

Nasogastric Tube Feeding Procedure and Precautions

鼻胃管灌食法與注意事項

【中、英文對照版】



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一、灌食目的 The purpose of tube feeding

因暫時或長期無法由嘴巴進食的患者，經由鼻胃管來供應營養、水分、藥物。

To provide nutrition, fluid, and medicine for patients who cannot eat through mouth because of temporary or long-term problems.

二、用物準備 Preparation



包括：
開水、杯子、大毛巾、灌食空針
Drinking water, cup, large towel, feeding syringe

三、灌食方法 Procedure for feeding

◎灌食前病人準備：

◎Preparation for the patient before feeding

1.灌食前，須先檢查病人尿布是否須更換？

Before feeding, it is required to first check the necessity of changing diapers for the patient.

2.灌食前，先翻身、拍背或抽痰後，再進行灌食，以避免發生嘔吐。

Before feeding, first perform turn-over, clapping back or sputum suction to prevent vomiting.

(一)灌食前步驟 Before feeding



1.洗手
(避免細菌感染)
Wash hands to avoid spreading of germs.



2.搖高床頭 30~45度
(防止食物逆流)
Before each feeding of milk, first raise the bedhead up 30 to 45 degrees to prevent food



3.鋪上紙巾或大毛巾
在患者胸前
Cover patient's chest with a napkin or large towel.

4.檢查鼻胃管位置

Check the positioning of the nasogastric tube.

檢查項目: Checklist:

(一)檢查胃管固定標記有無脫落?

(A) Check any dropping-off of fixing marks of NG tube?

(1)膠布已脫落(×)

Tapes dropped off (X)

(2)膠布固定正常(O)

Tapes normally fixed (O)



(二)檢查胃管刻度有無移位?

(B) Check any dislocation of gastric tube scales?

(1)刻度已滑動移位(×)

Scales slipped and dislocated (X)

(2)刻度正常無移位(O)

Scales are normal without dislocation (O)



(三)檢查嘴內有無胃管脫出或纏繞?
 (C) Check any slipped-out or twisted gastric tube in the mouth?

(1)嘴內有胃管纏繞(✗)

Gastric tube twisted in the mouth (X)

(2)嘴內無胃管纏繞(O)

No any gastric tube twisted in the mouth (O)



若檢查有以上情形，請暫停灌食，並告知醫護人員處理--- (Stop feeding and notify the nursing staff if any of the above occurs.)

◎ Little Reminders 愛的小叮嚀
 Before each nutrition feeding (such as: milk) or drug feeding, the withdrawing check shall be done to ensure that the stomach tube is in the stomach.
 每次灌營養品((如:牛奶)或灌藥前必須做反抽檢查，以確保胃管在胃內。

5. 胃管反抽檢查 Suction check
 目的:確定胃管在胃內，以避免食物灌入肺部，而造成吸入性肺炎。
 Purpose: To confirm the presence of the NG tube within the stomach in order to avoid feeding food into the lung and cause pneumonia.

(1)反抽步驟: Steps for suction check



a. 反折胃管
 Fold and pinch the tube.



b. 接上空針後進行反抽
 Insert syringe and pull plunger

(2)檢查項目: Checklist:



a. 確定胃管是否在胃內--反抽胃管有胃液、牛奶、水，表示位置正確。
 If the syringe sucks up stomach content, milk, or water, then it means the NG tube is properly placed in the stomach.



b. 評估胃內消化情形
 --反抽胃管如超過 200mL 不灌食，但反抽物須再灌回胃內，不可丟棄。待 1 小時後再反抽及評估胃內消化情形，如果反抽液少於 200mL，即可開始灌牛奶。

Assess adequacy of digestion. If the syringe draws out more than 200 ml of residue, do not start feeding. But reinject the residue into the stomach. Do not discard it. One hour later, check again by repeated drawing-back. , if the drawn residue is less than 200 cc, feeding milk may be started.



c. 觀察反抽物(胃內物)的顏色情形--反抽物若呈墨綠色、暗紅色、血色或咖啡色時，請勿灌回或繼續灌牛奶，並立即通知醫護人員

Note the color of the residual stomach content. If it appears dark green, dark red, bloody or coffee-like, do not reinject it into the stomach or continue feeding milk. Notify medical personnel immediately.

