

# All Silicone Gastrostomy Balloon Catheter

(Standard Type) (Flat Balloon Type)

Do not reuse

### [WARNINGS]

#### < Usage >

[1] The position of the stabilizer should be set appropriately to avoid excessive load of the gastric wall and abdominal wall during placement

[Otherwise, pressure necrosis or catheter dislodgement due to balloon burst may occur.]

- [2] In case the catheter adheres to the fistula at the catheter removal, do not pull out the catheter forcibly and remove it endoscopically.
  [The damage of the mucosal tissue of fistula or catheter breakage may
- [3] Before administration of nutrients, etc., make sure that the catheter tip is appropriately placed in the stomach. Special attention should be paid to catheter dislodgement due to accidental removal.

  [Specials accomplication graph or participation are may occur due to the

[Serious complication such as peritonitis etc. may occur due to the leakage of nutrients etc. into the abdominal cavity.]

### [CONTRAINDICATIONS, PROHIBITIONS]

[1] Do not reuse the product (single use for one case).

[The product is single use only and disposable, and its quality or performance after one use is not guaranteed. Further, reuse carries the possible risk of contamination (infection) to patients. Contamination of this product may lead to patient injury, illness or death.]

[2] Prohibition of reprocessing, re-sterilization. [Reprocessing of the product may lead to defects. It may also cause patient injury, illness or death.]

#### < Target Patients >

Do not use the product if a fistula is not formed properly or there is a damage or abnormality in the fistula.

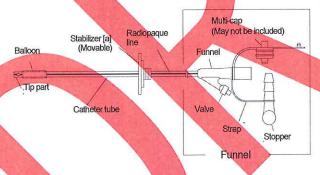
[If this product cannot be placed in the stomach, the nutrient, etc. may leak into the abdominal cavity and cause serious complications such as peritonitis.]

### [SHAPE, STRUCTURE AND PRINCIPLE]

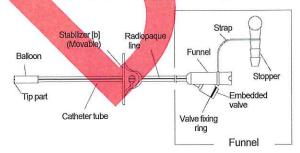
The product is sterilized with ethylene oxide gas.

### < Shape >

All Silicone Gastrostomy Balloon Catheter (Standard Type)



· All Silicone Gastrostomy Balloon Catheter (Flat Balloon Type)



<sup>\*</sup>Catheter tube and funnel can be combined optionally.

#### · Exchange rod

All Silicone Gastrostomy Balloon Catheter (Standard Type)

 Size Outer diameter Valve color ※1 Balloon capacity

Size	Outer diameter	Valve color ※1	Balloon capacity	
12Fr	4.0mm	White	5mL	
14Fr	4.7mm	Green		
16Fr	5.3mm	Orange	10mL	
18Fr	6.0mm	Red		
20Fr	6.7mm	Yellow		
22Fr	7.3mm	Violet		
24Fr	8.0mm	Blue		

X1: The embedded valve is out of the upper valve colors.

Total length	Depth mark	Tip	Side holes
225mm	Depth mark at 10 mm intervals between 20 mm and 100 mm from the balloon end.	Open tip	2 side holes

### · Exchange rod:

All Silicone Gastrostomy Balloon Catheter (Standard Type)

Size of Standard type	Exchange rod outer diameter
12 to 14Fr	φ0.8mm
16 to 24Fr	φ1.4mm

All Silicone Gastrostomy Balloon Catheter (Flat Balloon Type)

Size	Outer diameter	Valve color ※	Balloon capacity	
12Fr	4.0mm	White	2mL or 3mL	
14Fr	4.7mm	Green	3mL	
16Fr	5.3mm	Orange		
18Fr	6.0mm	Red	]	
20Fr	6.7mm	Yellow	5mL	
22Fr	7.3mm	Violet		
24Fr	8.0mm	Blue		

The embedded valve is out of the upper valve colors.

