

Nutritional Immunology advocates constant research and continuous advancement. It has motivated the study of plant foods as well as breakthroughs in processing technology. The result: highly concentrated plant-based nutrition produced using the most advanced technology, bringing convenience to the modern lifestyle.

The prickly cactus may not look attractive, but it is a treasure chest of thousands upon thousands of phytochemicals and a wide variety of nutrients. Great effort has been taken to study cactus. Countless hours of tests have resulted in the most advanced processing methods to offer consumers only the best of cactus nutrition in various forms.

營養免疫學強調的是要不斷探索、持續進步。除了堅持研究開發各種植物食品之外，也致力於生產製作技術的發展和提昇，以高科技方法萃取最高濃度的天然植物性營養，以方便人們多姿多彩的現代生活。

多刺的仙人掌雖然其貌不揚，但它蘊含著成千上萬的植物營養素，是儲存眾多營養的天然寶庫。科學研究者投入無數的人力、物力與時間，對仙人掌進行了深入的研究和測試，最終研發出最先進的製作方法，從而得以萃取出仙人掌的最佳營養成份，並加工成多種樣式呈獻給消費者。

**MIXING & CONCENTRATION / 混合&濃縮**

- Large amounts of pure Cactus Liquid 3 are mixed with Cactus Liquid 1.
- Retains the fiber and color of cactus.
- Natural fiber absorbs and retains more nutrients.
- 將大量的純淨仙人掌液3與仙人掌液1混合。
- 保留仙人掌中的天然纖維及顏色。
- 天然纖維可吸附並保留更多營養。

**ULTRAFILTRATION / 極端過濾**

- Removes smaller micro particles like bacteria by separating particles by size.
- 按照大小分離顆粒，以去除細菌這種較小的顆粒。

