

POWER UP YOUR IMMUNE SYSTEM 提升身体免疫力

Lifestyle Strategies to Boost Your Immune Health
营养和生活习惯对策

*plus***LIFE**
add to your life

*Nutri***max***Organic*



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Risk of Infection 感染风险

- The Common Cold is an infectious disease causing inflammation of the mucous membranes of the upper respiratory tract
- 感冒是上呼吸道黏膜感染
- It is caused by any one of over 200 different viruses
- 导因可能超过200种病毒中的一种造成
- Small doses of the virus (1 – 30 particles) are sufficient to produce infection
- 只要1到30颗病毒就能造成感染

Risk of Infection 感染风险

Risk of infection increases with:

- Stress, excessive fatigue 压力、过劳
- Poor nutrition 营养差
- Recent illness that has lowered immune resistance
刚生病
- Lack of sleep 睡眠不足

Risk of Infection 感染风险

Risk of infection increases with:

- Being in a crowded place when a flu epidemic occurs 到过感冒爆发区
- Lack of exercise 没有运动
- Lifestyle Factors 生活习惯

Top 10 Preventive Strategies for Optimizing Immune Function 优化免疫系统10大策略

- 1) Hygiene Habits 卫生习惯
- 2) Hydration 喝水
- 3) Daily Nutrition 每日营养
- 4) Food Handling 食物处理
- 5) Face Masks & Respirators 口罩及呼吸器
- 6) Barriers 隔离
- 7) Ventilation 空气流通
- 8) Humidification 潮湿
- 9) Safe & Smart Travel 旅行保障措施
- 10) Natural Immune Enhancement 天然免疫促进法

Strategy 1: Hygiene Habits 卫生习惯

- Wash your hands frequently and properly
经常好好洗手
- Cover your mouth and nose when you cough or sneeze, especially where other people are in close proximity
打喷嚏时要掩住口鼻
- Clean your hands after coughing or sneezing
咳嗽或打喷嚏后洗手

Strategy 1: Hygiene Habits 卫生习惯

- Avoid people who are sick; stay at home if you are sick
不用于生病的人为伍；生病时就在家静养
- Person can be infected by touched infected object or person
摸到受感染的东西或人都会遭殃
- Viruses can survive on human hands for several hours
病毒能够在人手掌中存活好几个小时

S'POREANS' POOR HYGIENE HABITS

AC Nielsen survey shows 40% don't use soap and 30% don't wash hands before their meals

DEWI SRIWAHYUTO

SINGAPOREANS' standards of personal hygiene leave much to be desired, if the results of an AC Nielsen survey **commissioned** by home-care-product manufacturer Unilever are to be believed.

The results of the survey conducted last year are timely, in the light of the most serious food-poisoning case here in recent years, where one woman has died and over 100 fell ill after eating rojak from a Geylang Serai stall.

The survey found that two in five Singaporeans do not wash their hands with soap.

It also revealed that three out of 10 do not wash their hands with soap before meals.

Mr Patrick Chew, 19, a polytechnic student told *my paper*: "I don't wash my hands before I eat. I don't see a need to do so because I use the **cutlery** provid-

ed at food stalls and restaurants."

Dr Helen Tan, 45, from Medicare Family Clinic, said there is still a risk.

"Even if you use cutlery, there's always a chance of you touching your mouth or face when you clean yourself after you eat. So, if your hands are dirty, you are immediately transferring germs to those places," she said.

Ms Carolyn Tan, 29, assistant brand manager of Unilever Singapore, said: "Washing your hands with soap reduces the risk of contracting diseases and it also prevents you from transferring diseases to other people."

She added: "The critical moments for hand-washing are before and after cooking, because contact-transmissible diseases spread fastest through contact between hands and food."

She said it is especially important for young children to be more aware of personal **hygiene**.

"They...may not be careful about what they touch and this makes them highly prone to catching germs," she said, adding that Lifebuoy, a brand of body wash marketed by Unilever, is organising a series of talks on hygiene at 30 primary schools here.

"Hand-washing is touted as the best preventive measure available...falling ill less frequently also means lower medical bills," said Ms Tan.

Hygiene has become a hot-button issue on online forums and blogs following the rojak food-poisoning incident.

On the forum Makansutra's Food For Talk section, netizen mothball said: "I see so many owners employing untrained staff who are very unhygienic."

"They have dirty nails and bad habits like touching their face or hair while preparing food, or picking their noses and scratching funny places."

Others wondered if Singaporeans are **susceptible** to food poisoning because they have got used to high levels of food hygiene.

