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Resilient Immunity Part 2: Feed your immune heroes! They got you covered!

Medical Disclaimer

- ▶ These slides and PDFs are for educational purposes and are not medical advice. Any recommendations described in this book represent the opinions of the author based on his training and experience. The author expressly disclaims any responsibility for any liability, loss or risk, personal or otherwise, which is incurred as a result of using any of the techniques, recipes or recommendations suggested herein. The responsibility for the consequences of your use of any suggestion or procedure described hereafter lies not with the authors, publisher or distributors of this course. This educational material is not intended as medical or health advice. If in any doubt, or if requiring medical advice, please contact the appropriate health professional. We recommend consulting with a licensed health professional before making major diet, supplement, therapies and lifestyle changes. These materials are property of Peter Wilhelmsson Health Consulting AB.

Chilli peppers finally earn the Nobel Prize

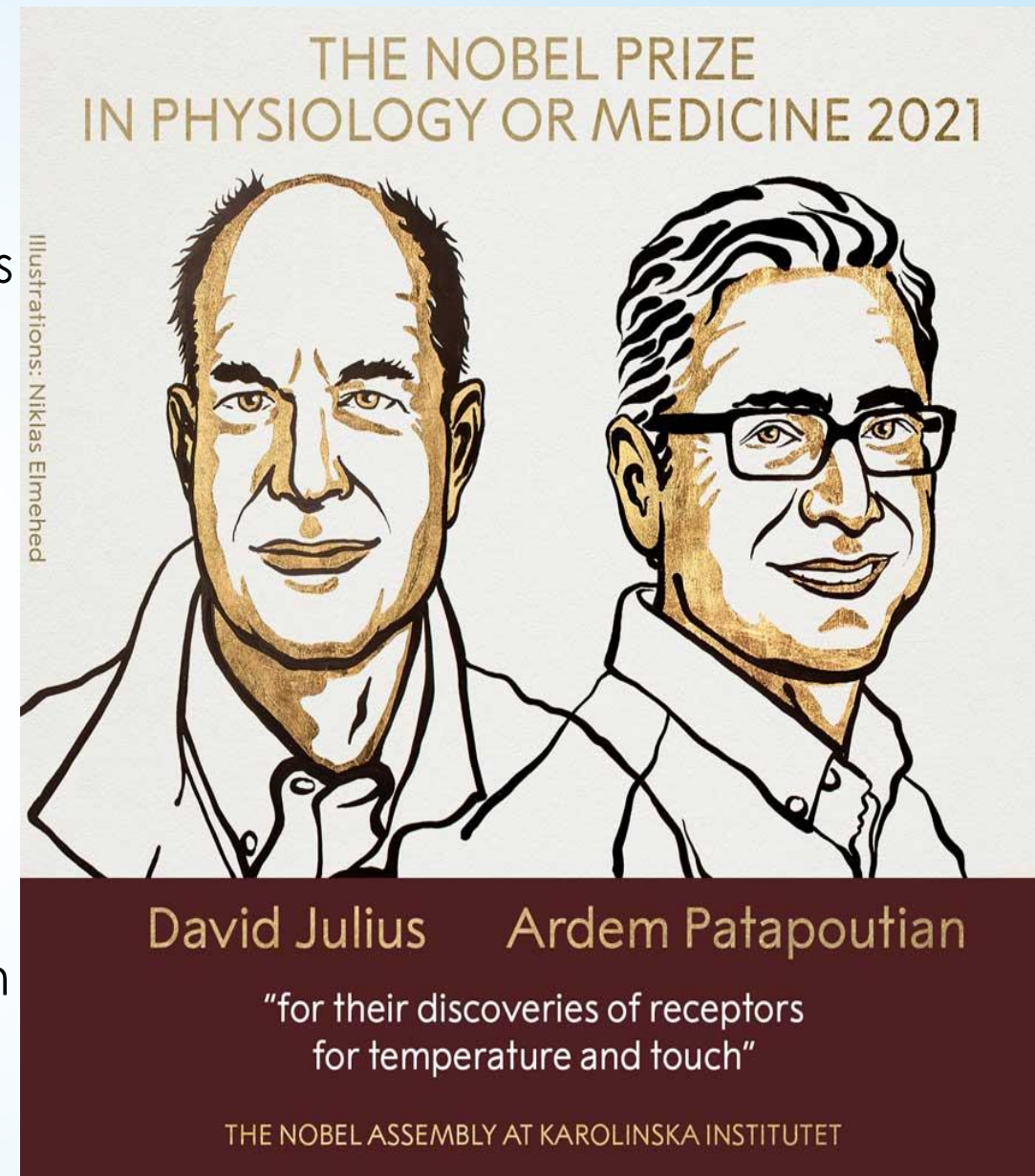
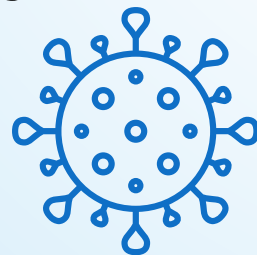
The Nobel Assembly at the Karolinska Institute has decided to award the 2021 Nobel Prize in Physiology or Medicine to David Julius and Ardem Patapoutian “for their discoveries of receptors for temperature and touch”

HEAT, SPICE, TEMPERATURE, TOUCH, CHILLI PEPPARS—CAPSAICIN THE MARRIAGE OF PHYSICS AND CHEMISTRY



Mechano- and Piezo receptors

Ion-channels in the cells sensitive to touch, hugs, senses, frequencies, etc. Connection of nature stimulate to nerve signals for us to adapt, learn and thrive. Proprioceptors, Pressure, Pain measurement and therapy research. Registration of non-chemical signals for cell processing.

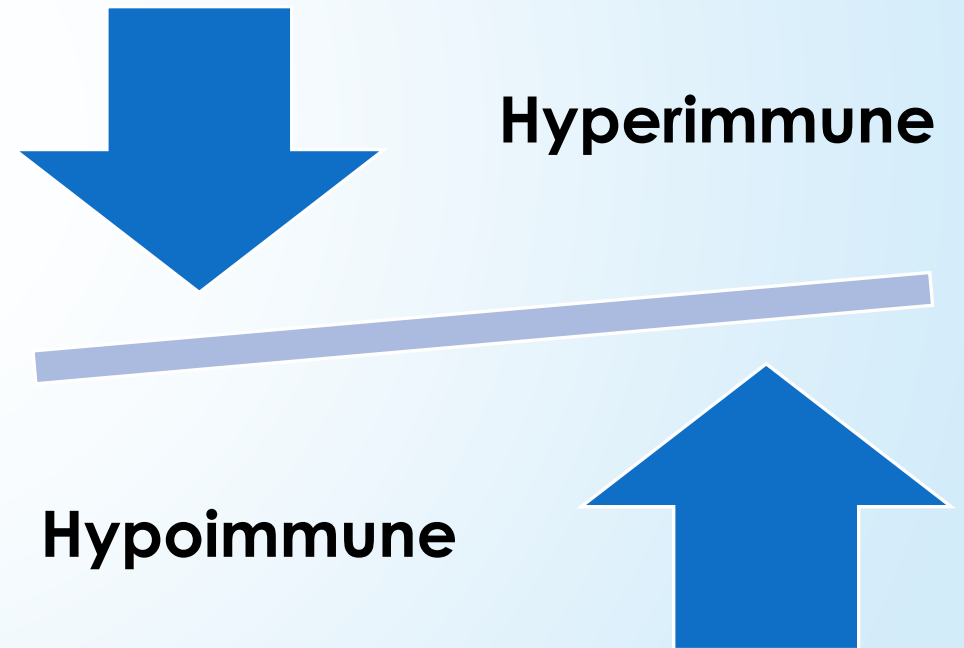




Resilience, a state of robust balance



A resilient immune system: better than immune boosting



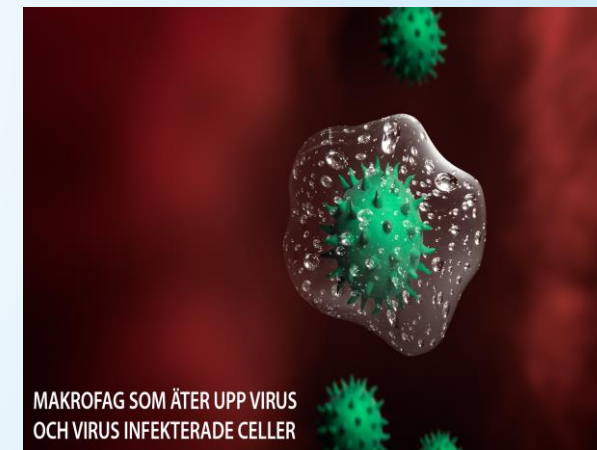
8 steps to immune protection

HOW DO YOU DEAL WITH A POTENT NOVEL CONTAGION?

