

# Immune System Basics & Immune Boosting Tips from



Johnson  
Chiropractic &  
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# Dear Reader:

- ▶ If you're reading this...
  - ▶ I know you care about your health
  - ▶ I know you care about your family's health
- ▶ You need to know...
  - ▶ Your body is BEAUTIFULLY designed
  - ▶ Your Immune System is POWERFUL
  - ▶ Consistently caring for your health allows you to reap the rewards of good health
    - ▶ Everything we want to stay good requires maintenance
- ▶ **Health is the NORMAL STATE in your body!**
  - ▶ *BUT...*
    - ▶ Consistent Neglect of your health leads to a **Disruption of Health**
    - ▶ Disruption of your health leads to Chronic Problems and Disease
- ▶ Evidence of Health Neglect in the United States:
  - ▶ 30% of Adults are Overweight
  - ▶ And additional 40% of Adults are Obese
  - ▶ 46% of Americans have taken Prescription Drugs in the last month (*That's almost 1 in 2!*)
  - ▶ 60% of Adults have 1 or more chronic diseases, 42% have 2 or more chronic diseases
  - ▶ 1/3 of Adults have high blood pressure
  - ▶ 10% of Adults have Diabetes
  - ▶ 40% of Americans will develop Cancer
- ▶ Your Health Is Your Responsibility!
- ▶ **A formula for Optimal Health is in these pages!**

**Enjoy learning more about staying healthy and well!**

In good health,  
*Emily Johnson D.C.*

# Back To The Basics

- ▶ **The power that made your body is what heals your body.**

- ▶ Your body is designed to be a self-healing entity.
- ▶ This means that YOU heal yourself. Not some pill or injection.
- ▶ If a pill or injection healed you, you could give the pill or injection to a cadaver and it would heal.

- ▶ **This Internal Body Power is derived from your Nerve System (aka Master Control System).**

- ▶ Mother Nature is SO WISE. We were designed with hard bone protecting our most important organs.
- ▶ The Brain and Spinal Cord are literally encased in bone for protection of our most important and controlling organ system.
- ▶ This Master Control System is the FIRST system developed in-utero. It HAS to be first because it coordinates the development of all other body parts and systems.

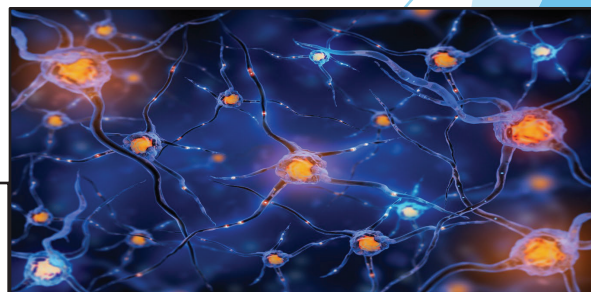
- ▶ **Irritation and Interference within your Nerve System causes Incoordination and Breakdown within your Body**

- ▶ Imagine being on your phone and you can only hear every other word the person is saying. Can you fully understand what they are trying to tell you? NO!
- ▶ This is exactly what it's like in your body when there is interference within your nerve system.
- ▶ This interference affects messages from Brain to Body and from Body to Brain.
- ▶ Chiropractors call this Subluxation. (pronounced: sub-LUCKS-ashun)

- ▶ **Chiropractors Detect and Correct Subluxations**

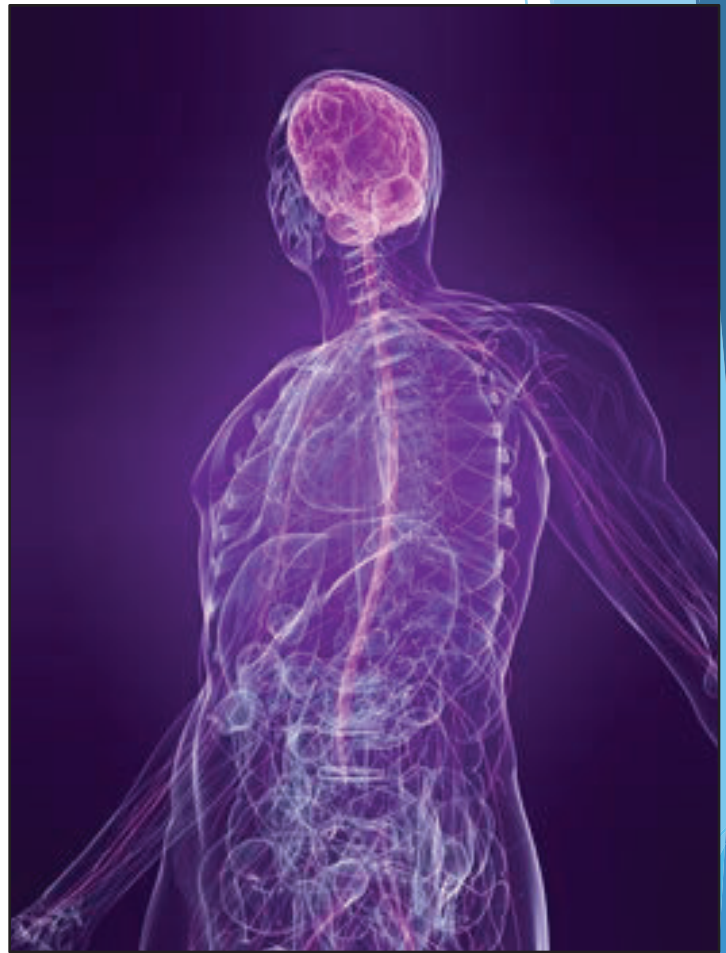
- ▶ Specific Chiropractic Adjustments to the Spine Restore Nerve Flow to brain and body
- ▶ This means Improved Coordination and Function within the body!

