甚麼是新陳代謝?
What is Metabolism?

新陳代謝是指身體為了維持生命，體內進行的一連串化學反應。包括食物與能量間的轉換、組織建構與能量儲存、細胞廢物清除等。

Metabolism is the set of life-sustaining chemical processes in the body, including the conversion between food and energy, development of building blocks and energy storage, and elimination of cellular waste.

新陳代謝指標
Metabolism Indicator

代謝健康不單單是將食物轉化為能量，我們身體代謝網絡的重要生物指標還有…

Metabolic health is so much more than just the conversion of food to energy, it is our body's biochemistry in a metabolic network that impacts key indicators, like...

瘦 = 代謝健康?
Skinny = Metabolically Healthy?

以為體重正常就代表新陳代謝健康?
研究告訴您其實 2/3 擁有正常體重的人士並沒有理想的代謝健康…

Do you think you have a good metabolic health just because you see a normal weight on the scale? Study showed that 2/3 of normal weight participants DO NOT have optimal metabolic health...

代謝健康光譜
Metabolism Health Spectrum

在這個忙碌的世界中，都市生活讓身心飽受壓力，長時間工作、晚睡早起、食無定時、生活壓力等，均會令我們的身體失衡。

In this always-on world, modern lifestyle like working crazy hours, staying up late and getting up early, eating on the run and stresses throwing our body chemistry out of sync.

事實上，每 8 個人當中，便有
7 個人的新陳代謝不健康*
In fact, 7 out of 8 of us is metabolically unhealthy.*

不健康 Unhealthy ◀——▶ 健康 Healthy

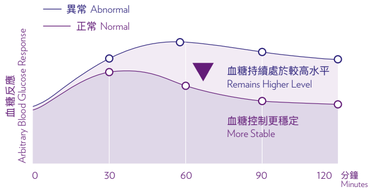
Sedentary 久坐不動	恆常運動 Regular Exercise
High Fat, Poor Diet 高脂、不健康飲食	健康飲食 Healthy Diet
Overweight 過重	健康體重 Healthy Weight
Sleep Deprivation 睡眠不足	充足睡眠 Adequate Sleep
Low Intake of Fruits & Vegetables 蔬果攝取不足	大量蔬果 Lots of Fruits & Vegetables
High Stress 壓力大	壓力少 Low Stress
Smoking 吸煙	非吸煙 Non-Smoking

不良的生活習慣對身體有著深遠的影響，例如:
Unhealthy lifestyle affects our body, such as:

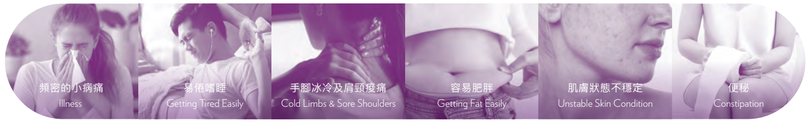
健康 vs 不健康的新陳代謝
Healthy vs Unhealthy Metabolism

代謝健康不僅受我們所吃的食物和活動影響，它更會影響身體對各樣生活方式因素作出的反應。研究發現，於進食高糖分的食物後，擁有代謝健康的身體更有效控制及穩定血糖。[&]

Metabolic health isn't only impacted by what we eat and our physical activities, it also impacts how our body responds to these lifestyle factors. In a recent research of blood glucose level after eating food high in sugar content, people with healthy metabolism shows a more stable control in blood glucose level.[&]



代謝不良便會對身體帶來一連串負面的影響，例如:
Metabolically unhealthy brings negative impacts to our body, such as:



新陳代謝不良指數達一定程度時可演變成代謝綜合症
Unhealthy metabolism can lead to metabolic syndrome

代謝綜合症
Metabolic Syndrome

代謝綜合症是代謝不健康的警號，主要源於生活習慣不良而形成的都市症狀。如果身體出現血糖、血壓、血脂、腰圍等代謝指標水平異常，便有可能形成代謝綜合症。而代謝綜合症人士日後患上嚴重疾病的機率，更比代謝健康人士高出 3 倍或以上。

Metabolic syndrome is an alert of unhealthy metabolism, which mostly comes from unhealthy lifestyle. When abnormal index happens to blood glucose, blood pressure, blood lipid and waist measurements, one may suffer from metabolic syndrome, and the chances they get serious diseases are 3 times more than people with healthy metabolism.

