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Mushrooms, strong possibilities in TCM and everyday nutrition // 3. In TCM syndromes

TCM view of health

Health means to maintain the wholeness and harmony of organism which depends on:

- dynamic ballance of YIN and YANG
- correct coordination and harmonious cooperation of 5 ZANG and 6 FU organs and their functions
- harmony between QI and XUE

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TCM and mushroom nutrition

Most fungi have:

- sweet taste
- neutral character
- tropism mostly to meridians of Spleen, Stomach, Liver and Kidneys
- in spite of this, they all have individual specific effects on YIN or YANG, QI and blood, JING essence, some of them can rectify digestion, some of them solve phlegm ...

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bagang eight simple TCM criteria to approach mushrooms

<i>yin</i>	<i>yang</i>
internal (<i>li</i>)	external (<i>biao</i>)
cold (<i>han</i>)	heat (<i>re</i>)
empty (<i>xu</i>)	full (<i>shi</i>)

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Application of fungi in TCM

TCM places most of the fungi in the topmost category of remedies which can be taken for a long time in high doses with no adverse effects.

Goals of treatment by mushroom nutrition:

- to establish the balance of YIN and YANG
- to support production and circulation of QI-XUE, restore the JING essence
(=> chiefly: to strengthen the function of spleen and Kidneys)
- to clear and protect the Liver
- to remove the blockage of meridians and eliminate TAN

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Acupuncture and mushroom nutrition

ACU

- Part of TCM
- Curative and preventive method with thousands of years of history
- Acting outside the body in order to harmonize the organism
Triggers, controls and speeds up the physiological functions of the body
- A good tool for dealing with acute conditions

Mushroom Nutrition

- One of the oldest forms of life on Earth
- Used in Asia for thousands of years to maintain health, cultivate longevity and purify the body
- "Broad-spectrum" effects (e.g. in comparison with herbal mixtures of TCM)
- A good tool to assist in sub-acute and chronic conditions

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Positive aspects of combining Acupuncture and Mushroom nutrition

Selected

effects of combining ACU with mushroom nutrition:

- Supporting the basic curative intent of ACU
- Treating accompanying problems untreated by ACU
- Reinforcing and supplementing QI and blood (= adaptogenic effects) as an energy reservoir for further effects of ACU
- Using detoxifying effects of mushrooms
- Overlap of immediate (ACU) and longer-term therapeutic effect (supplementing with mushrooms)
- Safety (very low or no adverse effects of both methods)

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ACU for immune support

ACU – combination of *SHU* and *MU* points of the respective organs

- Using the *yuan* point of the respective yin meridians (possibly in combination with *luo* points)
- Points of specific effect
- **BL 13, 20, 21, 23**
- **LU 1, LR 13, CV 12, GB 25**
- **Yuan points of yin meridians = Earth points**
LU 9, SP3, KI 3,
- **ST 36, SP 6.....CV 4,6,8,17, LU 5, ..LI 4,**

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Mushroom nutrition in acupuncture for immune support

Most of the traditional medicinal mushrooms can be regarded as supporting or harmonizing the immune system, namely in particular:

- ***Cordyceps sinensis***, Caterpillar Fungus
- ***Ganoderma lucidum***, Polypore Mushroom, REISHI
- ***Agaricus blazei***, Agaricus Blazei Mushroom
- ***Poria cocos***, Indian Bread
- ***Lentinula edodes***, SHIITAKE
- ***Coriolus versicolor***, Turkey Tail
- ***Grifola frondosa***, Hen of the Woods, MAITAKE

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Weakened Immune System – Selection of Mushrooms suitable for combination with acupuncture I.

I. exhaustion, conditions after delivery and surgery, **before** and **after** chemo- or radiotherapy
=> **Ganoderma (REISHI)**

II. Asthmatic problems with dry cough, cold limbs, **cold** and weak loin (excess and heat in the upper body, insufficiency and cold in the lower body) => **Cordyceps**

III. Fatigue, sensitivity to cold... Blazei

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Weakened Immune System – Selection of Mushrooms suitable for combination with acupuncture II.

IV. Digestive problems, belching, heartburn, gastritis, also in relation to stress => **Hericium**

V. Fatigue, loss of appetite, soft stool

- + Presence of dampness, nervousness, insomnia, **without heat => Poria**
- + Clearing **damp heat => Maitake**
- + Allergies, **shortness of breath => Shiitake**
- + **Lipid metab. disorders, spasm => Pleurotus (Oyster)**

VI. Heat in blood, night sweats, autoimmunity, or during radio or chemotherapy => **Coriolus**

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Possible Use of Mushrooms for backing acupuncture According to WM I.

Autoimmune diseases

- Coriolus 3x2 tbl (à 500 mg) 2 months alternately
- Ganoderma 3x1 tbl

Balanced immune support and anti-stress effect – combinations of various kinds of mushrooms with overlapping effects

- Combination Ganoderma+Cordyceps+Shiitake (e.g. TRITON-MRL)

Blood-thinning effect

- Ganoderma, Cordyceps, [Pleurotus](#), [Auricularia](#)

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Possible Use of Mushrooms for backing acupuncture According to WM II.

Detoxification of heavy metals, chemicals (occupation, dental interventions, medications)

- Ganoderma, Oyster Mushroom

Support of the psyche

- Ganoderma, Poria, Hericium, Cordyceps

Liver protection

- Ganoderma, Coriolus, Cordyceps

HPV viruses, repeated herpes labialis, genitalis, EBV, CMV

- Coriolus 2 weeks 2x3 tbl., 3. – 8. week 3 tbl./day
- Prevention of uterus ca in women over 35 years 3 g/day 0.5 – 1 year

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Supplementation Schedules

Adults

- 3 – 6 g/day in 1 – 3 doses
- Preventively 1 – 3 g/day

Children

- 1 – 3 years 0.150 – 0.750 g/day
- 3 – 6 years 0.250 – 2 g/day
- > 6 years 0.500 – 3 g/day

Some mushrooms acutely up to 12 – 15 g (Ganoderma, Shiitake) (for mushroom poisoning up to 25 g/day).
This dosage is for the dried form, when taking raw mushrooms it is necessary to increase the dosage. (Dried:raw ratio = 1:10).

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Supplementation Schedules – Variants of Administration

Chronic Diseases

- 1st – 15th day: 2x3 tbl. (à 500mg) = 3 g
- 15th – 90th. day 3 tbl. (1.5 g) before breakfast

Athletes

- 14 days before the race
3 g Coriolus + 3 g Cordyceps
- When training
½ dose = 1.5 g/day
- Another variant: only Cordyceps 1.5 – 3 g/day over a long period, 3 g/day 14 days before the race

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Weakened Immune System and Atopic Diseases

Roots of these type diseases according to TCM

- **Vacuity of Lungs, Spleen and Kidney**
- The aim is to supplement the vacuity once the acute condition has been solved

Basic vacuity syndromes:

A. Vacuity of Lung-Qi or Lung-Yang (*feiqixu, feiyangxu*)
B. Vacuity of Lung-Yin (*feiyinxu*)
C. Vacuity of both Spleen- & Stomach-Qi (*piwei qixu*)
D. Vacuity of Spleen-Yang (*piyangxu*)
E. Vacuity of Kidney-Yin & Kidney-Yang (*shenyinxu, shenyangxu*)

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Weakened immune system – basic vacuity syndromes: *feiqixu*

A. Vacuity of Lung-Qi (*feiqixu*)


Symptoms: frequent infections, cough, shortness of breath, weak voice, spontaneous sweating, fatigue, pale face, fear of cold

- **ACU:** BL 13, 43, LU1, LU 9, CV 6, CV 17, ST 36, GV 14
- Moxa: no *tan* phlegm: CV 4,6,8; in presence of phlegm +ST 40
- + mushrooms: **Ganoderma, Cordyceps, Blazei, ...**
- Condition often connected with vacuity of Lung- and Kidney-Yin (*feishen yinxu*) + **Coriolus**

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Weakened immune system – basic vacuity syndromes: *feiqixu*

LINGZHI – REISHI
Ganoderma lucidum, Polypore Mushroom




According to TCM

- Flavour: sweet and bitter, nature: mild
- Tropism: Heart, Lungs, Spleen
- **Replenishes insufficiency, reinforces Spleen-Qi** (mental and physical fatigue, soft stool, loss of appetite, paleness, ...)
- **Reinforces Kidney-Essence, nourishes the Heart, calms the Spirit** (palpitations, insomnia, forgetfulness)
- **Used for vacuity of Lung-Qi with phlegm** (*feiqixu+tan*) (stops cough, relieves breathlessness, phlegm particularly of the cold type /sparse, abundant, .../)

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Weakened immune system – basic vacuity syndromes: *feiqixu*

LINGZHI – REISHI
Ganoderma lucidum, Polypore Mushroom




According to WM

- Supports the immune system, immunostimulant, antiviral and antibacterial effect (supports macrophage activity, regulates the function of T and B lymphocytes),
- Suppresses the release of histamine, anti-allergic and anti-inflammatory effect, ...
- Strengthening the body after exhaustion, surgery
- Detoxification of the liver, heavy metals
- Support of conventional therapy of DM, gout, ...