This is a picture illustrates how neurons connect with each other.



# Chiropractic Is All About Nerve System FUNCTION

- ▶ Your Nerve System controls and coordinates all part of your body.
  - ▶ Including your Immune System
- ▶ How your brain coordinates everything that happens in your body:
  - ▶ It sends signals to your body.
  - ▶ Your body responds and then sends a signal back to the brain.
  - ▶ Causing your brain to send another signal back to the body.
  - ▶ This is an on-going loop in your body and system.
- ▶ Perfect Coordination of Your System is...
  - ▶ Having nerve flow at 100% from your brain to your body. Your body gets 100% of the message.
  - ▶ Having nerve flow at 100% from your body to your brain. Your brain gets 100% of the message.
- ▶ Your Body needs no help, just **NO INTERFERENCE!**
  - ▶ Interference blocks coordination of the system



# Immune System Basics

## Innate Immune Response

- ▶ Controlled by Macrophage function
- ▶ Macrophage = “big eater”
- ▶ Macrophages are Monocytes (a type of white blood cell) that have left blood circulation
- ▶ Macrophages are responsible for on-going clean up within the body
- ▶ Consuming dead cells, microbes, etc
- ▶ Macrophages take consumed microbes to the lymph nodes
- ▶ Lymphatic system launches the Adaptive Immune Response
- ▶ **Macrophage function is down-regulated when the body has high levels of Nor-Epinephrine, a stress hormone**

## Adaptive Immune Response

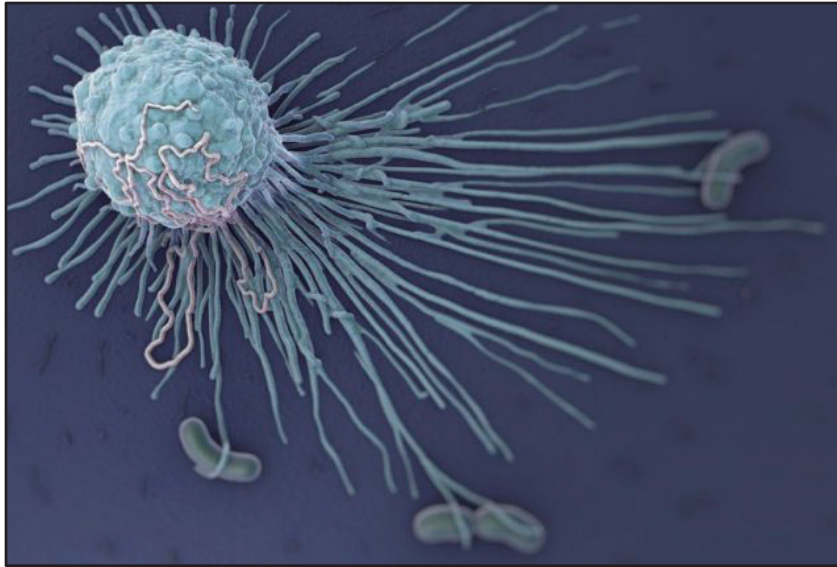
- ▶ Also known as “Specific Immune Response”
- ▶ Stimulated when the lymph node receives microbes from the macrophage
  - ▶ Causes T-helper cells to multiply
  - ▶ Tells B cells which antigens are on the microbe
  - ▶ T-helper and B cells are both types of Lymphocytes, a type of white blood cell
- ▶ B cells make Immunoglobulins, aka Antibodies
  - ▶ IgG, IgA, IgM, IgE and IgD are the types of Antibodies
- ▶ Antibodies fight infection

Your immune response is based on Macrophage function.

If stress is causing you to have high levels of Nor-Epinephrine, you will get sick more readily and stay sick longer.

