



**DR. TAZ <sup>MD</sup>**  
INTEGRATIVE MEDICINE

SUPPORTING YOUR

# IMMUNE SYSTEM

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DIGITAL GUIDE

*Yes you can*

## Support Your Immune System

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# H O W   Y O U R   I M M U N E S Y S T E M   W O R K S

- We have **innate immunity** - what we are born with...
- **Adaptive immunity** - what we develop- this is our opportunity

## K E Y   P L A Y E R S

- Your Gut is the largest immune organ
- The Gut - Immune System is the most important element of maintaining immunology

## A D D I T I O N A L   P L A Y E R S

- |                     |                      |
|---------------------|----------------------|
| ◦ White blood cells | ◦ Complement factors |
| ◦ T cells           | ◦ Lymphatics         |
| ◦ B cells           | ◦ Spleen             |
| ◦ NK cells          | ◦ Bone Marrow        |
| ◦ Neutrophils       | ◦ Thymus             |
| ◦ Monocytes         | ◦ Adenoids           |
| ◦ Macrophages       | ◦ Skin Liver         |
| ◦ Antibodies        |                      |

# IMMUNE SYSTEM DIAGRAM

## LYMPHATIC SYSTEM-

CONSISTS OF BONE MARROW, SPLEEN, THYMUS, AND LYMPH NODES

## LYMPH NODES

PRODUCE AND STORE CELLS THAT FIGHT INFECTION & DISEASE

## BONE MARROW

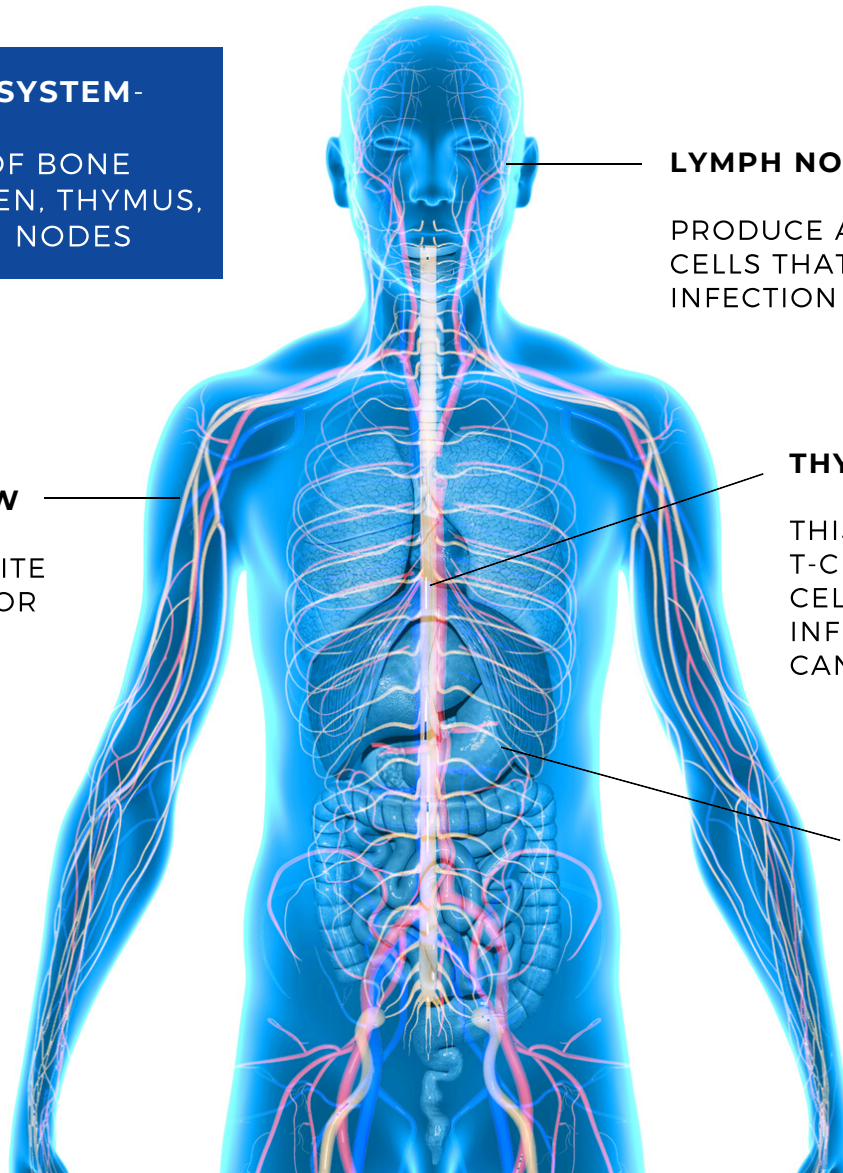
PRODUCES WHITE BLOOD CELLS, OR LEUKOCYTES

## 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

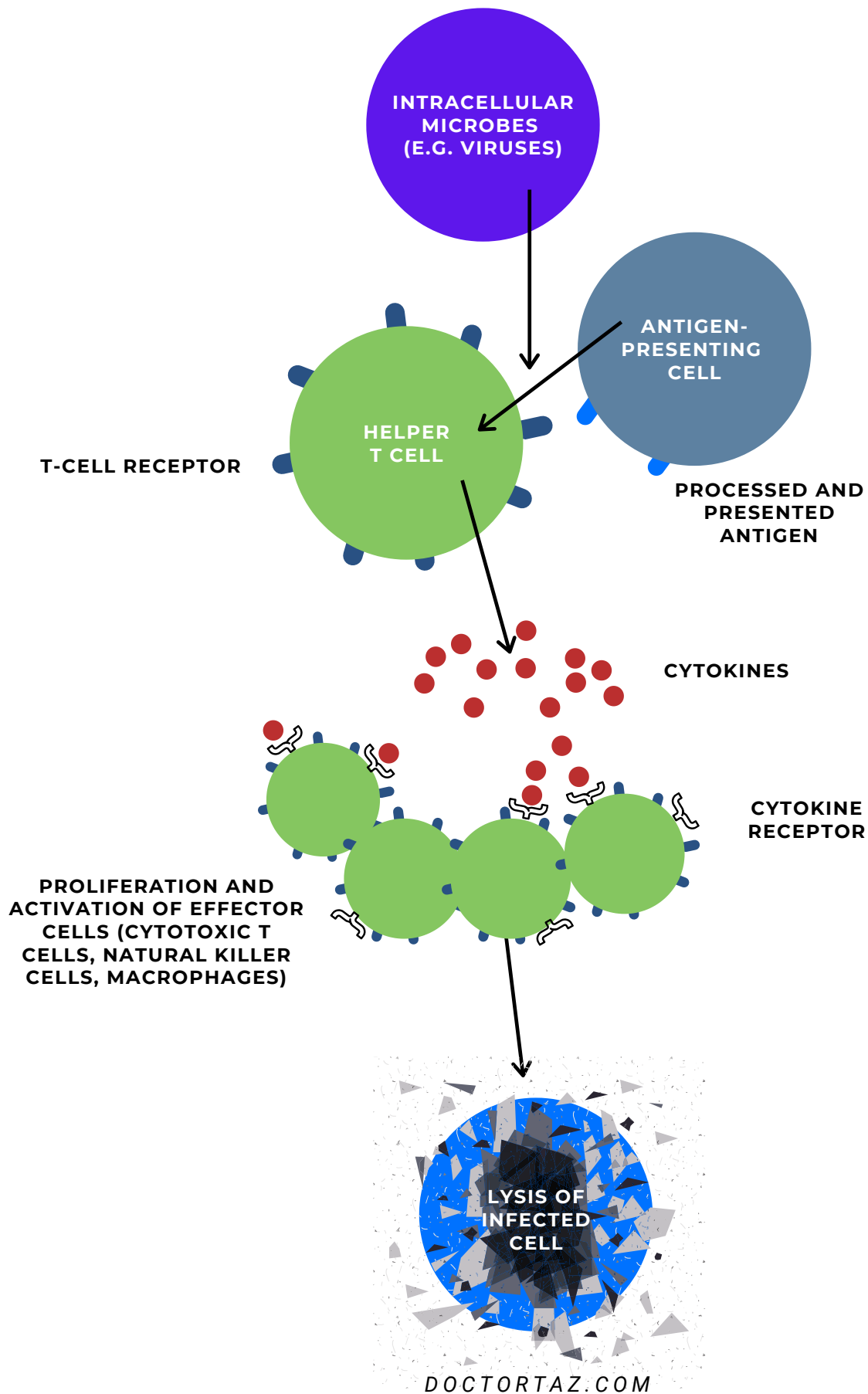


## LYMPHOCYTES AND LEUKOCYTES

THESE SMALL WHITE BLOOD CELLS PLAY A LARGE ROLE IN DEFENDING THE BODY AGAINST DISEASE. 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.

LEUKOCYTES ARE WHITE BLOOD CELLS THAT IDENTIFY AND ELIMINATE PATHOGENS.

# CELLULAR IMMUNITY



# A D A P T I V E   I M M U N I T Y

## **T CELL MEDIATED RESPONSE-**

T CELLS LIVE IN THE BONE MARROW AND COME FROM THE THYMUS \*\*\*THEY AMOUNT INITIAL VIRAL RESPONSE OR ATTACK\*\*

## **B CELL MEDIATED RESPONSE**

HUMORAL IMMUNITY SECRETE ANTIBODIES TO FIGHT OFF INFECTION \*\*\*THIS IS HOW VACCINES WORK\*\*

WE NEED TO FOCUS ON T CELLS SINCE COVID 19 OR FUTURE BUGS ARE ONES WE DONT RECOGNIZE AND NEED THIS ARM OF OUR IMMUNE SYSTEM TO WORK

