

# Mushrooms and our Health



## Mushrooms contain :

- Potassium, calcium, phosphorus, iron, zinc
- Vitamins : B, D...
- Protein : 2 - 5 %
- All essential amino acids, including lysine and leucine

They are low in:

- Calories and sodium

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Montreal, Canada  
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## Nutritional Facts in Comparison

Fresh	/100g	Chanterelle	Shiitake	Tomato
<b>Water</b>	<b>g</b>	89.9	89.7	94.5
<b>Calories</b>	<b>kcal</b>	38	34	18
<b>Protein</b>	<b>g</b>	1.49	2.24	0.88
<b>Fats</b>	<b>g</b>	0.53	0.49	0.20
<b>Carbohydrates</b>	<b>g</b>	6.86	6.79	3.9
<b>Fibre</b>	<b>g</b>	3.8	2.5	1.2
<b>Minerals</b>				
Calcium	mg	15	2	10
Iron	mg	3.5	0.41	0.27
Phosphorus	mg	57	112	24
Copper	mg	0.35	0.14	0.06
Potassium	mg	506	304	237
Zinc	mg	0.71	1.03	0.17
Selenium	µg	2.2	5.7	0.0
<b>Vitamins</b>				
C	mg	40	n/a	13.7
B1	mg	0.015	0.015	0.037
B2	mg	0.215	0.217	0.020
B6	mg	0.044	0.293	0.08
D	UI	212	18	0

Source : USDA except Vitamin C for chanterelles

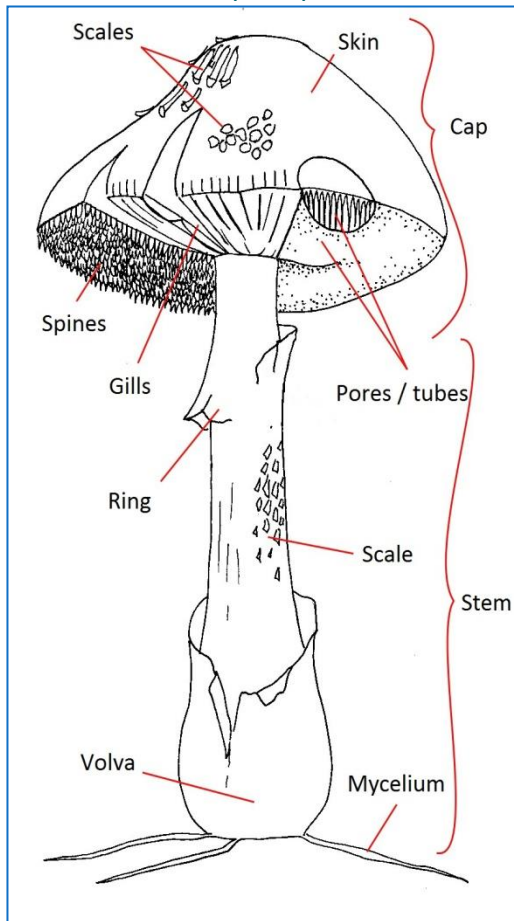
## Medecinal Properties

Historically, mushrooms were consumed for healing purposes. Scientific research has associated their beneficial properties to the presence of particular bioactive ingredients, notably the polysaccharides of the cell wall: the B-glucans. To name but common species of North East America, the reishi (*Ganoderma lucidum/tsugae*) and the maitake (*Grifola frondosa*) contain anti-inflammatory (sterol), antimicrobial and immunomodulatory substances. The reishi, the chaga (*Inonotus obliquus*) and the Turkey Tail (*Trametes versicolor*) mushrooms contain anti-tumoral and anti-oxidizing molecules. Chaga is equally renowned for being anti-inflammatory. Delicious and tasty species, such as Oyster mushrooms (*Pleurotus ostreatus*), Lion's Manes (*Hericium erinaceus /americanum*), Matsutakes (*Tricholoma magnivelare /matsutake*) contain respectively antioxidant, anti-tumor and immunomodulatory compounds.

Source : Poucheret et al. 2006; Rogers 2011

## In Order to Identify, Observe:

- Form, stem and cap size (head)
- The underside pore or gill layer and how it is attached to the stem
- Presence of a volva or veil on the stem
- Color, smell, taste (with precaution/ without swallowing)
- Habitat
- Color of the spore print\*



\*If doubt persists, examine the form of pores with microscope

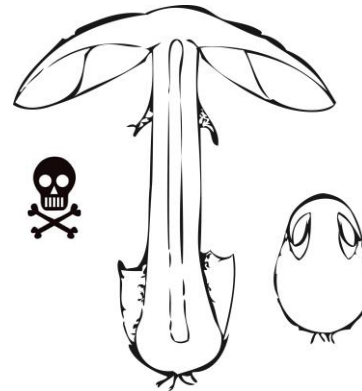
## Avoid White Amanitas and Galerinas

### *A. magnivelaris, bisporigera, decipiens, virosa*

- Entirely white
- White spore
- Stem up to 20 cm
- Disintegrating volva and ring
- Free gills
- In symbiosis with the trees

### *Galerina marginalis*

- Dark brown, sticky
- Clustered on dead wood
- Rust colored gills and spores



Generally, unless certain of edibility, also avoid species of the following genus:

- Lepiotas
- Cortinarius
- Entolomas
- Paxillus
- Gyromitras
- Other amanitas
- The hard to identify mushrooms

## Golden rules of Mycophagy

- Eat only the species whose edibility is certain
- There are no tricks to distinguish the edible species from the toxic ones
- When in doubt, store in a cool place and get confirmation from an expert
- Clean and store specimens of different species in separate bags
- Eat only one new species at a time
- Thoroughly cook all wild mushrooms
- Consume with moderation
- Beware of old specimens
- Refer to more than one locally recognized reference guides

- ✓ Touching a toxic mushroom won't poison you
- ✓ Foraging itself does not compromise the resource
- ✓ Eat only what you are 100% sure of. If you have any doubt, do not consume!