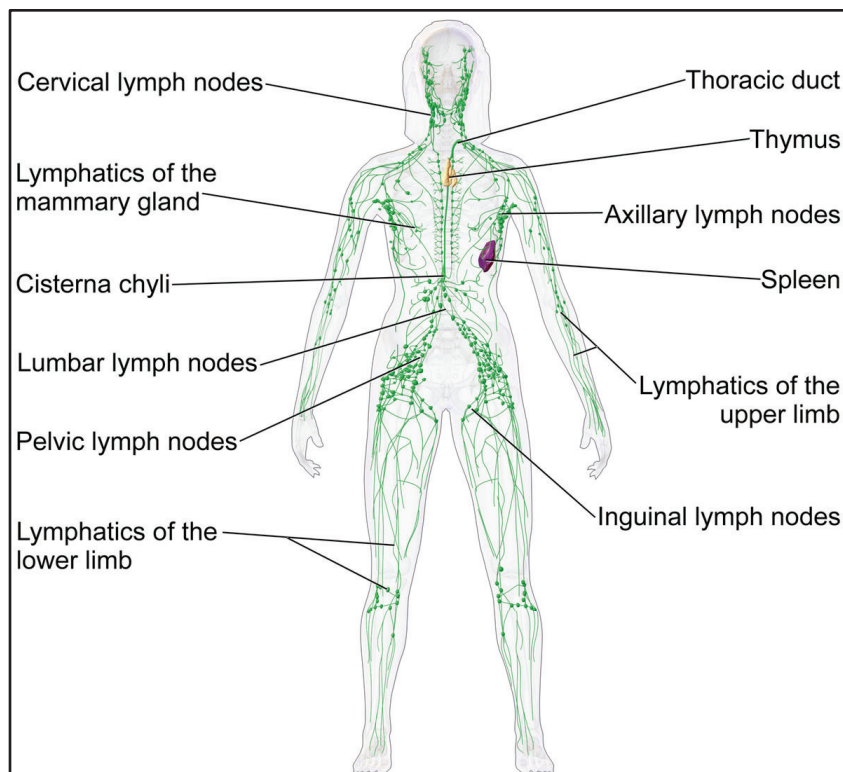


# Immune System Basics



This is an illustration of a Macrophage at work. Notice how there are long arms that extend from its body that literally “grab” the debris and bring it back into the cell.

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This is an illustration of lymph node distribution in your body. You have a lot of lymph nodes in your head and neck, armpits and groin area. Lymph nodes swell during production of germ-fighting Lymphocytes. This swelling causes tenderness to the touch, which you may notice when you are sick.

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# Is It The Soil Or The Seed?

*\*Consider Germs as Seeds and Your Body as Soil for this page.*

- ▶ If you tried to plant seeds on a rock, would they sprout? .....*No*
  - ▶ Why not?
  - ▶ The rock does not have a hospitable environment for the seed to grow.
  - ▶ So the seed just sits there until it is blown to a more congenial environment to grow.
- ▶ If you tried to plant seeds in fertile ground, would it sprout? .....*Yes*
  - ▶ Why?
  - ▶ The fertile soil IS a hospitable environment for the seed to grow.
  - ▶ So the seed does what it is designed to do... sprout and grow!
- ▶ If your body is strong and healthy, are you a hospitable host for germs? .....*No*
  - ▶ Why not?
  - ▶ Your body does not have a hospitable environment for the germs to grow.
  - ▶ Germs can only thrive in an environment that is suitable to them.
- ▶ If your body is weak and sickly, are you a hospitable host for germs? .....*Yes*
  - ▶ Why?
  - ▶ The sick tissues of the body ARE a hospitable environment for the germs to grow.
  - ▶ So the germs do what they are designed to do... multiply!
    - ▶ And when your body mounts an immune response, you get the “sick symptoms” like cough, runny nose, fever, aches, etc.



**Have your repeated actions created a strong, resilient body?  
Or do you have some changes to make?**

# Top 6 Immune Boosting, Optimal Health Recommendations

## 1. What are you eating?

- ▶ Do Eat: vegetables, fruit, unprocessed meat and minimally processed grains (quinoa, brown rice, whole-grain bread)
- ▶ Avoid: SUGAR, processed foods, fruit juices, soda, caffeine, alcohol, etc.

## 2. Are you moving your body daily?

- ▶ Intentionally move your body every day. Go for walks, stretch, do resistance-type exercises, etc.

## 3. How much sleep do you get each night?

- ▶ 8 hours of sleep in a DARK room is critical to keeping your immune system functioning at its peak.

## 4. Is supplementation right for you?\*\*

- ▶ Top 4 Immune Support Supplements
  - ▶ Vitamin D
  - ▶ Zinc
  - ▶ Vitamin C
  - ▶ Echinacea

*\*\*Ask a Dr. Johnson what supplements are right for you to add to your daily regimen*

## 5. Do you get enough sunshine?

- ▶ Sunshine is required to make Vitamin D usable in your body. Try to get 30 minutes/day.

## 6. Are your Chiropractic Adjustments Consistent and Regular?

- ▶ Weekly Chiropractic Adjustments reset your nerve system and give your immune system a boost

**Remember... Consistency Is Key!**

Doing something *once* is a great start. Doing something repeated is how you get results.

**Your Health Is Your Responsibility**