Maintenance | Glands That Produce Hormones for Fat Metabolism, Other Endocrine Functions | Decrease Cellular Sensitivity to Stress, Prevents Degenerative Physical Effects of Stress |
| <b>Aloe Vera Leaf Gel **</b>               | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       | x                                                                     |                                                                | x                                                                              | x                                                                          |                                                                                           |
| <b>Amla Berry</b>                          | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Apple</b>                               | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         |                                                                       | x                                                              |                                                                                | x                                                                          | x                                                                                         |
| <b>Artichoke Leaf</b>                      | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          |                                                                                           |
| <b>Ashwagandha Root</b>                    | x                                                                                             | x                                                                                                                                                                             |                                                                   | x                                                       | x                                                                     |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Avocado</b>                             | x                                                                                             | x                                                                                                                                                                             | x                                                                 |                                                         |                                                                       |                                                                |                                                                                | x                                                                          |                                                                                           |
| <b>Black Currant</b>                       | x                                                                                             | x                                                                                                                                                                             | x                                                                 |                                                         |                                                                       | x                                                              |                                                                                |                                                                            | x                                                                                         |
| <b>Chamomile, German, Flower</b>           | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       | x                                                                     |                                                                | x                                                                              | x                                                                          | x                                                                                         |
| <b>Cranberry</b>                           | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       |                                                                       |                                                                |                                                                                |                                                                            | x                                                                                         |
| <b>Dandelion Root</b>                      | x                                                                                             | x                                                                                                                                                                             | x                                                                 |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          |                                                                                           |
| <b>Dog Rose</b>                            | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       | x                                                                     | x                                                              | x                                                                              | x                                                                          | x                                                                                         |
| <b>Ginseng, Siberian, Root (Eleuthero)</b> | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         |                                                                       |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Grape Seed</b>                          | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         |                                                                       |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Green Tea Leaf</b>                      | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          |                                                                                           |
| <b>Lemon **</b>                            | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          |                                                                                           |
| <b>Licorice Root</b>                       | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Lycium Berry</b>                        | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Maca Root</b>                           | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       |                                                                       |                                                                | x                                                                              | x                                                                          | x                                                                                         |
| <b>Magnolia Vine Fruit</b>                 | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         | x                                                                     | x                                                              |                                                                                |                                                                            | x                                                                                         |
| <b>Meadowsweet Leaf</b>                    | x                                                                                             | x                                                                                                                                                                             | x                                                                 |                                                         | x                                                                     |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Milk Thistle Seed</b>                   | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       | x                                                                     | x                                                              | x                                                                              | x                                                                          | x                                                                                         |
| <b>Pomegranate Seed</b>                    | x                                                                                             | x                                                                                                                                                                             | x                                                                 |                                                         |                                                                       |                                                                | x                                                                              | x                                                                          | x                                                                                         |
| <b>Rowanberry</b>                          | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         |                                                                       |                                                                | x                                                                              |                                                                            |                                                                                           |
| <b>Strawberry, Wild</b>                    | x                                                                                             | x                                                                                                                                                                             | x                                                                 |                                                         |                                                                       |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Turmeric Root</b>                       | x                                                                                             | x                                                                                                                                                                             | x                                                                 | x                                                       | x                                                                     |                                                                | x                                                                              | x                                                                          | x                                                                                         |
| <b>Water Hyssop</b>                        |                                                                                               | x                                                                                                                                                                             |                                                                   |                                                         |                                                                       |                                                                |                                                                                |                                                                            | x                                                                                         |
| <b>Vitamin C</b>                           | x                                                                                             | x                                                                                                                                                                             |                                                                   |                                                         |                                                                       |                                                                |                                                                                | x                                                                          | x                                                                                         |
| <b>Vitamin D</b>                           | x                                                                                             | x                                                                                                                                                                             |                                                                   | x                                                       | x                                                                     |                                                                | x                                                                              | x                                                                          | x                                                                                         |
| <b>Zinc</b>                                | x                                                                                             | x                                                                                                                                                                             |                                                                   | x                                                       | x                                                                     |                                                                | x                                                                              | x                                                                          | x                                                                                         |

(Gilbert, 2024)

## Maintaining Microcirculation Flow to Heart and for the Brain

**Oxygen-nutrient-rich blood flow through the smallest blood vessels, the capillaries, within organs and tissues.**

(Aloe, Amla Berry, Apple, Artichoke Leaf,, Ashwagandha Root, Avocado, Black Currant, German Chamomile Flower, Cranberry, Dandelion Root, Dog Rose, Siberian Ginseng (Eleuthero), Grape Seed, Green Tea Leaf, Lemon, Licorice Root, Lycium Berry, Maca Root, Magnolia Vine Fruit, Meadowsweet Leaf, Milk Thistle Seed, Pomegranate Seed, Rowanberry, Wild Strawberry, Turmeric Root, Vitamin C, Vitamin D, Zinc.)