Pure Cactus Liquid  
Nutritious · Delicious · Pure  
純淨的液態仙人掌  
營養 · 美味 · 超純淨

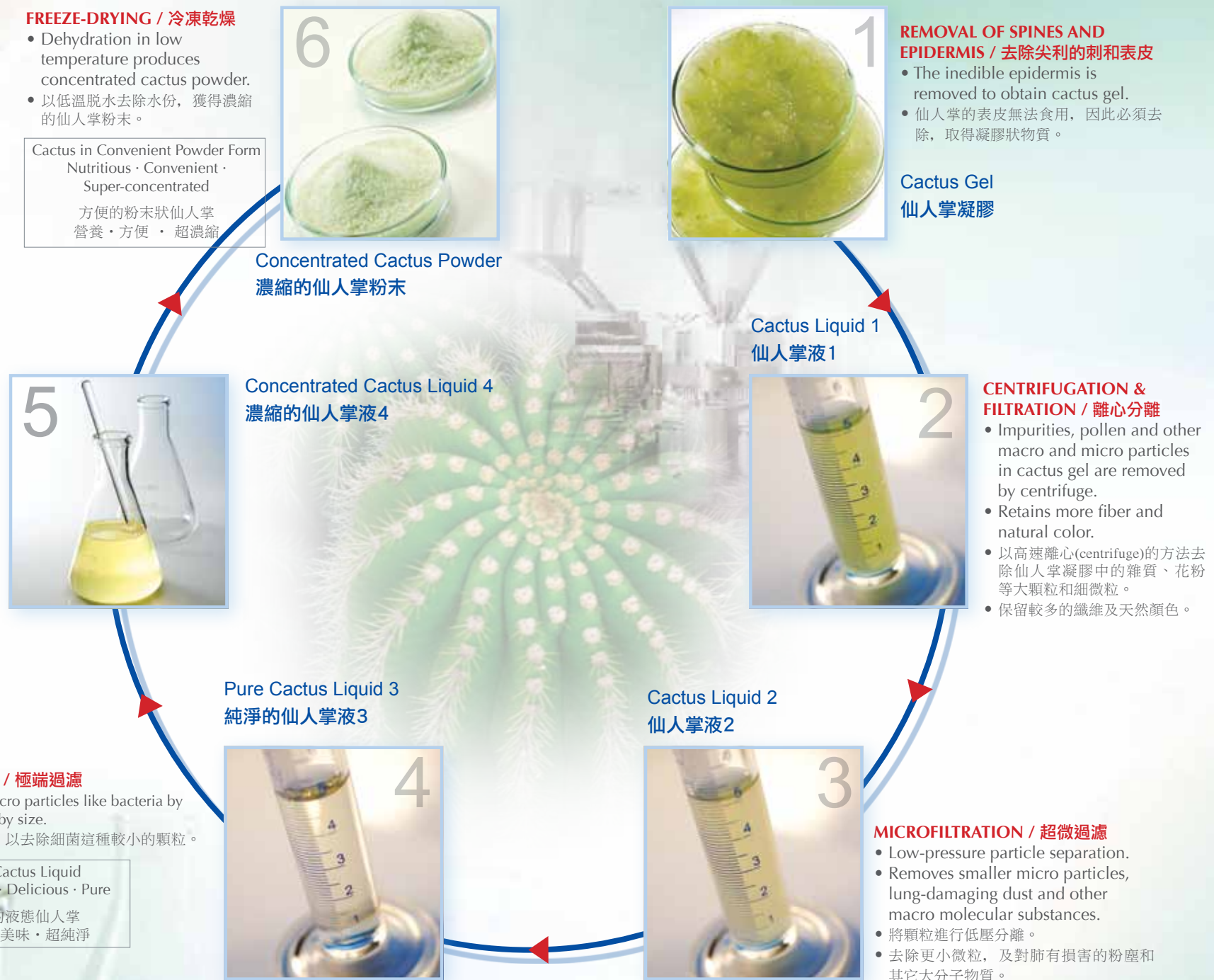
# Discover Technology

## Perfect Nutrition from Cactus

# 探索科技

## 萃取來自仙人掌的完美營養

### | Advanced Processing Techniques • 精密的仙人掌萃取過程 |



Nutritional Immunology suggests that the quality of a nutritional product relies just as much on processing as the quality of raw ingredients. With the most suitable techniques and choice ingredients, one can only expect the best products that deliver great convenience. Continued research and development will ensure future innovations that bring better nutrition, higher quality and more wholesome goodness!

營養免疫學認為，營養產品的優劣取決於原材料的品質，但加工製造過程也同樣重要。以最適當的高科技方法配合優良的材料，方能打造最優異的產品，進而給消費者提供最大的方便。因此，唯有不斷地進行深入的研究與開發，才能推陳出新、不斷進步，為人類帶來更營養、更優質、更有益的健康產品！

**| Challenges in Processing Cactus |**

Preparing cactus for consumption is difficult. Compared to other plant foods, there are many challenges in processing cactus:

- **Removing the epidermis**  
First, the sharp spines of the cactus have to be removed, followed by its thick epidermis, as it cannot be absorbed by the human body and may cause indigestion.
- **No high temperatures**  
High temperatures cannot be used in the processing of cactus as heat destroys its nutrients.
- **No delays allowed**  
Once the cactus' epidermis is removed, its gel may decay within a few hours and lose phytochemicals and antioxidants. Hence, the processing of cactus must be careful and swift.

**| 加工難點 |**

要將仙人掌加工成適合消費的形式並非易事，與其它植物食品相比，仙人掌的加工處理過程中有許多難點：

- **去除表皮**  
首先，要去除仙人掌表面的尖刺，然後徹底去除其厚質的表皮，因為這層粗厚的表皮不能被人體吸收，吃了會導致消化不良。
- **不可高溫**  
高溫會將仙人掌中的營養徹底摧毀，因此仙人掌的加工過程應避免任何高溫操作。
- **不可久置**  
仙人掌的表皮一旦被去除，內部的膠質可能在幾個小時內就腐壞變質，其中的植物性營養素和抗氧化劑也將損失殆盡，所以，仙人掌的加工製造必須嚴謹而迅速。

**TIPS / 提示:**

- 1 Powder that is simply ground from cactus may still contain parts of the epidermis, and may not be as concentrated and nutritious.
- 2 Bacteria are culprits of food spoilage.
  - Liquids are breeding grounds for bacteria. Hence, liquid products must be packaged to stay bacteria-free so that they can maintain freshness without preservatives.
  - The dryness of powder discourages bacterial growth and gives a product longer shelf life.
  - Common methods of using heat for sterilization are unsuitable for cactus processing. Hence, it is best to use various filtration methods to remove bacteria, producing a cactus beverage that is pure and clean.
- 3 Pure cactus liquid does not contain impurities or solids. It cannot be freeze-dried directly as otherwise its nutrients will evaporate along with the moisture content.
- 4 Concentrated cactus powder can be mixed with variable amounts of water according to one's preference.

- 1 若簡單將仙人掌磨成粉末，就可能含有表皮，其濃縮度及營養成份也都不高。
- 2 細菌是食品腐壞變質的罪魁禍首。
  - ...液體是細菌繁殖的溫床，因此，要在無防腐劑的條件下仍保持液體產品的新鮮，就必須做到無菌包裝。
  - ...乾燥的粉末不宜於細菌繁殖，因此可以更長久地保留存放。
  - ...市面常用的高溫滅菌，並不適用於仙人掌。而通過多重過濾的方式去除細菌才是保障仙人掌飲品純淨品質的最佳手段。
- 3 純淨的液態仙人掌雖已不含任何雜質或固態成份，但仍不可直接冷凍乾燥，否則其營養會隨水份一同揮發掉。
- 4 濃縮的仙人掌粉末可隨個人喜好調整水量，濃淡皆宜。