Dr Tan Seow Hwee, a medical director for the accident and

UNHYGIENIC S'POREANS

3 in 10 do not wash their hands after using the toilet



4 in 10 do not wash their hands with soap



3 in 10 do not wash their hands before meals



5 in 10 do not wash their hands after meals



SOURCE: UNILEVER

emergency department at Gleneagles Hospital, rejected the notion.

"Everyone is susceptible to food poisoning," he says. "The problem lies in the preparation of food, because if one doesn't follow the necessary hygiene measures, food poisoning will most likely occur."

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HELPDESK 我的字典

Commissioned:
受委任的 shòu wěi rèn de

Cutlery: 餐具 cān jù

Hygiene: 卫生 wèi shēng

Susceptible: 易受影响的
yì shòu yǐng xiǎng de

Strategy 1: Hygiene Habits 卫生习惯

Popular Germ Hangouts 细菌滋生的场所

Workplace 工作

- ❖ Phone Receiver 电话筒
- ❖ Computer Keyboard 电脑键盘
- ❖ Computer mouse 鼠标
- ❖ Fax machine 传真机
- ❖ Photocopy machine 复印机
- ❖ Toilet seat 马桶坐圈

Home 家里

- ❖ Kitchen sponge 洗盘海绵
- ❖ Kitchen sink 洗涤盆
- ❖ Toilet bowl 厕所马桶
- ❖ Kitchen garbage 垃圾
- ❖ Refrigerator 冰箱
- ❖ Bathroom doorknob
浴室门把手
- ❖ Cutting board 切菜板

Strategy 2: Hydration 喝水

- Water is present in every cell and tissue of the body and facilitates every bodily function:
水在每个细胞和组织中都存在，作用是：
 - Respiration 呼吸
 - Digestion 消化
 - Cognition 辨识力
 - Immunity 免疫力

Strategy 2: Hydration 喝水

- The best way to monitor fluid intake is to watch the color of your urine 观察尿液的颜色
- Drink at least 8 cups of fluid a day 每天至少喝八杯水
- Drink water 1st thing in the morning to make up for loss of fluids during the night
早上起来就喝水，弥补睡眠失去的水分
- Drink throughout the day; don't wait until you're thirsty!
全日喝水，不要等口渴才喝
- For every cup of caffeinated beverage, drink an extra ½ cup
喝咖啡因饮料后，再喝多半杯水

Strategy 2: Hydration 喝水

TIP! 贴士

Some nutrition experts recommended the following for detoxification:

有些营养专家的排毒建议：

- 15 ml per 0.45 kg of body weight
每0.45公斤的体重每天要喝15毫升的水
- Eg: 2,000 ml for 60 kg body weight
体重60公斤的人要喝2千毫升的水

Strategy 3: Daily Nutrition 每日营养

- Aim to eat a balanced diet every day, consisting of a variety of foods
每天饮食均衡，吃多种食物
- Helps to maintain physical strength, and promote optimal immune function
保持活力和促进免疫力

Strategy 3: Daily Nutrition 每日营养

- Foods to avoid if you have the flu 若流感, 不要吃:
 - Sugar 糖
 - Avoid foods that increase mucous formation; they enable an environment conducive to harboring viruses. (Bananas, oranges, citrus juices, peanuts, dairy)
避免增多粘液的食物, 如香蕉、橙、柑橘类果汁, 花生, 奶制品

Strategy 4: Food Handling 食物处理

- Ongoing outbreaks of highly pathogenic H5N1 avian influenza have raised grave concerns on multiple sources of infection and the risk to humans from various exposures
不断出现高发病率的H5N1的禽流感，令人担心感染源头很多
- Good hygiene practices are essential during slaughter and post-slaughter handling to prevent cross contamination
宰杀和过后的处理必须卫生，避免交叉感染。

Strategy 4: Food Handling 食物处理

“5 Keys to Safer Food” issued by the World Health Organization

- Key #1: Keep clean 保持清洁
- Key #2: Separate raw and cooked 生熟食物要分开
- Key #3: Cook thoroughly 完全煮熟
- Key #4: Keep food at safe temperatures
食物保鲜要注意温度
- Key #5: Use safe water and raw materials
水源和原料都安全

Strategy 5: Face Masks and Respirators

口罩及呼吸器

- Mask used should be based on risk, including the frequency of exposure and closeness of contact with potentially infectious persons. 适时使用口罩
- Persons diagnosed with influenza or respiratory illness should remain at home to avoid exposing others. If during the acute phase of their illness out in the public, they should wear a surgical or procedure mask.

