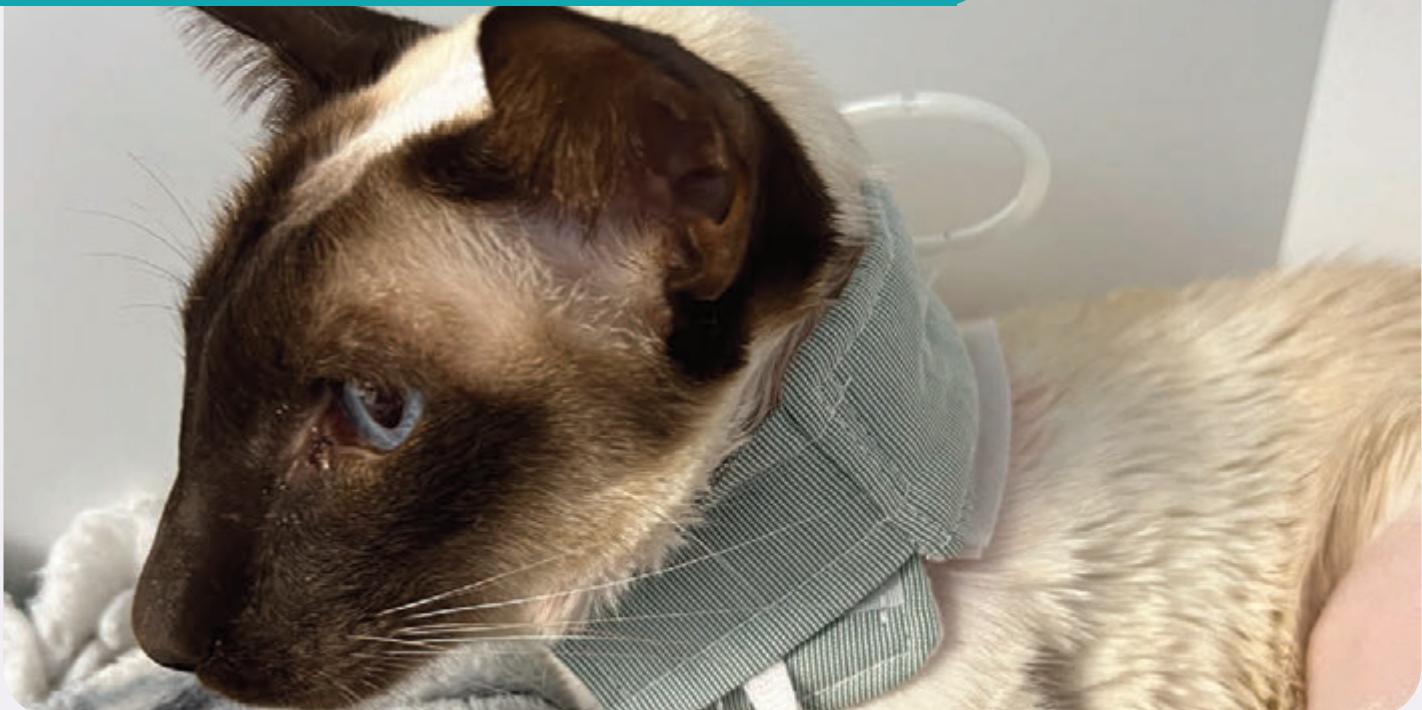


FEEDING TUBES



Managing the cat with a feeding tube: information for owners/caregivers

Nutrition is vitally important for good health. In some circumstances cats do not eat enough due to illness or injury and require assistance via a feeding tube. Some types of feeding tube can be managed at home, allowing a cat to be discharged from hospital to recover in a familiar environment.

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Why does my cat need a feeding tube?

Many illnesses result in a loss or reduction of appetite, while some injuries (eg, a broken jaw) mean a cat cannot eat for a period of time. In some circumstances, your veterinary team may recommend your cat has a feeding tube placed. This allows food, water and medicines to be given via the tube, to ensure the cat is getting enough nutrition even when they are not feeling well enough to, or cannot, eat. This can result in a more rapid recovery and allow cats to be discharged earlier from the hospital, with the tube remaining in place; moreover, it can reduce the stress of medicating the cat or tempting the cat to eat when unwell.