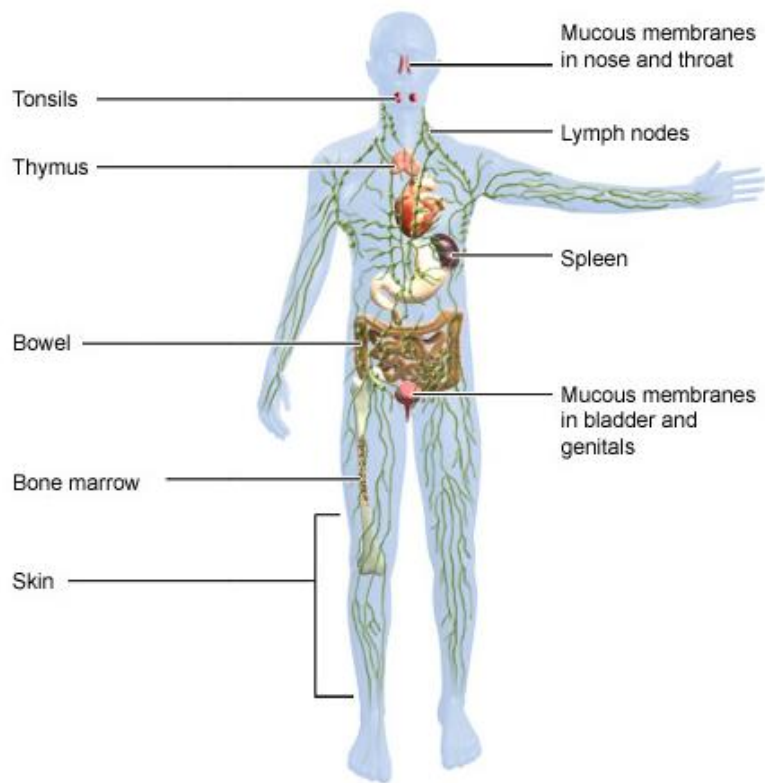


(Linninger, et. al., 2013)

## Controlling the Body's Stress Reactions

### Organs that Generate White Blood (Immune) Cells; Attenuate Inflammation, Antimicrobial, Antioxidant, Help Control Adrenaline and Cortisol

(Amla Berry, Apple, Ashwagandha, Black Currant, German Chamomile Flower, Cranberry, Dog Rose, Siberian Ginseng (Eleuthero) Root, Grape Seed, Licorice Root, Lycium Berry, Maca Root, Magnolia Vine Fruit, Meadowsweet Leaf, Milk Thistle Seed, Pomegranate Seed, Wild Strawberry, Turmeric Root, Water Hyssop, Vitamin C, Vitamin D, Zinc.)

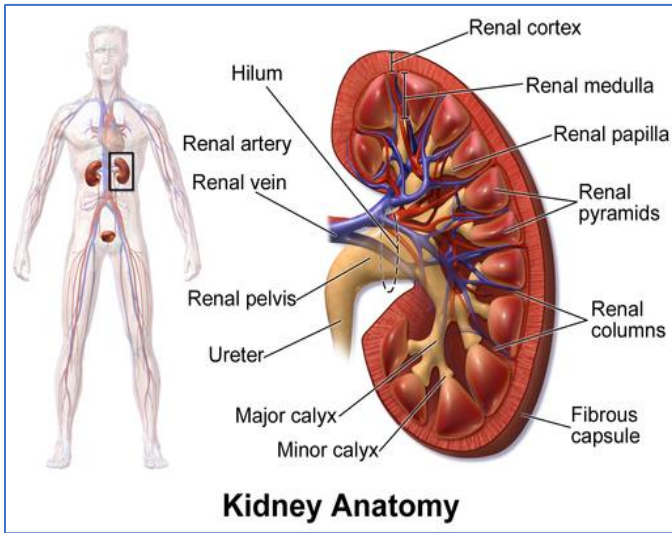


(Informed Health, 2023)

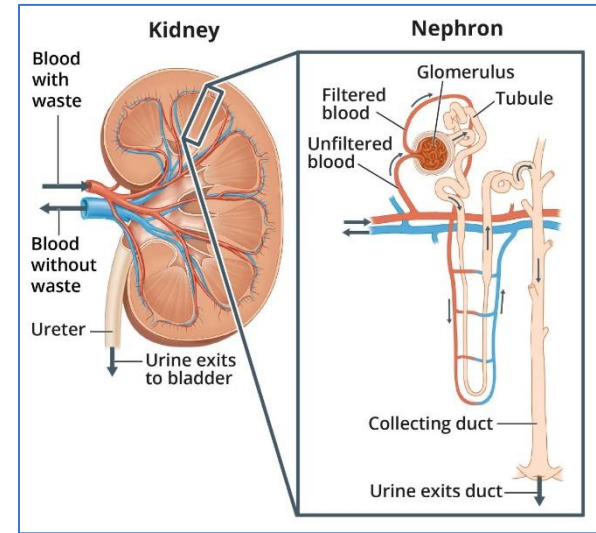
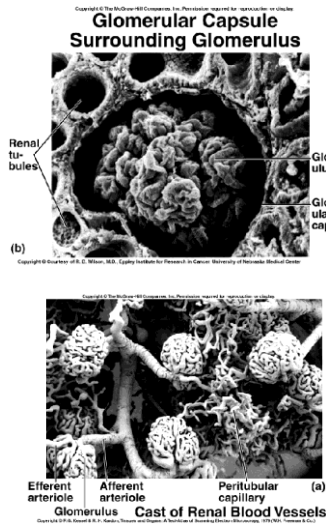
# Urinary, Kidneys, Bladder

