

DAILY VALVE CARE & CHANGING OF BLOM-SINGER VALVES

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Clean your valve every morning or more frequently if it gets blocked with mucus (especially if you have a chest infection).

1. Clean mucus from around the valve and behind the tag using cotton wool buds or tweezers.
2. Dampen the brush with tap water.
3. Put one finger firmly over the valve tag as close to the stoma as possible to anchor it in position during cleaning.
4. With your other hand gently push and twist the brush into the valve. (Do not push the brush completely into the valve – just $\frac{3}{4}$ of the length of the brush head).
5. Gently pull and twist the brush out of the valve.
6. Repeat if the valve still seems to have mucus inside.
7. Wash the brush with plain soap and tap water and dry it thoroughly on a clean towel/piece of gauze.

DO

Make sure the valve isn't slightly dislodged during cleaning (you will know as it will stick out more than usual). If this happens replace the valve with the catheter and come to the hospital or change the valve yourself if you have been trained.

Replace the brush after one month.

Soak your dentures/toothbrush regularly in 3% Hydrogen Peroxide solution then rinse thoroughly before re-using.

DON'T

Put anything other than the brush into the valve.

Leave the house without your brush in case your valve blocks. (Some people carry them inside a bendable straw or empty pen casing).

Leave the house without your rubber catheter in case the valve comes out accidentally.

Use disinfectant/bleach etc on your valve brush.

DAILY VALVE CARE – INDWELLING BLOM-SINGER VALVE

YOU MUST NEVER TRY TO REMOVE THIS VALVE YOURSELF

Clean the valve every morning or more often if it becomes blocked with mucus (especially if you have a chest infection).

1. Clean around the valve/stoma with cotton wool buds/tweezers.
2. Dampen the brush with warm tap water.
3. Gently twist and push the brush into the valve (about $\frac{3}{4}$ of the length of the brush head).
4. Gently twist and pull the brush out of the valve.
5. The valve may twist around as you do this – this is normal.
6. Repeat if the valve still seems to be blocked.
7. Clean the brush with tap water and plain soap and dry thoroughly on a clean towel/piece of gauze. Store the brush in a bendable straw to keep it clean when you are carrying it around.

DO

Soak your dentures/toothbrush in 3% Hydrogen Peroxide solution three times per week. Rinse thoroughly before re-using.

Replace the valve brush after one month.

Come straight to the hospital if your valve comes out. (This is extremely unlikely to happen).

DON'T

Put anything other than the brush into the valve.

Ignore a leaking valve – come into hospital within 24 hours.

Use disinfectant/bleach etc on your valve brush.

Self-Changing	Non Self-Changing
<p data-bbox="217 293 686 383" style="text-align: center;">YOUR VALVE – WHEN TO CONTACT YOUR CONSULTANT OR SPEECH THERAPIST</p> <p data-bbox="204 423 691 492">Please contact the hospital if your valve:</p> <ol data-bbox="188 533 719 1115" style="list-style-type: none"> 1. Becomes difficult to fit 2. Lasts less than 6 weeks before leaking 3. Demonstrates Candida (yeast) infection on removal (brown spots on the back). 4. Is surrounded by raised/thickened skin tissue 5. Causes more bleeding than usual on removal 6. Generates a voice of poorer quality 7. Appears more effortful to use. 8. Appears too long 9. Causes you other problems that are not usual for you. 	<p data-bbox="828 300 1297 389" style="text-align: center;">YOUR VALVE – WHEN TO CONTACT YOUR CONSULTANT OR SPEECH THERAPIST</p> <p data-bbox="802 427 1350 497">Please contact the hospital quickly if your valve.</p> <ol data-bbox="786 537 1342 902" style="list-style-type: none"> 1. Becomes dislodges, leaks drinks round the outside or through the centre. 2. Generates a voice of poorer quality 3. Appears more difficult to use. 4. Appears too long. 5. Is surrounded by raised and thickened skin tissue. 6. Causes you other problems that are not usual for you.

EMERGENCIES WITH VALVES

COME TO THE HOSPITAL IMMEDIATELY IF YOU HAVE ANY OF THE FOLLOWING

1. The valve falls down your windpipe

- Do not panic - the valve is too small to stop you from breathing.
- Bend over and try to cough the valve out.
- If you cannot cough the valve, inform your doctor and go immediately to the hospital. The doctor will be able to remove the valve for you with forceps.
- If your valve ever comes out by mistake and you cannot find it, come to the hospital to check it has not fallen into your windpipe.