流感或呼吸道疾病病患，要呆在家中，若外出要戴口罩

Strategy 6: Barriers 隔离

- Influenza virus, including H5N1, transmits via the respiratory and mucosal tracts
流感通过呼吸道及粘膜感染
- A sneeze or cough can propel a virus 3 or more meters
喷嚏可把病毒喷三米远
- Human influenza virus can transmit from person-to-person across a distance 1 meter, and may also occur through direct or indirect contact
人流感病毒在一米内人传人

Strategy 6: Barriers 隔离

- Avoid rubbing eyes with your hands
不要用手擦眼
- It is essential to protect the mouth, nose, and eyes from direct contact with the pathogen
要保护口、鼻、眼免得和病菌直接接触



Strategy 7: Ventilation 空气流通

- Maintain good indoor ventilation to minimize the lingering of virus particles in the air
室内空气流通，减少病毒粒子
- Avoid crowded places with poor ventilation if you are feeling unwell, so as to not risk contaminating others
避免到通风差的地方
- HEPA (high efficiency particulate air) filter can serve as a barricade preventing the circulation of infectious particles
高效粒子过滤空气过滤机可以防止病毒传播

Strategy 8: Humidification 潮湿

- Virus epidemics are far more prevalent during winter/cold/rainy months
冬天、冷天和雨天是个感染最旺的时刻
- Cold, dry air inhibits natural viral cleansing of the respiratory passages and immobilizes cilia, the tiny hairs that move debris and germs out of the nasal passage and lungs
冷干空气，让鼻毛没法清理病毒

Strategy 8: Humidification 潮湿

- Dry air dehydrates respiratory passages, starting cracks and dents in the mucosa, making it easier for viral infectious particles to settle
空气干燥导致粘膜龟裂，容易感染
- Less sun exposure = less natural production of vitamin D, a potent immune system modulator
没有太阳，身体减少维生素D的制造，抑制免疫系统

Strategy 9: Safe and Smart Travel

旅行保障措施

Be aware of travelers who have a cough (as a result of any illness). Avoid infecting others by: 避免感染

- Wearing a face mask 戴口罩
- Cover your mouth with paper towel when coughing 咳嗽时要掩口
- Frequently and properly washing your hands 经常及恰当地洗手

Strategy 10: Natural Immune Enhancement 天然免疫促进法

- Natural immune enhancement aims to:
通过膳食补充品自让提升免疫力
 - ▣ Strengthen overall immune function 整体提升免疫力
 - ▣ Reduce the viral load 减少病毒的压力
 - ▣ Control inflammation 控制发言
- Boost antioxidant protection and optimize cellular processes 加强抗氧化保护及细胞的活力
- Long term natural immune support 长期和天然的免疫支援

Top 10 Natural Immune Enhancers

十大免疫提升天然补充品

1. Green Tea Extract 绿茶萃取物
2. Oregano Oil 牛至油
3. Inositol Hexaphosphate (IP6) 植酸
4. Magnesium 镁
5. Omega-3 Fatty Acids Ω 3 不饱和脂肪酸
6. Olive Leaf Extract 橄榄叶萃取物
7. Probiotics (Lactobacillus Acidophilus) 益生菌
8. Selenium 硒
9. Vitamin C 维生素C
10. Zinc 锌

Green Tea Extract 绿茶萃取物

- Contains numerous cancer-fighting polyphenol compounds, including antioxidant flavonoid catechins
含多种抗癌物质——多酚，包括抗氧化类黄酮：
儿茶酚
- Green tea polyphenols are known to stimulate production of several immune system cells
- 绿茶多酚已知能刺激多种免疫细胞的生产

Green Tea Extract 绿茶萃取物

- Possess antibacterial properties 含抗菌作用
- Stimulates gamma-delta T-cells that boost immunity against viruses & bacteria
刺激T细胞，提升对病毒及病菌的免疫功能
- Potent immunotherapeutic agent against respiratory infections
对呼吸道感染有强大的免疫剂

Oregano Oil 牛至油

- Recommended for prevention and treatment of a wide range of infectious diseases 预防和治疗各种感染性疾病
- Inhibit and/or kill a broad spectrum of bacteria, fungi, yeast, viruses and parasites 抑制多种细菌，真菌，酵母，病毒和寄生虫
- Scientifically proven to effectively inhibit disease-causing microorganisms, including *Escherichia coli*, *Salmonella typhi* & more 科学证明，以有效地抑制致病微生物，包括*Escherichia*大肠杆菌和伤寒沙门氏菌

Inositol Hexaphosphate (IP6) 植酸

- Naturally occurring component of plant fiber
植物纤维自然产生的物质
- Possess antioxidant, anticancer and other beneficial properties
含抗氧化、抗癌及其他有益特色
- Enhances the immune system by boosting the activity of natural killer cells
促进自然杀手细胞的活力，以提升免疫系统

