



Empowering you Organically - Season 1 - Episode 6

Title: Boosting Your Immune System using Mushrooms

Guest: Dr. Daniel (“Doc”) Nuzum

What are mushrooms?

- It is a fungus
- Not a plant
- Not an animal
- Grow like a plant
- Grow immunity like an animal by adapting to seasonal changes

Why are mushrooms important to the planet?

- They provide the mycobiome for the Earth
- The Earth’s topsoil is a mixture of microbiome (made from bacteria) and mycobiome (made from fungus)
- Mycobiome is like a spider web intertwining among the microbiome
- The mycobiome acts as a detox mechanism within the microbiome
- Example: Your neighbor sprays pesticides or herbicides on the ground. This begins to kill the microbiome and the mycobiome will dissipate the glyphosate over a 4 city block. Nature’s solution to pollution is dilution and the mycobiome is part of that process.

Why are mushrooms important to humans?

- Humans also have a mycobiome in their microbiome.
- Medicinal mushrooms feed the microbiome and mycobiome within the gut
- Fungi are fundamental to the human microbiome
- has been shown, in total, to modify fundamental human physiology, including energy acquisition, vitamin-cofactor availability, xenobiotic metabolism, immune development and function, and even neurological development and behavior
- Support a strong immune system by giving us theirs
- Translated from their immune system to ours via polysaccharides. These short chain sugars carry the immunologic information that the mushrooms have. It’s like a copy of their history and what they’ve had to deal with in their growth cycle. That particular information gets translated to our immune system when we consume these polysaccharides.

Types of Medicinal Mushrooms

- **Reishi**
 - Excellent in assisting your body's ability to detoxify
- **Chaga**
 - Makes you more resilient by supporting the immune system and is a powerful adaptogen
- **Shitake**
 - Supports gut health and feeds microbiome as a prebiotic
- **Lion's Mane**
 - Helps the gut's capacity to produce serotonin and dopamine
- **Cordyceps**
 - Powerful adaptogen that enhances your mitochondria

Mushrooms and Your Immune System

- They help increase your capacity to adapt. You can not become chronically ill if your body has a healthy capacity to adapt.
- Supports a stronger detoxification response in your body
- Mushrooms are 82%-87% genetically identical to humans!
- Help with genetic repair and doing that genetic repair can undo some of the epigenetic damage that is happening to our system
- Medicinal mushrooms are revered as the Fountain of Youth in the Orient and Amazon

Cultivation Methods Matter

- Efficacy is affected by cultivation - can be enhanced or degraded
- Typically grown off of millet or white rice - not as much added benefit
- Organixx mushrooms are nutritionally fortified
- grown on red quinoa, black cumin seeds, pomegranate juice, blueberries to enhance the benefits

Fun Facts!

- The Earth's microbiome acts as an information relaying network throughout the microbiome of the planet. All over the world you'll find mushrooms. Different types of mushrooms are growing all over the world. There's a mushroom growing in Oregon here in the U.S. that is at least nine acres wide.
- The Emperor of China would purchase Chaga from the Czar of Russia.
- Cordyceps only grows for two weeks every year in Tibet traditionally. The Emperor of China was the only one that got the crop of Cordyceps every year. It went to him and his family because it would keep them young for the longest period of time

Deeper Dive Resources

Dr. ("Doc") Nuzum:

<https://www.youtube.com/watch?v=2qK9ujZRZfA>

Paul Stamets: Entrepreneurial mycologist believes that mushrooms can save our lives, restore our ecosystems and transform other worlds.

https://www.ted.com/speakers/paul_stamets

Mushroom

<https://en.wikipedia.org/wiki/Mushroom>

Human Mycobiome:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448585/>

Adaptogens:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3991026/>

Mitochondria:

<https://en.wikipedia.org/wiki/Mitochondrion>

Medicinal Mushrooms:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4684114/>