## Flushing, Detoxifying, Regulating Water and Blood Pressure

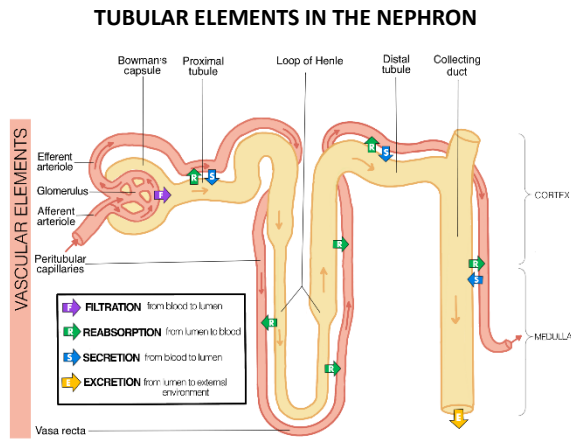
(Aloe, Avocado, Black Currant, German Chamomile Flower, Cranberry, Dandelion Root, Dog Rose, Maca Root, Meadowsweet Leaf, Milk Thistle Seed, Pomegranate Seed, Wild Strawberry, Turmeric Root)



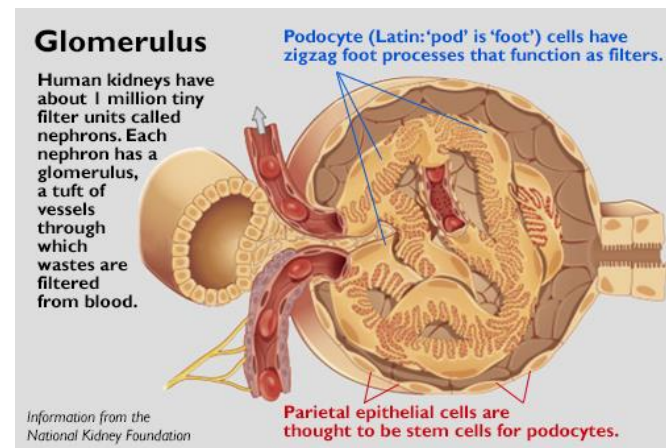
Blausen-2014-Wikipedia



Wiki Creative Commons



University of Guelph



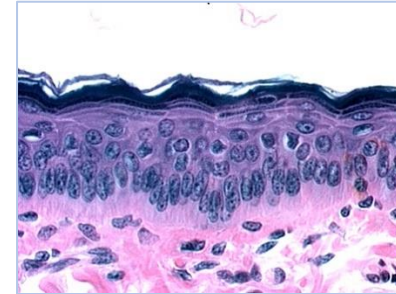
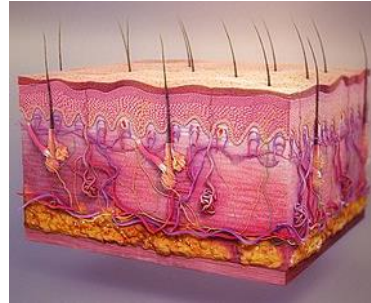
UW Medicine 2024

## Integumentary (Skin), Normal Detoxification, Protection

Clearing Capillaries, Hair Follicles, Surface Pores, Anti-Microbial, Detoxification

(Aloe Vera, Ashwagandha Root, German Chamomile, Cranberry, Dog Rose, Maca Root, Milk Thistle Seed, Turmeric, Vitamin D, Zinc)

