

Dr. Kwang

Wellness & Healing Teas

Fungal Toxins 2

Natural practitioners and their clients know fungus is a cause of disease. We use toxin as the general term. The chemical quality and toxin secretion makes fungus cause of disease. The fungus is made up of carbohydrates, proteins and lipids. These are different from human carbohydrates, proteins and lipids. The fungus has certain carbohydrates and proteins to allow fungus to adhere to its host. This is the chemical equivalent to magnets.



Certain carbohydrates, called β -glycan, allow the fungus to bind to its host. It is selective to only certain cells. The carbohydrates stimulate the immune system to begin inflammation. The inflammation responds brings macrophages to the fungus. Another carbohydrate allows fungus to bind to the macrophage. The fungus is impervious to human macrophages. The fungus will allow fungus to move into the body through the blood.



Other carbohydrates, called mannose, bind to specific cells. These cells are found in the cornea, intestines and vagina. These fungal carbohydrates have affinity for these cells making it difficult for the immune system to eliminate it. Increasing our body's immune system does not help in eliminating fungus.

Another carbohydrate, called adhesions, is activated under certain conditions. They require specific conditions for the fungus to bind. These carbohydrates require bodily fluids to activate. Human saliva proteins activate these proteins to bind. They are very tenacious once activated. They are known to bind to dental acrylic, denture lining material and tooth proteins.

Human fats decrease fungal adhesions. This is has been proven in the laboratory. The addition of human fats to fungus prevents its adhesion to cells. This suggests increasing fat percentage is the body's mechanism to prevent fungal spread. The immune system is ineffective to fungus so another mechanism to prevent continual fungal attack is used. The body uses fats as storage of toxins which we covered in newsletter, "Allergies and hypersensitivities".

Fungus has high affinity for human blood proteins. Fungus that is ready to spread produce a root-like structure called hyphae. They have a high affinity for human blood proteins. This is a way for fungus to spread throughout the body. Fungus also has high affinity for proteins associated with the immune system. The immune system creates proteins that are meant to stick to its attacker. The attachment of immune proteins indicates foreign protein and mobilizes white blood cells. Funguses are immune to these proteins and bind to them.

Fungus produces a protein, called fibronectin, known to attach to the extracellular matrix. The extracellular matrix are produced by the body. It allows human cells to attach in specific arrangements and gives organs its characteristic shape.

The kidneys and liver have a lot of extracellular matrix which allows cells to be

continued



Dr. Kwang

- UCSD Warren College
Animal physiology
and neuroscience, B.S.
- USC
School of Dentistry
Center for Craniofacial
Molecular Biology
Ph.D. Candidate
- Southern California University
of Health Sciences
Los Angeles College of Chiropractic
Doctor of Chiropractic, D.C.

INSIDE THIS ISSUE:

- Fungal Toxins 2

"...Chinese medicine recognizes external pathogens as a cause of disease..."

Write us at
questions.kwc@gmail.com





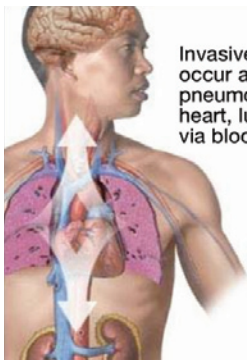
lined up a certain way to create a characteristic structure. The bone has an abundance of extracellular matrix which creates a foundation for proteins and minerals.

Fungus has characteristics that allow it to function in extreme environments. The first is the capsule. The capsule is the outermost shell. It allows fungus to adhere to its host and prevents attack. The other is melanin. Melanin is a protein that prevents damage from sunlight. It also acts as protection from extreme temperatures and gives structural support to the fungus. In the body fungal melanin prevents attack from white blood cells and is anti-inflammatory. It protects the fungus from other fungal toxins.

Another fungal secretion, called mannitol, induces local swelling. It causes surrounding human cells to stop water drainage. The presence of mannitol induces water to accumulate and is one of the reasons of water retention in people. It also neutralizes the free radical production by the immune system. The immune system creates free radicals to destroy foreign substances. The creation of mannitol stops the immune system from working and allows the fungus to continue to exist.



Fungus creates an enzyme, called phospholipase, to destroy human cell membranes. Cell membranes are made up of phospholipids. It breaks up phospholipids into smaller pieces. This compromises the human cell membranes to no longer be able to structurally support cells. The phospholipase secretion destroys cell membranes. This aids in the fungus to penetrate deeper into its human host.



Invasive aspergillosis can occur as an infection with pneumonia that spreads to heart, lungs, brain and kidneys via bloodstream

The fungus has carbohydrates that increase its affinity for human cells. It secretes enzymes to destroy human cells. This allows fungus to penetrate into its human host. The fungus deactivates the immune system. It has properties that will allow fungus to spread throughout the body via the blood. The fungus establishes itself on the extracellular matrix.

The fungus produces enzymes that break up proteins, called proteinases. This gives the fungus another opportunity to invade its human host. This allows fungus to break up any human structural proteins. An example

is the structural proteins in the lung broken down by infectious fungus. The destruction of structural protein will allow fungus to penetrate the human body.

The other proteinase, secretory aspartic proteinase, also contributes to its ability to cause damage to the host. This proteinase breaks down proteins which aids in its adhesion. It degrades the immune system. The breakdown of protein creates a nutritious opportunity for the fungus. The proteinase digests vessels to allow fungus to invade the host.



Traditional Chinese herbs have been used for centuries for its cleansing properties. Chinese medicine recognizes external pathogens as a cause of disease. Ancient Chinese herbalists used cleansing herbs to begin healing the body. This has been traditionally used as a starting point in treatment. Building up the body was contraindicated before the body was properly cleansed. The theory was to not feed the weakened body during while pathogens were still attacking the body.



CHARLES KWANG, D.C.

**1321 N. Vermont Ave
Suite 2
Los Angeles, CA
90027**



Questions Hotline:

(323) 953-4711

Appointments:

(323) 953-4881

Fax:

(323) 953-0210

E-MAIL

questions.kwc@gmail.com

For emails please write "Ask the doctor" in the subject line.

As we are a Chiropractic office we will not offer any personal medical advice. See your medical doctor for any questions you may have.

**We're on the Web!
see us at:**

www.kwangwellness.com

*The claims and statements found in the Charles Kwang, D.C. Health Letter are not intended to give personal medical advice, which can be obtained from a physician. Acting on any of the provided information without a physician's consult is solely at the reader's risk. Written permission is required to reproduce this health letter in any manner or part. The services provided Dr. Charles Kwang, DC are not intended to diagnose, prevent, cure or treat any disease.