(二)灌食中步驟 Steps for feeding



1. 將空針內管取出
i. Remove syringe plunger



2. 胃管先反折
ii. Fold and pinch the NG tube



3. 再將開口處打開
iii. Open the tube cap



4. 接上空針
iv. Insert syringe

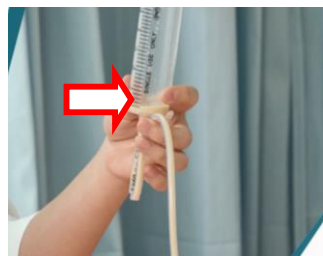


5. 倒入營養品(如: 牛奶)
v. Pouring nutrition (i.g. milk)



6. 利用重力原理灌食
vi. Use the principle of gravity to feed

(針筒與胃距離 30-45 公分)
(The distance between the syringe and the stomach is 30-45cm)



7. 當牛奶快流完時，須立即反摺胃管，以避免空氣進入。
vii. When the syringe is almost empty, fold the NG tube to avoid leaking air into the tube.

(三)灌食後步驟 After feeding



1. 倒入 30c.c 溫開水 (連續二次各 15ml)
Pour 30 c.c. of warm water (15ml each time, for continuous two times)



3. 灌食後立即以水龍頭來清洗空針，利用棉枝去除管壁奶垢，再使用煮沸過的冷開水沖洗，最後用紗布、擦手紙或棉枝擦乾並晾乾(防細菌滋長致腹瀉)
After finishing feeding, flush the empty tube with running water immediately. Use cotton swabs to remove debris from the tubal lumen, and rinse the tube again with cooled boiled water. Wipe with gauzes, tissues, or cotton swabs and let dry to avoid diarrhea caused by bacterial overgrowth.

2. 封閉胃管開口
ii. Seal the tube opening



方法①: 反折胃管塞入開口
Method(1) Fold tube and tack it into the tube inlet



方法②: 用塞子塞住胃管 (避免空氣進入)
Method(2) Plug the stomach tube with a plug (to avoid air entry)



4. 灌食空針禁用熱水燙洗 (以防空針變形)
It is prohibited to clean the feeding syringe with hot water (to prevent the deformation of the empty syringe)



5. 固定床頭高度維持 30~60 分鐘 (防止食物逆流)
Fix the bed height, and maintain 30 to 60 minutes (to prevent food reflux)



放在清潔容器中晾乾，保持乾燥。Place the item in a clean container and keep it dry.

四、鼻部護理：Care of the nose

目的：保持鼻部清潔

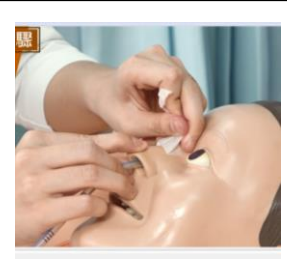
Purpose: Keep the nose clean

(一)用物準備：

包括：棉枝、紙膠、溫開水、杯子、衛生紙或濕紙巾

Tools: cotton swabs, adhesive tape, warm water, cup, toilet paper or wet paper towel.

(二)步驟 Steps



1. 先撕掉髒的紙膠再使用濕紙巾或衛生紙將鼻頭擦拭乾淨

1) Peel off the dirty adhesive tape first, then wipe the nose clean with wet paper towel or tissue paper.



2. 以棉枝沾溫開水清潔鼻腔
2) Clean nostrils with moist cotton swabs



3. 取一段紙膠
3) Tear off a piece of paper adhesive

(1) 長度：約鼻部至嘴巴

i. length: from nose to mouth



(2) 再撕成 Y 型 (不要全撕開)
ii. Tear lengthwise to make a Y (do not split apart completely)



將紙膠未撕開端固定在鼻樑上，撕開部分則分別纏繞在管子上。
Tape the unsplit end of the adhesive on the nose bridge. Tape the split ends around the tube.

(三)注意事項 Note:

- 1. 固定胃管的紙膠，最好每天更換。
Change the fixation tape daily
- 2. 注意不可移動胃管所插的深度。
Keep NG tube fixed at the same marking. Do not shift its position.