2. If your valve comes out and you cannot fit the catheter or stent

- The fistula (hole for the valve) can close up in 45 minutes. Come to the hospital as quickly as possible.
- Always carry a catheter with you at all times in case your valve comes out by mistake.
- If the fistula does heal up you will need to have a small operation to have a new one made under anaesthetic.

3. **Your valve is dislodged and it becomes difficult to produce voice**

This can happen:

- When you wipe your stoma too vigorously.
- Putting your stoma button in/taking it out.
- By not fitting the valve fully through the fistula when it is changed.
- You will know this has happened because the valve will stick out more than usual and/or your voice will be difficult to produce and poorer quality.
- Come back to the hospital as soon as possible so the valve can be refitted. If you ignore this, the fistula can heal up behind the valve and you will need a small operation to re-open it again.

CANDIDA AND YOUR VALVE

Candida (a fungus) lives in many people's mouths and is transferred to the valve in saliva when you swallow. Candida grows very easily on the valve and deforms it, causing it to leak. If you have candida you will see tiny brown/golden spots on your valve when you change it. You will need to follow these instructions to treat it.

1. Rinse all around your mouth with 5mls Nystatin solution twice per day. Swish the Nystatin around your mouth for a full 4 minutes (time this carefully with a watch) then spit it out. **Do not** eat or drink anything for 1 hour after as the Nystatin is continuing to disinfect your mouth.
2. If you are prescribed pastilles/lozenges instead of Nystatin solution, let the pastille slowly dissolve, swish it around your mouth and do not eat or drink anything for 1 hour afterwards.
3. Put a small amount of Nystatin on your valve brush when you clean the valve.
4. Change your valve twice a week and soak the removed valve in 3% Hydrogen Peroxide overnight. Rinse the valve in tap water and then store in its box.

Note: This will not remove candida already on the valve, it will only prevent candida developing. Any valves with candida already on them should be thrown away.

5. Soak your toothbrush/dentures in 3% Hydrogen Peroxide solution daily. Rinse thoroughly before re-using.
6. Visit a dentist for tooth/gum care regularly.

If you repeatedly find candida on your valve contact the hospital. Occasional candida (1-2 times per year) can be treated as above by visiting your GP for a prescription of Nystatin.

ALWAYS CONTACT THE CONSULTANT OR THE HOSPITAL IF IN DOUBT OR FOR ADVICE

PLEASE FOLLOW THE INSTRUCTIONS RE. NYSTATIN EXACTLY. THE VALVES DAMAGED BY CANDIDA COST THOUSANDS OF RUPEES EVERY YEAR BUYING REPLACEMENTS.

CANDIDA AND IN-DWELLING VALVES

Candida (a fungus) lives in many people's mouths and is transferred to the valve in saliva when you swallow. Candida grows very easily on the valve and deforms it causing it to leak.

It is important you follow the instructions carefully. Valves are expensive and valves damaged by candida costs thousands of RUPEES per year to replace.

You will be prescribed either:

1. Nystatin Solution
- or
2. Pastilles/Lozenges

1. Nystatin Solution

Rinse all around your mouth with 5mls Nystatin solution twice per day. Swish the Nystatin around your mouth for a full 4 minutes (time this on a watch) then spit it out. Do not eat or drink anything for 1 hour afterwards as the Nystatin is

continuing to disinfect your mouth. Put a small amount of Nystatin solution on the valve brush when you clean it.

2. Pastilles/Lozenges

Allow the pastille/lozenge to dissolve slowly in your mouth. Follow the dosage on the packet and complete the course. Do not eat or drink anything for 1 hour after the pastille has dissolved.

People prone to candida may have to use anti-fungal medication on a permanent basis to stop the valves deteriorating. Research has shown no side effects with this procedure.

EX-DWELLING VALVES

WHAT TO DO IF YOUR VALVE LEAKS

Valve prosthesis is designed to be a one-way valve. This means that they allow air from your lungs to pass through the valve, but food and drink cannot pass through the other way.

However, valves do not last forever. Food or drink may leak through when it has reached the end of its lifespan. Leakage may also occur with new valves, in certain circumstances.

Food or drink passing through a valve may drop into your lungs. This may cause you to cough. **If you suddenly start coughing after eating or drinking you must check whether your valve is leaking.**

HOW TO CHECK FOR A LEAKING VALVE

1. Take a small sip of a drink which is coloured.
2. As you swallow observe in a mirror whether any drink is coming through.
3. Do you cough immediately after drinking? This may be a sign of leakage.

Leakage may occur either through a valve or around it.