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Weakened immune system – basic vacuity syndromes: *feiqixu*

DONGCHONGXIACAO – TOCHUKASO
Cordyceps sinensis, Caterpillar Fungus




According to TCM

- Flavour: sweet, nature: warm
- Tropism: Lungs, Kidney
- **Tonifies Qi, tonifies Kidney-Essence and defensive qi** (*weiqi*)
- **Nourishes Lung-Yin and Kidney-Yang**, transforms phlegm and stops cough, relieves breathlessness, supports sexual function, enuresis, ...

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Weakened immune system – basic vacuity syndromes: *feiqixu*

DONGCHONGXIACAO – TOCHUKASO
Cordyceps sinensis, Caterpillar Fungus




According to WM

- **Immunomodulatory effects** in weakened immune system and allergies (eczemas, asthma)
- Positive effect in bacterial infections (with streptococci, pneumococci, staphylococci...)
- Usable in autoimmune and neoplastic diseases (stimulates active leucocytes, reducing side effects of radiotherapy and chemotherapy)
- Promoting metabolism and liver functions
- Anticoagulant effect

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Weakened immune system – basic vacuity syndromes: *feiqixu*

JISONGRONG – HIMEMATSUTAKE
Agaricus blazei, ABM




According to TCM

- Flavour: acrid and sweet, nature: warm
- Tropism: Stomach, Spleen, Intestines
- **Strengthens the body, replenishes insufficiency in cold syndromes**
- **Transforms phlegm, stops cough, relieves spasm**
- **Cold pain in loin and knees**
- Promotes intestinal and stomach function

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Weakened immune system – basic vacuity syndromes: *feiqixu*

JISONGRONG – HIMEMATSUTAKE
Agaricus blazei, ABM




According to WM

- Strengthens **weakened immune system** (high betaglukan content),
- Supports immunocompetent cell activity (NK, T and B lymphocytes, macrophages, LAK, ...)
- Can be used for autoimmune and **allergic reactions**, neoplastic diseases (stimulating production of cytokines – interferon, interleukin...)
- Supports good condition of bones (B1,B2, ergosterol)
- **Anti-oxidant effects** (enzymatic activity, superoxide dismutase...)

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Weakened immune system – basic vacuity syndromes: feiyinxu

B. Vacuity of Lung-Yin (*feiyinxu*)

Symptoms: loss of weight, tidal fever in the afternoon and evening, heat at night and night sweats, heat in palms and soles, heat in chest, thirst, flushed cheeks especially in the afternoon, dry mouth, **dry cough, dense and less phlegm**, possibly breathlessness, frequent infections, dry stool, vertigo, scanty dark-yellow urine, ...

- **ACU: BL 13, BL 23, GB 25, LU 5, LU 10, SP 6, ..**
- **+ mushrooms: Coriolus**
clears heat caused by insufficiency of yin (of the liver and kidney)
Cordyceps
invigorates lung yin and kidney yang

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YUNZHI – KAWARATAKE
Coriolus versicolor, Turkey Tail



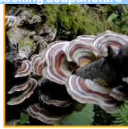
According to TCM

- Flavour: sweet, nature: slightly warm
- Tropism: Spleen, Heart
- Transforms phlegm and regulates dampness (+ slightly strengthens the Spleen in terms of phlegm)
- **Treats conditions of vacuity of Liver- and Kidney-Yin**
- **Clears heat (esp. xure)**, nourishes the Spirit
- **Corrects Lung dysfunction** (cough, breathlessness, frequent infections), stagnation of *fan* phlegm in the meridians, Lungs, ...
- **Fatigue of various causes**

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YUNZHI – KAWARATAKE
Coriolus versicolor, Turkey Tail



According to WM

- Observed in association with tumours, **HIV** (AIDS), EBV, HS, HPV, **CMV**, CFS, autoimmune diseases, with regeneration in athletes, but also in patients after chemo- or radiotherapy
- Detoxifying and hepatoprotective effects
- Increased intestinal permeability syndrome
- Also affects TH1-TH2 shift (chronic diseases, balance between cellular and humoral immunity, NK cell activity, ...)

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3a. backing acupuncture
Weakened immune system – basic vacuity syndromes: *feiyinxu*

YUNZHI – KAWARATAKE
Coriolus versicolor, Turkey Tail

Selected Citations – Antiviral (HPV, EB,...) or Anti-tumour Agents II
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Mushrooms, strong possibilities in TCM and everyday nutrition // 3a. backing acupuncture
Weakened immune system – basic vacuity syndromes: *piqixu, piwei qixu*

C. Vacuity of Spleen-Qi (*piqixu*) often together with vacuity of Stomach-Qi => *piwei qixu*

Symptoms: physical and mental fatigue, loss of appetite, loose stools, undigested food, reluctance to talk, bad taste perception, prone to chest congestion, feeling of heaviness of the body and limbs, swelling, dull yellow face, anaemia

- **ACU: BL 20,21, LR 13, BL 17, CV 4,6, CV12, ST 36, SP 6**, Moxa, only with no phlegm
- **+ mushrooms: Ganoderma (REISHI), Poria, Shitake, Pleurotus (Oyster), Coriolus (Turkey Tail), Blazei, Hericium (Monkey Head), Maitake**

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Weakened immune system – basic vacuity syndromes: *piqixu, piwei qixu*

FULING – BUKURYO
Poria cocos, Indian Bread

According to TCM

- Flavor: sweet, bland; nature: mild
- Tropism: Heart, Spleen, Kidney
- **Strengthens spleen function, drains water**
- **Discharges pathological dampness, calms the Spirit** (symptoms following from insufficiency of spleen states of exhaustion, loss of appetite, diarrhea, ...)
- Neither warming or cooling effect
- Presence of dampness indicated by so called in TCM as *fuling* tongue coating is neither thick white (cold), nor yellow (heat) can be more greasy enlarged tongue with damp body, possibly slightly pale and with teeth marks along the side






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Weakened immune system – basic vacuity syndromes: *piqixu, piwei qixu*

FULING – BUKURYO
Poria cocos, Indian Bread

According to WM

- Tonifying, immune stimulating effect (supporting macrophage and lymphocyte activity),
- By promoting urination treats swelling, chest congestion, diarrhoea (but does not treat dehydration)
- Used for nervousness, insomnia, exhaustion, palpitations




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Weakened immune system – basic vacuity syndromes: *piqixu, piwei qixu*

XIANGGU – SHIITAKE
Lentinula edodes, Shiitake

According to TCM

- Flavour: sweet; nature: mild
- Tropism: Spleen, Stomach, Lungs
- Tonifies *qi* and blood, strengthens the Spleen, Stomach, Lungs and Kidney function
- Moistens dryness, transforms phlegm
- Used for fatigue, cough, frequent colds, allergies, and possibly vertigo




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XIANGGU – SHIITAKE
Lentinula edodes, Shiitake

According to WM


- Immunostimulant, immunomodulatory, anti-tumor effects (stimul. macrophage phagocytosis, NK activity, T helper cells.../)
- Antiviral, antibacterial, antiparasitic activity (herpes v., influenza v., Staph, E.coli, ...)
- Reducing allerg. react., used for cough, breathlessness
- Stated harmonization of the hypothalamic-pituitary-adrenal axis
- Used to prevent liver and cardiovascular diseases, metabolic effect



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Weakened immune system – basic vacuity syndromes: piqixu, piwei qixu

PINGGU – HIRATAKE
Pleurotus ostreatus, Oyster Mushroom




According to TCM

- Flavour: sweet, nature: slightly warm
- Tropism: liver, stomach, spleen
- Replenishes the spleen and stomach, drains dampness, tonifies qi, discharges wind cold
- Strengthens the vessels, loosens the tendons
- Effective against parasites

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PINGGU – HIRATAKE
Pleurotus ostreatus, Oyster Mushroom




According to WM

- Immune support (ATB pleurotin)
- Immunomodulatory, anti-tumour effects
- Source of minerals and vitamins (folic acid(!), ...)
- Positive effect on skin allergies
- Promoting liver functions and supporting the cardiovascular system, interferes in cholesterol metabolism (prevents accumulation in the liver, increases transport in lipoproteins, ...)