- 4. Nutritional products (i.g. milk) and drugs shall be separately fed, and the interval time shall be 30 minutes.
- 5. Tube feed Chinese medicine and western medicine separately at least 1 hour apart.

五、照護注意事項

- (一)胃灌食患者應每日做多次口腔清潔，可用鹽水、檸檬水。
- (二)食物應保持新鮮，請適當保存，以防食物變質。
- (三)灌食後須倒入 30mL 開水 (連續二次各 15mL)，避免胃管阻塞或食物酸化。
- (四)營養品(如：牛奶)與藥物必須分開灌食，應間隔 30 分鐘。
- (五)中藥與西藥必須分開灌入，應間隔 1 小時。

V. Instructions for routine care

- 1. Cleanse patient's oral cavity with saline or lemon juice several times each day.
- 2. Keep food fresh, please save as appropriate to prevent food deterioration.
- 3. After feeding diet, Pour 30mL. of warm water (15ml each time, for continuous two times), to prevent residual food from clogging or deterioration inside the NG tube.

管灌營養品未使用完畢之保存方法：
Storage of unfinished feeding formula

- 罐裝液狀營養品、家屬自行泡製營養品或營養部泡製營養品：未用完需立即丟棄，不得再冷藏保存。
Canned liquid formula, self-made formula, or formula prepared by the in-house Department of Nutrition should be discarded if unfinished. Do not keep refrigerated for reuse.
- 營養部泡製之非罐裝連續管灌營養品送至病房應立即冷藏，並依規定餐次使用，冷藏有效期限為 24 小時，未灌完請丟棄。
Upon delivery to the ward, non-canned formula prepared by the in-house Department of Nutrition should be kept refrigerated instantly and used for the desired meals as instructed. The formula will expire in 24 hours. Please discard any unfinished formula.

(六)為防止食物逆流或嘔吐，造成吸入性肺炎，請注意以下事項：

- 1.管子應避免受壓、扭曲或灌食時被拉出，尤其是躁動的病人。
 - 2.食物溫度勿太冷或太熱(約 37-40 度)。
 - 3.灌食後，不要灌太多溫開水，會造成消化不良。
 - 4.每次灌食總量約 250~350c.c 為宜，絕不可超過 500c.c，灌食時間約 15~20 分鐘，灌食流速勿太快，避免導致消化不良或腹瀉。
 - 5.避免空氣灌入胃內，造成腹脹不適。
 - 6.灌食後，切勿立即協助病人翻身、拍痰或下床活動，防止食物逆流或嘔吐。
 - 7.灌食過程，若有不停的咳嗽或嘔吐、發紺情形，請立刻停止灌食並將病人側躺，以防止病人噎到，阻塞呼吸道，並通知醫護人員處理。
 - 8.灌食中若發生嘔吐情形，請立即將患者頭、臉部側向一邊，防止患者噎到，阻塞呼吸道。
- 6.To prevent food regurgitation or vomiting and possible aspiration pneumonia:
- ①Avoid compressing, twisting, or pulling out the NG tube, especially when feeding a restless patient.
 - ②The temperature of food shall not be too cold or too hot(about 37-40°C).
 - ③Do not fill in too much warm water after feeding or it may result in indigestion.

- ④The ideal feeding amount is roughly 250-350 cc and must not exceed 500 cc. The feeding time should last 15-20 minutes. Fast feeding may result in indigestion or diarrhea.
- ⑤ Avoid pumping air into the stomach to prevent abdominal distension.
- ⑥In order to prevent reflux or vomiting, please do not turn and pat on the patient's back or assist him/her to get out of bed immediately after feeding.
- ⑦If the patient coughs, vomits, or presents with cyanosis during feeding, please stop and lie the patient on his/her side to prevent choking or airway obstruction and inform medical staff.
- ⑧If the patient vomits during feeding, please lie the patient on his/her side to prevent choking or airway obstruction.

