



# Dietary Care Instructions for Children during Chemotherapy

## 兒童化學治療期間飲食護理指導

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### I. Introduction 前言

Successful pediatric cancer treatment requires parents to commit themselves with the care of the child, and the primary caregiver need to be familiar with key care guideline. When the child-patient receives chemotherapy and stem cell transplantation, they can present with signs and symptoms of immunosuppression which leads to low level of white blood cell (particularly the granulocytes counts) and an increased susceptibility to possible infections. Thus, it is important to maintain the quality of care provided to the child with cancer. This includes that the child should adhere to a strict dietary regimen with minimal-bacteria diets in order to protect his or her fragile immune system. To help you attend to your child's dietary needs, we have provided dietary instructions as the following.

兒童癌症治療的成功應有家人全時照護，主要照顧者應該熟悉照護原則。當病童接受化學治療、幹細胞移植、處於免疫抑制階段，白血球(尤其是顆粒球)會降的非常低，此時孩子極易感染，因此對孩子的照顧顯得重要。飲食建議採用較嚴格的限制，儘可能減低食物中的微生物，保護抵抗力弱的孩子。本冊子提供您飲食照顧的建議，作為您未來照顧孩子期間的參考。

### II. Food 飲食選擇原則

i. Freshly prepared foods and condiments are preferable. Takeouts should be avoided, it is best to cook by yourself.

-食物選擇的重點：所有食物、調味料皆要為新鮮熟食，避免外食，最好自己烹煮。

ii. To maintain a balanced diet, your child should eat his or her daily recommended servings from the six food groups: grains and starches; milk; meat, fish, beans, and eggs; vegetables; fruits; and oils and fats.

-均衡營養是指每天從六大類基本食物中（包含五穀根莖類、奶類、蛋豆魚肉類、蔬菜類、水果類與油脂類等），選吃個人所需要的份量。

iii. Expensive foods do not necessarily guarantee a high nutritional value. Help your child break fussy eating habits (if any) and eat a balanced diet.

-食物的價錢與營養價值不一定成正比，應均衡攝取並儘量不要偏食。

iv. Ensure that the foods you are going to serve are clean and consumed before expiration. Rinse them before they are cooked and prepare them in a hygienic environment.

-注意食物的衛生，注意食物保存期限、烹調前的洗滌及烹調後的衛生。

v. If your child wants baked products, serve only freshly baked bread and pastries.

-可食用麵包店剛出爐不包餡的麵包、蛋糕。

vi. Snacks should be served from packs and should be free of any fillings.

-零食的選擇以小包裝單次使用、不包餡為原則。

vii. Cheese should be cooked before being eaten. For example, it can be baked into a topping or on a pizza or with dough. Avoid uncooked cheese or salad vegetables with cheese sprinkles.

-起司需烹調過才可吃，如：焗烤、加入麵糰烘焙或烤過的披薩，不可直接進食或灑在生菜上。

viii. Your child should eat chicken essence, chicken soup, or fish soup to repair damaged tissues in the body.

-雞精、雞湯、魚湯無法完全提供修復身體組織所需，所以不可僅以湯品作為正餐。

ix. Be careful not to irritate your child's gums by feeding him or her bony, hard, sharp-edged, and coarse foods.

-避免嚼骨頭及硬、尖銳或粗糙的食物，以免口腔黏膜受損。

x. Your child will have an increased appetite after steroid administration. He or she should eat light and frequent meals containing high-fiber and filling foods and only consume high-fat foods or high-sugar drinks sparingly.

-類固醇藥物會使病童食慾大增，所以應注意少量多餐，儘量吃高纖及易飽足感的食物，減少高油脂的食物及高糖份的飲料。

### III. Milk 飲用牛奶原則

i. Your child should not drink raw (unpasteurized) milk. You can choose to sterilize, within the expiration date, fully packaged aluminum foil bag, Tetra Pak, Fresh House, etc.), milk that has been drunk sequentially, such as: long-lasting milk, fresh milk.

-不可飲用牧場現擠的鮮奶，可選擇殺菌、在有效期限內、包裝完整鋁箔包、利樂皇、新鮮屋等)、依次喝完的牛奶，如：保久乳、鮮奶。

ii. Children drink reconstitute packaged powdered milk in a small can without probiotics and brewed whisk it into boiled water.

-幼兒喝沖泡奶粉，須選擇小罐裝不含益生菌的奶粉，沖泡的開水要煮沸過。

### IV. Cooking 烹煮原則

i .Your child should only eat thoroughly cooked foods.

-食物都需煮熟才可吃。

ii . Your child should not eat leftovers or restaurant fried rice. Such fried rice is prepared with overnight refrigerated rice, on which lethal germs usually build up.