Total length	Depth mark	Tip	Side holes
150mm	Omm Depth mark at 10 mm intervals between 20 mm and 60 mm from the balloon end.		no side
225mm	Depth mark at 10 mm intervals between 20 mm and 100 mm from the balloon end.	Open tip	hole

#### · Exchange rod:

All Silicone Gastrostomy Balloon Catheter (Flat Balloon Type)

Size of Flat balloon Type	Exchange rod outer diameter
12 to 14Fr	φ0.8mm
16 to 18Fr	φ0.8mm or φ1.4mm
20 to 24Fr	φ1.4mm

#### < Raw Materials >

- · Catheter: Silicone nibber, polypropylene, Styrene elastomer.
- · Exchange rod: Polypropylene.

### < Principle >

Insert the catheter into the gastric fistula and fix and indwell by inflating the balloon. Inject nutrients from the proximal side. The nutrients etc. pass through the inner lumen and they are administered to the stomach. When exchanging the catheter, it is possible to reduce the possibility of catheter deviation into the abdominal cavity by using the exchanging rod.

### [INTENDED USE]

This product is a catheter to be placed in the stomach for transluminal supplement of drug medicine such as nutrients etc. and food and drink through gastric fistula in patient who cannot take nutrients orally. Also, this product can be used for gastric decompression.

<sup>\*</sup>Catheter tube and fixation plate can be combined optionally.

#### [EFFECT]

The nutrients can be administered from the fistula through the catheter.

### [PERFORMANCE]

- Secure the sterility assurance level (SAL) 10<sup>-6</sup>.
- Sterile residues: Shall conform to ISO10993-7.
- Shall not contain biological substance and conform to biological safety
- Shall be durable for 29 days continuous use.
- Shall maintain the stability and durability for 5 years.
- Tensile strength of the catheter is 15N or more.

#### [ OPERATING OR USING METHOD ]

The general operational procedure is described below.

#### < Procedure for Catheter Replacement >

- [1] Confirm that the fistula has been formed properly and in a state of not showing abnormality (a state without separation between the gastric and abdominal walls after completion of 3-week fistulation period following percutaneous endoscopic gastrostomy (PEG)).
- [2] Apply lubricant agent to the inner lumen of the proximal side of the catheter placed in the fistula and insert the exchanging rod.
- Remove the catheter placed in the fistula according to its operating procedure, taking care not to draw out the exchanging rod.
- [4] Apply lubricant agent to the fistula.
- [5] Insert the replacement catheter along the exchanging rod from the distal end and advance the balloon part into the stomach.
- [6] Inject the specified volume of sterile distilled water from the valve to inflate the balloon.
- [7] Pull the replacement catheter gently to confirm the feeling that the balloon touches to the gastric wall lightly and then, remove the exchanging rod.
- [8] Move the stabilizer to the side of the abdominal wall. At this time, set the stabilizer to the appropriate position not to contact to the skin. (Make some space about 1 to 2 cm from the skin surface)
- [9] Confirm endoscopically or radiographically that the replacement catheter is inserted properly in the stomach.

#### < Procedure for Replacement Not Using Endoscope or X-Ray Fluoroscope as the First Choice to Check the Placement Site >

- [1] Before removing the catheter already placed in the fistula, inject 20 to 30 mL of physiological saline (preferably stained with a food red) through the catheter
- [2] Replace the replacement catheter in accordance with [1] to [8] in the above < Procedure for Catheter Replacement > and aspirate the physiological saline injected into the stomach through the catheter with a syringe to make sure that the catheter is inserted properly into the stomach.
- [3] If the catheter insertion into the stomach cannot be confirmed by this method, make sure to re-confirm endoscopically or radiographically.

#### < Measures to Deal with Catheter Dropout, such as Accidental (Self) Removal >

- [1] Confirm the absence of abnormality in the fistula and apply lubricant agent to the fistula and the exchanging rod.
- [2] Insert the exchanging rod to the fistula.
- [3] In accordance with [5] to [9] in the above < Procedure for Catheter Replacement >, confirm that the replacement catheter is inserted and placed properly into the stomach.
  - · Since the fistula with nothing inserted narrows in a short period of time, prevent the fistula narrowing by appropriate means and place the replacement catheter quickly
  - Forcible insertion may damage the fistula. If the fistula is already narrowing, stop the use and take appropriate measures.