### Skin Dermal Layers



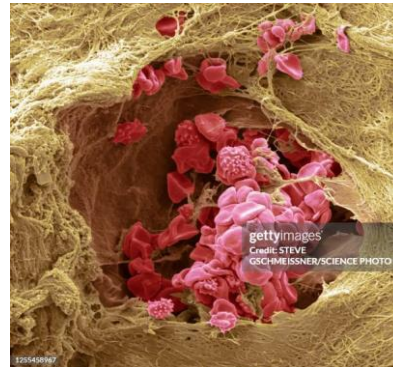
### Electron Microscopy

Skin



gettyimages  
Credit: STEVE GSCHMEISSNER/SPL

Skin's Blood Vessels



gettyimages  
Credit: STEVE  
GSCHMEISSNER/SCIENCE PHOTO LIB

Skin Bacteria



Science Photo Library

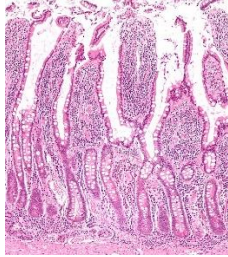
Getty Images-Steve Gschmeissner

## Digestion, Colon, Normal Cleansing, Detoxification

### Large Intestine Microbial Environment., Gastrointestinal Tract, Liver

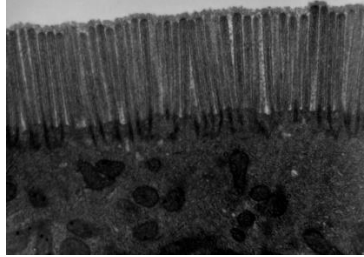
(Aloe Vera, Amla Berry, Artichoke Leaf, Ashwagandha Root, German Chamomile Flower, Dandelion Root, Dog Rose, Green Tea Leaf, Lemon, Licorice Root, Lycium Berry, Magnolia Vine, Meadowsweet, Milk thistle Seed, Turmeric Root, Vitamin D, Zinc)

#### Small Intestine Mucosa



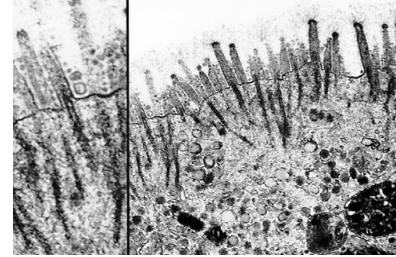
Wikimedia

#### Healthy Microvilli in the Small Intestine



Louisa Howard, Katherine Connolly - Dartmouth Electron Microscope Facility

#### Adenocarcinoma in the Colon Cells Microvilli



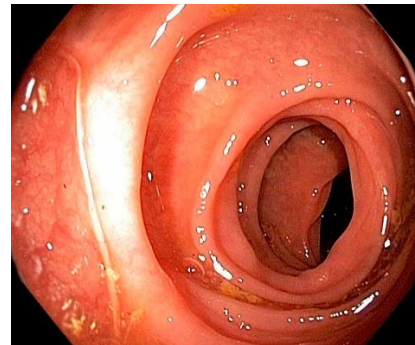
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#### Blocked Colon



Natl Cancer Inst

#### Healthy Colon



Science Photo Gallery

## Respiratory Airways, Clearing, Respiratory, Cardiovascular Systems For a Well-Oxygenated System

Oxygen Delivery Through Nose, Throat, Trachea, Lungs, Alveoli. Improving oxygen supply and help eliminate carbon dioxide waste, controlling stress reactions affecting breathing, preventing bronchial inflammation, respiratory infections, controlling inflammatory proteins (the cytokines) to prevent airway inflammation and obstructions.

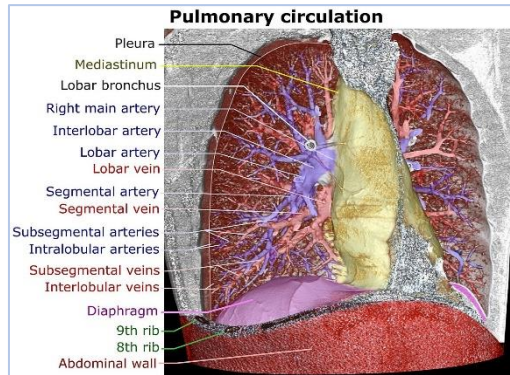
(Chu, et. al., 2024) (Gilbert, 2024)

(Amla Berry, Apple, Ashwagandha, Black Currant, German Chamomile Flower, Cranberry, Dog Rose, Siberian Ginseng (Eleuthero) Root, Grape Seed, Lycium Berry, Maca Root, Magnolia Vine Fruit, Meadowsweet Leaf, Milk Thistle Seed, Pomegranate, Wild Strawberry, Turmeric Root, Water Hyssop, Vitamin C, Vitamin D, Zinc.)

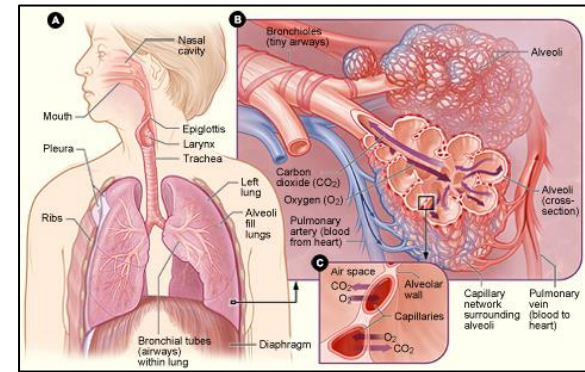
### Mucus Accumulation – Bronchial Asthma