For more information on inappetence, see International Cat Care's Cat Carer Guide to managing the cat that won't eat (available at icatcare.org/advice/cat-carer-guides).

Types of feeding tubes

The most common types of feeding tube are naso-oesophageal/nasogastric tubes (inserted through the nose into the oesophagus or stomach, respectively; Figure 1) and oesophagostomy tubes (called 'O' tubes)



Figure 1: Naso-oesophageal or nasogastric tubes are used to provide food and water while a cat is in hospital. Source: Lindsey Dodd

(which run from the outside of the neck into the oesophagus; Figure 2). Feeding tubes are sometimes placed through the abdominal wall into the stomach (gastrostomy or PEG tubes, Figure 3).



Figure 2: This cat has an oesophagostomy feeding tube, which is tucked into a cloth collar around the neck. Source: Dr Sam Taylor



Figure 3: A gastrostomy tube enters the cat's stomach from the outside and is used for longer term feeding. Source: Dr Sam Taylor

Naso-oesophageal/nasogastric tubes are used in hospitalised patients, but cats with oesophagostomy and gastrostomy tubes can safely be cared for at home with help from the veterinary team.

Can my cat still eat with a feeding tube?

Yes, cats with oesophagostomy and gastrostomy feeding tubes can still eat normally (Figure 4). Cats should be offered small meals, ideally before feeding via the tube, when appetite will be better. Some cats will have these tubes placed because they cannot eat (eg, if they have an injured jaw or oesophageal problem) and your veterinary team will guide you on offering food.

What lifestyle changes are needed for cats with a feeding tube?

Cats with feeding tubes will, in most cases, have a length of tube coiled around and tucked into a dressing, or a short length of tube protruding from the skin. Consequently, they cannot be allowed full, unsupervised outdoor access, as they may knock and dislodge the tube. Contained outdoor access in pens or enclosures may be acceptable, but should first be discussed with your veterinary clinic.



Figure 4: This patient with an oesophagostomy tube is being offered food to 'test' the appetite.
Source: Dr Sam Taylor

Depending on the type of feeding tube, you may also want to limit jumping by providing steps up to favourite places and avoiding play that encourages leaping (eg, with fishing toys). Most cats with feeding tubes will have a dressing or cloth collar to protect the tube (Figure 2).

Longer term gastrostomy tubes may be placed with just a plug /cap on the surface of the skin (low-profile tubes) and allow the cat more activity.

In multi-cat homes, it is unusual for other resident cats to interfere with their companion's feeding tube. More commonly they will avoid the cat with the tube, or even hiss at them as they will smell and look different. The Cat Carer Guide to managing the cat that won't eat

(available at icatcare.org/advice/cat-carer-guides) contains useful advice on reintegrating cats that have been hospitalised. Dogs in the home may have to be separated from the cat, as they may try to lick the tube site of their feline companion.

How do I care for a cat with a feeding tube?

It can be a daunting task to take your cat home with a feeding tube but with the help of this guide and your veterinary clinic's support you will be able to look after the tube and assist your cat's recovery. International Cat Care, in collaboration with Linneaus and Royal Canin, have created a video to help guide owners on feeding tube care and this can be found here: youtu.be/UsLcTZ8u8Gk.

Oesophagostomy and gastrostomy feeding tubes enter via the skin and so the 'wound' or insertion site must be kept clean. Additionally, the position of the feeding tube must be checked before each feed; and the tube should be flushed with clean water after feeding to avoid blockages. These aspects of tube care are described in this guide.

Checking the position of the tube

Wear gloves or thoroughly wash and dry your hands before touching the tube, food or dressings. When feeding a cat via a tube, first check the position of the tube. This is important because tubes can become dislodged when cats move around or if they vomit between feeds.