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Weakened immune system – basic vacuity syndromes: piqixu, piwei qixu

HOUTOUGU – YAMABUSITAKE
Hericium erinaceus, Monkey Head




According to TCM

- Flavor: sweet, insipid; nature: mild
- Tropism: Liver, Kidney
- Beneficial to the five *zang* organs, tonifies the spleen, supplements *qi*, aids digestion, aids the middle burner (fatigue, loss of appetite, diarrhea, frequent infections, phlegm)
- Relieves inflammation, cleanses, transforms
- Calms the spirit
- Harmonizes the Stomach (abdominal pain and stomachache, belching, gas pains, burning sensations, ...)

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Weakened immune system – basic vacuity syndromes: piqixu, piwei qixu

HOUTOUGU – YAMABUSITAKE
Hericium erinaceus, Monkey Head




According to WM

- Gastritis and intestine **inflammations**, peptic ulcer disease, chronic hepatitis (symptoms related mainly to psyche)
- Preventive **protection from adverse effects of fatty food, stress, weak immune system**
- Tumour diseases, degenerative nervous diseases
- **Suitable for combinations of stress and mental exhaustion with digestive problems** (see the above description)

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Weakened immune system – basic vacuity syndromes: piqixu, piwei qixu

HUAISHUHUA – MAITAKE
Grifola frondosa, Hen of the Woods




According to TCM

- Flavor: sweet; nature: mild
- Tropism: Lungs, Kidney, Large Intestine
- Supplements *qi* and strengthens the Spleen
- Replenishes insufficiency and supports the beneficial, clears heat, filters out dampness
- Used for symptoms such as loss of appetite, physical and mental exhaustion, distended abdomen after a meal, malodourous diarrhea, ...

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Weakened immune system – basic vacuity syndromes: piqixu, piwei qixu

HUAISHUHUA – MAITAKE
Grifola frondosa, Hen of the Woods



According to WM

- Immune support (betaglucans, activity of macrophages, NK cells, cytotoxic T cells)
- Supporting weight regulation
- Regulating blood pressure, level of sugar, fat, ...
- Natural source of vitamins and minerals

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Weakened immune system – basic vacuity syndromes: *piyangxu*, *shenyangxu*

D. Vacuity of Spleen Yang (*piyangxu*)
Vacuity of Kidney Yang (*shenyangxu*)

Spleen-Yang is closely related to Kidney-Yang; concurrent vacuity of Spleen- and Kidney-Yang is common (*pishen yangxu*)

Symptoms: cold body, limbs, sensitivity to cold, cold sensation and abdominal pain, loin pain, weak knees, fatigue, watery diarrhoea, enteric diarrhoea, abundant pale urine, nocturia, swelling, white face, ...

- ACU – tonif. BL 20, 23, CV 4, 6, 12, GV 4, ST25/diarrhoea/, ST36, KI 3
- moxa *shu* points, CV 4, 8
- + mushrooms – Blazei, Cordyceps, Poria (possibly Ganoderma)

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3a. backing acupuncture
Weakened immune system – basic vacuity syndromes: *shenyinxu*

F. Vacuity of Kidney-Yin (*shenyinxu*)

Symptoms: general from insufficiency of yin: tidal fever, night sweats, dry mouth, dry stool, ... pain, weak loin and knees, urinary disorders, scanty dark-yellow urine

- ACU – BL23, CV4, KI 3,6, SP 6
- + mushrooms – Coriolus (possibly Maitake)

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Lǐ Dōngyuán 李東垣
1180–1251
his other names were:
Li Gao
Li Dongheng
Li Mingzhi



Picture sources:
http://bj.gf.cc.cn/ga/wz/fkshy/ce.cn/person/20090622/01090622_18071865.shtml
http://www.sandai.com.cn/data/absgc/20090622_9769472_0.htm

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Píwèilùn 脾胃論

Written by Li Gao
at the end of his life (about 1249)

- the organ „*piwei*“ superior to other organs
- emphasis on inner causes of diseases
- bad state of *piwei* might cause diseases
- if an external noxious substance invades the body, the upright *qi* must have been weakened;
- spleen-stomach is the source of creation and transformation of upright *qi*
- concentration on the use of replenishing remedies for preferential nourishment of Spleen and Stomach

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Spleen – pí 脾

Selection of TCM postulates on Spleen:

- governs movement and transformation (*pi zhu yunhua*)
- hates dampness and likes dryness (*pi e shi er xi zao*)
- governs blood production and control (*pi zhu shengxue tongxue*)
- governs upbearing of the clear (*pi zhu shengqing*)
- its emotion is contemplation (*si wei pi zhi zhi*)
- its *qi* is connected with Indian summer
- opens into mouth (*pi kaiqiao yu kou*)
- its fluid is saliva (*xian wei pi zhi ye*)
- governs the flesh and four limbs (*pi zhu jirou sizhi*)
- stores intellect *yi* (*pi cang yi*)
- governs movement of Stomach liquid (*pi zhu wei weixingqi jinye*)
- governs center-earth (*pi zhu zhongtu*)
- governs later heaven (*pi zhu houtian*)
- stores construction (*pi cang ying*)

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Stomach – wèi 胃

Selection of TCM postulates on Stomach:

- governs intake and storage of food and water
(wei zhu shou na shuigu)
- governs decomposition of food and water
(wei zhu fushu shuigu)
- governs passing and descent
(wei zhu tongjiang)
- is the source of fluids

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Relationships Spleen-Stomach – píwèi 脾胃

SPLEEN	STOMACH:
yin organ	yang organ
guarantees ascent	guarantees descent
likes dryness, dislikes dampness	likes dampness, dislikes dryness
when damp, does not lift and transform	when dry, does not send down (to intestines)
easily susceptible to emptiness	easily becomes full
susceptible to cold	susceptible to heat
tendency to yangxu	tendency to yinxu

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Spleen-stomach as the source of post-natal qi

pí(wèi) wéi hòutiānzhi běn 脾(胃)为后天之本

The state of **piwei** must be considered even more in the following cases:

- weak constitution
- excessive activity
- excessive sexual activity
- long-time eating and dietary improprieties
- convalescence after injuries with parasites and poisoning
- convalescence after (wrong) treatment

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Spleen-stomach as the source of post-natal qi

pí(wèi) wéi hòutiānzhi běn 脾(胃)为后天之本

Harmful effect of food

Source: Classical Chinese Medicine III. [in Czech], p. 69, Svitani, 1997. ISBN 80-901788-0-4

Disbalance of food intake	Starving	weakening of <i>qixue</i> , general weakness, poor health, tendency to illnesses
	Overeating	digestive disturbances, accumulation of dampness, phlegm production, skin eruptions, hemorrhoids, heat
Inappropriate eating habits	too much cold food	weakens stomach yang & problems caused by emptiness and cold (dampness)
	too much hot food	causes stomach heat, injury to <i>jinye</i>
	excess of nourishing food	overload on spleen and stomach, coagulation of dampness into phlegm, rising of inner fire
	one-sides tastes	overfilling of weakening of <i>zang</i> and their functions
	Excess of alcohol	rising of inner heat, phlegm production, weakening of upright <i>qi</i> , <i>qi</i> deficiency
Food contamination		damaged GIT, stomach and abdomen pain, vomiting, diarrhea, parasites.

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PORIA-MRL
Poria cocos
(syn. Wolfiporia cocos, Pachyma hoelen)

fuling 茯苓
bukuryo, matsuhodo
Indian Bread



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Classification according to TCM


Taste	sweet, plain
Nature	ballanced
Tropism	heart, spleen, kidneys (lungs, small intestine)
Effects	drains water and eliminates dampness strengthens the spleen, calms the spirit
Indications	difficult urination, phlegm, watery oedema, diarrhea, spleen deficiency with accumulation of harmful dampness, exhaustion, limpness, loose stools, palpitations, insomnia, restlessness, lack of appetite

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Application I

- **Tonification, anti-tumor and antimutagenous effects**
- supports macrophages, phagocytes
- **arrhythmia**
- **febrile diseases**
- **edemas, white discharges in women**
- **insomnia, nervousness, exhaustion, palpitations, relaxation of tension**
- **support of digestion**
diarrhea, loose stools, difficult urination




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Application II

- similarly to other mushroom nutrition, Poria contains polysaccharides, protein bound polysaccharides, triterpenoids, sterols and other substances; especially in connection to tumors;
- according to research results, Poria especially:
- works against tumors by way of stimulating immunological functions, increasing the effectivity of interferon etc.;
- - shows antimutagenic activity (in combination with other herbs – e.g. *rougui*, *taoren*, *baishao*, *mudanpi*...)
- some studies confirm positive effect in viral hepatitis therapy.