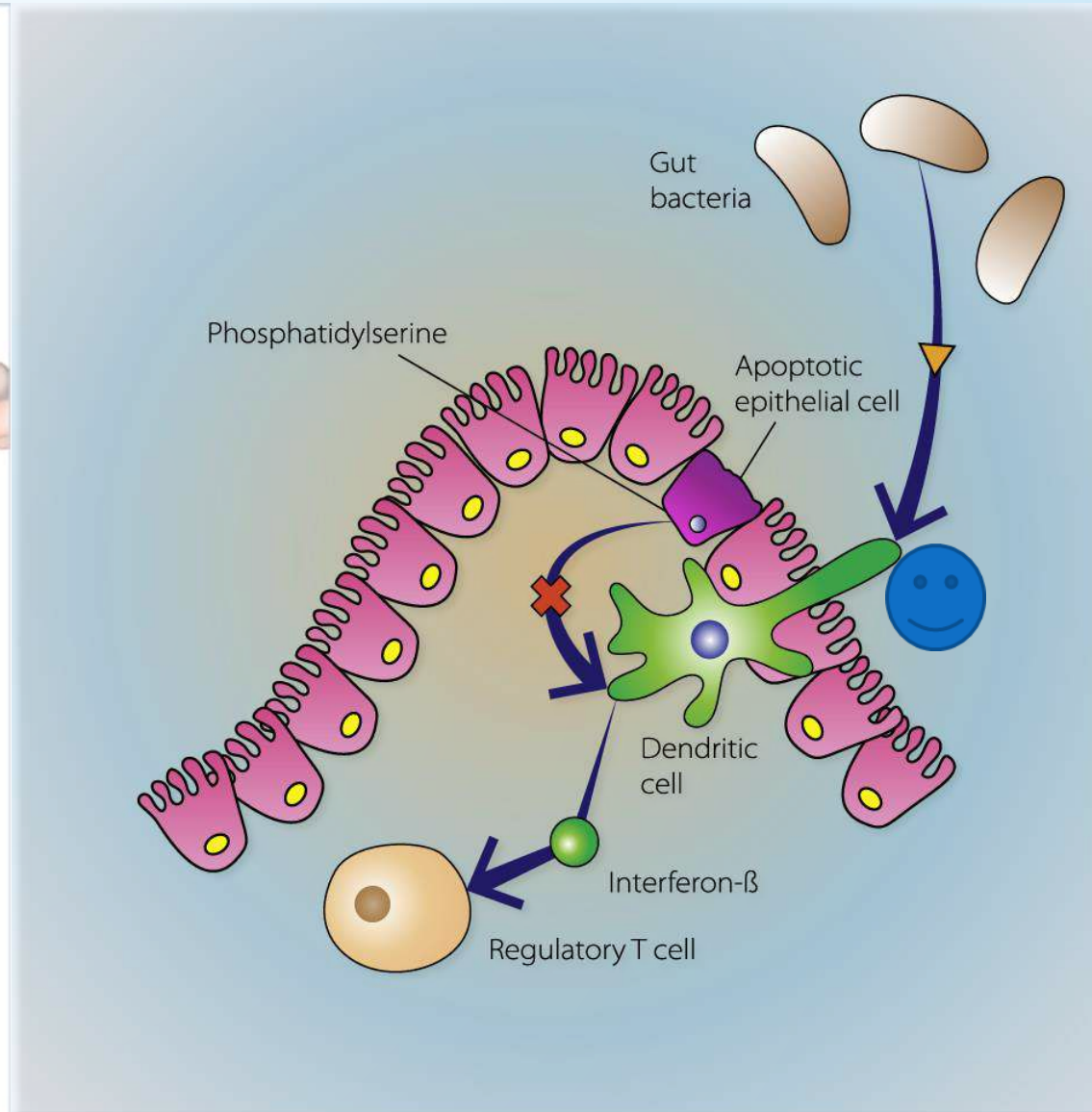
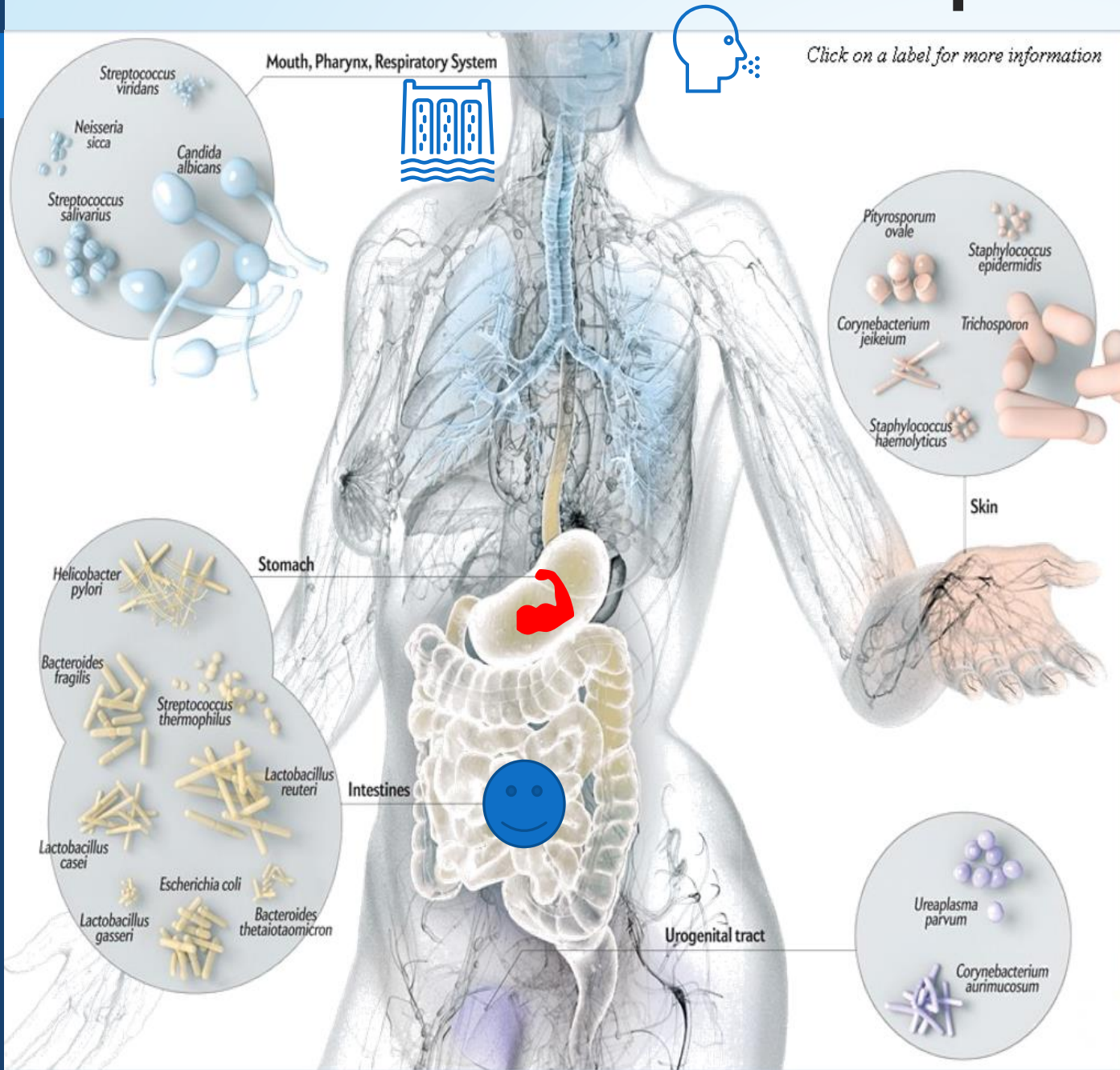
1. EXISTENCE OF NOVEL CONTAGION, EXPOSURE, TRANSMISSION (EXPOSOME).
2. PERSONAL HYGIENE: LANDING SITES: SKIN AND NASAL PASSAGES.
3. M.A.L.T. AND G.A.L.T.: ENTRY FROM MUCOUS LAYER TO CELLS LINING BLOOD VESSELS OR LEAKING THROUGH BLOOD VESSELS.
4. INNATE IMMUNITY (UNSPECIFIC IMMUNE RESPONSE).
5. ADAPTIVE IMMUNITY (SPECIFIC IMMUNE RESPONSE).
6. CELLULAR BREACH: EXTRACELLULAR/INTRACELLULAR DOCKING, PENETRATION, CELL HIJACKING, REPLICATION.
7. BREAK DOWN OF TISSUE AND FUNCTION.
8. RECOVERY AND RESET.

Your macrophages and NK cells are amazing defenders!

▶ <https://youtu.be/BIPIgGbb2IU>



Gut and immune protection



that fight infection and disease.

Bone marrow:
Produces white blood cells, or leukocytes.