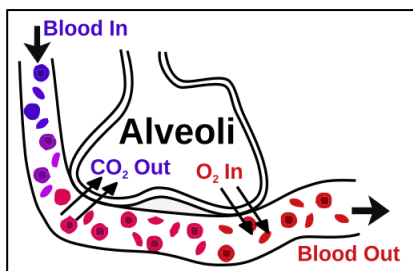
Scientific Animations Wikimedia 2019



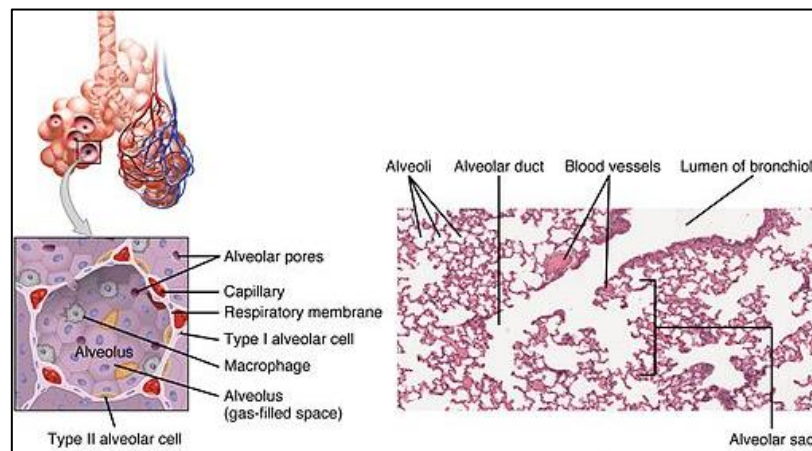
Mikael Häggström Wikipedia Commons 2017



Wikipedia Creative Commons



Helix84 2007 Wiki Commons



OpenStax Creative Commons 2013



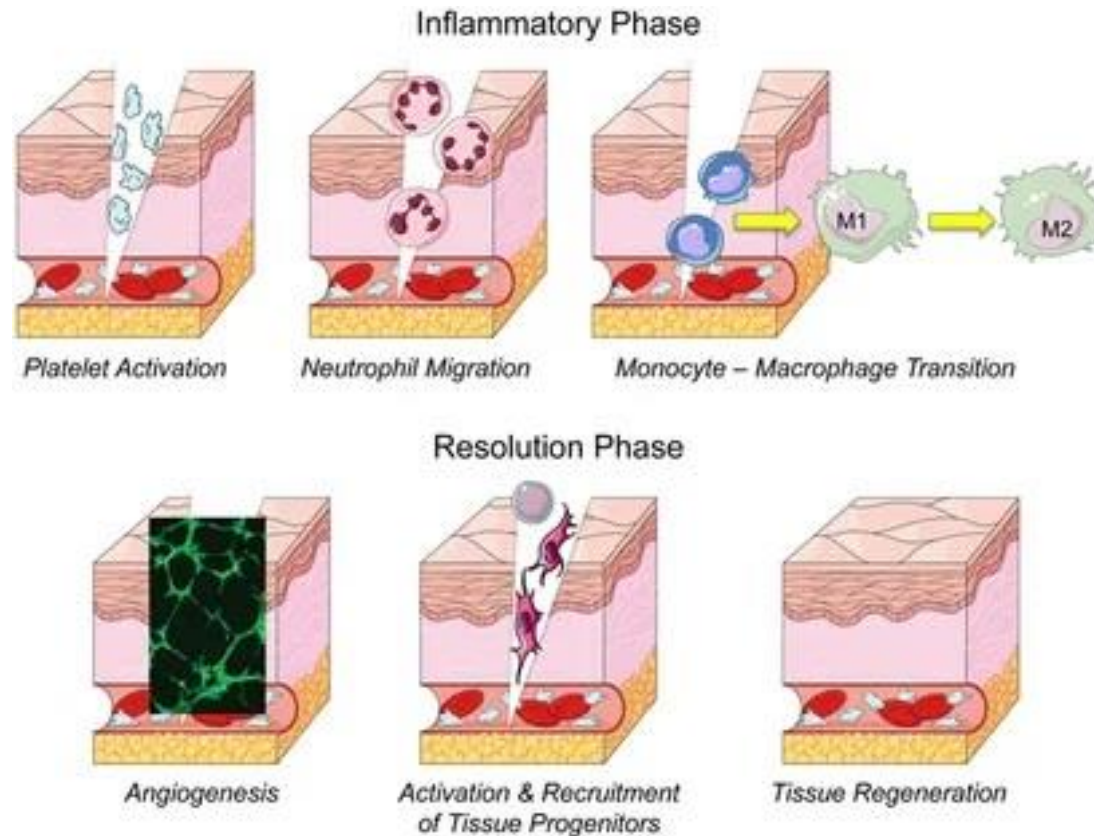
## Cellular Protection, Repair, Regeneration

Cells Comprise All Tissues, Organs, Structures, Immune Cells, Bone Maintenance

The repair cellular response involves:

- Removal of damaged proteins/lipids and organelles.
- Recycling of broken down materials after the catabolic/degradative actions of immune cells: proteasomes, lysosomes, and autophagosomes.
- Resolution or Reforming of New Cells Specific to the Area (Tissue Progenitors)

(Aloe Vera Leaf, German Chamomile Flower, Dog Rose, Maca Root, Milk Thistle Seed, Pomegranate Seed, Rowanberry, Turmeric Root, Vitamin D, Zinc)