Magnesium 镁

- Deficiency of this mineral can adversely affect the immune system 缺镁造成免疫系统低落
- Involved in the synthesis of immunoglobulins (proteins that act as antibodies)
参与免疫球蛋白的合成
- Heavy drinkers and those concerned about osteoporosis may also benefit from taking magnesium supplements
酗酒者和担心骨质疏松者应补充镁

Essential Omega-3 Fatty Acids

Ω3必须脂肪酸

- Found primarily in fish oils 主要来自鱼油
- Not made by the body and must be supplied by the diet or supplements
人体不能制造，所以要补充
- Possess anti-inflammatory effects when taken at a therapeutic dosage
在摄取治疗量时，有抗炎效果

Essential Omega-3 Fatty Acids

Ω3必须脂肪酸

- Helps curb an overactive immune system; helpful for treatment of autoimmune diseases
协助克制过敏的免疫系统，对自体免疫疾病有效
- Research: long term usage can improve greater resistance to common illnesses
研究显示：长期摄取对抵抗常见疾病有效

Essential Omega-3 Fatty Acids

Ω3必须脂肪酸

- It is important to buy a good quality, mercury-free fish oil supplement
鱼油素质要讲究，要不含水银
- Omega-3 fatty acids should be used cautiously by people who have a bleeding disorder, or on blood-thinning medications
有流血不停或服用稀释血液药物者慎用

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- Leaf A, Weber PC. Cardiovascular effects of n-3 fatty acids. *N Engl J Med* 1988; 318:549-57.

Olive Leaf Extract 橄榄叶萃取物

- Recognized for its ability to fight bacterial infections, viruses and intestinal parasites
公认有抗细菌、病毒及肠内寄生虫感染的能力
- The plant chemical oleuropein is the source of olive leaf's infection fighting ability
橄榄叶的苦涩物质是抗炎物质

Olive Leaf Extract 橄榄叶萃取物

- Studies have indicated that olive leaf extract can kill the antibiotic-resistant bacteria staphylococcus aureus, and the parainfluenza type 3 virus, which causes a wide range of respiratory illnesses
研究显示其萃取物能杀死具抗药力的葡萄球菌、副流感等会导致呼吸道疾病的病毒

Probiotics – Lactobacillus Acidophilus

益生菌—嗜酸性乳杆菌

- “Friendly” strain of bacteria which colonizes the intestines where it helps prevent intestinal infections
友好肠道菌，协助防止肠道发炎
- Lactobacillus also flourishes in the vagina; protects women against yeast infections
乳酸菌也保护阴道免收酵母感染

Probiotics – Lactobacillus Acidophilus

益生菌—嗜酸性乳杆菌

- Clinical studies: lactobacillus acidophilus can help strength the immune system and enhance systemic cellular immune responses
临床研究：乳酸菌能协助加强免疫系统，和全身的细胞免疫反应
- Useful as a dietary supplement to boost natural immunity
是提升自然免疫力的天然补充品

Selenium 硒

- Essential trace mineral: necessary for growth and protein synthesis
是促进成长和蛋白合成的必须微量元素
- A number of studies have found that selenium deficiency is linked to the increased occurrence of viral infections
许多研究显示缺乏硒将提高病毒感染的机率

Selenium 硒

- Helps prevent infection and inflammation from viruses 协助病毒引起的发炎
- Supplementary selenium may help boost immunity in older people and improve their resistance to infections

补充硒可能协助提升老人的免疫力和改善他们的抗炎力

Selenium 硒

- Research suggests that selenium is vital for proper functioning of the immune system by: 研究显示
 - Increasing levels of white blood cells; enhance the body's ability to fight illness and infection
提升白血球的量，提高抗病力
 - Inhibits viral replication 抑制病毒复制

Zinc 锌

- One of the most important trace elements in the body 锌是身体最重要的微量元素之一
- Promotes resistance to infections, particularly in aging when the immune system slows down 提升抗炎力，特别老化造成的免疫力低落
- Clinical studies: shown to increase the activity of natural killer cells and boost the production of antibodies in response to infection
临床研究：能提升自然杀手细胞的活力，及促进抗体的产生

Zinc 锌

- Research: zinc can help immune cells fight a cold and relieve cold symptoms
研究显示锌能够协助免疫细胞抗防伤风及减缓症状

Vitamin C 维生素

- Potent antioxidant and protects against free radical cellular damage
强效的抗氧化剂，防止自由基对细胞的破坏
- Helps to shorten duration of colds and flu; helps fight secondary bacterial infections that comes with a cold (1,000 – 6,000 mg/day)
缩短感冒的康复期，防止二次感染，每天一千到六千毫克

Vitamin C 维生素

- Reduces the symptoms and duration of infection of other viruses such as mumps, herpes, measles and the flu

减缓腮腺炎、疱疹、麻疹和流感的症状及发病期