Thymus:
This organ is where T-cells mature. T-cells help destroy infected or cancerous cells.

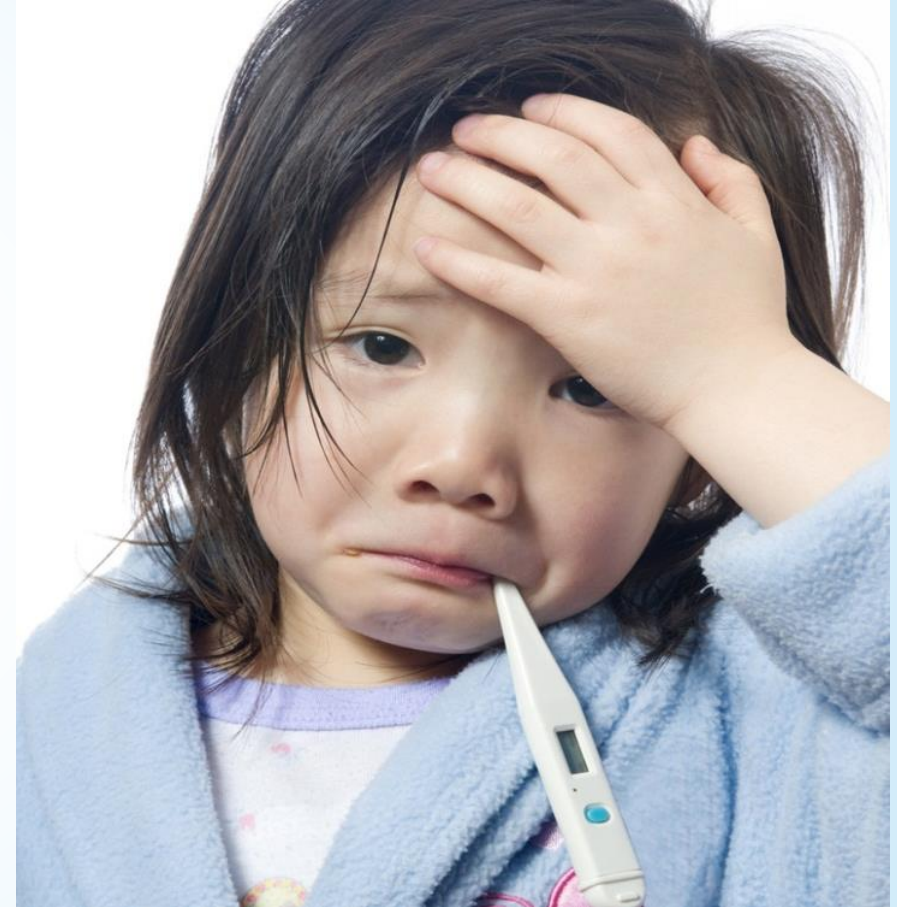
Spleen:
The largest lymphatic organ in the body contains white blood cells that fight infection or disease.

LYMPHOCYTES AND LEUKOCYTES

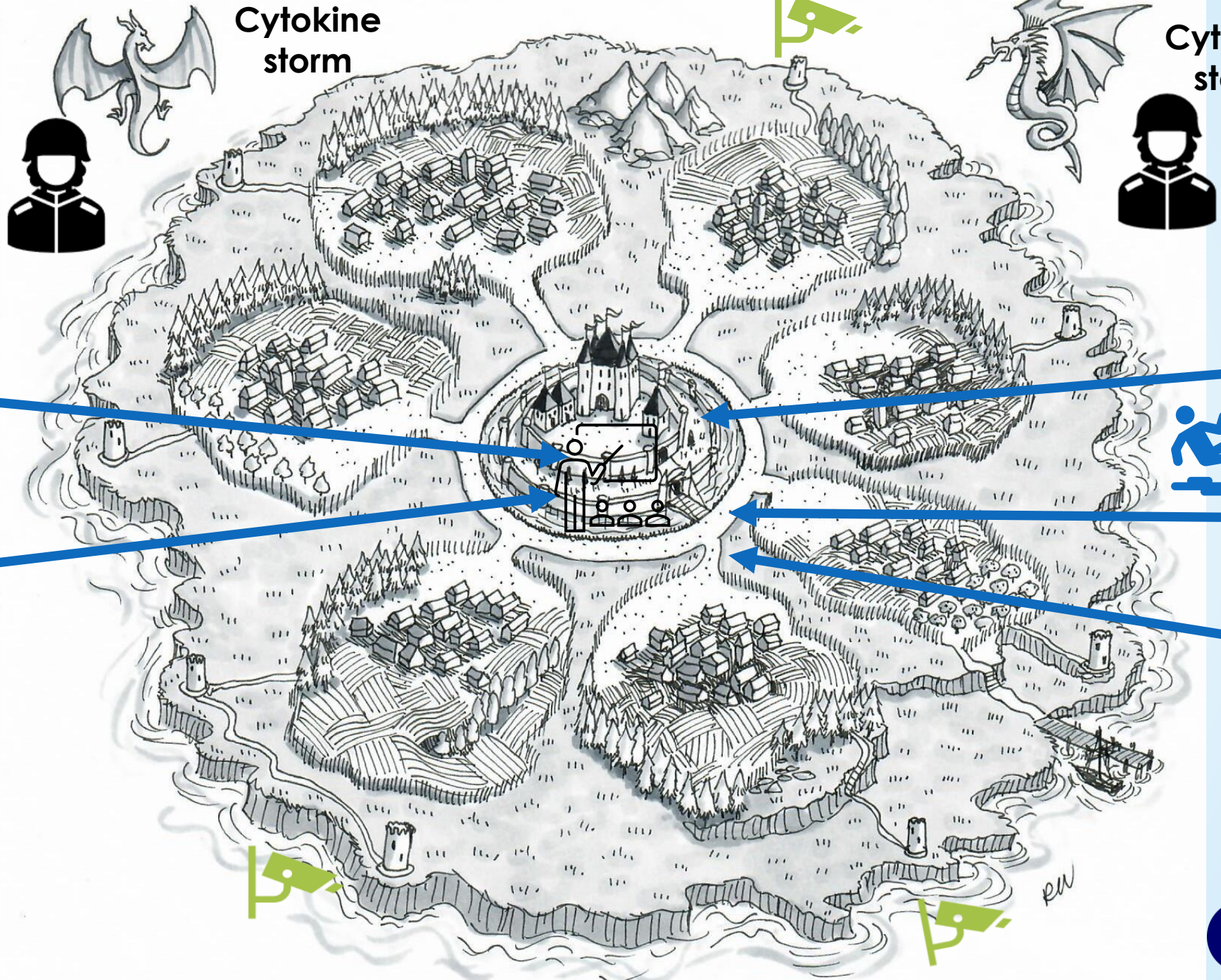
These small white blood cells play a large role in defending the body against disease.

Leukocytes are white blood cells that identify and eliminate pathogens.

The two types of lymphocytes are B-cells, which make antibodies that attack bacteria and toxins, and T-cells, which help destroy infected or cancerous cells.