# < Combination devices >

Name	Specifications	
Nutrition line	Syringe tip shape: Catheter tip shape or bamboo shoot shape	
Syringe	Slip type	
(for the balloon inflation)	Volume: 2 - 10 mL	
Syringe	<ul> <li>Catheter tip type</li> </ul>	
(for the flushing)	<ul> <li>Volume: 5 - 10 mL</li> </ul>	
Syringe	<ul> <li>Catheter tip type</li> </ul>	
(to eliminate clogging)	<ul> <li>Volume: Not less than 30 mL</li> </ul>	
Sterile distilled water	-	
Lukewarm water	Se:	
Lubricant	Water-soluble lubricant	
Nutrients	Enteral nutrients	

#### < Procedure for Connection to a Nutrition line >

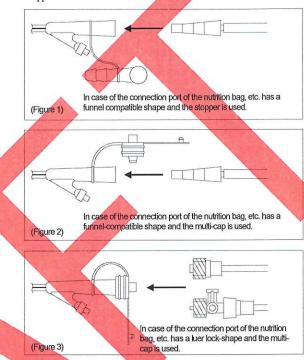
Decide whether to use a multi-cap or a stopper according to the type of connection port such as a nutrition line.

In case of using the stopper. (Figure 1)

The stopper is used when the connection port of the nutrition line, etc. has a funnel-compatible shape, and when it is desired to select a stopper that is easy to operate. In case of using only the stopper, remove the multi-cap.

In case of using the multi-cap. (Figure 2) (Figure 3)

The both type of the funnel-shaped and luer-shaped port of the nutrition line can be available with the multi-cap. In case of using multi-cap only, remove the stopper.



### < Procedure for Nutrient Administration >

- [1] Pull this product lightly just before the nutrient administration and confirm the absence of dislocation or abnormality in the catheter.
- [2] Flush with 5 to 10 mL of lukewarm water. ("Flushing" in this text refers to vigorous injection of an appropriate volume of lukewarm water with using a
- [3] Connect a nutrition line etc. to the funnel of this product.
- [4] Inject nutrients. In case of drug solution, dissolve it in the large volume of lukewarm water before injection.
- [5] After the injection of nutrients etc., flush with 10 mL or more lukewarm water wash the inner lumen of the catheter.
- [6] Attach the stopper or multi-cap to the funnel of the catheter.

# < Procedure for the Decompression in the Stomach >

- [1] After taking the stopper or multi-cap off from the funnel, perform the decompression in the stomach. In case the gastric contents come out, drain them to a container etc. and then, flush with 10mL or more lukewarm water to wash the inner lumen of the catheter.
- [2] Attach the stopper or multi-cap to the funnel.

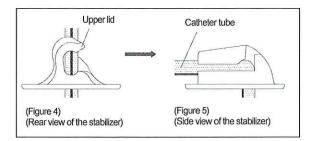
### < Operation Method of Stabilizer b >

The catheter tube can be fixed both horizontally and vertically (to the bottom surface of the stabilizer). Take care to avoid burdening the catheter tube by, for example, lifting the balloon with it.

• When fixing the catheter tube horizontally:

Turn over the upper lid of the stabilizer (Figure 4) and turn the catheter tube horizontally to put it in the horizontal slit (Figure 5).

· When returning the catheter tube to the vertical position, hold the bottom of the stabilizer so that it will not be misaligned. Slowly remove the catheter tube from the horizontal slit of the stabilizer and bring it to the vertical slit.



### < Procedure for the Catheter Removal >

- [1] Remove the sterilize distilled water in the balloon with using a syringe.
- [2] Remove the catheter gently from the fistula.