*Araújo J, Cai J, Stevens J. Preva. Metab Syndr Relat Disord. 2019;17(1):46-52. doi:10.1089/met.2018.0105

&Yun JW, Cho YK, Park JH, Kim HJ, Park DI, Sohn CI, Jeon WK, Kim BI. Abnormal glucose tolerance in young male patients with nonalcoholic fatty liver disease. Liver Int. 2009 Apr;29(4):525-9.

NU SKIN

METABOLIC Health

代謝健康資訊

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花青素 超卓的 Nu Skin 代謝健康科研
Anthocyanins - Unrivaled Metabolic Health Science by Nu Skin

歷時 7 年，Nu Skin 科研團隊發現一款強效成分 – 花青素，能夠針對影響代謝健康的根源，將身體導向至更健康的代謝狀態。花青素是只在特定蔬果中出現的藍紫色及紅色色素，但都市人平均每日飲食中只攝取到約 1/8 的目標攝取量[#]，遠遠不足以支持身體達致健康的新陳代謝狀態。

Backed by seven years of groundbreaking, exclusive-to-Nu Skin research, we discovered a powerful ingredient - Anthocyanins, which can target the sources that impact metabolic health, and help shift your body towards a healthier metabolic state. Anthocyanins are vibrant blue-purple colors and red pigments in selected fruits and vegetables. We normally get only 1/8 out of the target daily dose through diet alone[#], which is not enough to bring the body to a healthy metabolic state.

2 款最強花青素結構
2 Types of Powerful Anthocyanin

研究發現，於眾多花青素結構中，以矢車菊素及翠雀花素最有效保護細胞免受炎症引致的損害。*

Among different anthocyanins, Cyanidin & Delphinidin are the most effective types in protecting cells from inflammatory-induced damages.*

食物中以黑加侖子、山桑子、黑米蘊含最豐富的矢車菊素及翠雀花素，當中蘊含的花青素有助帶來顯著的生理功效。

Black currants, bilberries and black rice are rich in Cyanidin and Delphinidin. The anthocyanin inside these foods bring us with significant biochemistry benefits.

*Sebastian RS, et al. J Nutr. 2015;145(6):1239-1248. doi:10.3945/jn.115.215025
#Cremonini E, Mastaloudis A, Hester SN, Verstraeten SV, Anderson M, Wood SM, Waterhouse AL, Fraga CG, Oteiza PI. Anthocyanins inhibit tumor necrosis alpha-induced loss of Caco-2 cell barrier integrity. Food Funct. 2017 Aug 1;8(8):2915-2923.

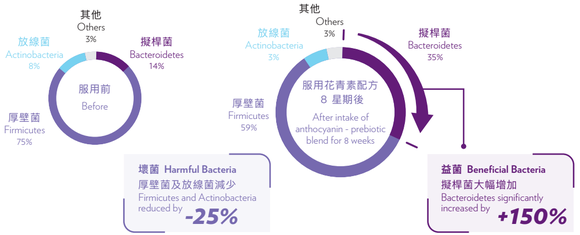
獨特成分帶來非一般功效
The Unique Blend for Extraordinary Benefits

微生物菌群 腸道健康 Microbiome Gut Health	有助促進健康微生物菌群+ Helps enhance microbiome+
抗氧化 Anti-oxidant	有助改善抗氧化防禦網絡 Helps improve anti-oxidant defence
血糖 Blood Glucose	有助維持健康血糖水平 Helps maintain healthy blood glucose
炎症/免疫 Inflammatory / Immune	有助支持健康炎症平衡/免疫活動 Helps support a healthy inflammatory balance / immune activity
改善新陳代謝 Improve Metabolism	有助促進核心新陳代謝 Helps support core metabolism
重要器官 Vital Organs	有助促進重要器官健康 (包括肝臟和心臟) Helps support vital organs health (including liver and heart)

1 提升腸道健康
Enhance Gut Health

花青素有助於促進健康微生物菌群，改善腸道健康。+

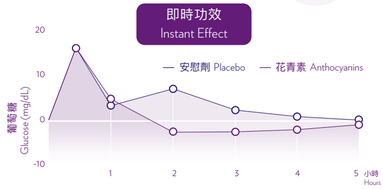
Anthocyanins help promote a healthy microbiome for better gut health.+



2 或有助於穩定血糖
May Assist in Stabilizing Blood Sugar

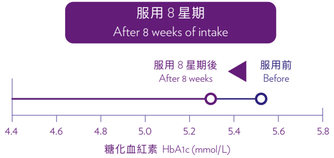
於進食高脂食物後，即時量度葡萄糖指數，發現服用花青素配方的測試者血糖指數升幅較低，表示血糖水平較沒有服用花青素配方的測試者更穩定。~