Cytokine storm

Cytokine storm

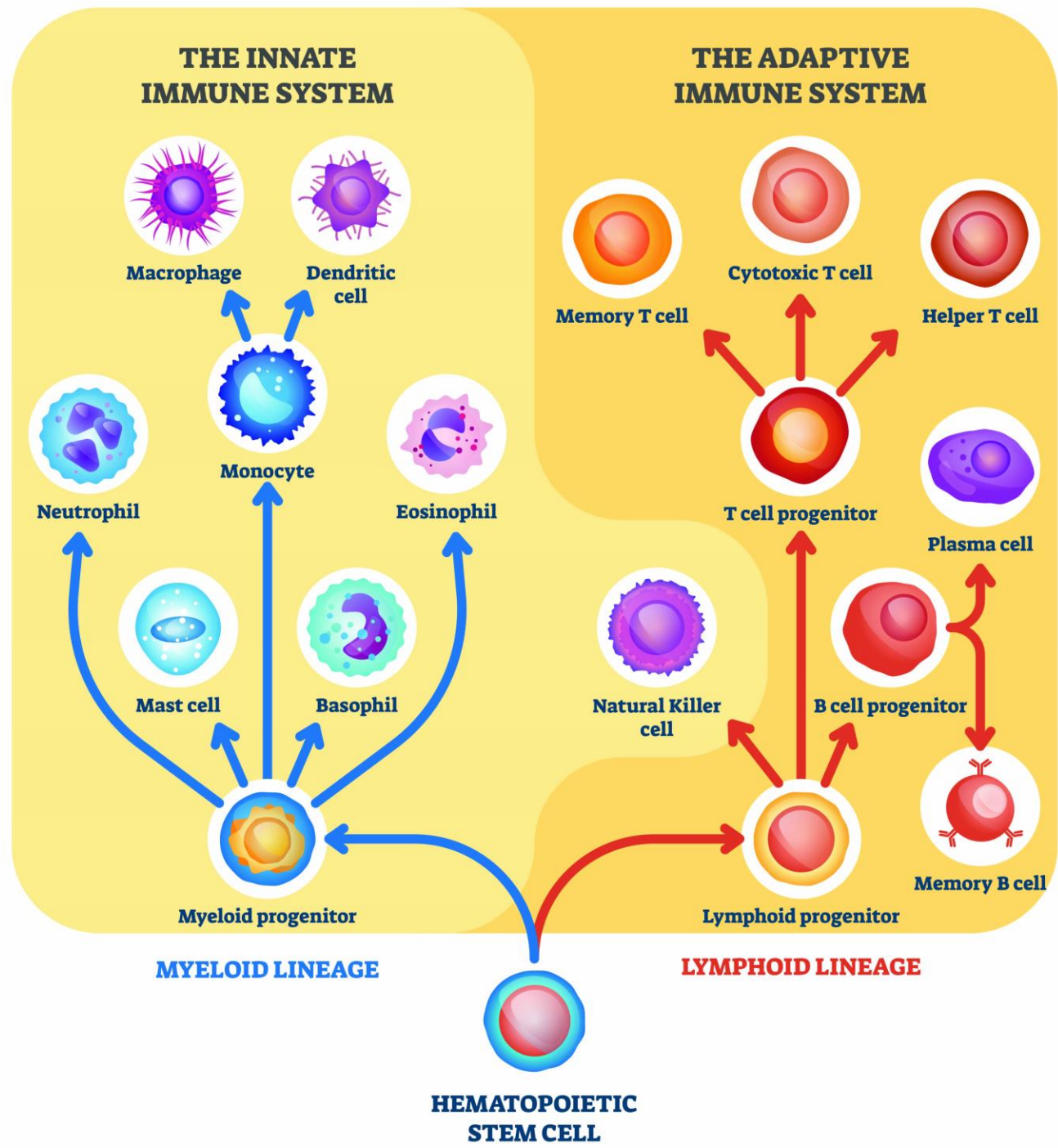
Adaptive Immunity

Thymus

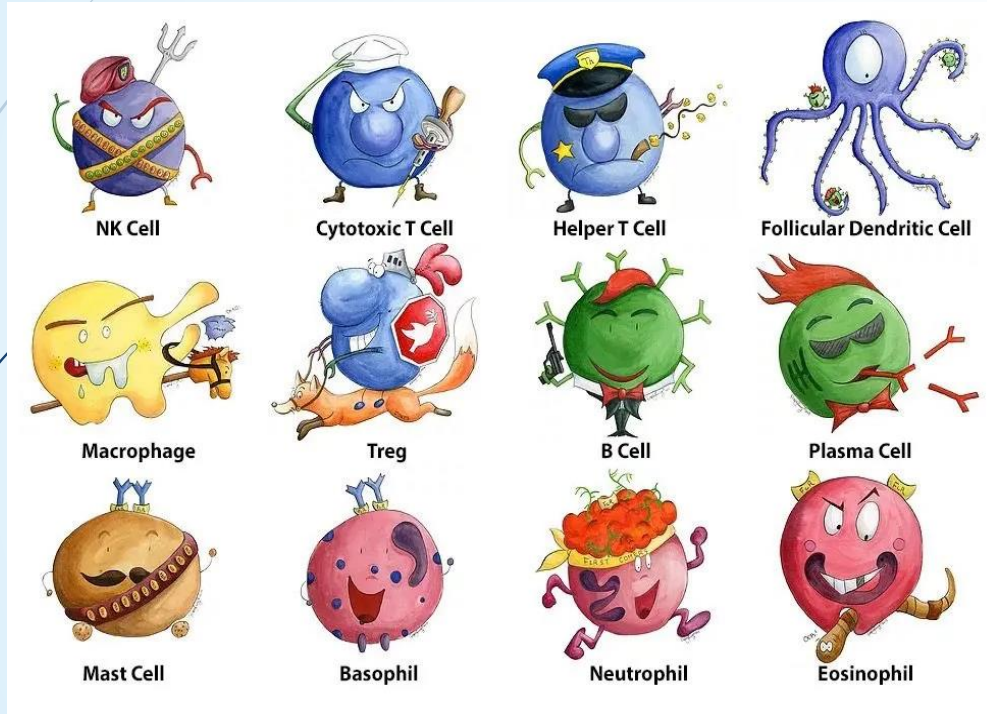
Innate Immunity

M.A.L.T., G.A.L.T.

Lymph, Blood



White blood cell types, health and amounts



Examples of abnormal WBCs

rsscience.com

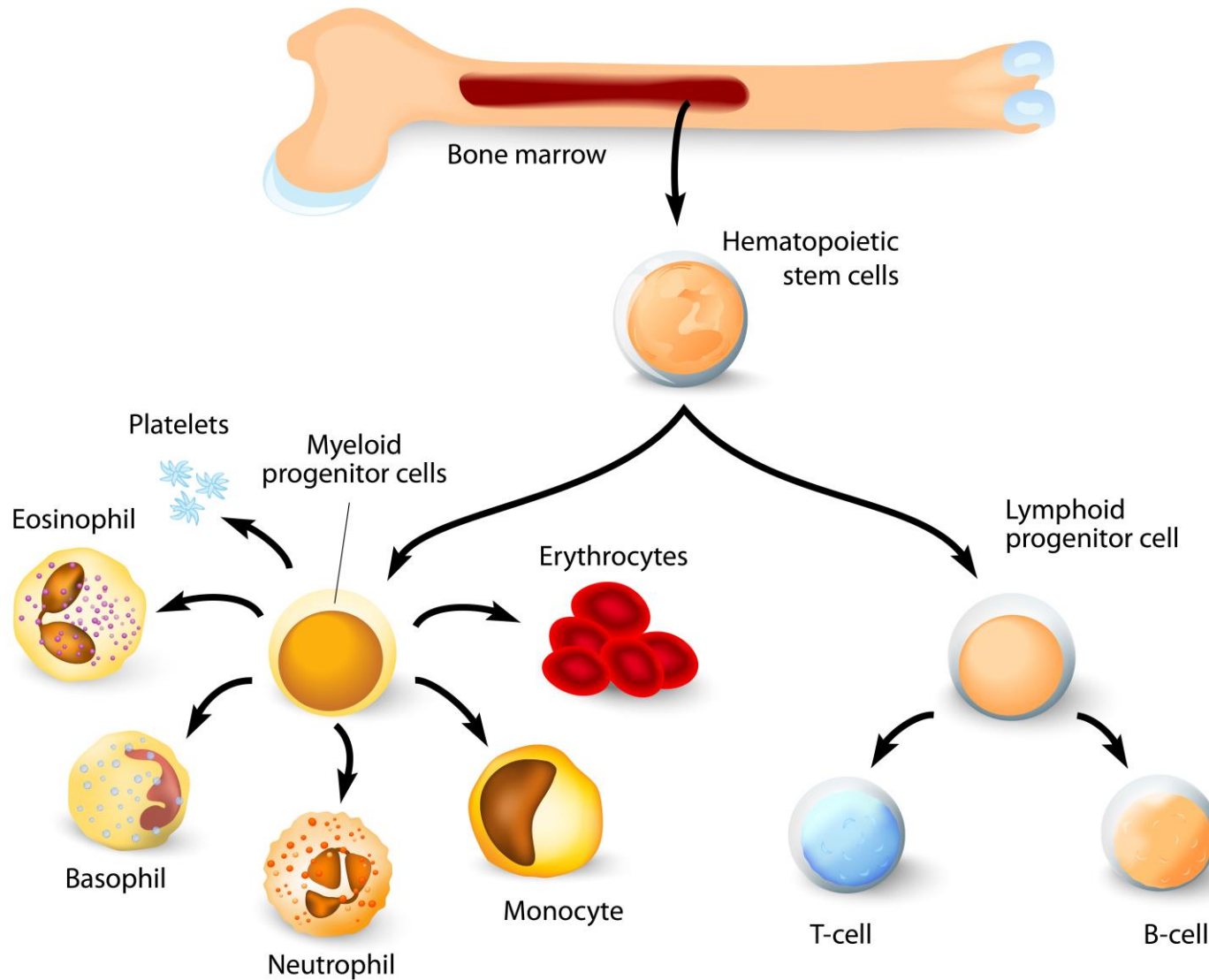
Normal numbers and ratio between RBCs and WBCs
↓
Healthy

Significantly increased WBCs look like immature lymphoid cells
↓
could be Leukemia