## Fat, Glucose, Hormone Metabolism, Gland Maintenance

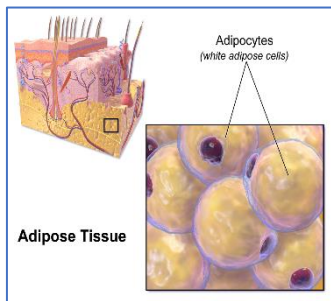
### Glands That Produce Hormones for Fat Metabolism, Other Endocrine Functions

- The best way to help the body activate its fat burning capacity is to eat thermogenic (fat-burning activating) foods, drink plenty of water, exercise regularly.
- Glands that determine fat utilization:
  - Thyroid gland controls body weight via speed of metabolism, the rate at which the body burns or uses fat for energy.
  - Parathyroid glands control calcium utilization in the blood, bones, and kidneys, and help convert vitamin D into a more active form. (Cheng, et. al., 2023)
- Fats are needed to maintain:
  - Brain matter (composed of 60% fat)
  - Absorption/utilization of Vitamins A, D, E, K needed for blood coagulation and wound healing.
  - Body temperature.
  - Protect organs, joints, tendons.
  - Proper cell growth, repair, regeneration.
  - Body stores of potential energy.

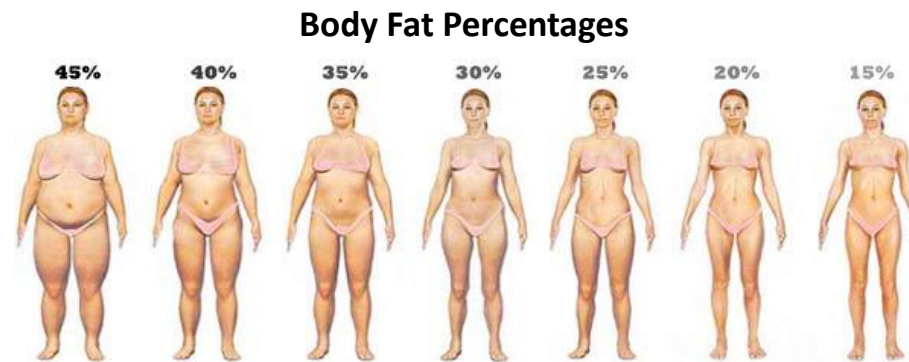
**Do not be afraid to include whole food fats daily In order to utilize fats and maintain a healthy body weight and composition.**

Fats should comprise of 20-30% of total calorie intake. 2,000 Calorie per day diet should be 44-70 grams of fat, depending on level of physical activity. Fat grams are 9 calories per gram; carbohydrates and proteins are 4 calories per gram.

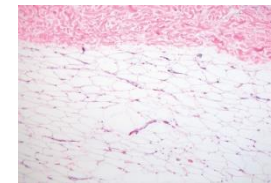
(Aloe Vera Leaf, Amla Berry, Apple, Artichoke Leaf, Ashwagandha Root, Avocado, German Chamomile Flower, Dandelion Root, Dog Rose, Siberian (Eleuthero) Ginseng Root, Grape Seed, Green Tea Leaf, Lemon, Licorice Root, Lycium Berry, Maca Root, Meadowsweet Leaf, Milk Thistle Seed, Pomegranate Seed, Strawberry, Wild, Turmeric Root, Vitamin C, Vitamin D, Zinc.)