To check the position of an oesophagostomy tube:

- Prepare an empty syringe and a syringe with 3–5 ml of clean water at body temperature (see 'Tips for comfortable tube feeding' box, page 7);
- Pinch the tubing closed between finger and thumb before removing the bung or lid of the tube; this will avoid air entering or liquid exiting the tube (Figure 5a);
- Connect the empty syringe to the end of the tube and gently pull back with the syringe plunger (Figure 5b);
- Initially a small amount of air or fluid will be aspirated (sucked) into the syringe before a vacuum/negative pressure is achieved (ie, the syringe plunger cannot be pulled back further and returns to the original position, see accompanying video – youtu.be/UsLcTZ8u8Gk); this indicates the tube is in the right place;
- Slowly flush with the 3–5 ml of water, ensuring the tube flushes easily (Figure 5c). Stop if this is not the case and there is a lot of resistance; replace the cap or lid, and contact your veterinary clinic;
- When flushing the tube with water, check your cat does not cough, retch or look uncomfortable. If concerned, contact your veterinary clinic.

To check the position of a gastrostomy tube:

- A gastrostomy (or PEG) tube enters the stomach directly, so follow the same process as described for oesophagostomy tubes, but you will aspirate (suck back) some fluid and not achieve a vacuum when pulling the plunger back. Your veterinary team will advise what volume of fluid is acceptable, as this will depend on the frequency of feeding and your cat's health. If food from the previous meal is aspirated, contact your veterinary clinic.



Figure 5a: The tube is pinched closed to avoid leakage before attaching syringes for checking placement or for feeding.

Source: Dr Sam Taylor

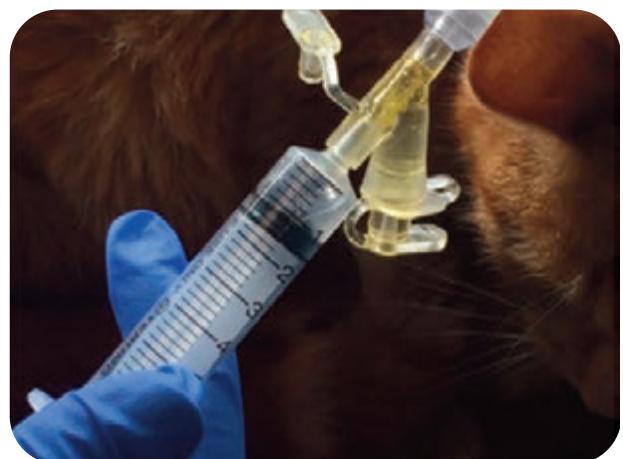


Figure 5b: An empty syringe is attached to the oesophagostomy feeding tube. After a small amount of air is sucked in, the plunger should pull back no further, indicating a vacuum and that the tube is in the correct position. Source: Lumbry Park Veterinary Specialists, UK



Figure 5c: Flush the tube well with clean water before and after feeding, to avoid obstructions. Source: Dr Sam Taylor

Feeding via the tube

- Wear gloves or thoroughly wash and dry your hands.
- Prepare the required volume of food as recommended by your veterinary clinic. You will likely need more than one syringe of food per feed, depending on the volume required and syringe size.
- Either liquid food or liquidised solid food may be fed via the feeding tube. If using liquidised solid food, ensure it is of a consistency that will pass easily down the tube, to prevent obstruction.



Figure 6: Food should pass slowly into the tube to avoid causing discomfort. Source: Dr Sam Taylor

- Food should be warmed to body temperature before feeding by, for example, placing the filled syringes of food into a jug of warm water (note this is preferred to heating in a microwave).
 - Stir/mix the food to ensure it is evenly warmed through and that there are no 'hot spots'.
 - Once the position of the tube has been confirmed (see page 4), pinch the tube to seal it prior to attaching the first syringe of food, to avoid leaks. Repeat this for further syringes.
 - Once the syringe of food is attached, gradually depress the plunger (Figure 6). The food should enter slowly, to avoid any discomfort to your cat; the appropriate speed will depend on the volume of food and your cat's health, but should not be faster than 1 ml every 10 seconds.
 - After feeding, flush the tube again with 3–5 ml of clean water at body temperature and replace the cap/plug securely.