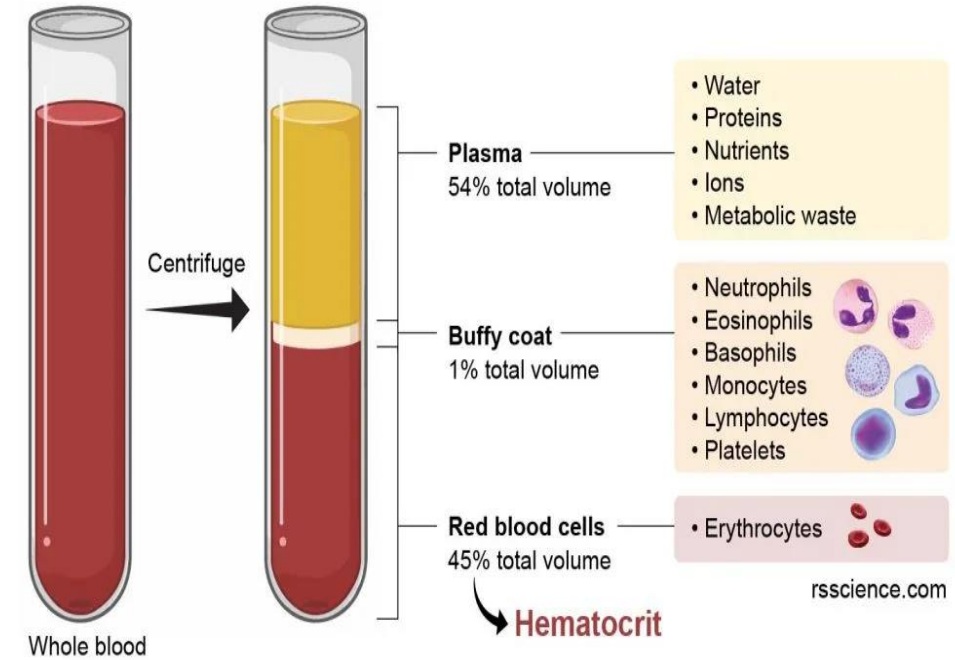
High number of neutrophils
Small particles look like bacteria
↓
could be Sepsis (Blood Infection)

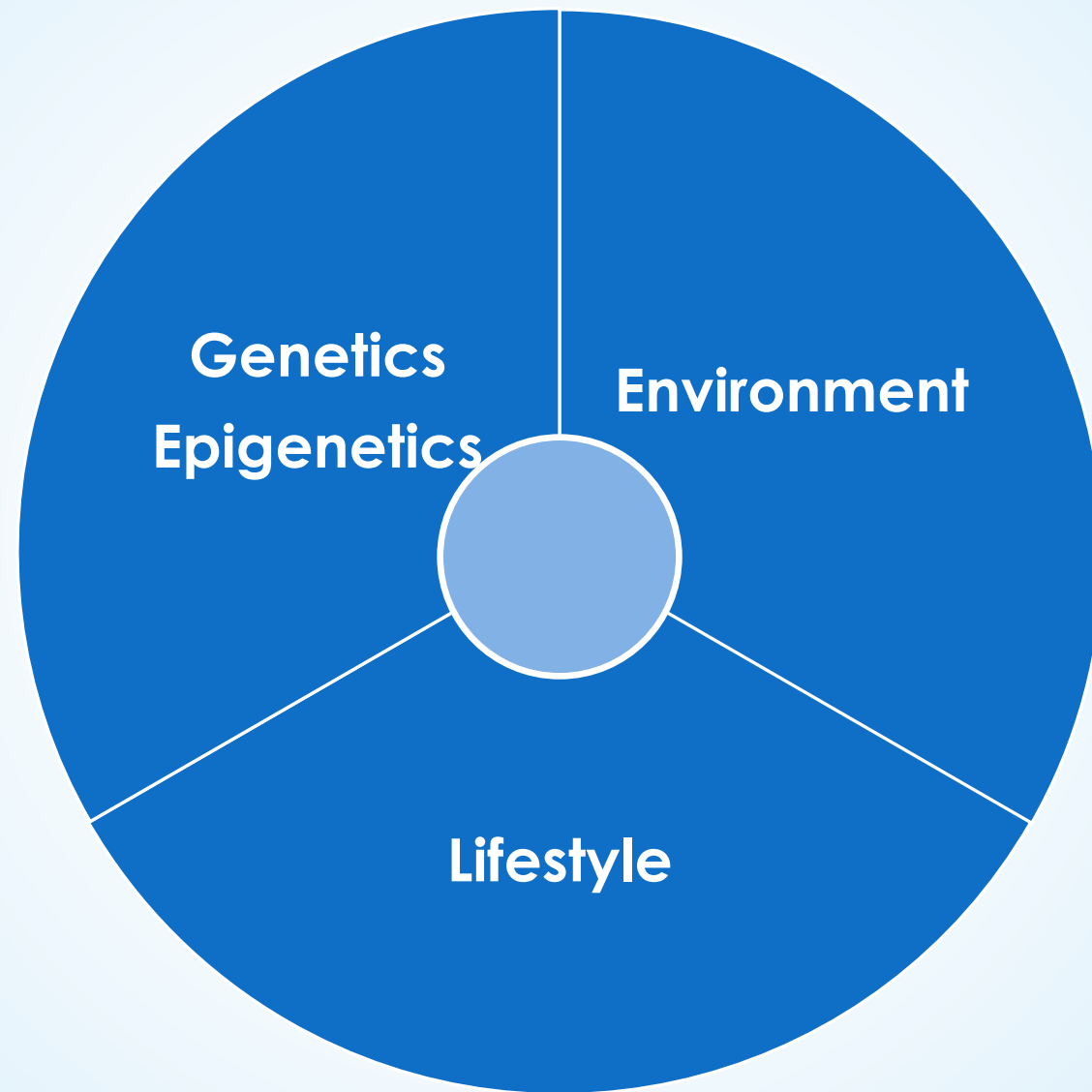
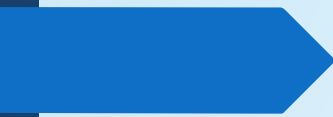
T cells can be divided into two major subtypes: CD8+ “killer” and CD4+ “helper” T cells. CD8+ “killer” T cells are cytotoxic – this means that they are able to directly kill virus-infected cells, as well as cancer cells. On the other hand, the CD4+ “helper” T cells guide the activation of B cells, which can kick-start the adaptive immune response.

Blood cell origin and components



Blood and its Components





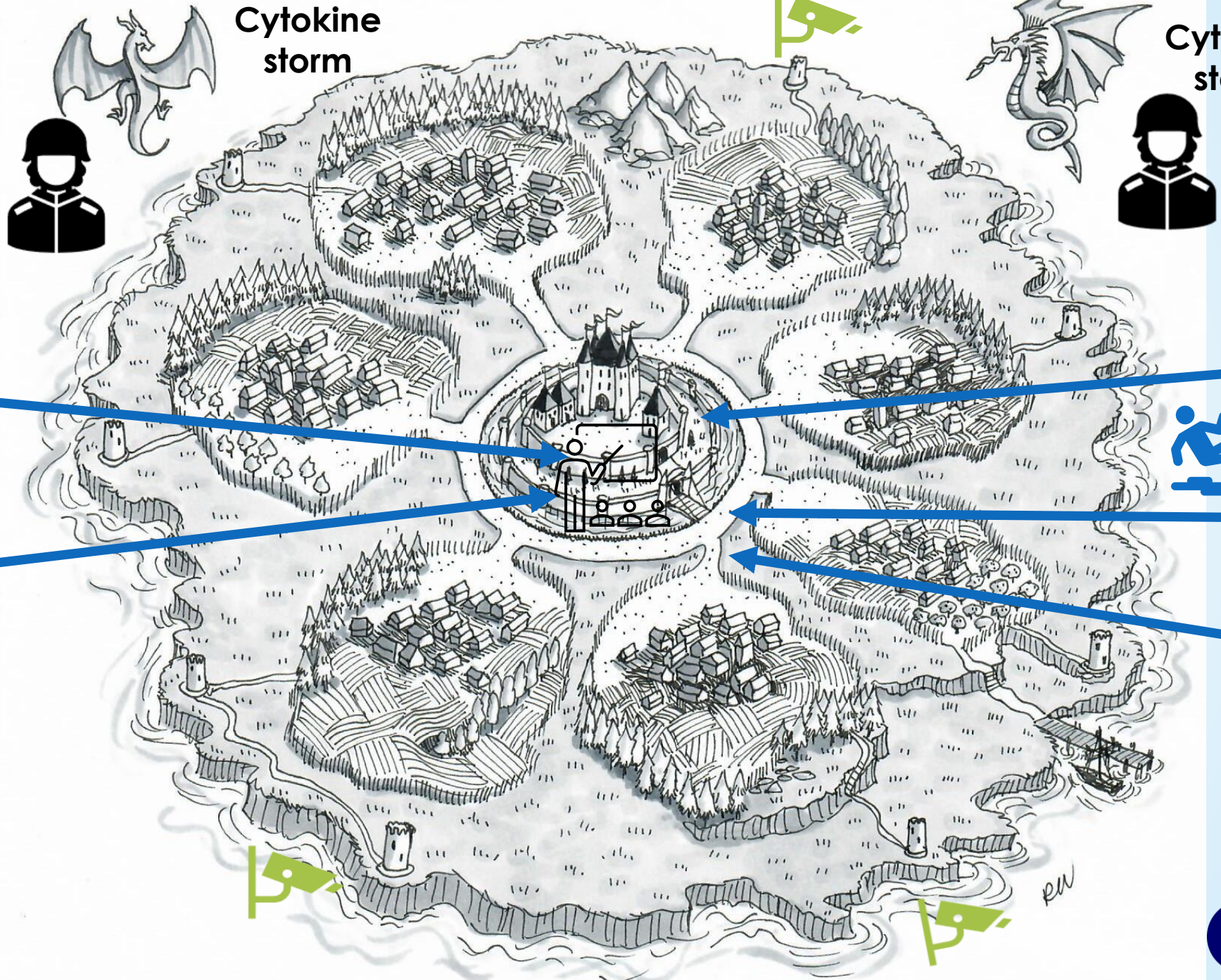
Prevention and the 3 stages of virus attack and the body's response

