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[腸道免疫系統守衛者—綠葉蔬菜 / 英國醫學研究委員會 2011年10月13日](#)

資料來源：英國醫學研究委員會 2011年10月13日

中文翻譯：駐英科技組

英國芭芭拉罕研究機構 ( Babraham Institute ) 以及醫學研究委員會 ( MRC ) 近來研究發現，綠葉蔬菜中所含的一種化合物能維持腸道免疫系統的健康，根據報導此發現或許能幫助科學家從根本了解腸道問題，如：發炎性腸道疾病 ( inflammatory bowel disease , IBD ) ，從而開創新療法。

上皮內淋巴球 ( intra-epithelial lymphocytes , IELs ) 是人體內的一種重要免疫細胞，主要功能包括：1. 保護腸道內膜健康；2. 預防壞菌進入腸道；3. 維持腸道益菌均衡以確保消化功能進行順暢。新研究實驗證實，綠葉蔬菜可以保護這種上皮內淋巴球免疫細胞。

研究人員透過老鼠實驗發現，單純飼以富含有益健康的維生素和礦物質但不給予任何蔬菜，三週後體內淋巴球量即頓減70% - 80%，唯獨其他免疫細胞數量不受影響。科學家解釋，淋巴球的存在受制於「芥蘭素 ( indole-3-carbinol ) 」消化過程中所產生的一種化學物質，而蔬菜正是芥蘭素的主要來源，如：花椰菜和包心菜等都富含大量芥蘭素。

雖然飲食對免疫系統的重要性早已為人熟知，然殊不知充足的維生素和礦物質仍無法取代蔬菜於其中所扮演的關鍵角色。目前尚無法得知這樣的現象是否同樣可見於人體健康狀況，但過去流行病學研究已顯示，蔬果攝取不足和罹患發炎性腸道疾病中間的關聯性確實存在。

Guard of the gut's immune system – leafy greens

Article source: The Medical Research Council, 13rd, Oct. 2011

A new research done by the Babraham Institute and the Medical Research Council in the UK discovered that a chemical compound found in leafy greens plays an important part in maintaining a healthy immune system in the gut. The findings may help scientists better understand the basis of intestinal disorders such as inflammatory bowel disease (IBD) and may offer new treatment opportunities.

Intra-epithelial lymphocytes (IELs), a certain type of immune cell, play a crucial role in keeping the gut lining healthy and preventing "bad" bacteria from entering the gut while maintaining the balance of "good" bacteria which help us to break down our food. The new research proves that leafy greens are key to the existence of IELs.

Researchers studied mice fed a diet containing many vitamins and minerals known to be essential for good health, but which lacked vegetables. Over 2 to 3 weeks the mice lost 70 to 80 per cent of IELs. The scientists explained that IELs depend on chemical signals from the digestive breakdown products of a substance called Indole-3-carbinol, high levels of which are found in vegetables like broccoli and cabbage.

It is known that the food we eat plays a crucial role in influencing our immune system, but it is surprising that the diet with sufficient minerals and vitamins can't replace vegetables. Whether these findings have any implications for humans are yet to know, interestingly, epidemiological studies have linked a diet low in fruit and vegetables with an increased risk of IBD, reflecting the connection between vegetables and a healthy gut immune system.

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