

SUPREME

SUPREME

SUPREME

SUPREME



FUNCTIONAL FOOD CONCENTRATES SUPREME SERIES

功能性濃縮食品至尊系列

SUPAC

超級 C



繁

簡

ENG



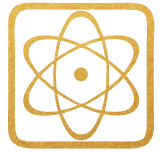
PRODUCTS YOU TRUST 信譽產品

目錄 CONTENTS

超 級 C 的 9 大 好 處	P. 4
甚 麼 是 免 疫 系 統?	P. 5
令 免 疫 系 統 變 弱 的 原 因	P. 6
如 何 加 強 免 疫 力?	P. 7
甚 麼 是 維 生 素 C?	P. 8
成 份 的 優 良 功 效	P. 9
超 級 C 的 好 處	P.11
超 級 C 的 獨 特 性	P.13
超 級 C 的 9 大 好 處	P.16
什 么 是 免 疫 系 统?	P.17
令 免 疫 系 统 变 弱 的 原 因	P.18
如 何 加 强 免 疫 力?	P.19
什 么 是 维 生 素 C?	P.20
成 份 的 优 良 功 效	P.21
超 级 C 的 好 处	P.23
超 级 C 的 独 特 性	P.25

超級 C 的 9 大好處

1. 有助提升免疫力
2. 有助抗衰老
3. 具強效抗氧化能力
4. 有助製造膠原蛋白
5. 促進鐵質吸收
6. 根據 "Vitamin C, vitamin E and cancer" 研究指出，維生素 C 和維生素 E 或有助中和致癌物質
7. 有助支持 **SIRT1** (長壽基因) 的健康
8. 提升生物運用率
9. 有助抗炎



甚麼是免疫系統？

免疫系統保護身體，對抗所有來自環境的外來入侵及威脅（包括：化學製品、毒素、細菌、病毒、真菌和寄生蟲）。

免疫系統的主要器官有：

- 胸腺
- 骨髓
- 脾臟
- 腸道
- 淋巴結

當免疫系統變弱時，身體會出現甚麼症狀？

- 經常受感染
- 對治療沒有反應
- 持續或反覆受感染
- 容易疲倦
- 長期腹瀉
- 失眠
- 抑鬱
- 皮膚問題
- 發燒或發冷
- 頭痛
- 淋巴腺腫脹
- 容易過敏
- 不能增磅或體重突然下降
- 慢性支氣管炎或鼻竇炎
- 發育遲緩
- 兒童有成長問題



令免疫系統變弱的原因

不良飲食習慣

根據 2010 年衛生署的調查顯示，超過 80% 的香港人每天吃少於 5 份水果和蔬菜。長期進食過量加工食物、精製糖、酒精、化學添加劑及防腐劑會減低白血球對抗感染的能力。長期吸收這類化學物亦會減低免疫系統所需的營養素。



缺乏睡眠

衛生署在 2008 年進行調查，受訪的 2000 名市民中有兩成在受訪前一個月，平均每週失眠 2 至 3 次。睡眠有助恢復和修補身體。當睡眠質素和質量降低，荷爾蒙的生產會受影響。這些荷爾蒙有助支持免疫系統和恢復身體的天然機能。

接觸毒素

有許多毒素都來自環境，如：殺蟲藥、食物、藥物和食水內的重金屬、空氣污染、工作地方的化學物質、輻射、更不用說二手煙和酒精。接觸過量毒素可直接削弱免疫細胞及令骨髓中毒，令我們容易患上傳染病和癌症。

長期壓力

根據香港社會福利署的報告，在香港每 3 個人便有 1 個人因工作和生活環境而面對巨大壓力。科學家證明，長期壓力會明顯降低免疫系統對抗疾病的能力。生理或心理壓力也會增加身體內的壓力荷爾蒙，這亦會對免疫系統造成傷害。

濫用抗生素

濫用或不正確地使用抗生素會干擾腸道內「好細菌」及「壞細菌」的天然平衡，令人們容易生病。濫用抗生素會令人們對病菌出現抗藥性，降低身體對抗疾病的能力。



嚴重疾病

疾病的治療方法有機會對免疫系統產生不良影響。輸血或器官移植或會令身體產生不良的免疫反應。化學治療會削弱免疫系統，令人容易受感染。

如何加強免疫力？

我們的身體每天都跟疾病和傳染病戰鬥，因此健康的免疫系統是非常重要的。

保持良好飲食習慣

優質的食物能保持細胞及免疫力系統健康。食物不僅為您提供能量，也包含對免疫系統健康的重要營養素。可選擇多進食時令的十字花科蔬菜、五顏六色的水果、魚、全穀類食物等。

保持良好睡眠質素，早睡早起

一般來說，每人每晚應睡 7-8 個小時。最佳的休眠時間是在晚上 9 時至早上 6 時之間。在熟睡期間，身體會釋放一種增強免疫力的強效物質及生長荷爾蒙。所以，充分睡眠能令你的免疫系統達至最佳效能。

排毒

今時今日，接觸毒素是無可避免的。毒素積聚令我們容易患病。排毒有助去除身體和腸道的毒素。乾淨無毒素的身體可令免疫系統的功能發揮至最佳狀態。

恆常及適當的運動

適當運動可加強你的免疫力，不過，過度強烈或極端的運動則會令免疫力降低。適當運動有助血液循環，幫助抗體和白血球流動，對抗感染。運動也可減少壓力荷爾蒙的產生，這種荷爾蒙被認為是引起流感和感冒的物質之一。

好好管理壓力

相對於承受長期壓力的人，抗壓能力較佳的人的白血球水平相對較高，這亦表示他們患感冒或受病毒感染的機會較低，康復時間亦會較短。

使用加強免疫系統的補充品

因為身體不能製造維持健康免疫系統的營養素，並且要從正常飲食中獲得所有必須營養素是非常困難，所以補充品是必須的。維生素 A、C、E 和鋅均對免疫系統有益處。



甚麼是維生素 C?

維生素 C 是一種不能自我製造的水溶性維生素，它是正常生長和發展的必要營養素。過多維生素 C 會通過尿液排出體外。

維生素 C 是多個重要物質，例如：膠原蛋白、腎上腺素等的前體。它亦是有效的抗氧化物，有助保護重要分子如蛋白質、碳水化合物、脂肪和核酸。美國俄勒岡州立大學的 Linus Pauling 研究所證實：維生素 C 是免疫系統的重要元素。

甚麼是超級 C?

成份：



維生素 C (酯化抗壞血酸鈣)、



紅色生物類黃酮、

鈣、



白藜蘆醇、

槲皮素、



黑胡椒提取物

每粒含 600 毫克維生素 C，主要來自酯化的抗壞血酸鈣，配方加入了鈣質和額外添加四種珍貴成份，如：紅色生物類黃酮、白藜蘆醇、槲皮素、黑胡椒提取物等。酯化抗壞血酸鈣除了比一般維生素 C 的吸收率高出 4 倍，亦較一般維生素 C 鹼性，因此不會傷害牙齒或腸胃，亦適合腸胃敏感人士食用。而每兩粒的超級 C 更含有多於一公升紅酒內的抗氧化營養素，可有助讓身體從基因開始更健康。

成份的優良功效

維生素 C（酯化抗壞血酸鈣）

酯化抗壞血酸鈣，又名酯化 C (Esterified C)，是一種革命性而且昂貴的維生素 C，由抗壞血酸與鈣質結合，然後酯化而成。一般的維生素 C 屬水溶性，可隨著排尿時流失，而酯化抗壞血酸鈣則有「水油並溶」的特性，可供身體全面運用，有助減少流失率，能延長維生素 C 在身體發揮的保護功能。酯化抗壞血酸鈣已經多種科研實證證實，能提高人體的吸收與運用率¹，並且能為身體提供高達 24 小時的免疫力²，是高穩定性的長效維生素 C。

資料來源：

1. Phyllis A. Balch CNC, 2010. Prescription for Nutritional Healing, Fifth Edition: A Practical A-to-Z Reference to Drug-Free Remedies Using Vitamins, Minerals, Herbs & Food Supplements. 5 Rev Upd Edition. Avery.