- ▶ Viral penetration, transport docking: Day 1–5
- ▶ Viral replication and inflammation: Day 5–10
- ▶ Hyperinflammation and cytokine storm: Day 11–30
- ▶ Recovery and reset OR
- ▶ Longterm dysfunction or damage ie, Long Covid, Chronic Fatigue Syndrome, Lymes disease, Shingles, etc
- ▶ Prevention long term
- ▶ Prevention and vigilance – short term
- ▶ Optimization with counterattack: Day 1–5
- ▶ Blitzkrieg: Day 5–15.
- ▶ Rest and recovery support: Day 4–20.

Top 6 common mistakes in immune protection with supplementation

- Poor quality supplementation
- Wrong choice of supplements
- Low dosage supplementation
- Poor uptake/absorption of key nutrients: chelated?, mycels?, nanoparticles?, liposomals?
- Insufficient combinations of synergistic supplements
- Poor timing in viral defense = lack of aggressive intervention = passive defense





Cytokine storm

Cytokine storm

Adaptive Immunity

Innate Immunity

Thymus

M.A.L.T., G.A.L.T.

Lymph, Blood

Examples of supplements for better immune protection

- ▶ **Look-outs:** Brain foods and supplements: Berries, Walnuts, Sardines, DHA, B12
- ▶ **Villages:** Basic clean balanced nutrition, potent multivitamin
- ▶ **Blood and lymph circulation:** Cayenne, Ginger, Garlic, Vitamin E, Iodine, Cleavers, Echinacea, Red Clover, Burdock Root, Pau Dárco
- ▶ **M.A.L.T.:** Onions, Garlic, Licorice, Retinol, Carotenoids, Iodine, Oregano, Thyme
- ▶ **G.A.L.T.:** Kiwi, Apples, Berries, Kimchi, Glutamine, C vitamin, Zinc, Colostrum
- ▶ **Innate Immunity:** Onions, Lemons, Garlic, Vitamin A, Vitamin C, Vitamin D, Zinc, Echinacea, Elderberry, Chaga, Pau Dárco, Andrographis
- ▶ **Adaptive Immunity:** Resihi, Shiitaki, Schizandra, Resveratrol, Astragalus, Colostrum, Probiotics, Beta-glucans
- ▶ **Thymus enhancing:** Vitamin C, Astragalus, Reishi
- ▶ **Quenching cytokine storm, anti-inflammatory:** Vitamin C, Vitamin D, Quercetin, Licorice Root, Curcumin, High Dose Fish Oils

The look-outs: the conscious and subconscious mind, collective unconsciousness, epigenetics



Spirit and Soul food

- ▶ Forgiveness
- ▶ Thankfulness
- ▶ Focus
- ▶ Perspective
- ▶ Love for self and others
- ▶ Mission
- ▶ Vision
- ▶ Ikigae
- ▶ Immune empowerment

Brain food to avoid stinking thinking

- ▶ DHA and omega 3 s
- ▶ Walnuts
- ▶ Avocado
- ▶ Coconut oil, coconut milk, MCTs
- ▶ Green tea
- ▶ Bacopa
- ▶ Ashwagandha
- ▶ Ginkgo
- ▶ Arctic root
- ▶ Choline
- ▶ B12

Peter Wilhelmsson • Hayde Bolouri



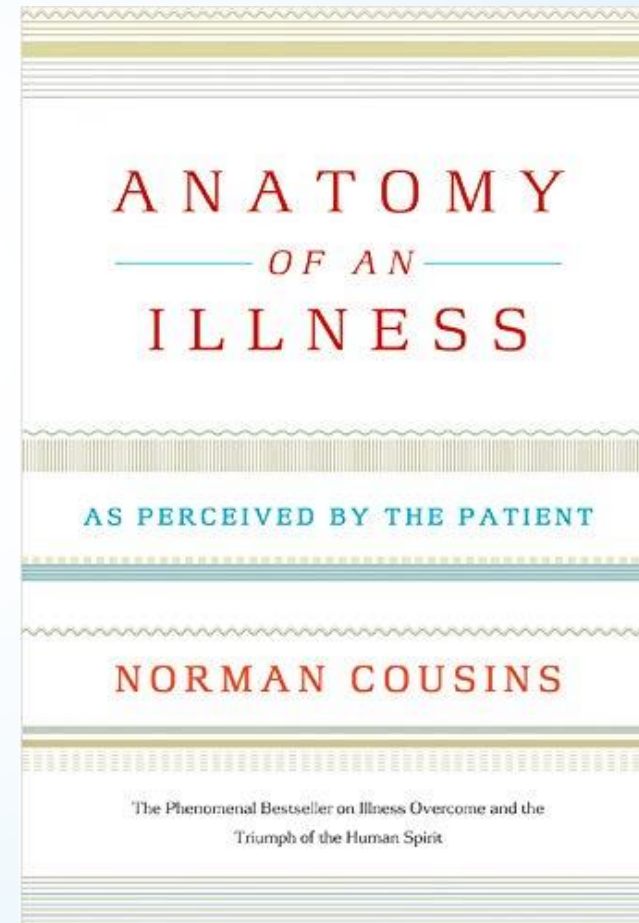
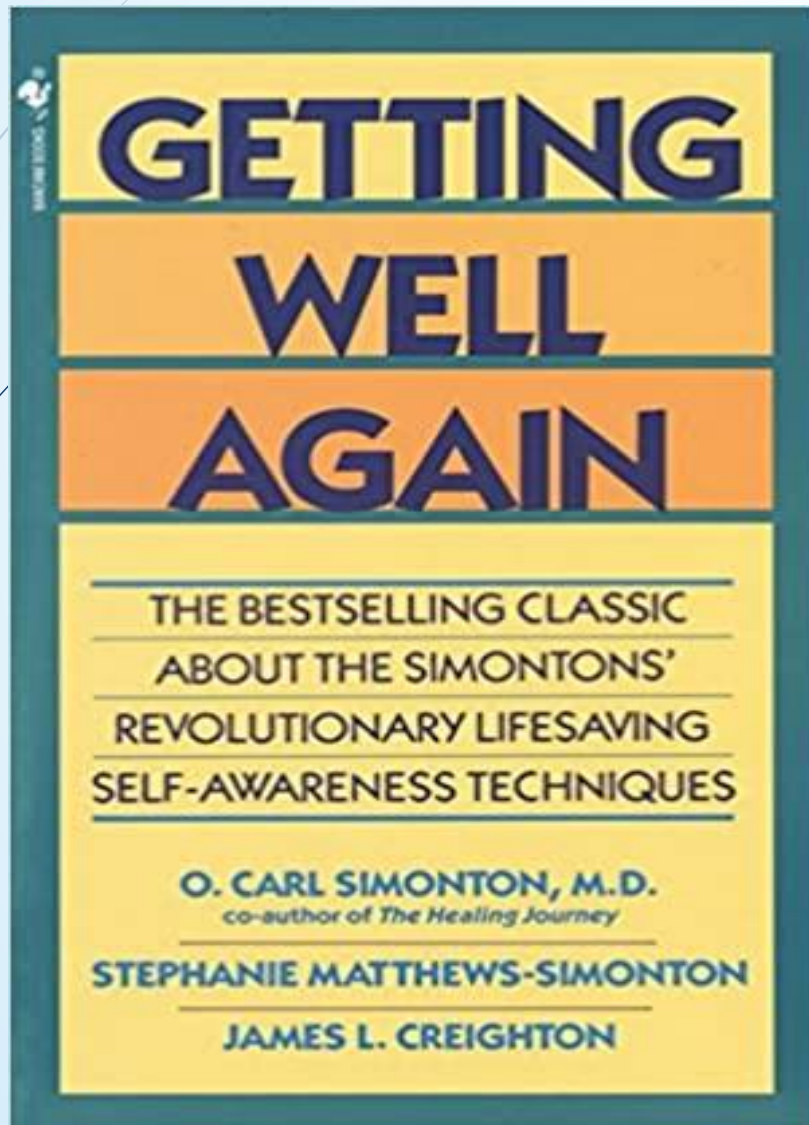
Save Your Brain **Now**

A Functional Medicine Perspective

Save Your Brain Now

- ▶ Buy on [Amazon.com/USA](https://www.amazon.com/USA)
- ▶ Buy the Swedish book: ***Rädda Din Hjärna Nu*** on the Swedish site: powhealthplus.com

Our thoughts, emotions, ACEs (Adverse Child Events), traumas and fears affect our immune system



You can change something by the way you see it?