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Application III – according to TCM

- **drains water and eliminates dampness (*lishui shenshi*)**
- problems with difficult urination, phlegm, watery oedemas, diarrhea
- drains excessive liquids, though, owing to its balanced character, does not dry or injure bodily fluids, acts gently towards yin
- when accumulation of dampness, blockage of urination, phlegm stagnation
- may be used regardless of the syndrome character (fullness/emptiness, coldness/heat)
- **constitutional use in cases of so-called *fuling tongue*** pointing to dampness of the middle, inner accumulation and stagnation of fluids;
- enlarged tongue, damp tongue body, teeth marks on the edge,
- possibly fat coating



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Application IV – according to TCM

dries dampness and strengthens the spleen (*zaoshi jianpi*)

- syndrome of spleen *qi* deficiency (*piqixu*) possibly in combination with other noxious substances (e.g. phlegm)
- *fuling* shows a combination of effects ideal for the spleen (strengthening + dampness drainage)
- symptoms of fatigue, exhaustion and limpness, thin stools
- in marked states of fatigue it is necessary to use method of “accumulating the earth and controlling of water”, i.e. combine *fuling* with fungi heating the yang (*blazei*, *cordyceps*)
- white discharge caused by dampness accumulation due to spleen deficiency

(in case of combination with heat, cold or kidney weakening must be combined with other herbs - see for example formula *shenling baizhu san*) etc.



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Application IVa – according to TCM

- ***fuling* = delicate *shenling baizhu san***

<i>fuling</i> 茯苓	<i>shenling baizhu san</i> 参苓白术散
strengthens the spleen percolates dampness	
(mildly) drains water calms the <i>shen</i>	harmonizes the stomach boosts <i>qi</i>

for comparison:
lion's mane – *houtougu*
Hericium erinaceus




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Application V – according to TCM

calms the spirit (*anshen*)

- palpitations, insomnia, restlessness, shock
- *fuling* represents an ideal combination of calming effect with spleen strengthening (inadequate nourishment of spleen and heart causes restlessness)



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Application VI – according to TCM

influences the mechanism of water managed by the three burners

- support of functions of transformation, transportation and fluid transformation
- fluids are moved by *qi*, fluids depend on its mechanism
- supports ascent of the clear (yang) upwards (upper burner)
- protects spleen from dampness (middle burner)
- helps the kidneys in draining water (lower burner)
- auxiliary use - to support lymph (x stagnation of turbid dampness)

supports urination

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Application VIa – according to TCM

Ideal spleen combination:

- drains water
- eliminates dampness
- influences the mechanism of water governed by the three burners
- strengthens the spleen
- transforms phlegm
- calms the spirit

"By treating the spleen other organs can be cured."

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Application VII – according to TCM

phlegm

- due to spleen *qi* deficiency or spleen dampness
- due to kidney deficiency (of yang, yin)
- due to imbalance of the three burners which do not transform and eliminate properly
- due to lung *qi* deficiency only in combination with other preparations
- overall effect on phlegm rather gentle, constitutional is not a match to appropriate herbal formulae of TCM (*erchentang etc.*)

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Tan 痰 - pathology

- Lungs & fluids: NOT descending and dispersing
- Spleen & fluids: NOT transforming and transporting
- Kidneys & fluids: NOT transforming and eliminating
- Liver & *qi*: NOT securing free flow
- Heart & *qi*: NOT descending to kidneys
- Three burners & fluids: NOT transforming, transporting, eliminating

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Application VIIa – in TCM: tán 痰 - pathology

- Lungs & fluids: NOT descending and dispersing
- Spleen & fluids: NOT transforming and transporting
- Kidneys & fluids: NOT transforming and eliminating
- Heart & *qi*: NOT descending to kidneys
- Three burners & fluids: NOT transforming, transporting, eliminating

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Application VIII – according to TCM + acupuncture

Acupuncture support of various effects of Poria

Poria administered with:


- for strengthening the spleen: BL 13,20, 21, CV 6, 12,17, SP 3, 6, ST 36... SP9, ST 40
- to transform harmful dampness: SP9, ST 40
- to calm the spirit, sleep support: GV20, "the crown", PC6,8 (*xin-shen*) HT7, BL 15, 17,18,23 SP6, 10, HT7, BL 17 (blood) LR2,3, BL 18,19, PC6, TE 5 (*gan-dan*)...

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Dosage

- 3 – 5 g dried or 1 – 2 g of biomass
- traditional dosage in the form of decoction 10 – 20 g, in case of serious edema up to 30 g
- may be added to food




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Rules of application according to TCM

fuling is a part of many formulas improving the state of liver and harmonizing its functions. According to TCM, the liver is connected with anger, inner nervousness, agitation, insomnia and waking up at night, mostly between 1 - 3 o'clock, etc. It is because of this sedative effect that *fuling* is so beneficial in therapy.

when solving oedemas due to various reasons (spleen weakness, kidney deficiency etc.), we must never omit *fuling* (in formulas) exactly for its ability to eliminate the turbid, pathological fluids.




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Contraindications according to TCM

- we must be very careful in cases of kidney deficiency (dribbling after urination, incontinence of urine) and with cold emptiness of kidneys (nocturnal emissions)
- with spleen deficiency without any signs of dampness do not use on its own for a long period of time, although otherwise it strengthens the spleen
- we must be careful also in cases of *yin* deficiency without dampness and sinking of the middle *qi*
- early stages of attack by external wind (common cold, flu)
- do not use together with vinegar (salads, dressings etc.)
- observe the 2-hour interval after meals

Indicator of dampness - tongue:
can be safely indicated with *fuling* tongue




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Additional dietary information according to TCM

in case of spleen dampness it is necessary to adjust also the diet, i.e. do not consume excessive amounts of:

- cheeses
- vinegar
- bread
- fermented grains and cereals
- alcohol and other fermentation products




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General contraindications

one of the most gentle effects among medicinal fungi in general, its use is safe

though in some sensitive individuals there may be very slight adverse effects (e.g. allergic reaction - skin eruptions, nausea).



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HERICIUM-MRL
Hericium erinaceus
 (syn. *Clavaria erinaceus*, *Dryodon erinaceus*, *Hydnum erinaceus*)
 houtougu 猴头菇
 yamabushitake 山伏茸
 monkey's head, lion's mane, pompom

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Classification according to TCM

Taste	Sweet, plain
Nature	balanced
Meridian	liver, kidney
Effects	benefits the five <i>zang</i> aids digestion heals inflammation; strengthens, clears and transforms replenishes the spleen and increases qi, calms the spirit
Indications	pressure and distention of stomach, stomach or abdomen pain, intestine inflammation, belching, occult bleeding in stools, lack of appetite, nervous weakness,

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Enzym activity Hericium-MRL

Active ingredient	Hericium erinaceus – biomass 500 mg	
Active enzymes	Superoxide dismutase (SOD)	Laccase
	19.430 10 ³ U	75.6 U
	NADPH (Cyt. "P-450" reductase)	Tyrosinase
	4.620 uM	2369 U
	GSH Reductase	Peroxidase
	21.74 U	4.77 U
	Catalase	
	96.1 U	

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Application I

support of the whole organism and immunity

- in cases of exhaustion,
- to suppress inflammation
- support of T and B lymphocytes production
- autoimmune diseases

antibacterial effect

- Staphylococcus aureus, also MRSA
- Helicobacter pylori (Hp)

tumors

- increase of macrophages and immunity system activity
- preventive (antimutagenic) effects
- anti-tumor and anti-metastatic effects

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Application II

support of digestion, liver and stomach

- in cases of digestive problems, support of stomach functions
- in ulcerating diseases - stomach and duodenum, chronic gastritis
- preventively as protection from too rich diet and for digestion problems due to stress
- antibacterial effect on Helicobacter pylori (Hp)
- hepatoprotective effect

lowering of blood sugar, lipids and triglycerides levels

- in case of digestion problems

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Application III

support of brain and thinking

- phytosterols erinacines stimulating the growth of neurons (NGF) and supporting the production of myelin
- for improvement of cognitive functions (supportively in Alzheimer, Parkinson, Huntington diseases, amyotrophic lateral sclerosis, multiple sclerosis etc.)
- autoimmune diseases


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Application IV – according to TCM

harmonization of the middle with clearing of the liver and support of the stomach

- disharmonious stomach (*wei bu he*)
- liver *qi* attacks the stomach (*ganqi fan wei*)
- spleen emptiness abused by Wood (*pixu mucheng*)
- weak spleen and strong stomach
- stomach heat



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Application V – according to TCM

spleen deficiency (*piqixu*) without dampness

- digestion disturbances, lack of appetite
- fatigue

calms the spirit (*anshen*)

- especially suitable with combinations of digestive problems
- from emotional reasons or combined with these
- support of sleep disturbed by disharmonious stomach



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Application VI – according to TCM

Ideal stomach combination:

- benefits the five *zang* organs
- aids digestion
- strengthens, clears and transforms
- heals inflammation
- supplements the spleen, but does not desiccate
- increases *qi*
- calms the spirit

Complex support of intellect (*y*) in combination with *fuling*.