Giving medications via a feeding tube

A great advantage of feeding tubes is the ability to give medications without having to put tablets or liquids directly into the cat's mouth. Liquid medications can simply be instilled into the tube and flushed through with clean water (at body temperature), unless very thick in consistency, in which case discuss with your veterinary team if they can be diluted. Tablets can be crushed using a pestle and mortar or between two teaspoons, mixed with liquid food or water, drawn up into a syringe and given via the tube. Make sure the particles are not too large and the resultant mixture not too thick, as this may cause tube blockage. Always flush well with water after giving medication to ensure it enters the stomach rather than remaining in the tube. Always instill medications and flush slowly, remembering the 1 ml per 10 seconds rule.

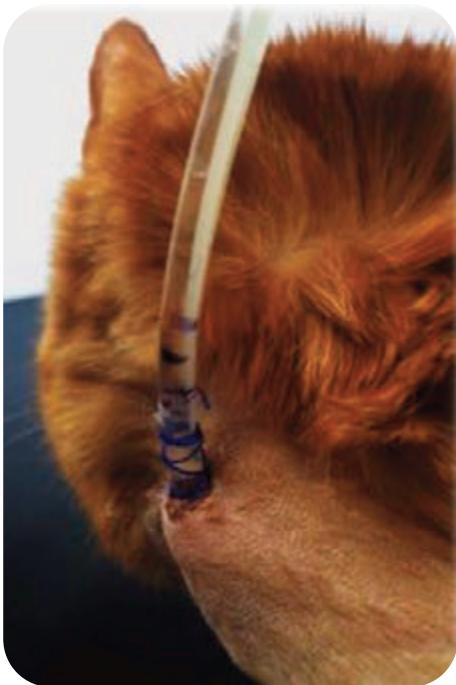


Figure 7a: A clean and dry oesophagostomy tube site.
Source: Lumbry Park Veterinary Specialists, UK



Figure 7b: This feeding tube site has a little exudate (pus) and mild redness. The area should be cleaned with disinfectant as advised by the veterinary clinic and monitored for any change. If concerned, it is a good idea to take a clear photograph to show your veterinary team. Source: Dr Sam Taylor



Figure 7c: Clean gently around the tube site with disinfectant supplied by your veterinary clinic. Remove any discharge but avoid over-wetting or rubbing the area.
Source: Dr Sam Taylor

Cleaning around the tube site

The feeding tube site should be checked and cleaned at least once a day, and more frequently if advised by your veterinary team. Always wear gloves or thoroughly wash and dry your hands first. Then carefully remove the dressing or cloth collar that is covering the feeding tube.

Check the feeding tube insertion site:

- The stitches between the tube and the cat's skin (holding the tube in place) should be intact, securely fixing the tube in position;
- To help you check that the tube has not slipped out of position, your veterinary team may have marked the tube or noted what number on the tube indicates the correct position;
- Check around the stitches and tube insertion site for pus, redness or swelling. A small amount of fluid and dry discharge can be normal (Figure 7a),

Avoiding and managing blockages

Blockages are common with feeding tubes, but the risk is reduced by always flushing the tube well after feeding and giving medications, and ensuring medication is adequately crushed. If the feeding tube is blocked you will feel resistance when trying to administer water or food. If this occurs, use a syringe to suck any fluid out of the tube, and then try to flush with 5 ml of warm water. If this fails, contact your veterinary clinic. There are other methods used to dislodge blockages, but it is better to check first before attempting to put anything else down the tube.

but any concerns should be discussed with your veterinary team (Figure 7b); it can be helpful to take a photograph of the insertion site.

Gently clean around the tube site as instructed by your veterinary team. They may have supplied you with a disinfectant such as chlorhexidine to dilute and put onto a swab (Figure 7c). Do not use disinfectants not approved by your clinic as they can be toxic to cats. Avoid over-wetting the area, and gently remove any material adhered to the skin. Dab and gently wipe, rather than rub or scrub,

to avoid causing skin irritation and discomfort. Pat the area dry using a clean dry swab before replacing the dressing or covering. You may be provided with an antimicrobial disc to put at the base of the tube. Make sure any collars or dressings are not over-tight: you should be able to easily fit two fingers under the dressing/collar.

