

Tube Feeding A Patient

by

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TUBE feeding means feeding the patient through a gastrostomy or Ryles tube, or a nasal feeding tube.

Gastrostomy—Definition : A surgically established opening between the stomach and the exterior abdominal wall. It is done in advance cases of carcinoma, of the pharynx, larynx, oesophagus and severe strictures of the oesophagus, usually for purposes of feeding.

Nasal feeding is done in unconscious patients, and in cases of laryngectomy, pharyngectomy, some mouth operations or chemical burns of the oesophagus, when active swallowing is painful harmful for the wound healing on the operated area. It is also carried out in premature babies.

Normally thirst guides the fluid need. Moistness of the tongue may be another guiding factor. The degree of dehydration (deficiency of fluid) can also be judged by the loss in elasticity of the skin on the dorsum of hand or the abdomen.

1. How to pass the tube ?

Requisites : 1. Tubes according to needs.

2. Liquid paraffin
3. Syringe
4. Tube clip
5. Sticking plaster
6. Tray with kidney dishes, bowls, swabs etc.
7. Plastic guard and towel.

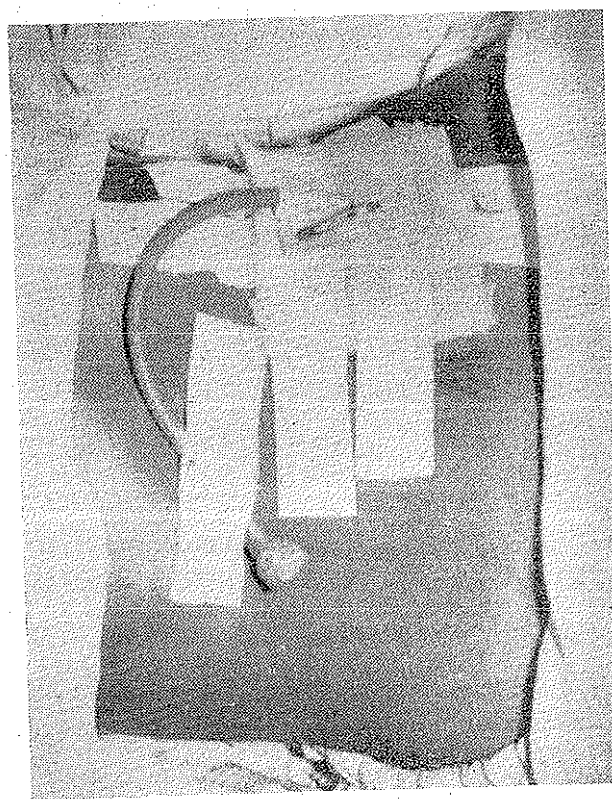
(a) For nasal feeding : if the patient is conscious, the procedure is explained. As the tube passes through the nose and the nasopharynx, the patient may feel a sense of irritation and start retching. The patient should be asked to breathe normally and to repeatedly swallow while the tube is gently pushed with each upward movement of the larynx. Sometimes the tube may come out from mouth ; the tube is then withdrawn till its tip is in the naso-pharynx and passed into the oesophagus. With the co-operation of the patient, the tube can usually be passed without discomfort.

(b) The tube is dipped in liquid paraffin and gently passed through the gastrostomy or oesophagostomy opening.

2. How to confirm that the tube is in the gastro-intestinal ?

It is necessary in nasal feeding to know that the tube does not pass into the larynx, and introduce fluid into the respiratory tract. After passing

the tube, it should be aspirated ; if fluid comes into the syringe, one can be sure that tube is in the gastro-intestinal tract. If air or frothy fluid comes, the tube is withdrawn and passed again. If the tube goes into the larynx, there will be change in voice.



Gastrostomy tube held *in situ* by adhesive plaster.

3. How to fix the tube ?

Coughing, vomiting or sneezing may cause the gastrostomy tube to come out. The gastrostomy tube should be fixed as follows :

The tube is passed into the stomach and later at a distance of one centimetre from the gastricstoma, 1.5 cm. broad sticking plaster is rolled round the tube. The gauze pieces are fixed round the tube by sticking plaster. A safety pin fixes the catheter, sticking plaster and gauze. Thus the tube is indirectly fixed to the skin. A well fitting cork is put into the tube end, this

is tucked into the abdominal binder or the pocket made by sticking plaster.

The nasal tube may be fixed to the nose by sticking plaster. The Ryles tube should be fixed to the nose



Nasal catheter *in situ* and held by adhesive plaster.

and the middle of forehead so that tube does not hang in any way, and obstruct the field of vision.