The villages: food, fuel, water, resources, mitochondria

Basic nutrition

- Clean water
- Clean nutrient-dense foods

Nutrients

- Multivitamin
- Protein powders
- MCT powders
- Bone broth
- Colostrum
- Superfoods
- Prebiotics
- Teas



The circulatory systems: blood, lymph, extracellular matrix, meridians, chakras

Practices

- Exercise, movement, yoga
- Massage, lymph massage
- Chiropractic
- Acupuncture
- Cranio-sacral
- Frequency medicine
- Body-Work
- Sauna
- Dry brushing
- Hot-Cold
- Grounding

Herbs

- Cayenne
- Ginger
- Cleavers
- Ginkgo
- Garlic
- Rosemary
- Peppermint

The M.A.L.T. and G.A.L.T. barrier

Foods, Supplements and practices

- ▶ Fibers
- ▶ Binders such as active charcoal, chlorella, zeolite, clay, citrus pectin, psyllium
- ▶ Prebiotics
- ▶ Apple stew
- ▶ Kiwi
- ▶ Flax seed
- ▶ Netty pot, Nebulizers – nose shower, saline less effective than herbs, iodine, propolis, 3% hydrogen peroxide, Nano and colloidal silver
- ▶ Oil pulling with coconut oil + essential oils
- ▶ Antiseptic mouth wash – oregano, iodine, witch hazel, berberis, bitters, colloidal silver,
- ▶ Aroma therapy – eucalyptus, lavender, pine, eugenol, frankincense
- ▶ Ventilation, air cleaners
- ▶ Humidifiers
- ▶ Periodic fasting, Intermittent fasting

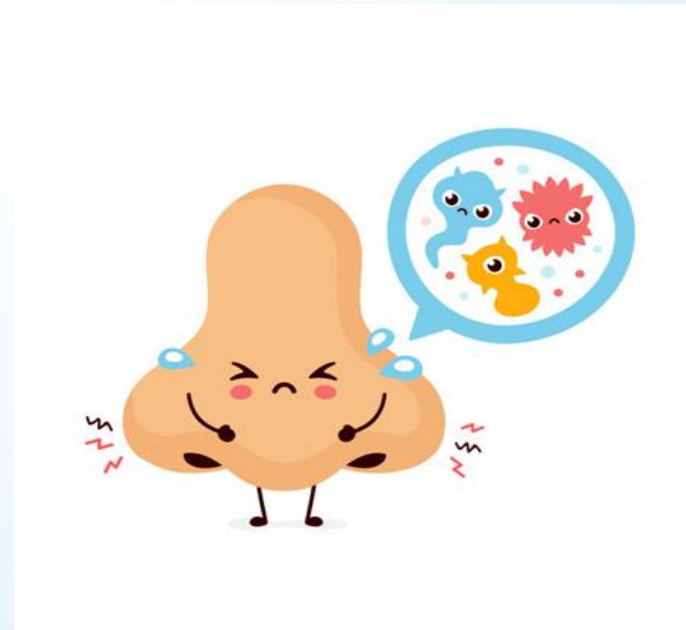
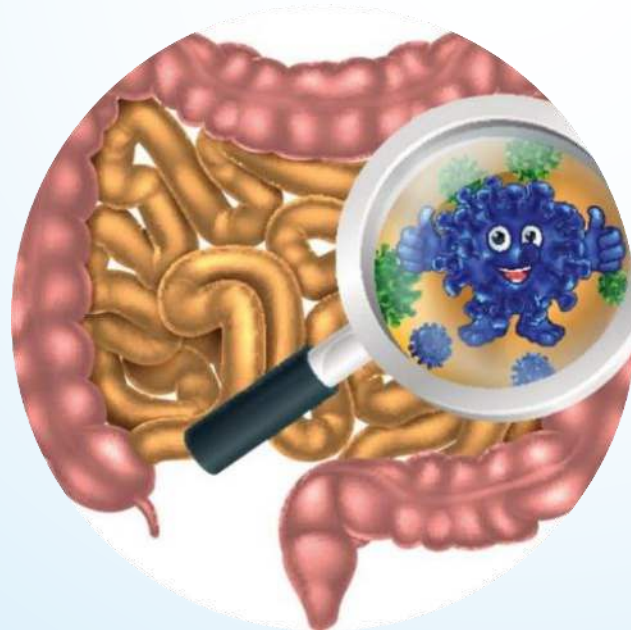
The M.A.L.T. and G.A.L.T. barrier

Healing or restorative Nutrients and herbs

- A vitamin
- Glutamine
- Arginine
- Bone Broth
- Colostrum
- Collagen
- B vitamins
- C vitamin
- Licorice root
- Aloe Vera
- Iodine
- Bitters, artemesia
- HCl
- Probiotics, S boulardii

“The mucosa is directly exposed to the external environment and taxed with antigenic loads consisting of commensal bacteria, dietary antigens, and viruses at far greater quantities on a daily basis than the systemic immune system sees in a lifetime”.

Mayer L. Mucosal immunity. Pediatrics. 2003 Jun;111(6 Pt 3):1595-600.