2. Jeffrey S. Bland., Vitamin C: The Future Is Now. New Canaan, CT: Keats Publishing, Inc., 1998, P. 36.

紅色生物類黃酮

生物類黃酮為水溶性物質，又被稱為維生素 P，必須從食物中攝取，因為人體並不能自行製造，是天然地存在於新鮮生果及蔬菜中的食物顏色。而紅色生物類黃酮，就是取自於提子皮、黑莓、車厘子、布祿、紅蘋果等紅色食物。如要確保身體能全面地運用到日常所攝取的維生素 C，是必需要同時攝取生物類黃酮。因為它能防止維生素 C 於身體內被氧化，亦同時提升身體對維生素 C 的回收及重用。生物類黃酮可防止血管破裂，因此可幫助減輕流牙血、鼻血、經血過多、幫助身體抗炎、抗敏感等情況。



鈣

傳統的維生素 C 本身的酸鹼度屬酸性，因此，當它到達腸胃道的鹼性環境時可能引起腸胃組織發炎、漲氣、腹瀉和不適。加入了鈣質這種礦物質，與維生素 C 結合後，能大大緩沖維生素 C 本身的酸性，因此幫助減低攝取維生素 C 後對腸胃的各種不適，也提供了日常生活中應攝取的部分鈣質來源。

黑胡椒提取物

由黑胡椒果實萃取而成，含獨有的有效成份 - 黑胡椒鹼 (Piperine)。研究指出，它能幫助身體提高熱能作用，以幫助腸胃道吸收營養素。它被用於提升身體對營養素的生物運用率已多達 20 年以上。實驗結果證明，它可促進身體吸收多種類的草本精華（如：白藜蘆醇）、水溶性維生素（如：維生素 C）、抗氧化物、氨基酸及礦物質（如：鈣）等。讓身體可以於不需要攝取更多食物的情況下，都能更吸收及運用到最多的營養素，是一種具協同效應的增值成份。



白藜蘆醇

白藜蘆醇是一種由植物「天然產生的抗生素」，用以抵抗細菌及真菌的侵害。常見含有白藜蘆醇的植物是葡萄。因此紅酒也是含有高濃度白藜蘆醇的來源之一。它的來源於早期醫學界在研究「為什麼法國人的高飽和脂肪飲食卻有著很低的心血管疾病發病率」而發現的。經多年後的研究證實，白藜蘆醇能阻止膽固醇在血管的沉積，從而減少患心血管疾病的風險¹，也因此對保護其他血管的正常流通有正面的功效。



白藜蘆醇亦有另一種令人驚嘆的功效，就是可幫助活化可刺激身體的長壽基因 - **SIRT1**。

香港大學曾於 **2012** 年發表研究報告，以小鼠作實驗餵食白藜蘆醇，發現其平均壽命都延長了 **30%**²。另外，此基因有助保護幹細胞自我更新的能力，使人延長壽命的功效，亦有助減低各慢性疾病的風險³。

參考資料：

1. Renaud S, deLorgeril M. Wine, alcohol, platelets, and the French paradox for coronary heart disease. *Lancet*. 1992;339:1523-1526.
2. Ghosh, S., Liu B., Zhou Z, Resveratrol activates SIRT1 in a Lamin a-dependent manner. *Cell Cycle*. 2013; 12:6, 872-876;
3. Maroon JC. The Longevity Factor: How Red Wine and resveratrol Activate Genes for a Longer and Healthier Life. New York, NY: Simon & Schuster, Inc.; 2008.

槲皮素

槲皮素是一種普遍存在於水果果皮及蔬菜葉上的類黃酮，洋蔥、蘋果和紅酒等都含有這種抗氧化物。它能幫助有效抑制引起過敏反應的組織胺，因此有助緩解過敏症狀¹，也能夠抑制氣管及支氣管平滑肌收縮，改善氣喘症狀²，對呼吸系統健康有正面的幫助。另外，研究亦指出槲皮素可有助心血管系統的健康，它能促進血液流通並減少壞膽固醇於血管內氧化，減低血管硬化的風險³。



參考資料：

1. Chirumbolo S. The role of quercetin, flavonols and flavones in modulating inflammatory cell function. *Inflamm Allergy Drug Targets*. 2010 Sep;9(4):263-85.
2. Townsend EA, Emala CW Sr. Quercetin acutely relaxes airway smooth muscle and potentiates-agonist induced relaxation via dual phosphodiesterase inhibition of PLC and PDE4. *Am J Physiol Lung Cell Mol Physiol*. 2013 Jul 19.
3. Egert S, Bosy-Westphal A, Seiberl J, Kürbitz C, Settler U, Plachta-Danielzik S, Wagner AE, Frank J, Schrezenmeir J, Rimbach G, Wolfram S, Müller MJ. Quercetin reduces systolic blood pressure and plasma oxidised low-density lipoprotein concentrations in overweight subjects with a high-cardiovascular disease risk phenotype: a double-blinded, placebo-controlled cross-over study. *Br J Nutr*. 2009 Oct;102(7):1065-74. doi: 10.1017/S0007114509359127. Epub 2009 Apr 30.

超級 C 的好處

1. 有助增強免疫力

美國俄勒岡州立大學的 **Linus Pauling** 研究所指出，維生素 **C** 是免疫系統的重要元素，有助刺激細胞吞噬作用和製造干擾素，干擾素有助對抗病毒感染。維生素 **C** 亦有助刺激白血球的製造。因此，進食維生素 **C** 或酯化 **C** 等營養補充品可增加血液中的抗體水平。

2. 有助抗衰老

超級 **C** 可從多個途徑對抗衰老。第一，維生素 **C** 有助增加皮膚中膠原蛋白的合成。第二，它亦是一種強力抗氧化物，有助減少游離基引起的皮膚損傷。另外，白藜蘆醇可幫助暢通血管，促進皮膚的血液循環。所以，補充超級 **C** 對減少皺紋、改善膚質及保持健康肌膚都有莫大幫助。



3. 具強效抗氧化能力

根據 **Linus Pauling** 研究所的報告指出，維生素 **C** 是很強的抗氧化物，有助預防細胞及組織，包括：核酸 (**DNA** 和 **RNA**)、蛋白質、脂肪和血液受游離基破壞。這有助加強免疫力及心血管功能、預防退化性疾病、或有助穩定血糖。

4. 有助製造膠原蛋白

膠原蛋白是皮膚、牙齒、骨骼、內臟和軟骨的結締組織。膠原蛋白令我們的肌膚緊緻及有彈性，有助預防皺紋。在製造膠原蛋白的過程中，維生素 **C** 會與膠原蛋白內的氨基酸產生反應。若吸收的維生素 **C** 不足，膠原蛋白的製造會減慢。

5. 促進鐵質吸收

紅血球內的鐵質有帶氧作用。維生素 **C** 能與膳食中的鐵質結合，加強吸收。結合後的鐵質會變得穩定、溶解度亦會增加，令它更容易被人體吸收。充足的鐵質能確保身體內有足夠的健康紅血球，為身體各部分提供氧氣。

6. 根據 “Vitamin C, vitamin E and cancer” 研究指出，維生素 C 和維生素 E 或有助中和致癌物質

維生素 **C** 作為一種抗氧化物，能有助中和身體內的致癌物質，因為它有助預防亞硝酸（致癌物）的形成。

7. 有助支持 SIRT1 (長壽基因) 的健康

白藜蘆醇可刺激身體的 **SIRT1** 基因。已有多項醫學研究顯示，**SIRT1** 與身體一連串的生化過程有關，如：能量代謝、壓力管理、幫助肝臟代謝葡萄糖及脂肪、加強抗衰老、抗氧化、抗炎等多種功效。**SIRT1** 是一組可使人延緩衰老和延長壽命的基因。

8. 提升生物運用率

我們吃的營養補充品除了要高吸收率外，也要有高的生物運用率 (**Bioavailability**)，身體才能運用得到。以白藜蘆醇為例，身體對這種物質的吸收率屬 **75%**，但經腸道及肝臟的代謝後，身體對於白藜蘆醇的運用率只剩約 **1%**，其他的就會經腎臟排出¹。另有研究指出，加入了黑胡椒提取物後，使白藜蘆醇的生物運用率提升約 **2 倍**²，減少了浪費率，也證明了並不是高劑量就是最好的，反而要讓身體能有效運用才可發揮最佳功效。

參考資料：

1. Walle T1, Hsieh F, DeLegge MH, Oatis JE Jr, Walle UK. (2004) 'High absorption but very low bioavailability of oral resveratrol in humans.', *Drug Metab Dispos.*, 32(12): pp. 1377-82..
2. Jeremy J. Johnson, Minakshi Nihal, Imtiaz A. Siddiqui, Cameron O. Scarlett³, Howard H. Bailey, Hasan Mukhtar, and Nihal Ahmad, (2011) 'Enhancing the bioavailability of resveratrol by combining it with piperine', *Mol Nutr Food Res*, 55(8), pp. 1169-1176.

9. 有助抗炎

炎症是會影響身體的危險因素，因為炎症可引起身體自身免疫系統的過敏，進而攻擊自身的組織及細胞，若無法為身體抗炎，可誘發很多慢性疾病的風險。槲皮素¹、白藜蘆醇²等可有助減低身體製造發炎指標，配合維生素 **C**，可讓身體更有效對抗炎症。

參考資料：

1. A. W. Boots, G. R. M. M. Haenen, and A. Bast, "Health effects of quercetin: from antioxidant to nutraceutical," *European Journal of Pharmacology*, vol. 585, no. 2-3, pp. 325-337, 2008.
2. Das, S., Das, D.K. Anti-inflammatory responses of resveratrol. *Inflamm Allergy Drug Targets*. 2007;6:168.