### < Precautions for Use Related to the Operating Procedures >

- [1] Do not use the exchanging rod for the replacement from other manufacturer's catheter.
  - [The specifications may not fit to other manufacturer's products.]
- [2] Be careful not to touch the valve fixing ring.
  - [The fixing ring may come off and the valve may also come off.]
- [3] Always check that the catheter tube is vertical to the bottom of the stabilizer before inflating or deflating the balloon or administering nutrients, etc. [The horizontally fixed catheter tube cannot be passed through because its lumen is narrowed.] (for the stabilizer b)
- [4] Do not use the exchanging rod other than that attached to this product. [Selection of the exchange rod not fit to the catheter size may fail in the insertion or removal of the exchange rod.]
- [5] Insert or remove the exchange rod with the catheter held straight. [Operation of the exchange rod may be difficult.]
- [6] When inserting or removing the exchange rod, do not attach the stopper and multi-cap.
  - [The exchange rod cannot pass through the catheter lumen with the stopper and multi-cap on.]
- [7] Do not force to push the exchange rod in too much.
  - [Forced insertion of the exchange rod may cause damage (perforation, etc.) or bleeding.]
- [8] Before using the product, confirm that the balloon is inflated and deflated properly.
- [9] Please note the following when inflating and deflating the balloons.
- Before using the product, confirm that the balloon is inflated and deflated properly.
- Inflate the balloons slowly and carefully.
  - [The valve may slip off rarely or it may come off in some cases due to the pressure when injected rapidly.]
- 3) Use a general slip-type disposable syringe to inflate or deflate the balloons. [Luer lock-type syringe cannot be inserted into the end of the valve firmly. And using a syringe with unfitted taper may cause breakage of the valve.]
- Insert the tip of the syringe firmly to the end of the valve to inflate or deflate the balloon.
  - [If insertion of the tip of the syringe into the valve is insufficient, the valve may not operate properly to inflate or deflate the balloon.]
- 5) When it is difficult to remove the sterile distilled water from the valve or to inject the sterile distilled water into the balloon, make the catheter straight. Especially, do not perform the water injection or removal actions through the valve, under the condition that the catheter is fixed horizontally to the stabilizer.
- [The valve may be damaged and the balloon inflation condition may be unable t be maintained and the catheter may be removed spontaneously.] (for the stabilizer b)
- 6) Use only sterile distilled water to the balloon.
  - [When physiological saline or contrast medium etc. are used, the ingredients may coagulate and water may not be removed. In addition, in case of inflating the balloon with air, the balloon may deflate in a short period of time due to spontaneous leakage.]
- Do not inject more than the regulated volume of sterile distilled water into the balloon.
  - [Excessive injection will overload the balloons and cause a burst]
- When removing the syringe, make sure to press the valve and rotate the syringe to remove.
  - [In rare cases, the valve may be dislocated or come off.]
- [10] When returning the catheter tube to the vertical position, hold the bottom of the stabilizer so that it will not be misaligned. Slowly remove the catheter tube from the horizontal slit of the stabilizer and bring it to the vertical slit. (for the stabilizer b)
- [11] Do not suture the stabilizer to the skin.
- [12] Remove the stopper or the multi-cap from the funnel slowly and carefully while holding the body of the stopper or the multi-cap firmly. [The upper lid of the multi-cap may cut when pulled.]

- [13] Keep the use of the multi-cap under strict control to prevent wrong connection.
  [The multi-cap is designed to permit connection to injection syringes and infusion circuit used for the vascular system.]
- [14] When connecting a nutrition line, etc. to the end of the funnel, select the one that fits surely. During use, check the connection for leakage or loosening as appropriate, and use it in a state where it is securely connected.
- [15] When connecting the connector to the funnel, insert the connector straight along the lumen of the funnel. Do not apply load on the funnel, such as by bending, twisting, or pinching it under this condition.
  [The tip of the connector may damage the humen of the funnel, it may cause

a crack or rupture to the funnel.]

- [16] Attach or remove a nutrition line etc. gently and carefully, taking care not to stress the balloon such as pulling up.
- [The balloon may burst or the catheter may come out.]
  [17] When administering the drug medicines, nutrients etc., refer to the instructions for use of the drug medicines, nutrients etc.
- [18] When attaching the stopper or multi-cap, attach it after wiping the "wet" caused by the nutrients or water etc. of each attaching part.
  [In case the attaching part is wet or not sufficiently attached, the stopper or multi-cap is come off naturally and the gastric contents may come out.]
- [19] When attaching the stopper or multi-cap, confirm the attachment condition every time.
  - [In case the attachment is not made properly, the stopper or multi-cap is come off naturally and the gastric contents may come out.]
- [20] At the catheter insertion and during indwelling, confirm if the catheter tip is reached to the correct position by multiple methods, such as X-ray radiography, aspiration of the gastric juice, endoscope, confirmation of the depth mark position etc.