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Application VII – according to TCM + acupuncture

Support of the middle burner and spleen
fatigue, lack of appetite, diarrhea ...
frequent illnesses, phlegm *tan*...

Hericium administered with:
BL 20,21, LR13,CV 12, SP 3, ST 36, ST 40,
In case of diarrhea BL 25, ST 25



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Application VIIa – according to TCM + acupuncture

Stomach harmonization: accumulation disorder

- stomach and abdomen pain, belching, flatulence, sensations of burning ...

Hericium administered with:

- CV12 (CV10,11, 14), ST 36, ST21, BL 21, PC6, SP4 (diarrhea... abdomen cramps)
- ST44, LR2, LI4,11 in case of heat
- ST40, CV 17 (correct circulation of *qi*, necessary for transformation of *tan*) - dampness, phlegm.



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Application VIIb – according to TCM + acupuncture

Stomach harmonization: stomach heat

- clear the heat, harmonize the middle, support the production of fluids, rectify the flow of *qi*...

Hericium administered with:

- CV 12, PC6, BL 17, 21, ST 36, ST 41,44, SP 4, LI4




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Application VIIc – according to TCM + acupuncture

Stomach harmonization: liver attacks stomach,
liver *qi* stagnation

Hericium administered with:
LR 2,3, 13,14,ST 25, 36, 41,
CV12, **GB 34**, 29, LI4, 11, PC6, TE6



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Application Vild – according to TCM + acupuncture
Support of thinking and calming the spirit

- various neurological disorders, neurological weakness, loss of mental capacity, tremors

Hericium administered with:
GV20, PC6, HT 7, SP6 (balance of yin/yang)

- stomach dysfunction: + BL21, ST 36
- xu of heart, spleen: + BL15,20, SP3
- xu of kidneys: + BL 15,23 (balance of heart and kidneys), GV 4, KI3
- qixu of heart and gall bladder: +BL15, 19, PC7, GB40
- ganyang shangkang: +BL18, PC5, LR3

loss of memory – GV20, BL15,20,23, KI6, GB39 (strengthens the marrow), ST36

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Selected Citation II

Brain and Nerve cell support I

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Selected Citation IIa

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fuling 

houtougu 

Ideal spleen combination:

- strengthens the spleen
- calms the spirit
- drains water, supports urination
- eliminates dampness
- influences the mechanism of water governed by the three burners
- transforms phlegm

Ideal stomach combination:

- supplements the spleen
- calms the spirit
- aids digestion
- benefits the five zang organs
- increases qi
- strengthens, clears and transforms
- removes inflammation

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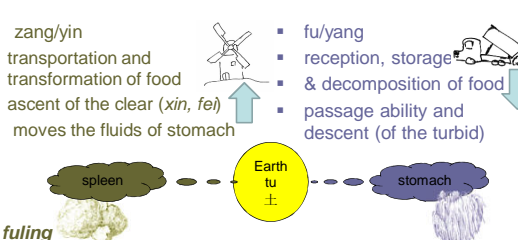
The element of Earth

zang/yin

- transportation and transformation of food
- ascend of the clear (xin, fei)
- moves the fluids of stomach

fu/yang

- reception, storage
- & decomposition of food
- passage ability and descent (of the turbid)



zangfu together:
postnatal base
complement and balance each other

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Spleen – 脾

stores the intellect *yi*

M E M O R Y

Heart stores Mind (*shen*)
memory for distant events

Spleen stores Intellect (*yi*)
memory for memorizing

Kidneys store Will (*zhi*)
memory for fresh events

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MAITAKE-MRL
Grifola frondosa
(syn. *Polyporus frondosus*)

huaishuhua 灰树花
maitake
hen-of-the-woods,
ram's head
sheep's head

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Classification according to TCM

Taste	sweet
Nature	ballanced
Tropism	Lungs, kidneys (liver, colon, bladder)
Effects	increases qi and strengthens the spleen harmonizes spleen and stomach (<i>tiaohe piwei</i>) clears heat, eliminates dampness replenishes emptiness and supports the upright strengthens kidneys, calms and anchors the spirit (<i>anding shenzhi</i>)
Indications	abdomen distension after eating, dominant spleen deficiency and weak qi, exhausted body and lack of vigour, weakened mind and dislike of food

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Application I

Immunity support

- in cases of weak immunity (even HIV/AIDS),
- with frequent colds,
- with frequent stress situations, etc.
- antiviral, antibacterial (also *Staphylococcus aureus*); antiparasitic effect (even *Plasmodium* spp. - malaria)
- support of healing,
- support of phagocytosis;
- contains specific alfa and betaglacans - neutralization of environmental carcinogens

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Application Ia

anti-tumor effects

- powdered *Coriolus* administered perorally to mice showed an effect of increasing the activity of macrophages +cNK cells and cytotoxic T cells and inhibited tumor growth by 86%;
- results with tumors of lungs, breast, cervix, bladder, prostate, liver, pancreas and brain;
- support of TNF

as support with ATB mitomycin C (used in tumor diseases)

Treatment	Percent of mice with metastasis	Percent inhibition of metastasis
control led	100%	0%
20% Maitake led	18.7%**	81.3%
D-fraction led	8.7%**	91.3%

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Application Ib

antitumor effects - tumors of prostate

- especially as a supplement of conventional treatment (radiotherapy, chemotherapy, operations);
- but also with resistance to conventional hormonal treatment and in androgen non-dependent states;
- helps decrease PSA, improves the quality of life in patients with metastases in bones, maintains the optimum of NK cells and lymphocytes activity;
- probably also induces apoptosis in the tumor


rec. combination with *Coriolus* (antiviral) + ↓IL6 (TH2)

Extracts	Cytotoxic activity
Maitake (<i>Grifola frondosa</i>)	>95%
Heme-maitake (<i>Agricus blazei</i>)	>95%
Extract A	<5%
Extract B	<5%
Reishi (<i>Ganoderma lucidum</i>)	>50%
Okinawa Mozuku	>50%
Extracts A-E (50-500 kDa)	<5%

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Application Ic




detoxifying effect within the system
supports weight regulation
regulation of blood pressure, levels of glucose, insuline, serum and lipids in the liver - influences the levels of cholesterol, triglycerides and phospholipids. In hypertensive rats blood pressure lowering had been proved, while HDL in plasma remains unchanged; the effect was immediate, was of a short duration and depended on the dosage.

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Application Id



Syndrome X – chief components:

- obesity of the waistline (excessive fat on the belly)
- inglucose tolerance (inability to digest sugars) **maitake**
- hyperlipidemia (higher concentration of fats in blood)
- hypertension (high blood pressure)
- (smoking, high levels of free radicals) **maitake**


6 „most“ deadly diseases of old age:

- weak immunity system
- heart diseases (incl. atherosclerosis, hypertension, high cholesterol)
- diabetes **type II**
- faulty kidney function **maitake**
- tumors
- infarction **maitake**

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Application II




- lowering of blood sugar levels** in non-insulin dependent diabetes (type II)
- natural source of minerals and vitamins** - contains potassium, Calcium and Magnesium, vitamins B2, B5 (niacine), D2, fibre and aminoacids
- hemorrhoids, gastritis, hepatitis** – with regard to its complex effect applied in **support of conventional treatment**
- very popular in Japan:** dosages of 3-7 grams 3 - 5× a day - conviction of **preventive and immunostimulating effects** especially in:
 - diabetes, obesity,
 - high blood pressure, atherosclerosis, thrombosis,
 - vitiligo
 - cancer, and as support with chemotherapy
- support of CNS**

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Application III – according to TCM




- spleen deficiency and weakening of qi**
- weakening of mind**
- harmonizes spleen and stomach (tiaohe piwei)** distention of abdomen after eating, exhausted body, lack of appetite,
- fatigue after eating**
- weight regulation with no risk to health** support of transformative function of the spleen, support of digestion
- elimination of damp (heat)**

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Application IV – according to TCM



- increases qi and supplements vacuity (*yiqi buxu*)
- strengthens body and supports thinking (*jiانشen zengzhi*)
- extends life-span (*yannian yishou*)
- makes body lighter and prevents aging (*qingshen bulao*)
- support of urination in cases of difficult urination in cases of oedemas

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fuling




Ideal spleen combination:

- strengthens the spleen
- calms the spirit
- drains water, supports urination
- eliminates dampness
- influences the mechanism of water governed by the three burners
- transforms phlegm

maitake

houtougu



Ideal stomach combination:

- supplements the spleen
- calms the spirit
- aids digestion
- benefits the five zang organs
- increases qi
- strengthens, clears and transforms
- removes inflammation