超級 C 的獨特性

1. 4 倍吸收速度

超級 C 的維生素 C 主要來酯化抗壞血酸鈣，又名酯化 C (Esterified C)。根據〈營養治療處方〉一書指出，身體吸收酯化 C 的速度比一般維生素 C 高出 4 倍。另外，超級 C 加入的鈣質能穩定及增加蘇糖酸鹽，蘇糖酸鹽是維生素 C 的代謝物，減省了維生素 C 繁複的新陳代謝程序，能被細胞快速吸收及利用。



2. 停留在身體的時間高達 5 倍

超級 C 的配方含有檸檬生物類黃酮，一種強力的天然的抗氧化物，通常存於柑橘類水果，有助維生素 C 發揮其最佳效能，強化其好處及提升身體對維生素 C 的回收及重用。另外，酯化 C 在身體停留的時間比一般維生素 C 多 5 倍，可在身體保持活躍 24 小時，讓身體得到最佳的抗氧化及保護，減少流失。

3. 可供身體全面運用 (雙溶運用)

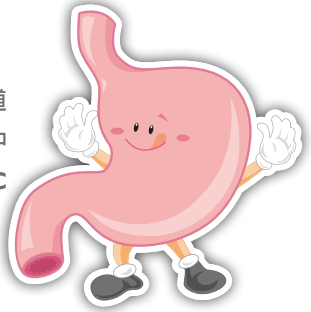
進食的維生素 C 會經由腸道進入血液。由於酯化 C 是水油並溶的，這雙溶特性有助它進入全身各組織，以供身體全面運用。酯化 C 可透過血液及淋巴傳送至各器官，延長維生素 C 在身體發揮的保護功能。

4. 不會額外增加腎結石風險

腎結石是由草酸鈣在腎臟積聚形成，草酸是維生素 C 的代謝物之一，一般會通過尿液排走。草酸鹽是形成腎石的原因之一，所以腎石與尿液中草酸鹽水平的關係受到一定關注。很多研究希望測試維生素 C 補充品對尿液中草酸鹽水平升降的影響，但結果發現兩者關係不大。在其中一個測試中，5 個健康的志願者每天服用 10 克的抗壞血酸，然後測量他們尿液中的草酸鹽水平，結果証實全部人的草酸鹽水平並沒有顯著增加。另外，由於超級 C 中的酯化 C 可被身體回收重用，而且只有少量會被排出，這會大大減低草酸鹽的形成。所以，使用超級 C 絕對不會額外增加患有腎結石的風險。

5. 不會引起腸胃不適

維生素 C 帶有天然酸性，當大劑量維生素 C 到達鹼性的腸道時，就有機會導致發炎、氣脹、肚瀉及腹部不適。超級 C 中的維生素 C 主要來自酯化的抗壞血酸鈣，酯化 C 是維生素 C 與必需礦物元素結合而成，可大大減低維生素 C 的酸度，保護胃部。配方中的鈣質能增加維生素 C 的鹼度，可降低對胃部的刺激及增加生物運用率。



6. 以素食膠囊包裝，達致最佳吸收

各產品的包裝方式建基於生物吸收學，以膠囊形式包裝維生素 C 最為適合。素食膠囊能保護膠囊內的營養粉末，防止粉末在不合適的地方被吸收。因十二指腸是最有利維生素 C 消化及吸收的地方，只有當膠囊到達十二指腸，它才會被分解，令當中被保護的粉末釋放出來，讓身體吸收及運用。

7. 採用不含大黃素的白藜蘆醇

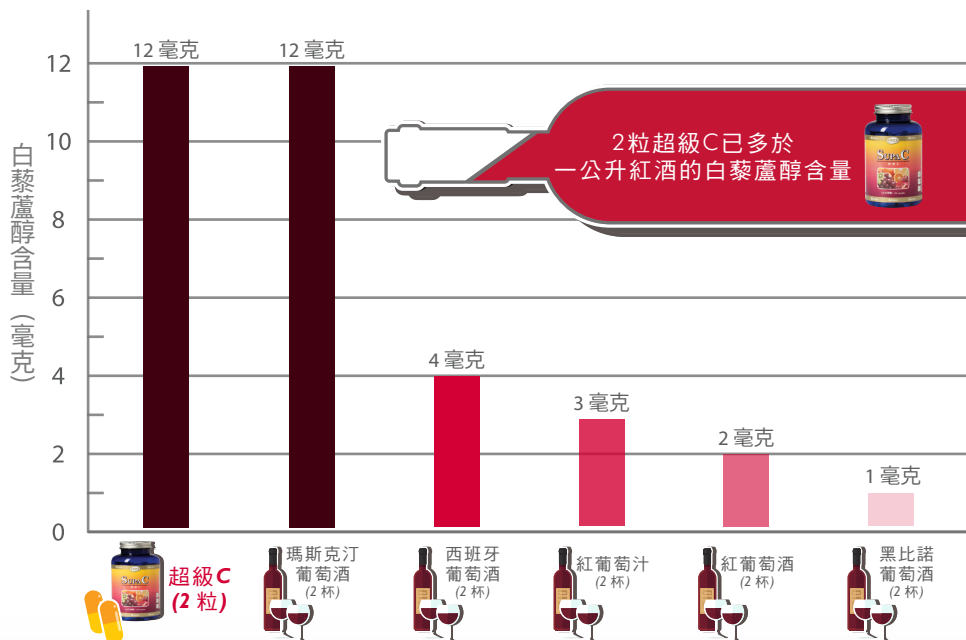
超級 C 採用了已獲專利的白藜蘆醇，是通過科學測試的高品質白藜蘆醇，純度達 99%，不含大黃素。

* 坊間有一些含白藜蘆醇的營養補充品是提煉自虎杖 (*Polygonum Caspidatum*)，如處理不當，能使產品有機會含有可能會引致腹瀉、腹痛等副作用的大黃素 (*Emodin*)。



8. 兩粒超級 C 已多於一公升紅酒的白藜蘆醇含量

每杯 150 毫升的紅酒只含約 1 毫克的白藜蘆醇，而一公升紅酒相等於 6.7 杯，即約 6.7 毫克的白藜蘆醇。而每兩粒的超級 C 含 12 毫克的白藜蘆醇，是多於一公升紅酒的白藜蘆醇含量：



不同的紅酒都有不同的白藜蘆醇含量

紅酒是含豐富白藜蘆醇的飲品，但長期攝取酒精會損害肝臟健康，為健康帶來反效果。超級 C 選用來自歐洲的優質水果，萃取當中最優質的紅色生物類黃酮、白藜蘆醇，讓我們不需要額外攝取過量酒精都可攝取到紅酒內所含有的優質萃取物。

參考資料：

1. Phyllis A. Balch, James F. Balch., Prescription for nutritional healing
2. Micronutrient Information Center, Linus Pauling Institute. <http://lpi.oregonstate.edu/infocenter/vitamins/vitaminC/>
3. Bush MJ, Verlangieri AJ, An acute study on the relative gastro-intestinal absorption of a novel form of calcium ascorbate. Research Communications in Chemical Pathology and Pharmacology 1987; 57:137-140
4. Schmidt KH., Urinary oxalate excretion after large intakes of ascorbic acid in man. The American Journal of Clinical Nutrition 1981; 34: 3005-311

超级 C 的 9 大好处

1. 有助提升免疫力

2. 有助抗衰老

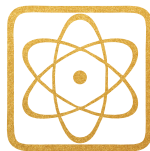
3. 具强效抗氧化能力



4. 有助制造胶原蛋白



5. 促进铁质吸收



6. 根据 "**Vitamin C, vitamin E and cancer**" 研究指出，维生素 C 和维生素 E 或有助中和致癌物质

7. 有助支持 **SIRT1** (长寿基因) 的健康

8. 提升生物运用率

9. 有助抗炎

什么是免疫系统？

免疫系统保护身体，对抗所有来自环境的外来入侵及威胁（包括：化学制品、毒素、细菌、病毒、真菌和寄生虫）。

免疫系统的主要器官有：

- 胸腺
- 骨髓
- 脾脏
- 肠道
- 淋巴结

当免疫系统变弱时，身体会出现甚么症状？

- 经常受感染
- 对治疗没有反应
- 持续或反覆受感染
- 容易疲倦
- 长期腹泻
- 失眠
- 抑郁
- 皮肤问题
- 发烧或发冷
- 头痛
- 淋巴腺肿胀
- 容易过敏
- 不能增磅或体重突然下降
- 慢性支气管炎或鼻窦炎
- 发育迟缓
- 儿童有成长问题



令免疫系統變弱的原因

不良饮食习惯

根據 2010 年衛生署的調查顯示，超過 80% 的香港人每天吃少於 5 份水果和蔬菜。長期進食過量加工食物、精製糖、酒精、化學添加劑及防腐劑會減低白血球對抗感染的能力。長期吸收這類化學物亦會減低免疫系統所需的營養素。



缺乏睡眠

衛生署在 2008 年進行調查，受訪的 2000 名市民中有兩成在受訪前一個月，平均每週失眠 2 至 3 次。睡眠有助恢復和修補身體。當睡眠質素和質量降低，荷爾蒙的生產會受影響。這些荷爾蒙有助支持免疫系統和恢復身體的天然機能。

接觸毒素

有許多毒素都來自環境，如：杀虫药、食物、藥物和食水內的重金屬、空氣污染、工作地方的化學物質、輻射、更不用說二手煙和酒精。接觸過量毒素可直接削弱免疫細胞及令骨髓中毒，令我們容易患上傳染病和癌症。

長期壓力

根據香港社會福利署的報告，在香港每 3 個人便有 1 個人因工作和生活環境而面對巨大壓力。科學家證明，長期壓力會明顯降低免疫系統對抗疾病的能力。生理或心理壓力也會增加身體內的壓力荷爾蒙，這亦會對免疫系統造成傷害。