-不可食用隔餐飯菜，餐廳的炒飯不可吃，因隔夜飯會滋生致命病菌。

iii . Your child should not eat shelled seafood,shrimp are peeled and cooked before cooking.

-勿食帶殼類海鮮食物，蝦類則剝殼後再烹煮。

iv . For eggs, it is recommended to choose washed eggs, choose a complete shell and rinse eggs before cooking,

-蛋類建議選擇洗選蛋，選用外殼完整且煮蛋前蛋殼清洗乾淨。

v . Prepare different chopping boards for uncooked and cooked food.

-生食與熟食之砧板不可共用。

vi .Your child should not eat raw tofu.

-豆腐須烹煮後再吃，不能直接食用。

vii . Boil miso soup for 5 to 10 minutes, because miso is not sterilized after it is produced (by grinding soybeans that are fermented with salt and the fungus *Aspergillus oryzae*).

-味噌是由大豆、米麴、食鹽混合後，加菌類溶液熟成、絞碎而成。由於未再殺菌，所以煮味噌湯時，需持續沸騰 5-10 分鐘。

viii . Seasonings (e.g., pepper, onion, ginger, and garlic) should be cooked with whatever they have been added to.

-胡椒粉、蔥、薑、蒜等調味，須與食物一起煮熟後才可食用。

ix .Condiments such as soya sauce, ketchup, rice vinegar, and apple cider vinegar are produced through steaming, fermentation, and sterilization. They are edible for your child as long as they are properly stored and cooked with whatever they have been added to.

-醬油、蕃茄醬、米醋、蘋果醋...等原料，製作過程中經由蒸煮、發酵、最後都會再殺菌，所以只要保存得當，將調味料加入食物後再次烹煮過，是可以使用的。

## V. Water 飲水原則

i . Boil water sufficiently before your child drinks it.

-飲用水一定要確實煮沸，不可生飲。

ii . Your child should not drink bottled water or water from a dispenser or filter because

-瓶裝水、開飲機的水或過濾機之過濾水，皆不可飲用。

1. Water cannot be sufficiently boiled in a dispenser; and

-開飲機無法確實將生水煮沸，不可將生水直接倒入開飲機“煮沸”飲用。

2. Filtered water is not drinkable for your child (unless it is boiled).

-過濾水，須煮沸後才能給病童飲用。

iii. When your child has a beverage, he or she should drink it all in one sitting.

Microbes that cause foodborne illness can contaminate drinks that are left out for 30 minutes.

-飲料儘量一次喝完，置放 30 分鐘後即易孳生細菌或黴菌。

iv. Your child should not drink brewed tea or tea prepared with a tea bag and boiling water. Tea leaves are contaminated with abundant bacteria and cannot be completely sterilized within a few minutes of being brewed in boiling water.

-不可給病童喝泡茶，也不可以茶包沖茶飲用。因茶葉內含許多細菌，僅用幾分鐘熱水是無法殺菌的。

## VI. Fruit 水果選擇原則

i. Your child should eat fresh fruits with peeled or peelable skin.

-選擇可剝皮或削皮的新鮮水果。

ii. Rinse fruits with boiled water before peeled eating them.

-水果須以煮過的水清洗乾淨，去皮才可食用。

iii. Your child should eat fruits (e.g., tangerine, orange, tomato, apple, banana, or papaya) with easily peeled skin to diminish the likelihood of contamination with pesticides and germs.

-選擇果皮較容易處理、農藥污染及病源感染機會較少者，可選擇橘子、柳丁、蕃茄、蘋果、香蕉、木瓜等。

iv. Your child should not eat grapefruit because it interferes with drug-induced therapeutic effects.

-葡萄柚易影響藥物治療效果，故禁止食用。

v. Kiwi, dragon fruit with uneven or hairy appearance, peeling must be used to remove the peel.

-奇異果、火龍果外觀不平整或多毛的水果，須以削皮方式去除果皮。

## VII. Tableware 餐具的選擇

i. All eating utensils used by your child should be rinsed beforehand and boiled.

-使用的餐具須清潔、乾淨，且開水煮過。

ii. To reduce the risk of microbial infection in your child, put takeout dishes into stainless containers and avoid using plastic bags or disposable cutlery articles (e.g., chopsticks, spoons, and paper/polystyrene lunchboxes) provided by restaurants.

-買外食請自備不鏽鋼容器，不要用店家的餐具，如：塑膠袋和便當盒(紙盒、保麗龍)、筷子、湯匙，以減少細菌及黴菌感染的機會。

iii. Use straws packaged individually.

-吸管請選用單包裝。

iv. Fetch food with clean hands. Do not use plastic gloves because they may be contaminated with microscopic molds that grow during production, use, and storage.