Tips for comfortable tube feeding

Feeding a cat via a tube can be daunting for cat carers, and your cat may pick up on your anxiety. Try to move quietly and slowly, and to interact normally with your cat, handling them gently. Above all, try to stay calm, make sure you have ample time and set yourself up to be as relaxed as possible with your cat during the feed. Other tips include:

- Get everything you need ready before you start. Having to get up and leave a room to gather equipment can unsettle your cat. It is advisable to keep the syringes, dressings and other equipment that you need in a clean plastic box; you may want to arrange items on a tray close to hand;
- Make sure you are both sitting comfortably. Feeding can take a little while so try to feed when your cat is settled on a favourite bed. If your cat is prone to move around, they may need to be gently held on an assistant's lap or confined to a cat carrier. Try to distract and reward your cat with positive attention such as stroking or brushing, or licking a liquid treat (if permitted by the veterinary team), according to your cat's preference. If your cat objects to sitting still to be fed, you may need to split the feed into shorter, more frequent sessions (liaise with your veterinary team on this);
- Wash your hands or wear gloves when handling the tube, to prevent infection;
- Take photographs of any abnormalities you are worried about; you can email them to your veterinary clinic to save unnecessary journeys;



Figure 8: This cat is being fed via an oesophagostomy tube. In the background is a jug of warm water with the syringes of food. The cat has a blanket under his head to raise it slightly. He is enjoying a stroke during feeding, as is his individual preference.

Source: Dr Sam Taylor

- Water and food should be warmed to body temperature. This is best achieved by placing the syringes of water or food in a container or jug of warm water until they reach a comfortable temperature. Avoid overwarming and stir to ensure the food is evenly warmed through (avoiding any hot spots). Test the temperature of the water and food on your skin before administering;
- Prop your cat's head up if they are lying down to be fed, to encourage food to travel in the right direction (Figure 8);
- You may notice a little swallowing during feeding, but your cat should not be distressed, uncomfortable, retch, vomit or be very restless. Contact your veterinary team if you are at all concerned.

What are the potential complications of a feeding tube?

The most common complications of feeding tubes are infection around the tube insertion site, and the tube becoming dislodged. Indications of infection include redness, pus (beyond the small amount of dry discharge that may be expected) and swelling. Your cat may also seem unwell or painful when the area is touched. If the tube has become dislodged, your routine checks of tube position may reveal a problem (ie, any marks on the tube or measurements may suggest it has moved and stitches may no longer be secure). Stop using the tube, take a photograph and contact your veterinary clinic.

How and when is the feeding tube removed?

Oesophagostomy tubes can be removed at any time by your veterinary team, simply by cutting the fixing sutures and gently pulling the tube out. This does not cause any pain

and no sedation or anaesthesia is needed in most cases. A dressing will be put over the wound, which heals rapidly after a few days without any stitching. Gastrostomy tubes must remain in place for at least 10–14 days before being removed; this may require a small procedure under anaesthetic depending on the tube type that has been placed.

The length of time a tube is used depends on why the tube has been placed. For example, if a cat has a broken jaw, the tube will stay in place until the jaw has healed. For cats that can eat, it may depend on how long it takes until they start to eat enough; the amount fed via the tube can be slowly reduced as their appetite improves, and then the tube can be removed. Cats should eat consistently a normal or near-normal amount for 3–5 days before a tube is removed.

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Our Cat Carer Guides, provided to inform and advise cat owners and caregivers alike, are carefully created by the International Cat Care team; all in the hopes that we can promote more awareness and spread the word about 'cat friendly' treatments for cats.

We all want the best for our cats, and we hope that you find this free guide useful. If you would like to show your gratitude, a donation would be greatly appreciated. Every gift goes to support our work towards a world in which each cat's life experience will be as good as it can be.

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Thank you from all of us at International
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