濫用抗生素

濫用或不正確地使用抗生素會干擾腸道內「好細菌」及「壞細菌」的天然平衡，令人們容易生病。濫用抗生素會令人們對病菌出現抗藥性，降低身體對抗疾病的能力。



嚴重疾病

疾病的治療方法有機會對免疫系統產生不良影響。輸血或器官移植或會令身體產生不良的免疫反應。化學治療會削弱免疫系統，令人容易受感染。

如何加强免疫力？

我们的身体每天都跟疾病和传染病战斗，因此健康的免疫系统是非常重要的。

保持良好饮食习惯

优质的食物能保持细胞及免疫力系统健康。食物不仅为您提供能量，也包含对免疫系统健康的重要营养素。可选择多进食时令的十字花科蔬菜、五颜六色的水果、鱼、全谷类食物等。

保持良好睡眠素质，早睡早起

一般来说，每人每晚应睡 7-8 个小时。最佳的休眠时间是在晚上 9 时至早上 6 时之间。在熟睡期间，身体会释放一种增强免疫力的强效物质及生长荷尔蒙。所以，充分睡眠能令你的免疫系统达至最佳效能。

排毒

今时今日，接触毒素是无可避免的。毒素积聚令我们容易患病。排毒有助去除身体和肠道的毒素。干净无毒素的身体可令免疫系统的功能发挥至最佳状态。

恒常及适当的运动

适当运动可加强你的免疫力，不过，过度强烈或极端的运动则会令免疫力降低。适当运动有助血液循环，帮助抗体和白血球流动，对抗感染。运动也可减少压力荷尔蒙的产生，这种荷尔蒙被认为是引起流感和感冒的物质之一。

好好管理压力

相对于承受长期压力的人，抗压能力较佳的人的白血球水平相对较高，这亦表示他们患感冒或受病毒感染的机会较低，康复时间亦会较短。

使用加强免疫系统的补充品

因为身体不能制造维持健康免疫系统的营养素，并且要从正常饮食中获得所有必须营养素是非常困难，所以补充品是必须的。维生素 A、C、E 和锌均对免疫系统有益处。



甚么是维生素 C?

维生素 C 是一种不能自我制造的水溶性维生素，它是正常生长和发展的必要营养素。过多维生素 C 会通过尿液排出体外。

维生素 C 是多个重要物质，例如：胶原蛋白、肾上腺素等的前体。它亦是有效的抗氧化物，有助保护重要分子如蛋白质、碳水化合物、脂肪和核酸。美国俄勒冈州立大学的 **Linus Pauling** 研究所证实：维生素 C 是免疫系统的重要元素。

甚么是超级 C?

成份：

维生素 C (酯化抗坏血酸钙)、

红色生物类黄酮、

钙、

白藜芦醇、

槲皮素、

黑胡椒提取物



每粒含 **600** 毫克维生素 C，主要来自酯化的抗坏血酸钙，配方加入了钙质和额外添加四种珍贵成份，如：红色生物类黄酮、白藜芦醇、槲皮素、黑胡椒提取物等。酯化抗坏血酸钙除了比一般维生素 C 的吸收率高出 **4** 倍，亦较一般维生素 C 碱性，因此不会伤害牙齿或肠胃，亦适合肠胃敏感人士食用。而每两粒的超级 C 更含有多于一公升红酒内的抗氧化营养素，可有助让身体从基因开始更健康。

成份的优良功效

维生素 C (酯化抗坏血酸钙)

酯化抗坏血酸钙，又名酯化 C (Esterified C)，是一种革命性而且昂贵的维生素 C，由抗坏血酸与钙质结合，然后酯化而成。一般的维生素 C 属水溶性，可随着排尿时流失，而酯化抗坏血酸钙则有「水油并溶」的特性，可供身体全面运用，有助减少流失率，能延长维生素 C 在身体发挥的保护功能。酯化抗坏血酸钙已经多种科研实证证实，能提高人体的吸收与运用率¹，并且能为身体提供高达 24 小时的免疫力²，是高稳定性的长效维生素 C。

资料来源：

1. Phyllis A. Balch CNC, 2010. Prescription for Nutritional Healing, Fifth Edition: A Practical A-to-Z Reference to Drug-Free Remedies Using Vitamins, Minerals, Herbs & Food Supplements. 5 Rev Upd Edition. Avery.
2. Jeffrey S. Bland., Vitamin C: The Future Is Now. New Canaan, CT: Keats Publishing, Inc., 1998, P. 36.

红色生物类黄酮

生物类黄酮为水溶性物质，又被称为维生素 P，必须从食物中摄取，因为人体并不能自行制造，是天然地存在于新鲜生果及蔬菜中的食物颜色。而红色生物类黄酮，就是取自于提子皮、黑莓、车厘子、布林、红苹果等红色食物。如要确保身体能全面地运用到日常所摄取的维生素 C，是必需要同时摄取生物类黄酮。因为它能防止维生素 C 于身体内被氧化，亦同时提升身体对维生素 C 的回收及重用。生物类黄酮可防止血管破裂，因此可帮助减轻流牙血、鼻血、经血过多、帮助身体抗炎、抗敏感等情况。



钙

传统的维生素 C 本身的酸碱度属酸性，因此，当它到达肠胃道的碱性环境时可能引起肠胃组织发炎、胀气、腹泻和不适。加入了钙质这种矿物质，与维生素 C 结合后，能大大缓冲维生素 C 本身的酸性，因此帮助减低摄取维生素 C 后对肠胃的各种不适，也提供了日常生活中应摄取的部分钙质来源。

黑胡椒提取物

由黑胡椒果实萃取而成，含独有的有效成份 - 黑胡椒碱 (Piperine)。研究指出，它能帮助身体提高热能作用，以帮助肠胃道吸收营养素。它被用于提升身体对营养素的生物运用率已多达 20 年以上。实验结果证明，它可促进身体吸收多种类的草本精华 (如：白藜芦醇)、水溶性维生素 (如：维生素 C)、抗氧化物、氨基酸及矿物质 (如：钙) 等。让身体可以于不需要摄取更多食物的情况下，都能更吸收及运用到最多的营养素，是一种具协同效应的增值成份。



白藜芦醇

白藜芦醇是一种由植物「天然产生的抗生素」，用以抵抗细菌及真菌的侵害。常见含有白藜芦醇的植物是葡萄。因此红酒也是含有高浓度白藜芦醇的来源之一。它的来源于早期医学界在研究「为什么法国人的高饱和脂肪饮食却有着很低的心血管疾病发病率」而发现的。经多年后的研究证实，白藜芦醇能阻止胆固醇在血管的沉积，从而减少患心血管疾病的风险¹，也因此对保护其他血管的正常流通有正面的功效。



白藜芦醇亦有另一种令人惊叹的功效，就是可帮助活化可刺激身体的长寿基因 - **SIRT1**。香港大学曾于 **2012** 年发表研究报告，以小鼠作实验喂食白藜芦醇，发现其平均寿命都延长了 **30%**²。另外，此基因有助保护干细胞自我更新的能力，使人延长寿命的功效，亦有助减低各慢性疾病的风险³。

参考资料：

1. Renaud S, deLongrèr M. Wine, alcohol, platelets, and the French paradox for coronary heart disease. *Lancet*. 1992;339:1523-1526.
2. Ghosh, S., Liu B., Zhou Z, Resveratrol activates SIRT1 in a Lamin A-dependent manner. *Cell Cycle*. 2013; 12:6, 872-876;
3. Maroon JC. *The Longevity Factor: How Red Wine and resveratrol Activate Genes for a Longer and Healthier Life*. New York, NY: Simon & Schuster, Inc.; 2008.

槲皮素

槲皮素是一种普遍存在于水果果皮及蔬菜叶上的类黄酮，洋葱、苹果和红酒等都含有这种抗氧化物。它能帮助有效抑制引起过敏反应的组胺，因此有助缓解过敏症状¹，也能够抑制气管及支气管平滑肌收缩，改善气喘症状²，对呼吸系统健康有正面的帮助。另外，研究亦指出槲皮素可有助心血管系统的健康，它能促进血液流通并减少坏胆固醇于血管内氧化，减低血管硬化的风险³。



参考资料：

1. Chirumbolo S. The role of quercetin, flavonols and flavones in modulating inflammatory cell function. *Inflamm Allergy Drug Targets*. 2010 Sep;9(4):263-85.
2. Townsend EA, Emala CW Sr. Quercetin acutely relaxes airway smooth muscle and potentiates-agonist induced relaxation via dual phosphodiesterase inhibition of PLC and PDE4. *Am J Physiol Lung Cell Mol Physiol*. 2013 Jul 19.
3. Egert S, Bosy-Westphal A, Seiberl J, Kürbitz C, Settler U, Plachta-Danielzik S, Wagner AE, Frank J, Schrezenmeier J, Rimbach G, Wolfram S, Müller MJ. Quercetin reduces systolic blood pressure and plasma oxidised low-density lipoprotein concentrations in overweight subjects with a high-cardiovascular disease risk phenotype: a double-blinded, placebo-controlled cross-over study. *Br J Nutr*. 2009 Oct;102(7):1065-74. doi: 10.1017/S0007114509359127. Epub 2009 Apr 30.