### [PRECAUTIONS FOR USE]

#### < Important Precautions >

- [1] Use the catheter which fits to the fistula size.
  - [Too big catheter may not be placed or may damage the fistula during insertion.]
- [2] In case the protective cap is attached to the connector tip of nutrition line or tip of catheter tip syringe, make sure to remove the cap before connecting them to the funnel of the product.
  - If the connector of nutrition line or catheter tip syringe is inserted into the inner lumen of funnel without removing the protective cap, the cap may come off in the inner lumen of funnel and the inner lumen of funnel may be clogged.]
- [3] Always flush the catheter with lukewarm water before and after the administration of nutrients etc.
  - [It is necessary to prevent the catheter clogging by the accumulation of the residue of nutrients etc.]
- 4) When administering powdered medicines etc. (especially the medicines including binding agent etc. as additive) through the catheter, be careful about the catheter clogging.
- [5] When administering the nutrients etc. or flushing by lukewarm water etc. with using an injection device, stop operating if some resistance during the injection is felt.
  - [There is a possibility that the inner lumen of the catheter may be clogged. In case continuing the operation without solving the clogging problem, inner pressure of the catheter is increased too much and the breakage or rupture of the catheter may occur.]
- [6] When eliminating the catheter clogging, please note the following.
  - Use a big size injection device in volume (more than 30mL is recommended). [In case using an injection device with smaller volume than 30mL, injection pressure becomes high and the possibility of the catheter breakage or rupture becomes high.]
- 2. Do not use stylet or guidewire.
- In case the catheter clogging cannot be solved by the above operations, remove the catheter.
- [7] During indwelling, monitor the balloon inflation condition by "light pulling of the catheter", "under endoscopy" etc. In case of the balloon burst or spontaneous leakage, replace the catheter with a new one promptly or take measures to prevent spontaneous removal of the catheter until the replacement. [Spontaneous removal of the catheter due to ignorance of the balloon burst or spontaneous leakage may result in the closure of gastric fistula.]
- [8] During the use, manage the position of the stabilizer based on the depth mark.
  [In rare case, the catheter may be dragged into the intestinal tract and the stabilizer position may be changed. Especially, the influence of peristalsis may be stronger around the antrum of stomach.]
- [9] Once a week, remove all the sterile distilled water from the balloon and inject the sterile distilled water of the regulated volume again.
  The orthogon may be pulled out due to the decrease of the sterile distilled.
  - [The catheter may be pulled out due to the decrease of the sterile distilled water]
- [10] Do not grip this product strongly with forceps, etc.
  - [The Tube may be damaged. In addition, the tube may be cut, the lumen may be occluded, and the balloon may be broken.]

[11] Clean up the connection part between the product and nutrition line regularly to keep cleanliness.

[The detachment of nutrition line or the detachment of cap during not administrating may occur due to the dirt of the connection part or adhesion of oil etc.]

- [12] Metal is used in the valve of the product. So, when performing MRI examination, be careful that artifact may occur on the image or local high-frequency heating may occur.
- [13] Before using this product, check whether there is any abnormality in each part.

[14] Do not insert forcibly. If insertion is difficult, discontinue the use and take appropriate measures.

[Forcible insertion of the gastrostomy catheter may damage the fistula. The fistula with nothing inserted due to accidental (self) removal narrows in a short period of time.]

[Forcible insertion of the exchange rod may cause damage (perforation, etc.). If the inner lumen of the catheter is clogged due to the adhesion of nutrients or stomach contents, it may interfere with the insertion of the exchange rod.]

[15] Do not insert or remove forcibly, and operate with great care.
[The product may be damaged.]

[16] Observe the condition of the indwelled product and if abnormality is detected, stop using the product promptly and take appropriate measures.

[17] Confirm the patient's condition and indwelling condition of the product regularly.

[18] Do not modify the product.

[If a side hole, etc. is added, the catheter may be cut.]

[19] Do not use the product if the packaging is damaged or if any abnormality such as damage is found in the product.

[20] Use immediately after opening and dispose in a safe manner for each country after use.