六、灌食後可能出現的反應

- (一)腹瀉:可能食物濃度太高、灌食速度太快。
- (二)腹脹:可能是灌食太多、速度太快、灌入空氣。
- (三)噁心、嘔吐:可能管子位置不當、速度太快、量太多。
- (四)便秘:可能食物濃度太高、纖維素不足、水分不足。

◎如果出現以上症狀，請立即通知醫護人員。

VI. Possible problems after feeding

- 1.Diarrhea: Might be due to overly concentrated diet or feeding too rapidly
- 2.Bloating: Might be due to overfeeding,

feeding too rapidly, or leakage of air into the stomach.

- 3.Nausea and vomiting: Might be due to incorrect placement of the NG tube, feeding too fast, or feeding too much.
 - 4.Constipation: Might be due to overly concentrated diet, insufficient fiber in diet, or not feeding enough water.
- ◎Notify the nursing staff for the above problems.

七、管子阻塞原因

- (一)藥粉未溶解或藥物未完全磨碎。
- (二)飲食泡製不均勻。
- (三)灌食後管子未沖洗或沖洗量太少。

VII. Causes of NG tube obstruction

- 1.Undissolved or incompletely grinded medicine
- 2.Diet not mixed evenly
- 3.Neglect to flush NG tube with water after feeding or flush with too little water.

八、如何預防管子阻塞?

- (一)藥物須完全磨碎，且可用溫開水幫助溶解，灌完藥物請再以 30-50mL 開水沖洗管子。
- (二)配方要攪拌混合均勻。
- (三)每次灌食後，倒入 30mL 開水 (連續二次各 15mL)沖洗管子。
- (四)食物太濃稠時，可加入少許溫開水稀釋，以利灌食。

IX. To prevent clogging of the tube:

1. Grind the medicine thoroughly and

dissolve it in warm water. After feeding, flush the tube with 30-50 ml of drinking water.

2. Formula diet should be stirred and mixed evenly
- 3.After feeding diet, feed 15 ml of drinking water twice to flush the tube.
- 4.If the diet is too dense, dilute it with a little warm water to aid feeding.

九、管子阻塞及脫落處理方法:

- 1.若阻塞完全無法解決，請立即回醫院由醫師幫您處理。
- 2.若管子脫落，請立即回醫院由醫師幫您處理。

IX. Tube obstruction and dislocating treatment:

1. If the obstruction may not be resolved, please come back to the hospital immediately, and ask the physicians to help you.
2. If the tube dislocates, please come back to the hospital immediately, and ask the physicians to help you.

鼻胃管灌食衛教影片 QR code
Nasogastric Tube Feeding
Video QR code



學習自我評量 (是非題)

- () 1. 灌食的牛奶與藥物可以一起灌。
- () 2. 罐裝液狀營養品、家屬自行泡製營養品或營養部泡製營養品：未用完需立即丟棄，不得再冷藏保存。
- () 3. 灌食後以水龍頭來清洗空針，利用紗布、擦手紙或棉枝去除管壁奶垢，再使用煮沸過的冷開水沖洗，最後用紗布、擦手紙或棉枝擦乾並晾乾(防細菌滋長致腹瀉)。

Self--assessment questions (True/False)

- () 1. Feed the milk and the medicine together.
- () 2. Canned liquid formula, self-made formula, or formula prepared by the in-house Department of Nutrition should be discarded if unfinished. Do not keep refrigerated for reuse
- () 3. After finishing feeding, flush the empty tube with running water immediately. Use gauzes, tissues, cotton swabs to remove debris from the tubal lumen, and rinse the tube again with cooled boiled water. Wipe with gauzes, tissues, or cotton swabs and let dry to avoid diarrhea caused by bacterial overgrowth.

管子阻塞及脫落處理方法:

Management of tube occlusion and malposition

1. 若管子阻塞無法解決時，勿自行處理，請立即通知醫護人員。
Please inform the medical staff immediately for tube occlusion. Do not attempt to clear it on your own.
2. 若管子滑脫時，勿自行推回，請立即通知醫護人員處理。
Please inform the medical staff immediately for tube malposition. Do not attempt to fix it on your own.

請寫下您的問題 Please write down your questions:

題號 Question	1	2	3
答案 Answer	×	○	○

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