超级 C 的好处

1. 有助增强免疫力

美国俄勒冈州立大学的 **Linus Pauling** 研究所指出，维生素 **C** 是免疫系统的重要元素，有助刺激细胞吞噬作用和制造干扰素，干扰素有助对抗病毒感染。维生素 **C** 亦有助刺激白血球的制造。因此，进食维生素 **C** 或酯化 **C** 等营养补充品可增加血液中的抗体水平。

2. 有助抗衰老

超级 **C** 可从多个途径对抗衰老。第一，维生素 **C** 有助增加皮肤中胶原蛋白的合成。第二，它亦是一种强力抗氧化物，有助减少游离基引起的皮肤损伤。另外，白藜芦醇可帮助畅通血管，促进皮肤的血液循环。所以，补充超级 **C** 对减少皱纹、改善肤质及保持健康肌肤都有莫大帮助。



3. 具强效抗氧化能力

根据 **Linus Pauling** 研究所的报告指出，维生素 **C** 是很强的抗氧化物，有助预防细胞及组织，包括：核酸 (**DNA** 和 **RNA**)、蛋白质、脂肪和血液受游离基破坏。这有助加强免疫力及心血管功能、预防退化性疾病、或有助稳定血糖。

4. 有助制造胶原蛋白

胶原蛋白是皮肤、牙齿、骨骼、内脏和软骨的结缔组织。胶原蛋白令我们的肌肤紧致及有弹性，有助预防皱纹。在制造胶原蛋白的过程中，维生素 **C** 会与胶原蛋白内的氨基酸产生反应。若吸收的维生素 **C** 不足，胶原蛋白的制造会减慢。

5. 促进铁质吸收

红血球内的铁质有带氧作用。维生素 **C** 能与膳食中的铁质结合，加强吸收。结合后的铁质会变得稳定、溶解度亦会增加，令它更容易被人体吸收。充足的铁质能确保身体内有足够的健康红血球，为身体各部分提供氧气。

6. 根据 “Vitamin C, vitamin E and cancer” 研究指出，维生素 C 和维生素 E 或有助中和致癌物质

维生素 **C** 作为一种抗氧化物，能有助中和身体内的致癌物质，因为它有助预防亚硝胺（致癌物）的形成。

7. 有助支持 **SIRT1** (长寿基因) 的健康

白藜芦醇可刺激身体的 **SIRT1** 基因。已有多项医学研究显示，**SIRT1** 与身体一连串的生物过程有关，如：能量代谢、压力管理、帮助肝脏代谢葡萄糖及脂肪、加强抗衰老、抗氧化、抗炎等多种功效。**SIRT1** 是一组可使人延缓衰老和延长寿命的基因。

8. 提升生物运用率

我们吃的营养补充品除了要高吸收率外，也要有高的生物运用率 (**Bioavailability**)，身体才能运用得到。以白藜芦醇为例，身体对这种物质的吸收率属 **75%**，但经肠道及肝脏的代谢后，身体对于白藜芦醇的运用率只剩约 **1%**，其他的就会经肾脏排出¹。另有研究指出，加入了黑胡椒提取物后，使白藜芦醇的生物运用率提升约 **2 倍**²，减少了浪费率，也证明了并不是高剂量就是最好的，反而要让身体能有效运用才可发挥最佳功效。

参考资料：

1. Walle T1, Hsieh F, DeLegge MH, Oatis JE Jr, Walle UK. (2004) 'High absorption but very low bioavailability of oral resveratrol in humans.', *Drug Metab Dispos.*, 32(12): pp. 1377-82..
2. Jeremy J. Johnson, Minakshi Nihal, Imtiaz A. Siddiqui, Cameron O. Scarlett3, Howard H. Bailey, Hasan Mukhtar, and Nihal Ahmad, (2011) 'Enhancing the bioavailability of resveratrol by combining it with piperine', *Mol Nutr Food Res*, 55(8), pp. 1169–1176.

9. 有助抗炎

炎症是会影响身体的危险因素，因为炎症可引起身体自身免疫系统的过敏，进而攻击自身的组织及细胞，若无法为身体抗炎，可诱发很多慢性疾病的风险。槲皮素¹、白藜芦醇²等可有助减低身体制造发炎指标，配合维生素 **C**，可让身体更有效对抗炎症。

参考资料：

1. A. W. Boots, G. R. M. M. Haenen, and A. Bast, "Health effects of quercetin: from antioxidant to nutraceutical," *European Journal of Pharmacology*, vol. 585, no. 2-3, pp. 325–337, 2008.
2. Das, S., Das, D.K. Anti-inflammatory responses of resveratrol. *Inflamm Allergy Drug Targets*. 2007;6:168.

超级 C 的独特性

1. 4 倍吸收速度

超级 C 的维生素 C 主要来酯化抗坏血酸钙，又名酯化 C (Esterified C)。根据 < 营养治疗处方 > 一书指出，身体吸收酯化 C 的速度比一般维生素 C 高出 4 倍。另外，超级 C 加入的钙质能稳定及增加苏糖酸盐，苏糖酸盐是维生素 C 的代谢物，减省了维生素 C 繁复的新陈代谢程序，能被细胞快速吸收及利用。



2. 停留在身体的时间高达 5 倍

超级 C 的配方含有柠檬生物类黄酮，一种强力的天然的抗氧化物，通常存于柑橘类水果，有助维生素 C 发挥其最佳效能，强化其好处及提升身体对维生素 C 的回收及重用。另外，酯化 C 在身体停留的时间比一般维生素 C 多 5 倍，可在身体保持活跃 24 小时，让身体得到最佳的抗氧化及保护，减少流失。

3. 可供身体全面运用 (双溶运用)

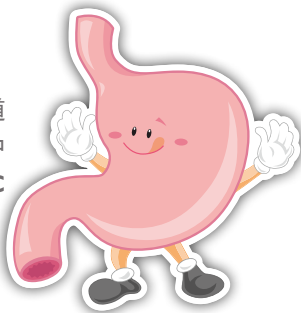
进食的维生素 C 会经由肠道进入血液。由于酯化 C 是水油并溶的，这双溶特性有助它进入全身各组织，以供身体全面运用。酯化 C 可透过血液及淋巴传送至各器官，延长维生素 C 在身体发挥的保护功能。

4. 不会额外增加肾结石风险

肾结石是由草酸钙在肾脏积聚形成，草酸是维生素 C 的代谢物之一，一般会通过尿液排走。草酸盐是形成肾石的原因之一，所以肾石与尿液中草酸盐水平的关系受到一定关注。很多研究希望测试维生素 C 补充品对尿液中草酸盐水平升降的影响，但结果发现两者关系不大。在其中一个测试中，5 个健康的志愿者每天服用 10 克的抗坏血酸，然后测量他们尿液中的草酸盐水平，结果证实全部人的草酸盐水平并没有显著增加。另外，由于超级 C 中的酯化 C 可被身体回收重用，而且只有少量会被排出，这会大大减低草酸盐的形成。所以，使用超级 C 绝对不会额外增加患有肾结石的风险。

5. 不会引起肠胃不适

维生素 C 带有天然酸性，当大剂量维生素 C 到达碱性的肠道时，就有机会导致发炎、气胀、肚泻及腹部不适。超级 C 中的维生素 C 主要来自酯化的抗坏血酸钙，酯化 C 是维生素 C 与必需矿物元素结合而成，可大大减低维生素 C 的酸度，保护胃部。配方中的钙质能增加维生素 C 的碱度，可降低对胃部的刺激及增加生物运用率。



6. 以素食胶囊包装，达致最佳吸收

各产品的包装方式建基于生物吸收学，以胶囊形式包装维生素 C 最为适合。素食胶囊能保护胶囊内的营养粉末，防止粉末在不合适的地方被吸收。因十二指肠是最有利维生素 C 消化及吸收的地方，只有当胶囊到达十二指肠，它才会被分解，令当中被保护的粉末释放出来，让身体吸收及运用。

7. 采用不含大黄素的白藜芦醇

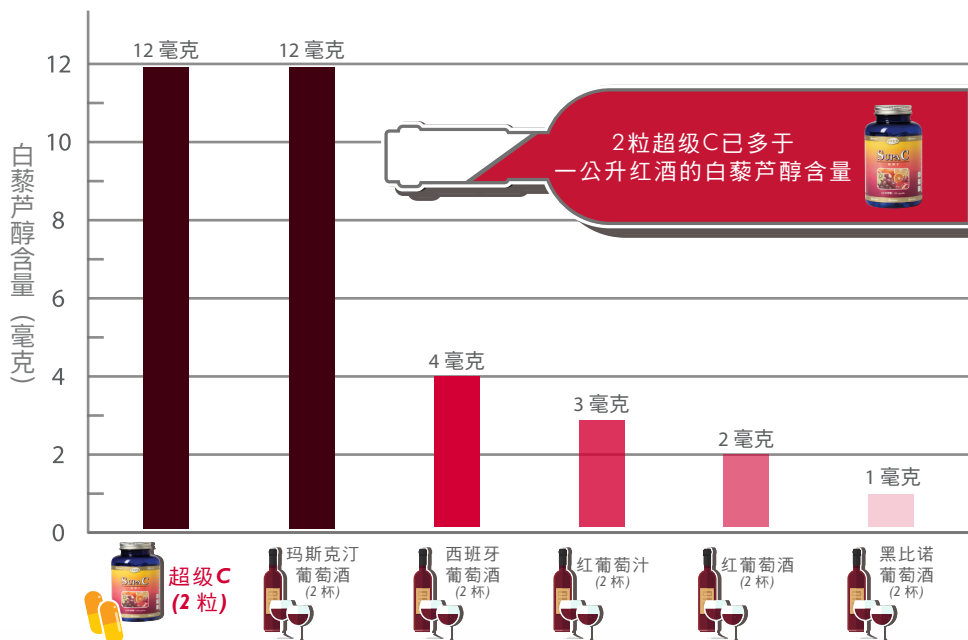
超级 C 采用了已获专利的白藜芦醇，是通过科学测试的高品质白藜芦醇，纯度达 99%，不含大黄素。

