# The Lymphatic & Immune Systems - Part 1

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### What Do the Lymphatic & Immune System Consist of?

The Lymphatic system consists of:

- lymph fluid that resembles plasma but with much lower concentrations of proteins
- lymphatic vessels a network that carries lymph from peripheral tissues to the venous system
- lymphoid organs consist of lymph nodes, tonsils, thymus gland, spleen.
- lymphatic tissues connective tissues dominated by lymphocytes.

#### The Immune system consists of:

- Bone marrow
  - White blood cells (lymphocytes & leukocytes)
- Spleen
- Thymus T-cells mature; somewhat large in infants, grows until puberty then starts to slowly shrink and become replaced by fat with age
- · Lymph nodes

### What is the Function of the Lymphatic & Immune System?

The Lymphatic system has 4 functions:

- The creation and circulation of lymphocytes
- Transporting immune cells to/from the lymph nodes
- Circulating fatty acids to the blood stream
- Removing interstitial fluids from tissues and circulating the fluid back into the blood stream

The Immune system protects against disease or other potentially damaging foreign bodies. When functioning properly, the immune system identifies a variety of threats, including bacteria, viruses and parasites and distinguishes them from the body's own healthy tissue.

#### **Common Acute and Chronic Problems for Lymphatic & Immune System:**

Adenines Allergies

Anaphylaxis Acquired immunodeficiency syndrome (AIDS)

Autoimmune disease Cancer

Chronic fatigue syndrome Common cold

Cytomegalovirus (CMV) Epstein-Barr virus (EBV)

Hodgkin's lymphoma Human immunodeficiency virus (HIV)

Immune stress related disorders Lethargy

Leukemia Lowered resistance

Lymphocytopenia Malnutrition

Mononucleosis Multiple sclerosis

Non-Hodgkin's lymphoma Pneumocystic carinii Pneumonia Recurring infections Retrovirus Rheumatoid arthritis Sore throat Splenomegaly

Swollen lymph nodes Systemic lupus erythematosus (SLE)

### **Herbal Applications for the Lymphatic & Immune System:**

Extracts Compresses

Teas Oils Oxymels Massage

### **Herbs for the Immune & Lymphatic System:**

Immune stimulants Antihistamines

Black Pepper (*Piper nigrum*) Echinacea (*Echinacea spp.*)
Boneset (Eupatorium perfoliatum) Goldenrod (*Solidago spp.*)
Calendula (*Calendula officinalis*) Nettles (*Urtica dioica*)

Dandelion (Taraxacum officinale) New England Aster (Symphyotrichum

Echinacea (Echinacea spp.) novae-angliae)

Garlic (allium sativa)
Goldenseal (Hydrastis candensis)
Honeysuckle (Lonicera spp.)
Maitake (Grifola frondosa)

Osha\*\* (Ligusticum porteri)
Peach leaf (Prunus persica)
Plantain (Plantago spp.)
Ragweed (Ambrosia spp.)

Motherwort (*Leonurus cardiaca*)
Spilanthes (*Acmella oleracea*)

Lymphatics

Thuja (*Thuja occidentalis*)
Usnea (*Usnea spp.*)
Wild Indigo (*Baptisia tinctoria*)
Burdock (*Arctium lappa*)
Cleavers (*Galium aparine*)
Ocotillo (*Fouquieria splendens*)
Poke (*Phytolacca americana*)

Immune suppressants Red Root (Ceanothus americanus)

Red Sage (Salvia miltiorrhiza) Violet (Viola spp.)

Immunomodulators

Astragalus (*Astragalus membranaceus*) Ashwagandha (*Withania somnifera*)

Thunder God Vine (Tripterygium wilfordii)

Elderberry (Sambucus nigra)

Eleuthero (Eleutherococcus senticosus)

Reishi (*Ganoderma spp.*) Rhodiola (*Rhodiola rosea*)

Schisandra (Schisandra chinensis)

Shiitake (*Lentinus edodes*)

Tulsi (*Ocimum tenuiflorum*)

\*Use only under the care of a qualified

herbalist

\*\*Use only cultivated sources

# **Ways to Maintain Lymphatic & Immune System Health:**

- ~ Exercise. For sluggish lymph, movement helps to get it flowing again. Trampolines are great lymph movers.
- ~ Breathe in fresh air as often as possible
- ~ Laugh often. Take joy in life.
- ~ Decrease stress and increase stress reducing activities such as meditation, yoga, walking. Deep breathing increases lymph movement.
- ~ Get adequate sleep in a darkened room.
- ~ Avoid sugar, especially if you feel run down. As little as 8 teaspoons can decrease immune function by 50% for five hours.
- ~ Maintain healthy digestion. Use bitters with every meal. If you have digestive issues, try eliminating the most common culprits: gluten, dairy, corn, soy, etc. After 45 days, add them back one at a time and check your reaction.
- ~ Tone the immune system response using long term herbs such as Astragalus
- ~ Supplements to support the Lymphatic & Immune system: CoQ10, zinc, Quercetin, vitamin D3, vitamin C

## Recommended Herbal Books (\*indicates available through library loan system):

General Body System Information

- $\sim$  The Gift of Healing Herbs : Plant Medicines and Home Remedies for a Vibrantly Healthy Life by Robin Rose Bennett\*
- ~ The Herbal Handbook: A User's Guide to Medical Herbalism by David Hoffmann
- ~ Herbal Medicine From the Heart of the Earth by Sharon Tilgner, N.D.
- ~ The Authentic Herbal Healer by Holly Bellebuono
- ~ Holistic Anatomy by Pip Waller
- ~The Encyclopedia of Medicinal Plants by Andrew Chevallier\*
- ~The Complete Medicinal Herbal by Penelope Ody\*
- ~The Holistic Herbal by David Hoffmann\*
- ~ Medical Herbalism by David Hoffmann

#### Lymphatic & Immune System Specific

- ~ Rogers' School of Herbal Medicine Volume 11: Lymphatic System
- ~ Rogers' School of Herbal Medicine Volume 12: Immune System
- $\sim$  The Healing Power of Echinacea & Goldenseal and Other Immune System Herbs by Paul Bergner

#### **Online Resources**

Love your lymph:

http://www.motherearthliving.com/health-and-wellness/love-your-lymph.aspx

Lymph massage:

http://www.massagetherapy.com/articles/index.php/article\_id/937/Lymph-Massage

David Hoffmann on lymph system:

http://www.healthy.net/Health/Article/

A Brief Overview of the Biological Immune system/1987

http://www.healthy.net/Health/Article/The Immune System and its Specific Problems/ 1809

Christopher Hobbs on the immune system:

http://www.christopherhobbs.com/webdocs/class-handouts/Immune-System-Overview.pdf

An excerpt from Paul Bergner's book:

http://medherb.com/Therapeutics/Immune - Lymphatics and antibiotics.htm

Juliet Blankespoor on herbs for the immune system:

http://chestnutherbs.com/herbs-for-the-immune-system/

Angie Goodloe on food allergies and food sensitivities:

http://herbalistpath.blogspot.com/2007/10/immediate-food-allergy-reactions-and.html

7song on allergies:

http://7song.com/files/Allergic%20Reactions-Herbalist's%20View.pdf

Fire Cider eBook:

http://www.herbalrootszine.com/fire-cider-ebook.pdf

Article about spleen function:

http://www.nytimes.com/2009/08/04/science/04angier.html?\_r=3

Cute video parody about the spleen function:

https://www.youtube.com/watch?v=aEi 4Cyx4Uw