#### **Edible Mushroom Basics & Terms**

Mushrooms are the spore bearing fruiting body or reproductive structure produced by some fungi. They are found above ground, on soil or on its food source. There are over 1.5 million types of mushrooms. Mushrooms contain fibre and the B vitamins riboflavin, niacin and pantothenic acid.

**Adaptogen:** Herbal non-toxic plant based compounds that help your body respond to stress, anxiety, fatigue and wellbeing.

Antioxidant: Molecules that fight cell damage by neutralizing free radicals.

**Certifications:** To get high quality supplements look for brands that have a Health Canada Natural Products Number (NPN), the United States Pharmacopeia (USP) or the NSF International (NSF) seal. Look for certified organic, sustainably cultivated/grown/processed, and backed by scientific research studies both in animals and humans.

**Fibre:** Soluble and insoluble fibre that provides food and housing for beneficial gut microbes, and it helps regulate bowel function. Resistant starches, although carbohydrates, are also considered dietary fibre.

**Functional Mushrooms:** Specific fungi known for health benefits beyond their nutritional components. There are 2 groups: medicinal mushrooms and adaptogenic mushrooms.

**Polysaccharides:** They are also called polycarbohydrates or glycan which are long chain polymeric carbohydrates and they are the most abundant carbohohydrate in food.

**Quality Products:** To get high quality supplements look for brands that have the United States Pharmacopeia (USP) or the NSF International (NSF) seal.

**Scholarly Articles**: Try to find current research by searching scholarly articles and using keywords on the specific mushroom and conditions to find useful abstracts of valid research and to help eliminate material that is just articles and media hype.

### The Edible Mushroom Series: Part 1 Reishi (Ganoderma Lucidum or Lingzhi)



Form: Reddish brown kidney shape cap with bands or stripes.

Uses: Add to hot chocolate or decaffeinated coffee, many people add coconut butter and almond milk to improve the taste.

Taste & Texture: Very bitter.

Properties: Contain polysaccharides, antioxidants, beta-glucans, and is used to support the immune system and sleep cycles.

Growth: Reishi grows on sawdust, grain, cork or logs and it is woody with a glossy exterior. The colour ranges from red to black to green.

## The Edible Mushroom Series: Part 2 Button, Cremini and Portobello (Agaricus bisporus)







Form: A white, young, mild, immature type of mushroom called button, a middle stage brown round mushroom shape 12 to 38 mm (1 to 1-1/2 inches) while the mature or

full grown creminis are called portobello which is larger with a concave top and is wider.

Uses: Culinary, fibre, medicinal.

Taste & Texture: Meaty texture and flavour, slightly nutty or earthy.

Properties: Aromatase inhibitor, antioxidant, anti-inflammatory.

Growth: Native to grasslands of North America and Europe.

## The Edible Mushroom Series: Part 3 Chaga (Inonotus obliquus)



Form: Irregular cracked shape or lump similar to burnt charcoal.

Uses: Tea any time of day, latte, smoothie, pieces or powder.

Taste & Texture: Earthy, slightly bitter.

Properties: Antioxidant to support your immune system, no caffeine, adaptogenic Improve hair, nails, skin

Growth: This black gold mushroom grows in the Northern hemisphere on birch trees and will also grow on maple or ash trees. For human consumption get your chaga from birch trees.

## The Edible Mushroom Series: Part 4 Enoki or Enokitake (Physalacriaceae)



Form: Looks like long, white noodles.

Uses: To help support heart health, brain function and immunity.

Taste & Texture: Mild, slightly fruity.

Properties: Fibre, antioxidants, B vitamins.

Growth: Hardwood sawdust.

The Edible Mushroom Series: Part 5 Turkey Tail (Trametes versicolor)



Form: Triangular or round.

Uses: Tea, powder and supplements.

Taste & Texture: Chewy and tough when raw, mildly earthy and bitter.

Properties: Antioxidants including phenols and flavonoids, polysaccharopeptides Krestin (PSK) and polysaccharide peptide (PSP) which increase monocytes and stimulate dendritic cells, 1 study found PSK inhibited the growth and spread of human colon cancer cells, is prebiotic, and contains the protein bound beta-glucans (PBG). It is high in fat.

Growth: On dead, deciduous wood, in the wounds of living deciduous and evergreen trees.

# The Edible Mushroom Series: Part 6 Cordyceps (Cordyceps sinensis & Cordyceps militaris)



Form: Over 400 species of parasitic fungi that grows on insect larvae.

Uses: To enhance exercise performance, improve oxygen use during exercise, as antioxidants. Mouse research has shown improved memory and sexual function, test tube studies showed inhibited growth of many types of human cancer cells including lung, colon, skin and liver cancers.

4 research studies show anti tumour effects on lymphoma, melanoma and lung cancer. Animal studies have shown cordyceps reversing the chemotherapy side effect leukopenia. 3 mouse studies showed it decreases blood sugar levels and 22 studies showed that it may protect against kidney disease and improve kidney function. Approved in China for treating heart arrhythmia. There are also 5 studies showing it lowering LDL or bad cholesterol and decreasing triglycerides. 6 research studies showed it's effect on reducing inflammation. Watch for emerging research in humans.

Taste & Texture: Savour, umami quality, deep earthy, nutty flavour.

Properties: Increase production of ATP adenosine triphosphate and contains adenosine.

Growth: Naturally grows on caterpillars.

The Edible Mushroom Series: Part 7 Lion's Mane (Hericium erinaceus)



Form: Globe shaped.

Uses: Tea, coffee substitute, nutritional supplements, extracts.

Taste & Texture: Earthy and light, can taste like lobster.

Properties: People use it as a functional mushroom, an adaptogen supporting brain cognition, focus, creativity and productivity. No caffeine. Native Americans have used it topically as a styptic to stop bleeding.

Growth: On hardwood logs.

### The Edible Mushroom Series: Part 8 Shiitake (Lentinus edodes)



Form: Small to medium umbrella shaped caps.

Uses: Culinary, medicinal, fresh or dried.

Taste & Texture: Savoury, rich, meaty and buttery when cooked.

Properties: Fibre, polysaccharides lentinans and other beta-glucans, anti-inflammatory, immune system stimulant.

Growth: Native to east Asia.

The Edible Mushroom Series: Part 9 Mushroom Resources

#### Videos:

Mycologist Paul Stamet's TEDMED Talk https://youtu.be/pXHDoROh2hA

Why You Can't Overcook Mushrooms and The Science Behind Them Why You Can't Overcook Mushrooms and The Science Behind Them | Mushrooms | What's Eating Dan? - YouTube

Picking The Right Mushroom for Every Recipe <u>Picking The Right Mushroom For Every Recipe</u> - The Big Guide | Epicurious - YouTube

#### Websites

Nutrition Facts SELF Nutrition Data | Food Facts, Information & Calorie Calculator

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