* 坊间有一些含白藜芦醇的营养补充品是提炼自虎杖 (*Polygonum Caspidatum*)，如处理不当，能使产品有机会含有可能会引致腹泻、腹痛等副作用的大黄素 (*Emodin*)。



8. 两粒超级 C 已多于一公升红酒的白藜芦醇含量

每杯 150 毫升的红酒只含约 1 毫克的白藜芦醇，而一公升红酒相等于 6.7 杯，即约 6.7 毫克的白藜芦醇。而每两粒的超级 C 含 12 毫克的白藜芦醇，是多于一公升红酒的白藜芦醇含量：



不同的红酒都有不同的白藜芦醇含量

红酒是含丰富白藜芦醇的饮品，但长期摄取酒精会损害肝脏健康，为健康带来反效果。超级 C 选用来自欧洲的优质水果，萃取当中最优质的红色生物类黄酮、白藜芦醇，让我们不需要额外摄取过量酒精都可摄取到红酒内所含有的优质萃取物。

参考资料：

1. Phyllis A. Balch, James F. Balch., Prescription for nutritional healing
2. Micronutrient Information Center, Linus Pauling Institute. <http://lpi.oregonstate.edu/infocenter/vitamins/vitaminC/>
3. Bush MJ, Verlangieri AJ, An acute study on the relative gastro-intestinal absorption of a novel form of calcium ascorbate. Research Communications in Chemical Pathology and Pharmacology 1987; 57:137-140
4. Schmidt KH., Urinary oxalate excretion after large intakes of ascorbic acid in man. The American Journal of Clinical Nutrition 1981; 34: 3005-311

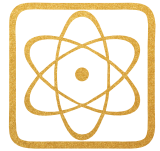
THE 9 MAIN BENEFITS OF SUPAC

1. Helps enhance Immune System

2. Helps anti - aging

3. A strong antioxidant

4. Helps build collagen



5. Enhances absorption of iron

6. According to the study of "Vitamin C, vitamin E and cancer",

Vitamin C and vitamin E may assist in neutralizing carcinogens.

7. Supports the health of longevity gene – SIRT1

8. Helps in boosting bioavailability

9. Poses anti-inflammatory properties

WHAT IS THE IMMUNE SYSTEM?

The Immune System defends the body against all foreign attacks and threats from the environment. (Chemicals, Toxins, Bacteria, Viruses, Fungus, Parasites)

Main Organs of Immune System:

- Thymus
- Bone marrow
- Spleen
- Intestine
- Lymph nodes

WHAT ARE THE SYMPTOMS AND DISEASES OF A WEAK IMMUNE SYSTEM?

- Frequent infections
- Infections that do not respond to treatment
- Persistent or recurrent infections
- Fatigue, tiredness
- Chronic diarrhea
- Insomnia
- Depression
- Skin problems
- Fevers and chills
- Headache
- Swollen lymph glands
- Allergy
- Failure to gain weight or unintended weight loss
- Chronic bronchitis or sinusitis
- Developmental delays and failure to thrive
- Growth problems in children



REASONS FOR A WEAKENED IMMUNE SYSTEM

POOR DIET

According to the survey from the Department of Health in 2010, over 80% of the Hong Kong population consumes less than 5 servings of fruit and vegetable per day. Prolonged consumption of excessive amounts of processed food, refined sugars, alcohol, chemical additives and preservatives will actually weaken the ability of white blood cells to fight against infection. The continued intake of such chemicals will also deprive the body of immune boosting nutrients.



SLEEP DEPRIVATION

According to a survey conducted by the Department of Health in 2008, 400 out of 2000 people (20%) suffered from insomnia 2 to 3 times a week on average over the past month. Sleep enables the body to restore and rebuild itself. Reducing the quality and quantity of sleep will hamper the production of hormones, which help boost the immune system and restore natural functions of the body.

TOXINS EXPOSURE

There are numerous toxins that come from the environment such as pesticides, heavy metals from food, drug and water; air pollution, chemicals at the workplace, radiation, and not to mention smoking and alcohol. Overload of toxins can directly weaken immune cells and poison bone marrow, making us vulnerable to infections and cancer.

CHRONIC STRESS

According to the HK Social Welfare Department, 1 out of 3 people in HK face great pressure and stress due to working and living environment. Scientists have proven that chronic stress causes a measurable decrease in the ability of the immune system to fight against diseases. Both physical and emotional stress will cause an increase in stress hormones in the body, which will in turn dampen immune response.

ANTIBIOTICS ABUSE

The overuse or improper use of antibiotics can disrupt the natural intestinal balance of good and bad bacteria, making us susceptible to infections. Misuse of antibiotics will build up resistance to them, which may reduce the body's ability to fight against diseases.



SERIOUS DISEASES

Treatment for illnesses can create an adverse reaction within the immune system. The body may react inappropriately to blood transfusion or an organ transplant, resulting in an immune response. Chemotherapy will also weaken immune system and make it more vulnerable to infection.

HOW TO STRENGTHEN THE IMMUNE SYSTEM?

Our body fights off illnesses & infections on a daily basis. Thus, a healthy immune system is a must.

MAINTAINING A HEALTHY DIET

Quality food keeps our cells healthy and our immune system strong. Food not only provides you with energy, but it also contains vital nutrients for a healthy immune system. Seasonal cruciferous vegetables, colorful fruits, fish, whole grains etc. are highly recommended.

SLEEP WELL AND EARLY

Generally speaking, an individual should sleep for 7-8 hours every night and the best sleeping time lies between 9 pm – 6 am. During deep sleep, our body releases a potent immune-enhancing substance and growth hormone which can strengthen our immune system. Therefore, adequate sleep allows our immune system to reach its full capacity.

DETOXIFICATION

Exposure to toxin is unavoidable nowadays. Toxins accumulated can cause diseases easily. Detoxification helps to remove toxins in the body. Clean body without toxins allows the immune system to function optimally.

REGULAR AND MODERATE EXERCISE

Moderate exercise will strengthen our immune system while intense or extreme exercise may suppress immune functions. Moderate exercise can increase blood flow which helps to circulate antibodies and white blood cells necessary to fight against infection. Exercise can also reduce the secretion of stress related hormones which are believed to contribute to the onset of illnesses like flu and common cold.



MANAGE STRESS WELL

Compared with people with long-standing stress, people who manage stress well have higher white blood cells count, lower chance of having common cold and virus attack and shorter recovery time.

CONSUME IMMUNE BOOSTING SUPPLEMENTS

Supplements are needed because our body cannot produce the nutrients necessary for the healthy immune system. Also, it is very difficult for us to obtain all essential nutrients from normal diet. Vitamin A, C, E and Zinc are all good for immune system.

WHAT IS VITAMIN C?

Vitamin C is a water soluble vitamin which cannot be synthesized in the human body. Hence, it is categorized as an essential vitamin and should be supplemented in diet. Excess Vitamin C leaves the body through urine.

Vitamin C is the precursor of many key molecules such as collagen and norepinephrine, etc. It also acts as an effective antioxidant protecting the vital molecules such as proteins, carbohydrates, lipids and nucleic acids. The Linus Pauling Institute at Oregon State University cites studies that demonstrate Vitamin C is an essential component of immunity.

WHAT IS SUPAC?

Main ingredients:

Vitamin C (Esterified Calcium Ascorbate),



Bioflavonoids,



Calcium,



Resveratrol,

Quercetin,



Black Pepper Extract



Each capsule contains 600mg of Vitamin C, which mainly comes from Esterified Calcium Ascorbate. SUPAC is specially formulated with Calcium and four newly added luxury ingredients, e.g. Red Bioflavonoids, Resveratrol, Quercetin, Black Pepper Extract. Esterified Calcium Ascorbate's absorption and utilization by the body are 4 times higher than those of ordinary Vitamin C. It benefits the stomach and teeth by a higher pH than ordinary Vitamin C so it is a better choice for those with poor GI tract. Every 2 capsules of SUPAC contains more Resveratrol antioxidant than 1 litre of most red wines, which helps to improve health starting from the gene level.

EXCELLENT EFFICACY OF INGREDIENTS

Vitamin C (Calcium Ascorbate)

Calcium Ascorbate is a revolutionary yet precious form of Vitamin C, which combines with Calcium and is also known as the “Esterified C”. Traditional form of Vitamin C are water soluble, therefore it can be easily excreted via urination. Calcium Ascorbate poses a “dual utilization” property, making Vitamin C to be dissolved in both water and lipids, so that our body can use Vitamin C more comprehensively and reduces the turnover rate of Vitamin C, to extend the protective function of Vitamin C in the body.