4. What to feed ?

The feed should be of a consistency that it will pass freely through the tube. It may be water, milk, tea, coffee, soups, coco-nut water, medicines, glucose water, fruit juice, egg flip, Ovaltine, *kanji* etc.

Normally an adult needs 3,000 c.c. fluid per day and about 3,000 calories.

5. When and how often to feed ?

In most cases, feeding is done every 3 hours. In between the feeds, if patient feels thirsty, water and fruit juices are given. There should be no rigidity for these timings ; thirst is the better guide.

6. How to feed ?

The feeding may be done by funnel or asepto syringe. The funnel technique is time consuming ; also air may get into the stomach with the feed. In the asepto syringe technique, the feeding is done faster, the nurse and the patient do not get tired. A continuous drip feed may be given using a vacolitre connected to the tube ; a clip should regulate rate of flow.

7. How much to feed ?

Six hours after the operation one ounce of distilled water is put into the tube to keep it patent ; the fluid balance is maintained intravenously. Next day, one ounce of milk is given three hourly. On 3rd day, 2 ounces are given three hourly. During this time, if the patient feels pain in the region or there is distention of the stomach, the next feed is avoided. The

feeds may gradually increase, till sufficient fluids can be taken through the tube.

In other cases like maxillectomy, laryngectomy, pharyngeal operations or corossive burns of the pharynx or oesophagus, the feeds are about 20-30 ounces at a time. Many limit the feed to 15-16 ounces at a time but as stomach capacity is about 40 ounces it can easily accommodate 30 ounces. In the above type of case, the stomach usually functions normally, and the feeds well tolerated. Total feeds in a day (including parenteral fluids) in an adult should be about 120 ounces, thus dehydration is avoided.

8. How to record the feeds ?

It is essential that an "intake and output" chart be maintained. A simplified chart is given below.

FLUID INTAKE AND OUTPUT CHART

Date _____

Name _____ Age _____ Reg. No. _____

Dr. _____ Disease _____

Time	INTAKE				OUTPUT		
	Orally or through the tube		Parenterally		Urine	Aspirations or vomits.	Others
	Quantity	Sub-stance	Quantity	Sub-stance			
6 a.m.							
9 a.m.							
12 noon							
3 p.m.							
6 p.m.							
9 p.m.							
In the Night							
Total							
Grand Total							
Balance							

The recording is done with the timing so that most of the feeds are evenly distributed.

9. How to avoid complications of the Stoma, ?

Some time after the gastrostomy, the skin around the stoma may become excoriated by regurgitation of the gastric contents. To avoid excoriation, application of magnesium trisilicate ointment is applied around the area. Good personal hygiene is necessary for the welfare and comfort of the patient. Care of the mouth and nasal passages is important and calls for regular nursing treatment.

10. Blocked tube

The tube may be blocked by some viscid material in the feed or by casein after digestion of the milk. The blockage can mostly be overcome by using a *little* force with aseptic syringe. If the tube still remains blocked, unless contra-indicated, it may be changed.

Some patients develop constipation with tube feedings because of the lack of roughage in the diet. The bowels should be moved by giving liquid paraffin or a simple enema.

11. When to change the tube ?

When the tube remains for longer than 8-10 days, it may cause infection in the mucosal lining especially nasal mucosa. If possible, (except laryngectomy patients—where tube is removed on 12th and 15th day) the tube should be changed on the eighth day by removing it immediately after a feed ; it is reinserted before the next feed. Thus on average about 3 to 4 hours rest can be given to the tube passage. The tube should also be changed when it is blocked *i.e.*, non-functioning.

12. How to clean the tube ?

The tube should be soaked in saline (1-20) for an hour then cleansed by water containing Sodium bi-carbonate ; the Sodium bi-carbonate will dissolve the mucus. Syringing will also remove mucus or casein blocking the lumen. Boil for 5 minutes and the tube is ready for use again.

13. Infant tube feeding

Most of the problems of passing the tube have been discussed. Variations in infants must be kept in mind. Instead of the Ryles tube a number 4 to 6 catheter is passed through nose and baby is fed with strained milk ; the tube is removed immediately and passed afresh for each feed. The tube should be pinched while removing, so that the milk in the tube may not run in the larynx.



**POLSON'S
COFFEE**

TNAI Biennial Conference

We regret being unable to give Members the dates for the Conference. It may be held in the first fortnight of October. Place : Madras City.

Lakshmi Devi
General Secretary-TNAI