After having a high fat meal, people who took the anthocyanin blend showed a less increase in blood glucose level, it means his/her blood glucose level is more stable.~



連續服用花青素配方 8 星期，糖化血紅素（三個月平均血糖值）顯著改善至更健康的水平。+

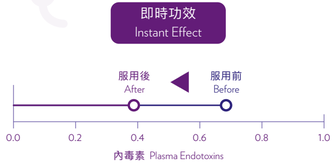
After intake of anthocyanin-prebiotic blend for 8 weeks, HbA1c (average level of blood glucose over 3 months) is statistically significant improved to a healthier level.+



3 支持炎症平衡
Support Inflammatory Balance

服用花青素配方後，腸道通透性即時得到改善，內毒素指數下降，炎症指標顯著減少。~

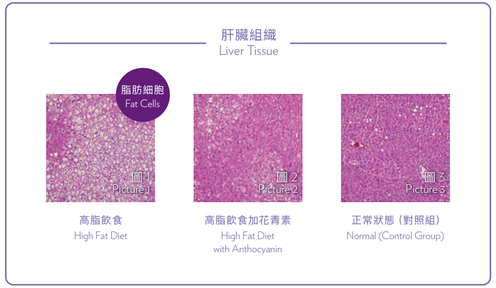
After taking anthocyanin blend, intestinal permeability is improved immediately with lowered plasma endotoxins level, hence results in healthier mice.~



4 改善肝臟健康
Improve Liver Health

實驗顯示肝臟組織於進食高脂飲食後會大幅增加脂肪細胞（圖 1），而當高脂飲食同時配合服用花青素配方時（圖 2），脂肪細胞明顯較少，與正常狀態的對照組別相近（圖 3）。%

Experiment shown that high fat diet increases fat cells in liver tissue (picture 1), while taking anthocyanins, fat cells in liver are obviously less than the high fat group (picture 2) and resulted in liver tissue that looked much more like the control group (picture 3).%

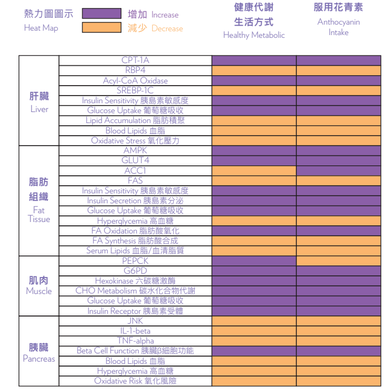


5 將身體導向至更健康代謝模式
Shift Body to a Healthier Metabolic State

服用花青素配方後，身體的代謝途徑及生物效應與原來擁有健康代謝生活方式的體質十分相似，證明花青素配方有效將身體導向至更健康代謝模式。!

After taking anthocyanin blend, metabolic way and biochemistry of the body looks alike those of a person with healthy lifestyle. It proves that anthocyanin blend can shift the body to a healthier metabolic state.!

代謝途徑及生物效應
Metabolic Pathways & Biological Effects



（非基因表達 Not Gene Expression）

+Hester SN, Mastaloudis A, Gray R, Antony JM, Evans M, Wood SM. Efficacy of an Anthocyanin and Prebiotic Blend on Intestinal Environment in Obese Male and Female Subjects. J Nutr Metab. 2018 Sep 13;2018:7497260.
~Cremonini, E., E. Daveri, J. H. Kang, Z. Wang, A. Mastaloudis, R. Grey, S. M. Wood, S. N. Hester, C. G. Fraga and P. I. Oteiza (2019). Effect of an anthocyanin-rich plant polyphenol blend on the inflammatory and metabolic responses to a high-fat meal in healthy subjects. ICPH, Kobe, Japan.
!Daveri E, Cremonini E, Mastaloudis A, Hester SN, Wood SM, Waterhouse AL, Anderson M, Fraga CG, Oteiza PI. Cyanidin and delphinidin modulate inflammation and altered redox signaling improving insulin resistance in high fat-fed mice. Redox Biol. 2018 Sep;18:16-24.
%Azzini E, Giacometti J, Russo GL. Antiobesity Effects of Anthocyanins in Preclinical and Clinical Studies. Oxid Med Cell Longev. 2017;2017:2740564. doi:10.1155/2017/2740564