Multiple scientific research have shown that Calcium Ascorbate has a good absorption and bioavailability rate¹. It also provides the body with 24 hour immunity support². Therefore it's a highly stable and efficient form of Vitamin C.

References:

1. Phyllis A. Balch CNC, 2010. Prescription for Nutritional Healing, Fifth Edition: A Practical A-to-Z Reference to Drug-Free Remedies Using Vitamins, Minerals, Herbs & Food Supplements. 5 Rev Upd Edition. Avery.
2. Jeffrey S. Bland., Vitamin C: The Future Is Now. New Canaan, CT: Keats Publishing, Inc., 1998, P. 36.

Red Bioflavonoids

Bioflavonoids are water soluble substances, also known as Vitamin P, are required in the diet because they cannot be synthesized by the body. Bioflavonoids are the natural pigments that present in fresh food and vegetables. Red Bioflavonoids are extracted from red coloured food such as grapes, blackberry, cherry, plum and apple. To ensure that the body can properly utilize the daily intake of Vitamin C, bioflavonoids must be included. The combined effect of Esterified Calcium Ascorbate and bioflavonoids results in accelerated uptake of this important Vitamin C, and to protect it against oxidation as well as to help the body to re-use this vitamin. Bioflavonoids prevent ruptures of blood vessels, and thus reduce tooth bleeding, nose bleeding and excessive menstrual bleeding.



Calcium

Traditional form of Vitamin C by itself is acidic in its pH level. When it reaches the alkaline environment of the GI tract, it can cause inflammation of the GI tissues, gas, diarrhea and discomfort. Buffering Vitamin C with Calcium helps to produce a more neutralized Vitamin C, not only it reduces GI discomforts, it also provides the body with part of its daily Calcium requirement.

Black Pepper Extract

Contains an unique ingredient, Piperine, which is extracted from the fruits of black pepper. Research showed that Black Pepper Extract would potentially improve the process of nutrient absorption by enhancing thermogenesis. It is used as a thermonutrient to improve bioavailability of certain nutrients for more than 20 years. Experimental results give clear evidence that it helps the body to absorb a variety of herbal extracts (e.g. Resveratrol), water soluble vitamins (e.g. Vitamin C), antioxidants, amino acids and minerals (e.g. Calcium) etc. Consumption of Black Pepper Extract allows the body to absorb and utilize nutrients without increasing the consumption of actual foods, making it a good ingredient that brings a synergetic effect to our health.



Resveratrol

Resveratrol is a “natural antibiotic” produced by several plants to fight against bacteria and fungi. The common plants that contains Resveratrol is grapes, making red wine becomes one of the most abundant source of Resveratrol. Resveratrol first gained attention as the answer to the “French Paradox”, the mystery of how the French population maintains such a low incidence of cardiovascular disease despite a diet high in saturated fats. After years of research, Resveratrol has been proven to protect against cardiovascular disease by reducing arterial plaque buildup¹, therefore it is also beneficial to maintain a good blood circulation.



Resveratrol also poses an impressive benefit on activating the gene expression of SIRT1, a set of gene that relates to longevity. A science research published by The University of Hong Kong in 2012 reported that Resveratrol could restore stem cells, delay the onset of aging, improve the general health conditions and extend lifespan by 30% in mice². It also reduces the risk of chronic diseases³.

References:

1. Renaud S, deLongreuil M. Wine, alcohol, platelets, and the French paradox for coronary heart disease. *Lancet*. 1992;339:1523-1526.
2. Ghosh, S., Liu B., Zhou Z, Resveratrol activates SIRT1 in a Lamin α -dependent manner. *Cell Cycle*. 2013; 12:6, 872-876;
3. Maroon JC. *The Longevity Factor: How Red Wine and resveratrol Activate Genes for a Longer and Healthier Life*. New York, NY: Simon & Schuster, Inc.; 2008.

Quercetin

Quercetin is a flavonoid commonly found in fruits and vegetables, e.g. onions, apples & red wine. It is one of the antioxidant that helps reduce symptoms of allergies by prevents the release of histamine¹. It also relaxes the smooth muscle in the airway to improve symptoms like asthma². Therefore it poses a beneficial effect to respiratory health. Moreover, research have stated that Quercetin helps to maintain cardiovascular health as it promotes healthy blood flow by reducing the oxidation of bad cholesterol within the blood vessels, thus to lower the risk of vascular sclerosis³.



References:

1. Chirumbolo S. The role of quercetin, flavonols and flavones in modulating inflammatory cell function. *Inflamm Allergy Drug Targets*. 2010 Sep;9(4):263-85.
2. Townsend EA, Emala CW Sr. Quercetin acutely relaxes airway smooth muscle and potentiates-agonist induced relaxation via dual phosphodiesterase inhibition of PLC and PDE4. *Am J Physiol Lung Cell Mol Physiol*. 2013 Jul 19.
3. Egert S, Bosy-Westphal A, Seiberl J, Kürbitz C, Settler U, Plachta-Danielzik S, Wagner AE, Frank J, Schrezenmeir J, Rimbach G, Wolfram S, Müller MJ. Quercetin reduces systolic blood pressure and plasma oxidised low-density lipoprotein concentrations in overweight subjects with a high-cardiovascular disease risk phenotype: a double-blinded, placebocontrolled cross-over study. *Br J Nutr*. 2009 Oct;102(7):1065-74. doi: 10.1017/S0007114509359127. Epub 2009 Apr 30.

THE BENEFITS OF SUPAC

1. HELPS ENHANCE IMMUNE SYSTEM

The Linus Pauling Institute cites studies that demonstrate Vitamin C is an essential component of immunity by stimulating phagocytosis activity and the production of interferon, which protects cells against infection. Vitamin C also stimulates production of white blood cells. Therefore, supplementing Vitamin C, or esterified Vitamin C, can increase antibody levels in the serum.

2. HELPS ANTI-AGING

SUPAC can help anti-aging in a variety of ways. First, Vitamin C enhances the synthesis of collagen, a key structural protein of the skin. Secondly, Vitamin C is a strong antioxidant which helps reduce skin damage by free radicals. Moreover, Resveratrol promotes healthy blood flow for the skin. Therefore, supplying our body with SUPAC may reduce wrinkles, improve skin texture and to maintain a good healthy skin.



3. A STRONG ANTIOXIDANT

According to Linus Pauling Institute, Vitamin C is a strong antioxidant, which protects many molecules or tissue against free radicals damage, including nucleic acid (DNA & RNA), proteins, fat and blood. This helps to strengthen the immune & cardiovascular systems, preventing degenerative diseases and may also assist in stabilizing blood glucose.

4. HELPS BUILD COLLAGEN

Collagen is found in the connective tissue of our skin, teeth, bones, organs and cartilage. Collagen keeps our skin firm and resilient, protecting it from wrinkling. The role of Vitamin C in the production of collagen is to interact with amino acids within collagen cells, which continuous collagen production. In the case of inadequate Vitamin C, collagen production will slow down.

5. ENHANCES ABSORPTION OF IRON

Iron is the mineral in red blood cells that binds to oxygen. Vitamin C can combine with certain forms of iron to improve iron absorption. The iron becomes more stable and has increased solubility after combination, thus it is more readily absorbed. Adequate iron ensures a high number of healthy red blood cells in the body, which helps in oxygenating capillaries. It also contains phenolic acids which have anti-bacterial, anti-allergic and anti-inflammatory properties.

6. ACCORDING TO THE STUDY OF "VITAMIN C, VITAMIN E AND CANCER", VITAMIN C AND VITAMIN E MAY ASSIST IN NEUTRALIZING CARCINOGENS

Vitamin C acts as an antioxidant, neutralizing cancer-causing chemicals that form in the body. It can also protect against the formation of nitrosamine (carcinogen).

7. Supports the health of longevity gene – SIRT1

Resveratrol helps stimulate the gene expression of SIRT1. Numerous research have shown that SIRT1 gene modulates a variety of cellular processes such as energy metabolism, stress management, helps control both glucose and lipid metabolism in the liver, anti-aging, antioxidant properties, anti-inflammatory etc. It is therefore the gene that helps to enhance anti-aging process and to achieve longevity.

8. Helps in boosting bioavailability

To ensure our body can utilize the supplement that we consumed, not only it has to be high absorption rate, but also it has to be high bioavailability. Take Resveratrol as an example, its oral absorption in human has been found to be around 75% of the ingested amount. However, due to extensive metabolism in the intestine and the liver, hardly 1% of the ingested amount is bioavailable as Resveratrol. The rest is converted to metabolites and excreted via the kidneys¹. Another research have stated that with the addition of black pepper extract, Resveratrol's absorption was enhanced by twofolds². This translates into lower wastage as well as a lower amount of Resveratrol being needed with the bioavailability enhancing effect of black pepper extract added.

References:

1. Walle T1, Hsieh F, DeLegge MH, Oatis JE Jr, Walle UK. (2004) 'High absorption but very low bioavailability of oral Resveratrol in humans.', *Drug Metab Dispos.*, 32(12): pp. 1377-82..
2. Jeremy J. Johnson, Minakshi Nihal, Imtiaz A. Siddiqui, Cameron O. Scarlett³, Howard H. Bailey, Hasan Mukhtar, and Nihal Ahmad, (2011) 'Enhancing the bioavailability of Resveratrol by combining it with piperine', *Mol Nutr Food Res*, 55(8), pp. 1169–1176.