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## 3   P H A S E S   O F I M M U N E   R E S P O N S E

### **Recognition**

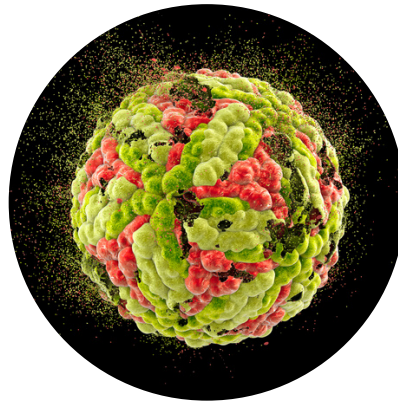
Recognize it's foreign- immune response starts

### **Attack**

Activate macrophages, NK cells first, then release of cytokines

### **Memory**

We did this before- lets do it again!



# THE CYTOKINES TO KNOW

*CYTOKINES ARE A LARGE GROUP OF PROTEINS,  
PEPTIDES OR GLYCOPROTEINS THAT ARE SECRETED  
BY SPECIFIC CELLS OF IMMUNE SYSTEM.*

## INFLAMMATORY CYTOKINES

**TNF ALPHA**  
**IL6**  
**GCSF**  
**GMCSF**  
**IL1**

## PROTECTIVE CYTOKINES

**IL2**  
**IL12**  
**IL17**  
**IL23**  
**IL10**

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## THE ULTIMATE GOAL

**Improve T cell mediated immunity,  
increase protective cytokines, and  
stop the cytokine storm**



# YOUR CHEAT SHEET



## GUT HEALTH

- Intake of probiotics
- Improve IL2, IL10



## FOOD

- Plant based foods- 6-8 servings per day
- High flavonoids foods: green tea, chocolate
- High Vitamin C foods
- High antioxidant foods
- High Vitamin A foods (retinoids)



## MICRONUTRIENT SUPPLEMENTATION

- Vitamin D
- Vitamin C
- Zinc



## HERBAL SUPPLEMENTS

- Astragalus - **The Defender** is a potent source of Astragalus and other immune-boosting ingredients
- Andrographis paniculata
- Pelagonium sidoides
- Allium sativum
- Panax ginseng

# 10 STEPS TO A SUPERCHARGED IMMUNE SYSTEM

## 1. Balance gut health

the largest immune organ of the body

- Take **Belly Fix** for daily gut support
- Add in probiotics- 50-100 billion cfu daily
- Add healthy fats
- Add gut builders- bone broth, non dairy kefir, kombucha

## 2. Eat an Immune Support Diet

- Anti inflammatory diet
- Increase plant based foods- leafy greens, carrots, sweet potato
- Add 1 green smoothie per day
- Drink 2-3 cups of green tea per day
- Garlic

## 3. Add in Immune Support Vitamins

- Vitamin D 2000 IU per day
- Vitamin C 2 grams per day
- Zinc 15 mg
- Additional- B Vitamins, Vitamin A 5000 IU per day

## 4. Add in Immune Supporting Herbs

- Astragalus - 1 gram daily
- Allium Satvum - 1 gram
- Elderberry - 500 mg daily

## 5. Prevent Cytokine Storm

follow this after 48 hours of symptoms

**Increase the following to 2x per day for 7 days only**

- Vitamin D 2000 IU Vitamin C
- 2 grams Zinc 15 mg
- Astragalus- 1 gram
- Andrographis- 1 gram
- Pelagonium sidosides - 250 mg
- Stop elderberry



# 10 STEPS TO A SUPERCHARGED IMMUNE SYSTEM

## 6. Sleep Consistently

- 8 hours per night for adults
- 10 hours for children and teens
- Take [Sleep Savior](#) to promote a healthy night's rest

## 7. Hydrate

- Warm water 3x daily to keep secretions and mucus low and support your lymphatics
- Speaking of lymphatics...

## 8. Don't forget your lymphatics

- Exercise
- Dry Brushing
- Herbal teas- echinacea, indigo root, goldenseal or parsley
- Yoga
- Massage
- Far infrared sauna

## 9. Lower Your Toxic Load

watch consumption and exposure to:

- Pesticides
- Phthalates
- Parabens
- Organophosphates
- Food Dyes
- Additives

Most common sources- food, body care, household supplies

## 10. Manage Your Stress/Emotions

- Move from *fear* to *hope*

# STRESS & EMOTIONS SPECTRUM



S T A Y   S A F E ,  
S T A Y   S T R O N G

*Do not let what you cannot do - interfere with  
what you can do..."*

**- John Wooden**

Check out these videos below to discover some  
excellent tools for navigating COVID-19

**Stop Coronavirus: Supporting Your Immune System**

**Transforming Your Mindset with Celebrity Health  
Coach Koya Webb**

**Breathwork: How to Reduce Stress and Quiet Your  
Mind with Ashley Neese**

**My Favorite Homemade Face Masks**

**My Relaxing Bath Recipe**