Live Science



Fit Crew Bradington



Science Direct



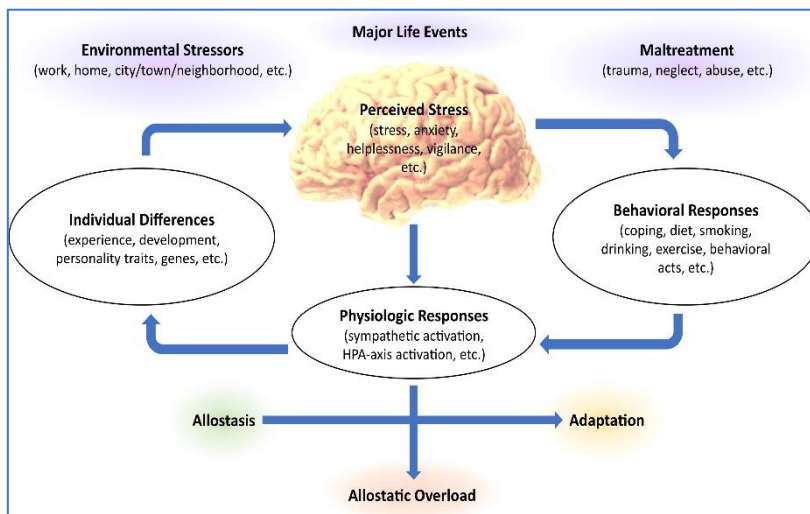
Live Science

# Stress, Cognition, Mental Performance, Neuro-protection

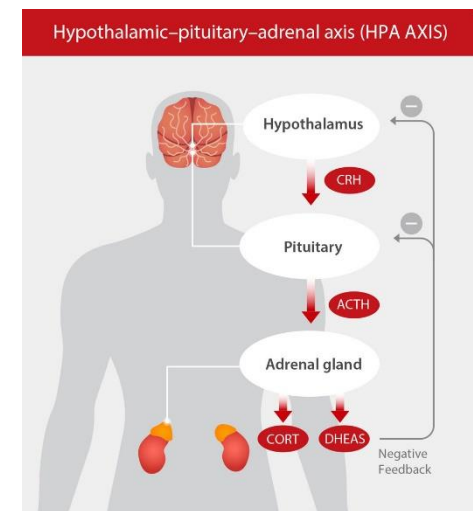
## Decrease Cellular Sensitivity to Stress, Prevents Degenerative Physical Effects of Stress

(Amla Berry, Apple, Ashwagandha Root, Black Currant, Chamomile, German, Flower, Cranberry, Dog Rose, Siberian Ginseng Root (Eleuthero), Grape Seed, Licorice Root, Lycium Berry, Maca Root, Magnolia Vine Fruit, Meadowsweet Leaf, Milk Thistle Seed, Pomegranate Seed, Strawberry, Wild, Turmeric Root, Water Hyssop, Vitamin C, Vitamin D, Zinc.)

## Maintaining System Stability Through Change in the Hypothalamic-Pituitary-Adrenal (HPA) Glandular Responses



Sage Journals - Shelby et al – 2020



Mind Ray 2021

## AIR

**Good skin** – microcirculation, cleansing/detoxification, phytonutrients, oxygenation, hydration, lubrication, sunlight.

**Youthful cells** –

**AIR** (from my slides – Texas event Oct 2023)

**Ingredients:** Aloe Vera Leaf Gel (*Aloe vera*), Amla Berry Fruit (*Phyllanthus emblica* L.), Black Currant (*Ribes nigrum* L.), Cranberry (*Vaccinium oxycoccos*), Dog Rose (*Rosa canina* L.), Lemon (*Citrus limon*), Lycium Berry (*Lycium barbarum*), Maca Root (*Lepidium meyenii*), Vitamin C, Vitamin D, Zinc

**Free Flowing Circulation, Self-Cleansing, Self-Regenerating Systems:** mucopolysaccharides, pectins, citric and other organic acids, flavonoids hesperidin, naringin; fatty acids macaridine, macaenes, macamides, and maca alkaloids, vitamin D, zinc.

**Respiratory Air-Ways:** proanthocyanidins.

**Immune System, Antioxidants, Antimicrobial Actions:** polyphenols, gallic acid, ascorbic acid, phenolic acids hydroxybenzoic acids:4-hydroxybenzoic acid, coumaric acid, gallic acid, protocatechuic acid, syringic acid, and vanillic acid; hydroxycinnamic acids caffeic acid and chlorogenic acid, flavonoid compounds flavonols, flavanones, flavan-3-ols, flavonol and quercetin derivatives; flavones apigenin, luteolin, myricetin; phenolics ellagitannins, tannic acid, ellagic acids, anthocyanins; trans-resveratrol, benzoic, chlorogenic, *p*-coumaric acids; flavonoids quercetin, epicatechin, and isorhamnetin, proanthocyanidins, resveratrol; organic acids gallic, protocatechuic, vanillic, chlorogenic, syringic, *p*-coumaric, ferulic, sinapic, cinnamic, quercetin, rutin, and rosmarinic acid; xanthophyll esters; flavonone glycosides eriocitrin, hesperidin, naringin, and flavone glycosides diosmin and 6,8 C-diglucosyldiosmetin; carotenoids zeaxanthin,  $\beta$ -carotene, neoxanthin, and cryptoxanthin; carotenoids, tocopherols; polysaccharides; vitamin C, D, zinc.

**Anti-inflammatory:** phyllantine, phyllantidine, anthocyanins, flavonols, phenolic acids, polyunsaturated fatty acids, anthocyanins, flavonols, phenolic acids, polyunsaturated fatty acids, quercetin, ascorbic acid; galactolipid, fatty acids linoleic, palmitic, and oleic acids; vitamin C.  
(Gilbert, 2024)

## BTY

**Ingredients:** Aloe Leaf (Gel) (*Aloe vera*), Apple (*Malus domestica*), Artichoke Leaf (*Cynara folia*), Ashwagandha Root (*Withania somnifera*), Avocado (*Persea*), Chamomile , German, Flower, (*Matricaria recutita*), Dandelion Root (*Tarxacum officinale*), Ginseng, Siberian, Root (*Eleutherococcus senticosus*), Grape Seed (*Vitis vinifera*), Green Tea Leaf (*Camelia sinensis*), Lemon (*Citrus limon*), Licorice Root (*Glycyrrhiza glabra*), Magnolia Vine Fruit (*Schisandra chinensis*), Meadowsweet Leaf (*Filipendula ulmaria*), Milk Thistle Seed (*Silybum marianum*), Pomegranate Seed (*Punica granatum*), Rowanberry (*Sorbus aucuparia L.*), Strawberry, Wild (*Fragaria vesca L.*), Turmeric Root (*Curcuma longa*), Water Hyssop Leaf (*Bacopa monnieri*).