9. Poses anti-inflammatory properties

Inflammation is a risk factor to our body's health, as it can lead to autoimmune allergy and hence to attack our body tissues and cells. If our body cannot fight inflammations, it can act as a key mechanism in the pathogenesis of certain diseases. Studies have shown that antioxidant such as Quercetin¹ and Resveratrol² can help in reducing the production of inflammatory cytokines, and when taken with Vitamin C, it helps to enhance the anti-inflammatory within the body.

References:

1. A. W. Boots, G. R. M. M. Haenen, and A. Bast, "Health effects of quercetin: from antioxidant to nutraceutical," *European Journal of Pharmacology*, vol. 585, no. 2-3, pp. 325–337, 2008.
2. Das, S., Das, D.K. Anti-inflammatory responses of resveratrol. *Inflamm Allergy Drug Targets*. 2007;6:168.

UNIQUENESS OF SUPAC

1. 4 TIMES ABSORPTION SPEED

Vitamin C in SUPAC mainly comes from Esterified Calcium Ascorbate. The book, Prescription for Nutritional Healing, points out that, body absorbs esterified Vitamin C 4 times faster than it assimilates standard supplements. Calcium added into SUPAC can naturally stabilize and increase threonic acid salt levels. Threonic acid is a metabolite of Vitamin C. It is more readily absorbed into the human body as it is pre-digested so that less metabolic processes are required to utilize the Vitamin C ingested.



2. UP TO 5 TIMES RETENTION TIME IN THE BODY

The formula of SUPAC includes Citrus Bioflavonoids, a natural powerful antioxidant often found in citrus fruits. They are essential for optimal Vitamin C effectiveness. It can intensify Vitamin C's functions and enhance Vitamin C recycling for body use. In addition, esterified Vitamin C can last up to 5 times longer in your tissues compared to normal ascorbic acid and can stay active in the body for at least 24 hours, giving the body and immune system optimal anti-oxidant and protection with minimal loss when we urinate.

3. COMPREHENSIVELY USED BY THE BODY (DUAL UTILIZATION)

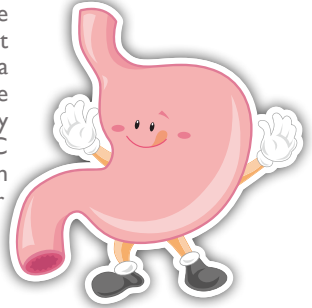
Ingested Vitamin C is absorbed through intestine into the blood. Since Calcium Ascorbate can dissolve in both water and lipids, its multiple capabilities allows it to enter all tissues, which enables comprehensive utilization throughout the body. Thus, esterified Vitamin C can be transported to different organs and tissues through blood and lymph. This lengthens the period that Vitamin C functions in the body while protecting it.

4. WILL NOT INCREASE THE RISK OF KIDNEY STONE

Kidney stones are caused by the buildup of Calcium oxalate in the kidneys. Oxalate is one of the metabolites of Vitamin C, which will be excreted through urine normally. Oxalate in urine has been viewed with some concern because it is a component of one type of kidney stone composed of Calciumoxalate. Numerous studies conducted to test the actual impact of Vitamin C supplementation on urinary oxalate excretion have demonstrated that supplementation has little effect on urinary oxalate levels. In one study, daily dose of 10g of ascorbic acid is taken by 5 healthy volunteers and their subsequent urinary oxalate levels were measured. None experienced a dramatic rise in oxalate levels. In addition, as the Vitamin C in SUPAC is reusable and will not be lost easily through urine. Thus, intake of SUPAC will definitely NOT increase the risk of getting kidney stones.

5. WILL NOT CAUSE STOMACH DISCOMFORT

Ascorbic acid itself is acidic. When it reaches the alkaline environment of the lower intestinal tract, it can cause discomfort to some with weak GI tract causing inflammation, gas, diarrhea and discomfort. This usually happens when a very large dose of Ascorbic Acid are ingested. The Vitamin C in SUPAC mainly comes from Esterified Calcium Ascorbate. Esterified Vitamin C is a supplement formulated to react with an essential mineral, an affect that eliminates the vitamin's usual acidity, protecting your stomach and digestive system. The Calcium ions in the formula can increase the alkalinity of Vitamin C, which will allow it to be less irritative and more bio-available within our bodies.



6. IN FORM OF VEGGIE CAPSULE FOR BEST ABSORPTION

The delivery form used in different products is decided based on the chemistry of bio-absorption. Delivery via capsule form is the best method for Vitamin C. The capsule can shield the powder within from premature digestion. Only when it reaches the duodenum will the capsule then release the protected powder as the duodenum is the optimal setting for Vitamin C absorption.

7. RESVERATROL EXTRACTED ARE FREE FROM EMODIN

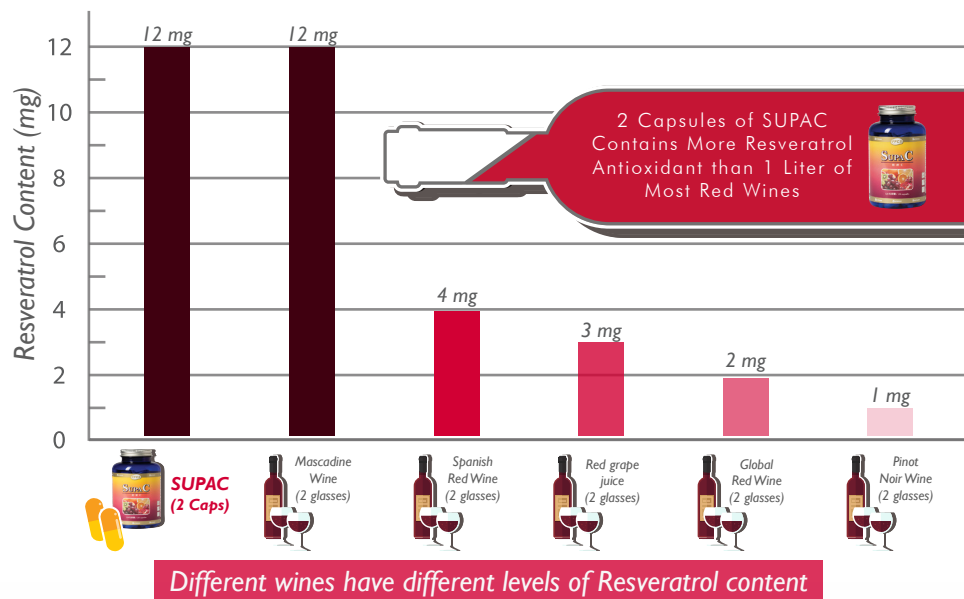
SUPAC's Resveratrol are extracted from resVita®, a patented form of Resveratrol. It is a form of Resveratrol that is tested for its high quality, with 99% purity and does not contained emodin.

*Some Resveratrol containing supplements are made with Knotweed (*Polygonum Caspidatum*), if handled improperly, it might have chances that the product could contained Emodin, a laxative substance that could cause stomach cramps and diarrhea.



8. 2 CAPSULES OF SUPAC CONTAINS MORE RESVERATROL ANTIOXIDANT THAN 1 LITER OF MOST RED WINES

Each 150ml glass of red wine contains approximately 1mg of Resveratrol, a litre of red wine is therefore equals to 6.7 glasses, meaning 1 litre of red wine contains approximately 6.7mg of Resveratrol. With each 2 capsules of SUPAC contains 12mg of Resveratrol, it already contains more Resveratrol than 1 litre of most red wines!



Red wine is the most abundant source of Resveratrol. However, if we have to consume enough Resveratrol to achieve a substantial health effect, not only we have to choose the wine made of the best quality grapes – Muscadine, but also have to drink more than 1 liter red wine. Despite the expensive cost that we have to bare, a long term consumption of alcohol can add extra burden to our health. SUPAC features premium quality fruits from Hungary for the best source of our ingredients, e.g. Red Bioflavonoids and Resveratrol, so that we can benefit from all the high quality food extracts without consuming much alcohol.

References:

1. Phyllis A. Balch, James F. Balch., Prescription for nutritional healing
2. Micronutrient Information Center, Linus Pauling Institute. <http://lpi.oregonstate.edu/infocenter/vitamins/vitaminC/>
3. Bush MJ, Verlangieri AJ, An acute study on the relative gastro-intestinal absorption of a novel form of calcium ascorbate. Research Communications in Chemical Pathology and Pharmacology 1987; 57:137-140
4. Schmidt KH., Urinary oxalate excretion after large intakes of ascorbic acid in man. The American Journal of Clinical Nutrition 1981; 34: 3005-311



FUNCTIONAL FOOD CONCENTRATES SUPREME SERIES
功能性濃縮食品至尊系列

獨家代理商：

Exclusive Distributor :



NU LIFE INTERNATIONAL (ASIA) LIMITED

www.nulife.com Tel: (852) 3468-6188

<http://www.facebook.com/nulifehk>

<http://twitter.com/#!/nulifehk>



copyright©NU LIFE International 2018. All Rights Reserved.

HK01KTS334V2