[21] If drug solution is injected into the patient's body by using this product, select the appropriate drug solution under the responsibility of the physician.

[22] During placement, keep the product under full control to prevent its handling by an untrained person.

[23] Medical devices used concomitantly with the product should be handled according to the package insert and the instructions for use of the concomitant product

[24] printed on the label means that the product should not be used if the package is damaged or opened.

[25] printed on the label means that the product does not contain phthalic acid in the contact part of the body fluid/drug solution.

[26] Any serious incident that has occurred in relation to the product should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

## < Defects >

# Other Defects

[1] Balloon burst,

[Burst due to the following causes.]

- Damage caused by handling during insertion (Damage caused by tweezers, forceps, scissors, scalpel, or other instruments).
- Excessive injection volume (injection of more than the regulated volume).
- Injection of the wrong substance for balloon inflation (substance that is likely to cause coagulation of components such as physiological saline and contrast medium).
- Sudden load on the product due to self (accidental) removal, etc.
- Other complex causes due to factors such as the above events.

[2] Obstruction of the tube

[The inner lumen of the catheter may be clogged by the adhesion of drug medicines or nutrients etc. or by the stomach contents.]

[3] Impossibility of catheter removal

[Adhesion of nutrients in the catheter lumen due to insufficient flushing may deform the tube and result in clogging of the balloon lumen and interference of water removal. Use of physiological saline or contrast medium for balloon inflation may clog the balloon lumen due to coagulation of ingredients and interfere with the removal of water.]

[4] Spontaneous dropout of the stopper or multi-cap.

[Complication of high nuragastric pressure due to the constitution for ready gaseous accumulation, sneezing, coughing, etc. with loosening or wetting of the stopper or multi-cap may result in spontaneous dropout of the stopper or multi-cap and leakage of the stomach contents.]

[5] Catheter cut.

[Cut due to the following causes.]

- \* Damage caused by tweezers, forceps, scissors, scalpels, or other apparatuses.
- Sudden load on the product due to self (accidental) removal, etc.
- Other complex causes due to factors such as the above events.

[6] Valve breakage or leakage.

[Valve breakage or leakage may occur due to local high-frequency heating.]

[7] Cut of the exchange rod.

[Cut due to the following causes.]

- Damage caused by tweezers, forceps, scissors, scalpels, or other apparatuses.
- · Operations such as forcible insertion, removal, etc.

#### <Adverse Events >

### Serious Adverse Events

- [1] Pressure necrosis due to excessive pressure between the gastric and abdominal walls.
- [2] Peritonitis caused by the nutrients leakage into the abdominal cavity due to catheter false insertion or fistula damage.

#### Other Adverse Events

- [1] Following adverse events may be developed by the product.
  - The catheter dropout and associated fistula closure due to balloon burst and accidental (self) removal.
  - Damage of the fistula and associated wound infections due to insertion/removal.
  - Occurrence of ulcers due to contact irritation of the catheter tip on the posterior gastric wall
  - Skin troubles (granuloma formation, redness, skin ulcer, pressure necrosis) around the fistula due to contact and leakage of the stomach contents to the skin.
  - · Dilation of the fistula due to catheterization
  - Digestive tract obstruction and difficulty in gastric juice drainage, gastric dilation, vomiting etc.
  - [In case the balloon part is drawn into the intestinal tract by the gastric peristalsis etc., digestive tract obstruction may occur.]
  - · Burns due to local high-frequency heating.
- [2] Following adverse events may be developed by the exchange rod.
- Damage (perforation, etc.).
- · Bleeding.

# < Use During Pregnancy, Delivery or Lactation and Pediatric Use >

Be careful when using X-ray to the patient who is pregnant or has some possibility of pregnancy.

[The influence of X - ray to the fetus is concerned.]

# STORAGE METHOD AND DURATION OF USE ]

### < Storage Method >

Store the product cleanly. Avoid wetting, direct sunlight, high temperature and humidity, and ultraviolet rays such as germicidal lamp, etc.

### < Duration of Use >

The product has been developed for "use within 29 days". [Based on self-certification (our company data).]

# Expiration Date >

When the proper storage method has been maintained, refer to the expiration date on the individual package.

[Based on self-certification (our company data).]



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