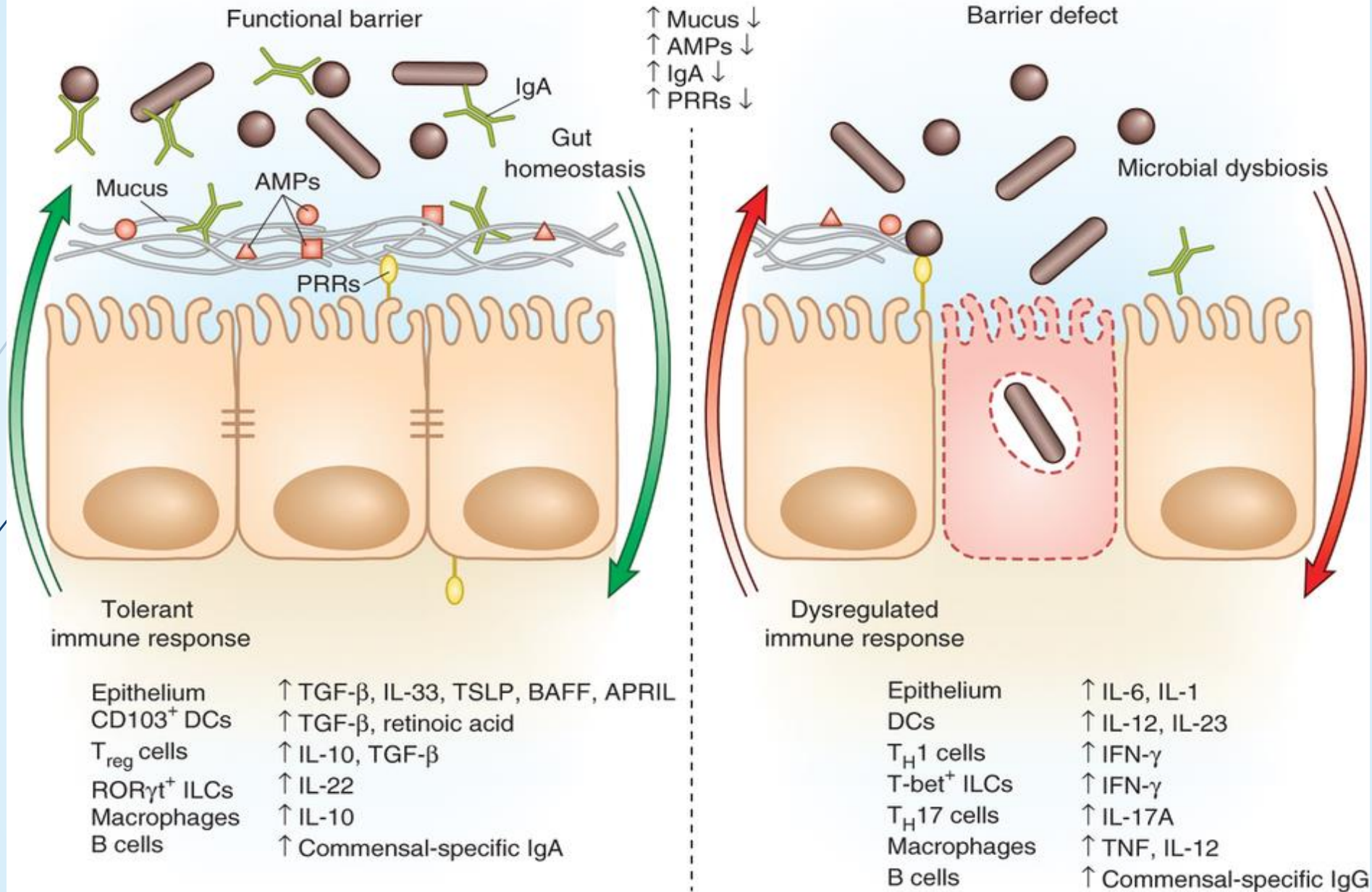


Nasal microbiota could point to who develops COVID-19 symptoms

”The microbiota in the nose and upper throat likely contains biomarkers for assessing how sick an individual infected with SARS-CoV-2, the virus that causes the novel coronavirus (COVID-19), may get and for developing new treatment strategies to improve their outcome, according to [new research published](#) in the journal *Diagnostics*. This nasopharyngeal microbiota is generally considered a frontline protection against viruses, bacteria and other pathogens that enter these natural passageways, the researchers said.”



Michael Holahan/Augusta
University



The Innate system including fever, interferon, macrophages, NK cells

Foods and practices

- ▶ Intermittent fasting, periodic fasting
- ▶ Detox
- ▶ Hot --- Cold therapy
- ▶ Hyperthermia

Fever Support

- ▶ Hot and cold showers or baths
- ▶ Saunas
- ▶ Vitamin C and D
- ▶ Diaphoretic herbs: Yarrow, Chamomile, Meadowsweet, Elderberry, Hyssop, Raspberry, Burdock Root

The Innate system including fever, interferon, macrophages, NK cells

Nutrients and herbs

- Diaphoretic teas: yarrow, camomille, raspberry leaf
- C Vitamin
- D Vitamin
- Zinc
- A Vitamin
- Propolis
- Monolaurin
- Andrographis
- Schizandra
- Astragalus
- Echinacea
- Elderberry
- Mushrooms
- Teas: Cistus, Pau D'árco, Chaga, Pine Needles, Olive Leaf, Dandelion
- Oils: Oregano, Thyme, Cloves

The adaptive system: B cells and T cells, CD 8 (killer Ts):CD 4 (helper Ts) ratio, Th1:Th2 ratio, Tregs:T17 ratio

Nutrition and practices

- ▶ Anti-inflammatory plant-based diet including plenty of greens, citrus, berries, onions, garlic, tumeric, rosemary, oregano, basil, cayenne, kimchi.

Nutrients and herbs

- ▶ D Vitamin
- ▶ Quercetin
- ▶ Resveratrol
- ▶ Beta Glucans
- ▶ Colostrum
- ▶ Astragalus
- ▶ Reishi/Ganoderma
- ▶ Shiitaki
- ▶ Curcumin

Adaptive immunity: The inner court, military training (thymus), elit soldiers (SWAT team)

- ▶ Meditation, prayer, affirmations, visualization for thymus and immune cells
- ▶ Fasting, Intermittent or Periodic fasting
- ▶ Astragalus
- ▶ Andrographis
- ▶ Garlic
- ▶ Echinacea
- ▶ Elderberry
- ▶ Reishi/Ganoderma
- ▶ Maitake
- ▶ A Vitamin
- ▶ D Vitamin
- ▶ Zinc
- ▶ Lamodium (LDM)

Stopping viral replication: The White Walkers

Nutrients

- ▶ Vitamin D
- ▶ Zinc
- ▶ Selenium
- ▶ N.A.C.
- ▶ Quercetin
- ▶ Glutathione
- ▶ IV. And Nebulized nutraceuticals

Herbs

- ▶ Andrographis
- ▶ Echinacea
- ▶ Elderberry
- ▶ Bitter Herbs: Mugwort, Wormwood, Kvassia, Dandelion, White Pine Needles

The last resort – the dragons! Cytokine Storm – Hyperimmunity and Sepsis!!

Quench with:

- ▶ Visualization
- ▶ Meditation, prayer
- ▶ Sleep
- ▶ Red light and microcurrent and PEMF therapies
- ▶ IV C, nebulized: ozone, hydrogen peroxide, iodine or propolis

Quench with:

- ▶ Licorice Root
- ▶ Fish Oils, Omega 3s
- ▶ Quercetin
- ▶ Curcumin
- ▶ A Vitamin
- ▶ C Vitamin – high doses or IV,

Most often, medical care is needed if not addressed early!!

Some main modulators – well trained all purpose soldiers (swiss army knife) balancing and restoring self-regulation

Practices

- ▶ Sleep
- ▶ Stress management, joy, thankfulness
- ▶ Regular exercise, movement
- ▶ Healthy plant-based: keto, paleo, vegetarian, mediterranean or vegan.
- ▶ Extra immune superfoods: berries, green tea, lemons, onions, garlic, kimchi, bone broth

Nutrients

- ▶ Colostrum or probiotics
- ▶ Vitamin D 4,000 –10,000 IE (to achieve and maintain: 60-100 ng/ml)
- ▶ Multivitamin (high potency)
- ▶ Green Tea, Pau Darco, Cistus or Chaga Tea
- ▶ Rotate mushrooms and/or immune adaptogenic herbs or adaptogenic bee products:

Reishi/Ganoderma, Shiitaki, Chaga, Maitaki, Coriolus, Astragalus, Ginseng, Andrographis, Garlic, Arctic Root, Curcumin, Chlorella Royal Jelly, Propolis, Bee Pollen

Lung tissue, bronchial support

Foods and practices

- ▶ Milk free, gluten free antiinflammatory plant based diet
- ▶ Onions, Garlic
- ▶ Breathing techniques
- ▶ Exercise, movement
- ▶ Aroma therapy: Thyme, Eucalyptus, Sage
- ▶ Acupuncture, acupressure
- ▶ Periodic fasting, intermittent fasting

Herbs and supplements

- ▶ Vitamin A
- ▶ Vitamin C
- ▶ Vitamin D
- ▶ N-acetyl-cystein (N.A.C.)
- ▶ Licorice Root
- ▶ Mullein
- ▶ Elecampane
- ▶ Thyme
- ▶ Fenugreek
- ▶ Eucalyptus

Recovery, restore, regroup

Practices

- ▶ Fasting
- ▶ Detox
- ▶ Nature, fasting from digital device
- ▶ Grounding
- ▶ Intermittent fasting
- ▶ Sleep, rest
- ▶ Holidays

Nourishing Nutrients

- ▶ Ginseng
- ▶ Spirulina
- ▶ Chlorella
- ▶ Bone Broth
- ▶ Collagen
- ▶ Mushrooms
- ▶ B Complex, especially B1, B3, B5
- ▶ C Vitamin
- ▶ Magnesium

Immune Resilience 2, Solutions for building Immune Resilience follow up



- **Understand more:** Sign up for my Immune Resilience course: www.powhealthplus.com English course (October 29 - November 30) or Swedish course: November 1-31) and get these slides as PDF as bonus in addition to 64 pages of Immune Resilience PDFs

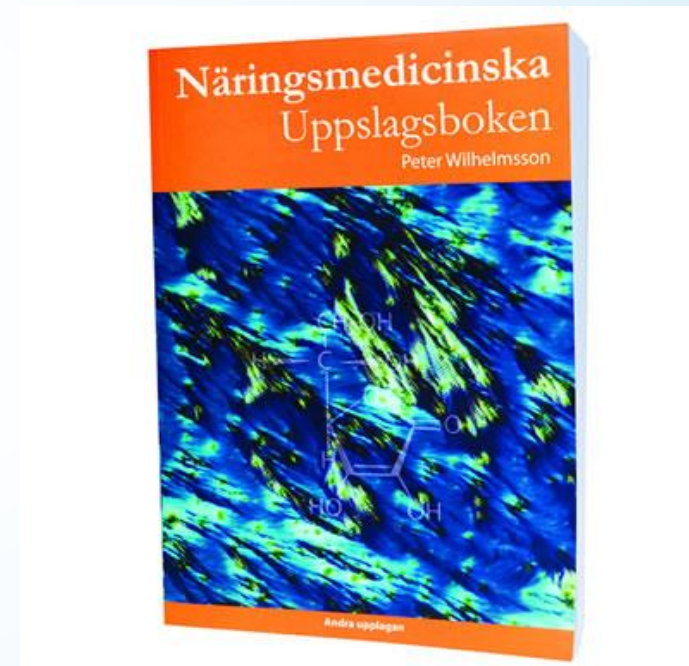
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