-將手洗乾淨拿食物比戴塑膠手套好，因為從工廠製作到使用，保存過程中可能有看不見的黴菌。

### **VIII. Your child must refrain from the following foods 哪些食物不能吃?**

i. Smoked and pickled dishes.

-禁吃煙燻或醃漬物。

ii. Dairy products that contain microorganisms such as Yakult, yogurt, yogurt drinks, and probiotic formula milk powder.

-禁食含生菌類乳製品，如：養樂多、優格、優酪乳、含菌配方奶粉等含生菌的飲料。

iii. Uncooked foods such as salad vegetables, raw fish slices, beef (unless well-done), oysters, raw eggs, and uncooked ham.

-禁吃生食，如：生菜、生魚片、未全熟的牛肉、生蠔、生雞蛋、未烹煮的火腿，以免病菌感染。

iv. Stuffed cookies.

-不吃有夾心、餡料的餅乾。

vi. Roast potatoes, tea eggs, oden, tempura, barbecue, *lou mei* (sauce-simmered food), and stuffed snacks (e.g., pies, filled buns, and steamed buns).

-不可吃販售的烤蕃薯、茶葉蛋、關東煮、甜不辣、燒烤以及小吃攤的滷味以及包餡的點心，如餡餅、包子、小籠包。

vi. Packets of sauces provided by fast-food and takeout restaurants.

-速食店、餐廳的醬料包不可食用。

vii. Irritating foods such as coffee and hot, spicy, and sour dishes.

-少吃刺激食物(如辣椒、咖啡或太酸太辣的東西)。

viii. Honey, because it may be contaminated with botulism, which can upset or even infect the stomach of patients with weakened immunity.

-禁飲蜂蜜(可能含有肉毒桿菌)，對於抵抗能力較弱的病童而言，易引起腸胃不適甚至感染。

ix. Nuts such as peanuts, walnuts, cashews, pistachios, and dried fruits.

-不可吃堅果類(如花生、核桃、腰果、開心果、水果乾)。

x. Milkshakes and ice cream. Both snacks are prepared by blending their non-sterilized ingredients in machines, and these blending devices may not be sufficiently clean.

-奶昔、霜淇淋：是將原料倒入機器內混合攪拌後直接販售，未再殺菌，且機器的清洗衛生問題，故不可以食用。

xi. Ice pops, ice chips, and smoothies. These snacks are prepared without sterilization, and the water used during their preparation may be contaminated with E. coli.

-冰棒、冰沙、剉冰類，製作過程未經殺菌，且要考慮使用的水質可能含有大腸桿菌，不可食用。

xii. Canned dishes. 禁罐頭食物。

xiii. Please wash the mushrooms, remove the stems and cook them.

-菇類請洗淨、去蒂再煮熟。

### **IX. Your child should avoid the following tonics and folk medical prescriptions 補品? 偏方?**

i. Probiotics (e.g., Biofermin and LP-33) and multivitamin tablets.

-勿食用含益生菌的食物(如表飛鳴，LP33 等)，也不建議額外補充綜合維他命。

ii. Chinese medicinal herbs.

-不吃中藥進補。

iii. "High-protein," "high-nutrition" supplements; because of their high osmotic pressure, they may increase the burden on the stomach and kidneys following chemotherapy.

-不必特意補充「高蛋白」、「高營養」的營養品，因滲透壓高，可能加重化療後的腸胃及腎臟的負擔。

v. Folk medical prescriptions must be avoided because they contain unknown ingredients and their preparation methods are often unclear.

-勿聽信偏方，因成分不明且製作過程不清楚。

vi. Do not drink holy water or incense ash water prescribed by Taoist priests. These prescriptions are contaminated with poisonous microbes that can cause stomach ulcers, gastrointestinal perforation, sepsis, and even death.

-絕對不可以吃符水或是香灰，可能感染毒性超強的細菌或黴菌，導致腸潰爛、腸穿孔、敗血症甚至死亡。

Your child should be able to return to normal dietary habits for 1–3 months

(depending on the physician's instructions) after completing the treatment regimen.

-全部療程完成後，依醫師指示約 1-3 個月可逐漸恢復一般飲食。

We hope these dietary care guidelines contribute to your child's quality of life during chemotherapy.

-期待以上資料，能夠提供您更多的照顧訊息，在孩子治療過程能有良好的生活品質。

If you have any question or suggestion, please contact with us. We are happy to provide you services to you. Contact telephone number: MacKay Memorial Hospital: (02)25713760; Hsinchu MacKay Memorial Hospital: (03)5745098; Taitung MacKay Memorial Hospital: (089)310150 ext: 311. Time of consultant: 9:00 am~12:00 noon, 2:00 pm~5:00 pm Monday ~ Friday.

**May God Bless You**