**Immune System, Detoxification, Rapid Cell Regeneration and Repair, Boosting Mitochondria:** organic acids ursolic, malic, tartaric, citric, chlorogenic, salicylic, arabic, boric, ascorbic acids; carotene, lactones, apigenin, apigenin-7-O glucoside, caffeic acid, chamazulene chlorogenic acid, coumarin, farnesene, luteolin, luteolin-7-O glucoside, and terpene bisabolol; phytoncides, chlorophyll, catechins, triterpenoids, sesquiterpenes, monoterpenes; polysaccharides, silybin, flavonoligans, curcuminoids.

**Anti-Inflammation, Free Radical Antioxidants:** plant sterols lupeol, campesterol, beta-sitosterol; tannin, pectins, flavonoids apigenin, luteolin, patuletin, quercetin, hyperin, rutin, afzelin, quercetin, kaempferol; alkaloids; eleutherosides, omega 3, 9, & monounsaturated fatty acids, resveratrol, proanthocyanidins, resveratrol; catechins epicatechin, epigallocatechin, epigallocatechin-3 gallate, flavanols, polyphenols; citric, ascorbic acid; polyphenols, phenolic acids chlorogenic, p-coumaric, p-hydroxybenzoic, protocatechuic, salicylic, syringic, gentisic; silybin, caffeoylquinic acids

**Anti-Microbial:** phenolics triterpenic acids, anthocyanins; flavonoids, terpenoids, saponins glycyrrhizin (GL), 18 $\beta$ -glycyrrhetic acid (GA), liquiritigenin (LTG), licochalcone A (LCA), licochalcone E (LCE), glabridin (GLD); lignans , triterpenoids.

**Fat, Glucose, Endocrine (Hormone) Metabolism, Bile Flow:** ursolic acid, catechins, pectins, phytosterols, flavonoids hyperoside, isoquercitrin, ruttin and quercetin; organic acids; tsinarin, carotene; lutein, zeaxanthin, cryptoxanthin; plant sterols, fatty acids, eleutherosides, resveratrol; flavonone glycosides eriocitrin, hesperidin, naringin; flavone glycosides diosmin, 6,8 C-diglucosyldiosmetin; puniic, linoleic, arachidonic acids; polyphenolics anthocyanins, cyanidins

**Stabilizing Stress Reactions, Cognition:** sitoindosides and acylsterylglucosides, lutein, glycine, glycosides; curcuminoids curcumin (diferuloylmethane), demethoxycurcumin, and bisdemethoxycurcumin.

**Circulation, Fluid Balance, Detoxifying:** lutein, flavonoids, terpenoid; lutein, violaxanthin, antheraxanthin, zeaxanthin, neoxanthin and chlorophyll; eleutherosides, glycosides, resveratrol.  
(Gilbert, 2024)

Reference:

Chu B, Marwaha K, Sanvictores T, et al. Physiology, Stress Reaction. [Updated 2024 May 7]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK541120/>

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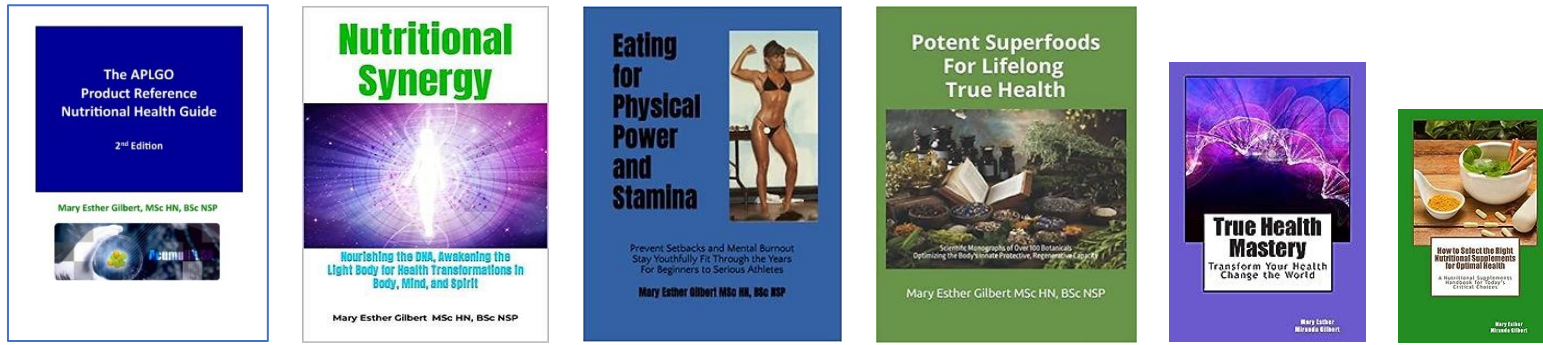
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