Ideální combination for harmonizing spleen & stomach
+ clears heat (and damp-heat) + nourishes kidneys
+ harmonizes spleen and stomach

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fuling
For dampness
+ possible phlegm yin:

- strengthens the spleen
- calms the spirit
- supports urination
- drains water
- eliminates dampness
- influences the mechanism of water governed by the three burners
- transforms phlegm

maitake
For dampness
+ possible heat

- replenishes the spleen
- calms the spirit
- supports urination
- harmonizes spleen and stomach
- aids digestion
- clears heat
- transforms damp heat
- increases qi
- strengthens kidneys

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The element of Earth

zang/yin
transportation and transformation of food
ascent of the clear (xin, fei)
moves the fluids of stomach

Earth
tr
maitake

fu/yang
reception, storage & decomposition of food
passage ability and descent (of the turbid)

**harmonizing piwei, so this zangfu would better:
create postnatal source
and mutually supplemented and balanced itself
even in the presence of damp-heat**

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4. Spring purifying cure

- Maitake recommended to use together with
 - * Blazei (almond mushroom)
 - * and zhuling (lumpy bracket, Umbrella polypore).
- patients who observe the dietary recommendations for spring time feel full of strength, ideas and optimism and they keep coming back every spring to get a fresh supply of fungi.

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Further inspiration for mushroom nutrition therapists:
PROMOTING DIGESTION within TCM framework

in dampness
+ possibly phlegm yin
→ fuling
+ possibly heat
→ maitake

in dryness
+ possibly heat
→ heimuer
+ possibly phlegm
→ shiitake

in cold
+ possibly phlegm
→ blazei

universal
+ possibly heat
→ houtougu
+ possibly damp-heat
→ maitake

supplement Qi supplement Blood via benefiting Spleen & Stomach

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Digestive Problems

Symptoms

- Loss of appetite
- Stomach problems, regurgitation, nausea, vomiting, stomach ache
- Diarrhoea, abdominal pain, ...

Diagnosis according to WM :

- Psychosomatic complaints
- Gastritis, intestine inflammation, peptic ulcer disease
- Cholecystitis, gallstones
- Liver inflammation, steatosis, cirrhosis of the liver
- Intestinal infection, parasitic disease, ...

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Digestive Problems II. – Causes According to TCM

Most Frequent Causes According to TCM:

1. Accumulative indigestion (*shiji*) (stagnation of food in the stomach)
2. Stomach heat (*weire*)
3. Insufficiency of spleen qi, insufficiency of spleen and stomach qi (*piqixu, piwei qixu*)
4. Insufficiency of spleen yang, possibly also of kidney yang (*piyangxu, shenyangxu*)
5. Insufficiency of stomach yin (*weiyinxu*)
6. Stagnation of liver qi with insufficiency of spleen qi (*ganyu, piqixu*)
7. Liver qi affecting the stomach (*ganqi fan wei*)
8. Damp heat in the intestines and gallbladder (*dachang shire, danshire*)
9. Insufficiency of the large intestine in cold syndromes (*dachang xuhan*)

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1. Accumulative indigestion *shiji*

Therapeutic aim: help digest food, unblock stagnations, stimulate descent of stomach qi

ACU:

- CV 12 – stimulates descent of stomach qi /CV 10,11/
- ST 36 – harmonizing stomach, spleen, ST 21 – stimulates descending function of stomach qi, dissolves stagnating food
- BL 21 – stomach *shu*, PC 6 – emotions, flow of qi
- SP 4 – dissolves food stagnations
- Presence of heat: ST 44, LR 2, LI 4, 11
- Presence of dampness: ST 40

+ **Hericium** – basic (but not acute phase of „surfeit”, this is handled by ACU)
+ **Maitake** – presence of damp heat, enervation, fatigue
Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms.

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2. Stomach Heat *weire*

Therapeutic aim: Clear heat, harmonize the centre, promote production of fluids, correct the flow of qi

ACU:

- CV 12 (stomach *mu*), PC 6 – correct the flow of stomach qi
- BL 21 – stomach *shu* point
- ST 36 – promotes spleen and stomach functions...
- ST44 – clears heat,
- SP 4 – spleen *luo* point, master point for diarrhoea, treats vomiting, stomach cramps,
- LI 4, BL 17...

+ **Hericium** – basic
+ **Maitake** – presence of damp heat, enervation, fatigue
Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms.

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3. Insufficiency of Spleen and Stomach Qi - *piwei qixu*

Therapeutic aim: Strengthen the centre, promote [formation of] qi, and possibly clear dampness, correct the flow of qi, ...

ACU:

- BL 20,21, CV 12, LR 13, CV 4, ST 36

+ **Shiitake** (*xianggu*) – basic
+ **Poria** (*fuling*) – basic, particularly in presence of dampness and swelling, no warming and no cooling effect
+ **Blazei** – warming digestion, sensitivity to cold
+ **Maitake** – presence of damp heat, enervation, fatigue
+ **Auricularia** (Jew's Ear) – harmonizing stomach, tonifying qi and blood
or depending on other accompanying symptoms
+ **Pleurotus** (*Oyster*)
+ **Ganoderma** (*lingzhi-reishi*)
Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms. The only exception is Poria, which would be added to the daily supplementation plan in order to intensify the effect of supporting the spleen, or promoting the function of transporting the fluids and nourishment of the triple burner.

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4. Insufficiency of Spleen Yang (Possibly. + Kidney) - *pishen yangxu*

Therapeutic aim: Warm the spleen, invigorate spleen and kidney yang, correct digestion, and possibly remove swelling

ACU:

- Moxa: BL 20, 23, CV 4, 12, GV 4, ST 25, 36

+ **Cordyceps** – basic
+ **Blazei** – stronger warming of digestion
or depending on other accompanying symptoms
+ **Ganoderma** (*lingzhi-reishi*)
+ **Poria** (*fuling*)
Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms. The only exception is Poria, which would be added to the daily supplementation plan in order to intensify the effect of draining dampness, or promoting the function of transporting the fluids and nourishment of the triple burner.

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5. Insufficiency of Stomach Yin *weiyinxu*

Therapeutic aim: nourish the yin, harmonize the stomach, increase fluids

ACU:

- PC 6, CV 12 – sending down abnormally ascending stomach qi,
- BL 20, 21 spleen and stomach *shu* point,
- SP 6 supports yin + fluids,
- ST 44 – removing excess heat,
- KI 3/6/ affecting yin and qi

+ **Auricularia** (Jew's Ear) – harmonizing stomach, moistening dryness
+ **Hericium** – clearing heat, harmonizing stomach
or depending on other accompanying symptoms
+ **Coriolus** – invigorating yin
Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms.

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6. Stagnating Liver Qi, Insufficiency of Spleen Qi *ganyu, piqixu*

Therapeutic aim: relieve stagnating liver qi, strengthen the spleen

ACU:

- BL 18, 20, 21, CV 12, LR 3, 13, PC 6, ST 36

+ **Coriolus** – basic
+ **Hericium** – presence of stress
or depending on other accompanying symptoms
+ **Chaga** (Caga) – boosting blood circulation, transforming phlegm, calming the spirit
+ **Pleurotus** (Oyster)
+ **Poria** (*fuling*)
+ **Ganoderma** (*lingzhi-reishi*)

Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms. The only exception is Poria, which would be added to the daily supplementation plan in order to intensify the effect of supporting the spleen, or promoting the function of transporting the fluids and nourishment of the triple burner.

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7. Liver Qi Affecting the Stomach *ganqi fan wei*

Therapeutic aim: soothing the liver, promoting circulation of qi, boost blood circulation, relieving pain

ACU:

- LR 2,3, 13, 14, ST 25, 36, 41, CV 12,
- GB 34, 29, LI 4,11, PC 6, TE 6

+ **Hericium**
or depending on other accompanying symptoms
+ **Chaga** (Caga) – boosting blood circulation, transforming phlegm, calming the spirit
+ **Coriolus** – stagnation of liver qi, invigorating liver yin
+ **Auricularia** (Jew's Ear) – harmonizing stomach, tonifying qi and blood

Note: Only one of the mentioned mushrooms would probably be used in each case, individual choice depends on accompanying symptoms.

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3c. Diabetes II

Traditional differentiation and explanation of patomechanisms *xiaokebing 消渴病, "wasting/thirst disease"* *tangniaobing 糖尿病, "sweet urine disease"*

Patomechanisms – injury from:

1. depletion of *zangfu* organs
2. seven emotions and imbalance of work/rest
3. food or medicines
4. blood depression and phlegm accumulation
5. yin vacuity and dry-heat
6. imbalance of upper burner
7. imbalance of middle burner
8. imbalance of lower burner

○ potentially well solvable by mushroom nutrition
● potentially well solvable by mushroom nutrition certain elements of the mechanism (=>part of other therapy)

Source: Wu JR, Wu R, Zhao DD. Analysis on Traditional Chinese Medicine syndrome elements and relevant factors for senile diabetes. J Tradit Chin Med 2010 August; 15: 303-312-478

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3c. Diabetes II

Analysis of Syndrome Elements (SE) of TCM in Senile Diabetes (SD = with onset at 60+)

SE a their order:

1. yin vacuity (92 %)
2. qi vacuity (80 %)
3. blood depression/stasis (69%)
4. turbid phlegm (47 %)
5. yang vacuity (44 %)
6. damp-heat (43 %)
7. full heat (31 %)
8. blood vacuity (27 %)
9. damp-cold (9 %)

Combinations of SE incl. order:

1. 4 SE (57 %)
2. 3 SE (30 %)
3. 5 SE (7 %)
4. 2 SE (4 %)
5. 6 SE (2 %)
6. 1 SE (0 %)

94 %

○ duration 14±9 years

○ potentially well solvable by mushroom nutrition
● potentially well solvable by mushroom nutrition certain elements of the mechanism (=>part of other therapy)

Source: Wu JR, Wu R, Zhao DD. Analysis on Traditional Chinese Medicine syndrome elements and relevant factors for senile diabetes. J Tradit Chin Med 2010 August; 15: 303-312-478

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3c. Diabetes II

Analysis of Syndrome Elements (SE) of TCM in Senile Diabetes (SD = with onset at 60+)

Distribution of main SE combinations:

- a) *qixu+yinxu+xueyu* (13 %)
- b) *qixu+yinxu+xueyu+shire* (6 %)
- c) *qixu+yinxu+xueyu+tanzhuo* (24 %)
- d) *qixu+yinxu +tanzhuo* (11 %)
- e) *qixu+yinxu +yangxu +other* (18 %)
- f) *yinxu+xueyu +other* (10 %)
- g) other combinations (18 %)

Source: Wu JR, Wu R, Zhao DD. Analysis on Traditional Chinese Medicine syndrome elements and relevant factors for senile diabetes. J Tradit Chin Med 2010 August; 15: 303-312-478

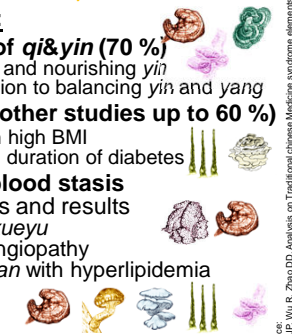
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Analysis of Syndrome Elements (SE) of TCM in Senile Diabetes (SD = with onset at 60+)

Comments on results:

- concurrent vacuity of qi&yin (70 %)**
 - * when supplementing *qi* and nourishing *yin* it is necessary pay attention to balancing *yin* and *yang*
- yang vacuity (44 %, other studies up to 60 %)**
 - * positive correlation with high BMI
 - * positive correlation with duration of diabetes
- turbid phlegm and blood stasis**
 - * they are both causes and results
 - * positive correlation of *xueyu* with diabetic macroangiopathy
 - * positive correlation of *tan* with hyperlipidemia and hypertension



Source: Ma, B., Zhu, D.D. Analysis on Traditional Chinese Medicine Syndrome Elements and relevant factors for senile diabetes. J Tradit Chin Med 2013 August 15; 33(4):472-478

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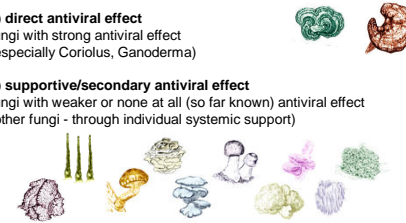
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Mushrooms, strong possibilities in TCM and everyday nutrition // 3d. Viral Conditions

Antiviral strategies using medical fungi

1) direct antiviral effect
fungi with strong antiviral effect (especially Coriolus, Ganoderma)

2) supportive/secondary antiviral effect
fungi with weaker or none at all (so far known) antiviral effect (other fungi - through individual systemic support)



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Mushrooms, strong possibilities in TCM and everyday nutrition // 3d. Viral Conditions


Antiviral properties (AVP) of selected mushrooms

Mushroom	AVP	Suitable terrain & biomedical conditions
Auricularia auricula (<i>heimu'er-kikurage</i>)		dry cough, dry stools, pale complexion, stiff tendons
Agaricus blazei (<i>jisongrong-himematsutake</i>)	●	BIG sensitivity to cold, lower backache, cold and weak knees or legs, early-morning diarrhea, slight abdominal distension, indigestion of cold or raw food
Inonotus obliquus (<i>baihuarong</i>) – chaga		purple lips, purple nails, purple tongue
Cordyceps sinensis (<i>dongchongxiaocao-tochukaso</i>)	●	sensitivity to cold, lower backache, cold and weak knees or legs, male infertility (low sperm count, low libido), depression, tiredness, apathy // (males < 50)
Coriolus/Trametes versicolor (<i>yunzhi-kawaratake</i>)	●●●	feeling of heaviness, feeling of oppression of the chest // fatigue (from unknown reasons)
Ganoderma lucidum (<i>lingzhi-reishi</i>)	●●	palpitations, anxiety, insomnia, dream-disturbed sleep, dizziness, fatigue, histamine-mediated allergies // females
Grifola frondosa (<i>huishuhua-maitake</i>)	●	diabetes II type, indigestion // males; obese
Hericium erinaceus (<i>huitougu-yamatake-shiitake</i>)		gastric pain (ulcers), inflammation, brain support, indigestion // managers
Lentinula edodes (<i>xianggu-shiitake</i>)	●	propensity to catch colds, fatigue, indigestion // youngsters, elderly
Pleurotus ostreatus (<i>pinggu-hiratake</i>)		cholesterol, stiff tendons, spasm
Polyporus umbellatus (<i>zhuling-cholei</i>)	●	BIG retention of fluids (esp. lower extremities) - diuretic
Poria cocos (<i>fuling-bukuryo</i>)	●	retention of fluids, mild diuretics for minor swellings (respective of the location), loose stool

But still new emerging antiviral scientific evidence, e.g.:
 Auricularia: In vitro antiviral activity of sulfated *Auricularia auricula* polysaccharides. Ngien et al, Carbohydrate Polymers Vol 90, 2012.
 Hericium: Effects of *Hericium erinaceus* polysaccharide on reovirus-induced tissue necrosis and apoptosis in Mincovy ducks. Chen et al, Chinese Journal of Preventive Veterinary Medicine, 2010.

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Coriolus versicolor
Polyporus versicolor
Trametes versicolor

turkey tail
yunzhi 云芝/雲芝
kawaratake

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Coriolus – Material & Methods

Enzyme activity – key factor of antiviral effect

Active ingredient	Coriolus versicolor – mycelial biomass 500 mg	
Enzyme activity	Protein content 17.3 mg	Glucoamylase/glucanase activity 6.9 U
	Reducing sugars 14.8 mg	Protease activity 5.9 U
	Protein-bound polysaccharide 91.5 mg	Superoxide dismutase (SOD) activity 77.1 mU
	Glucose 2-oxidase activity 49.5 mU	Cytochrom P-450 0.51 nmoles
	Peroxidase activity 67.2 mU	Cytochrom P-450 reductase 11.9 mU
	Laccase activity 521.5 mU	Secondary metabolites (Thrombin inhibitors) 59 %

Mycology Research Laboratories
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Mushrooms, strong possibilities in TCM and everyday nutrition // 3d. Viral Conditions

The Virus-Cancer Link

A concept that is gaining ground in the conventional as well as the alternative medical fields is that of a link between viruses and cancer

Virus ————— **Cancer**

- Human Herpes virus-8 (HHV-8) ————— Kaposi's sarcoma (KS)
- Human Papillomavirus (HPV) ————— Cervical cancer
- + oropharyngeal carcinoma (throat, tonsils, tongue base), polyps in airways
- + parts of genitalia, tongue, skin
- + carcinoma of penis or anus
- Epstein-Barr virus (EBV) ————— Nasopharyngeal carcinoma
- Burkitt's lymphoma
- B-cell lymphomas in AIDS patients
- Hodgkin's diseases
- Breast cancer
- Hepatitis B virus ————— Hepatocarcinoma (Liver cancer)

Source & more detail on Virus-Cancer link available online from [mycologyresearch.com](http://mycologyresearch.com/pdf/newsletternewsletter_uk_04.pdf)
http://mycologyresearch.com/pdf/newsletternewsletter_uk_04.pdf

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3d. Viral Conditions

Coriolus mushroom nutrition – Material & Methods

Used as a food supplement (FS) – mushroom nutrition for effects based on detoxification/expelling & simultaneous supplementation
(statement valid for both WS & TCM approaches)

Usage of Coriolus in nutrition therapy (NT) is based on WS studies revealing causality between (mainly) single ingredient/constituent part and particular effects
especially on CFS, autoimmune diseases, states after chemo- or radiotherapy, viral load, virus related conditions

Usage of Coriolus in Chinese medicine (TCM) is based on holistic properties fitting into complex syndromology of TCM
especially for heat deriving from impediment or stagnation of Phlegm with/without Dampness, which harms mainly Liver-Yin and Kidney-Yin (with all the consequences)

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Coriolus mushroom nutrition – WS documented usage

either as an additive/adjuvant or stand alone food supplementation

- antiviral effect on **herpes simplex (HSV)** (HSV linked to facial/oral/genital herpes)
- antiviral effect on **Epstein Barr virus (EBV)** (EBV linked to breast lumps)
- antiviral effect on **Human papillomavirus (HPV)** (HPV linked to cervical pathologies)
- chronic fatigue syndrome (CFS)** (viral link?) and fatigue from various (or unknown) reasons
- immune support of **healthy prostate** (viral link?)
- immune support in **hepatitis (H_V – hepatitis viruses)**

other valuable usage (but not necessarily virus related)

- Immune modulation/support**
- Leaky Gut Syndrome (LGS)**
- Detoxification**
- Fibromyalgia (FM)**; chronic pain of muscles and connective tissue
- Immune support during **radio or chemotherapy** (important tool!)
- nutrition in **palliative care**
- chlamydia** (together with other mushrooms and TCM remedies)

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3d. Viral Conditions

Ganoderma mushroom nutrition & antiviral properties

either as an additive/adjuvant or stand alone food supplementation

As for antiviral properties is Ganoderma similar, but less powerful than Coriolus
In specific viral conditions Ganoderma can be preferred to Coriolus, especially when accompanied by:

- asthma, bronchitis, allergy (great in histamine mediated a.!)**
- cardiovascular disease** (hypertension, blood clotting, angina pectoris, atherosclerosis, high cholesterol – all this thanks to triterpens and sterols)
- diabetes (DM2)**, gout (in gout preferably with Poria or Polyporus)
- hepatitis**
- palpitation**
- breathlessness, short breath**
- insomnia, mental restlessness**
- Cough, dizziness, vertigo, flashing lights/floaters in the vision**

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3d. Viral Conditions

Ganoderma mushroom nutrition & antiviral properties

either as an additive/adjuvant or stand alone food supplementation

Ganoderma supplementation helps the organism to deal with possible viral load while simultaneously addressing given specific associated or underlying conditions.

Recommended supplementation:

- depending on severity of the disease
- 0,5 – 3 g a day, best split into several doses
- initial dosage could be higher for couple of days/weeks
- ideal to combine with Coriolus, either give:
 - * together
 - * separately during the day
 - * (weekly, monthly) courses of each
 - ** distribution of the daily dosage could be equal or with preference to one mushroom (which again can be changed over time)

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Mushrooms, strong possibilities in TCM and everyday nutrition // Table of contents

- Introduction
 - General usage of mushroom nutrition (MN)
 - General contraindications of MN
 - Three well-known mushrooms (ganoderma, cordyceps, shiitake)
- The Role of Enzymes in MN
- The Benefits of MN in Specific Syndromes in TCM**
 - The role of MN in backing acupuncture for immune support (var.mushr.)
 - The role of MN in nourishing the Earth (Spleen & Stomach)
 - tool for TCM constitutional support (poria,hericium,maitake,shiitake,blazei)
 - tool for TCM pathologies (various mushrooms)
 - The role of MN in Diabetes II (various mushrooms)
 - The role of MN in Viral Conditions (coriolus, ganoderma)
 - The role of MN in Chronic Fatigue** (various mushrooms)
- A TCM perspective on the Challenges to Women's Health & MN
- Strong Safety Data for MN
 - Background of efficacy of MN
 - History
- Conclusion, Evaluation

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Description

First some information about CFS/ME, because it is good example of benefits of using mushrooms and acupuncture together.

CFS/ME is also called as:

- Chronic viral syndrome
- Post viral fatigue syndrome (PVFS)
- Myalgic encephalomyelitis (ME)
- ME/CFS

=> complex clinical syndrome

Characterized by:

- Persistent fatigue /for more than 6 months/
- Neurological problems
- Constellation of symptoms that can resemble other illnesses

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Main symptoms as evaluated by WM

- persistent fatigue - doesn't respond to exerted activity /tiredness without apparent cause /
- sleep and relaxation doesn't restore enough energy
- symptoms get worse with any physical and mental activity
- recovery /convalescence /of the body after common infections /virosis/ is difficult and time-consuming
- Patient is very limited in everyday life

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Other causes of fatigue that should be eliminated according to WM

Diff. diagnosis:

- hypothyroidism, lupus erythematosus – and other autoimmune diseases,
- anemia, insufficiency of minerals, vitamins,
- tumors
- active ongoing Lyme disease,
- active EBV (↑IgM) (i.e. EBV without being accompanied by other major/minor/objective symptoms)
- addiction on drugs, alcohol...
- psychiatric illnesses

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Minor symptoms I – as evaluated by WM

- Muscle pain, joint pain /without redness/
- Sore throat
- Headache
- Chills
- Weakness, coldness of the extremities
- Sweating
- Swollen, painful glands, /lymph nodes/

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Minor symptoms II – as evaluated by WM

- Insomnia
- Irritation, nervousness, changes in mood
- Low concentration, poor memory
- Digestive problems, allergic pr.
- **Symptoms appear suddenly /after viral inf./**

= Symptoms are showing deregulation of immune, neurohumoral and digestive systems

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Objective criteria (symptoms) – as evaluated by WM

- Low-grade fever /37-38 degrees/
- Repeated pharyngitis /inflammation of the throat/
- Palpable and sensitive lymph nodes

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Diagnosis in Western medicine

... difficult, cannot be determined by objective examination

Dg:

- 2 main + 6 minor symptoms +2 objective criteria,

or

- 2 main + 8 minor s.

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// Causes of CFS from the view of WM

- pollution of our environment /chemicals, heavy metals,.. /
- stress, emotions
- infections, viral load (EBV, CMV, Herpes simplex, borrelia, chlamydia...)
- metabolic and genetic defects
- bad nutrition + life style...

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Chronic fatigue syndrome (CFS)
Chronic fatigue immune dysfunction syndrome (CFIDS)
// from TCM perspective

- We are looking for the roots of the disease, so we examine the status of YIN, YANG, QI, XUE, and ZANG-FU organs
- Attention on prenatal (SHEN=kidney) and postnatal root (PI+WEI= spleen, stomach)
- We are looking for the causes of weak YUAN QI
- We are checking organs involved in forming QI&XUE, and organs which are responsible for their distribution
- + do not forget latent pathological factor / lingering pathogens (*fuxie*)

In other words we are thinking of following deficiencies:

- (*yuan*)*qixu*
- *piwei qixu*, *piyangxu*
- *feiqixu*
- *shenjing buzu*, *shenyinyangxu*
- *ganyu* (Liver-Qi stagnation)

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Conclusions
from the clinical use of *Coriolus*

- balances immunity,
- is useful in the treatment of autoimmune inflammation,
- has antiviral effect,
- is increasing vitality, energy
- has hepatoprotective effect...

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Conclusions
from the clinical use of the combination of *Coriolus*+*Cordyceps*

In fatigue, chronic fatigue or in sportsmen nutrition

- To balance immunity
- To enhance the capacity to deal with stress
- To strengthen body
- To safeguard body from injury

Recommended supplementation:

- 14 days before event: 2x 1,5 g of *Coriolus* + the same of *Cordyceps* a day
- in training: 1x 1,5 g of *Coriolus* + the same of *Cordyceps* a day
- in (young) males possible to replace *Cordyceps* for *Blazei*
- in males above 50 y, advised to replace *Cordyceps* for *Maitake* (or *Blazei*)
- in women possible to replace *Cordyceps* for *Reishi*

// mushrooms are best to be taken separately, best 1 hour before or 2 hours after meal
// *Cordyceps* or *Blazei* to be used best in the morning, forenoon, and definitely not before sleep

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Mushrooms, strong possibilities in TCM and everyday nutrition // 3e. Chronic Fatigue
Conclusions
from the clinical use of *Poria*

- *Poria* is of great value in tonifying digestive organs (pancreas, stomach) and in promoting good/healthy (not reduced, not excessive) appetite
- Good to treat coughs with phlegm (transforming phlegm: *huatan* in terms of TCM)
- Because of aiding the digestion it may be useful in treating fatigue....

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