LEAKAGE THROUGH A VALVE

1. Clean your valve with your valve brush then check for leakage again.

Sometimes food can jam the valve flap open. This can often be cleared by simply cleaning your valve.

2. If leakage persists change your valve.
3. Contact your CONSULTANT immediately if you have trouble fitting your valve.
4. Always keep your used valves for inspection.

The number of valves you use is to be monitored. If your valves are not lasting very long, it may be that you have a Candida infection, which shortens the life span of the valves.

LEAKAGE AROUND A VALVE

If leakage is occurring around your valve (rather than through the middle) **replacing it will make little difference.** You must contact the CONSULTANT immediately.

PLEASE DO NOT IGNORE A LEAKING VALVE AS YOU MAY END UP WITH A SERIOUS CHEST INFECTION.

IN-DWELLING VALVES

WHAT TO DO IF YOUR VALVE LEAKS

Valve prosthesis is designed to be a one-way valve. This means that they allow air from your lungs to pass through the valve, but food and drink cannot pass through the other way.

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LEAKAGE THROUGH A VALVE

1. Clean your valve with your valve brush then check for leakage again.

Sometimes food can jam the valve flap open – this can often be cleared by simply cleaning your valve.

2. If leakage persists contact your CONSULTANT immediately as your valve needs to be changed.

Try not to drink until your valve has been changed.

3. If you have a valve insert/plug fit this into your valve.

If you have inserted a plug you do not have to have your valve changed immediately. Come to the hospital at your earliest convenience.

If you are going away on holiday it is sensible to take a plug and insert with you, or to ask for a new valve to be fitted before you leave.

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BLOM-SINGER HANDS FREE VALVES

The “hands free” valve allows you to speak without using your finger to block the stoma.

How the Valve Functions

1. The valve diaphragm remains open during normal breathing.
2. The diaphragm closes when you breathe out forcefully. Air then goes through the valve as usual.
3. The diaphragm automatically opens when you stop speaking and breathe in.

How to stick the hands free valve on and keep it on

1. Apply two thin layers of glue around the stoma. Leave for 2 minutes.
2. Peel the backing paper from the sticky disc.
3. Stick the disc to the housing.
4. Position the housing over your stoma. Press it hard against your skin to avoid air pockets between the skin and the disc. If you have any skin folds pull down under the stoma to get a better seal before putting the housing onto the skin.

You will not get any voice if you have any air leakage between the housing and your skin.

5. To insert the hands free valve, grasp it by the edge and push it into the housing. Press it firmly to one side and inwards until it snaps into place.
6. Wait 2 minutes to let it stick firmly before starting to speak.

THE VALVE MUST BE REMOVED BEFORE SLEEPING (INCLUDING NAPS). THIS IS BECAUSE PHLEGM MAY ACCUMULATE AROUND THE DIAPHRAGM AND CAUSE IT TO STICK IN A CLOSED POSITION.

THIS MAY CAUSE YOU TO SUFFOCATE.

Valve Removal

1. Place your index finger against the housing to prevent pulling it loose.
2. Grasp the hands free valve by the rim and pull to remove. **Do not pull on the handle.**

Getting the right setting for your hands free valve

You can change how easy it is to speak using the hands free valve. Turning the handle clockwise makes the gap narrower and the diaphragm closes easily. The narrow gap can make breathing difficult and/or the diaphragm may close if you get slightly out of breath.

If this happens, turn the handle anti-clockwise until you can breathe more easily.

You will want to select the diaphragm to a position which makes speaking and breathing easier for you. Most users set the diaphragm to the most closed position during speech and adjust it to a wide open position during exercise.

Coughing

The hands free valve should be removed from the housing before coughing to prevent loosening of the seal. If you cough with the hands free valve in place it will blow the diaphragm inside out. If this happens remove the hands free valve and push the diaphragm back through.

Cleaning

Separate the hands free valve into its two bits. Wash with warm soapy water and dry thoroughly.

USING GEL CAP KITS TO CHANGE YOUR VALVE

Valve changes should be as often as advised by the hospital.

We recommend you change your valve once every 2 days.

BEFORE YOU BEGIN

Make sure you have the following ready:-

- a magnifying mirror
- good, natural light or a pen torch
- a stent already dipped into lubricating jelly
- a rubber catheter
- two pieces of tape already cut and easy to reach
- a box of tissues
- extra lubricating jelly/gel caps in case the valve will not go in first time

LOADING THE VALVE INTO THE GEL CAP

1. Pull the valve into the loading tool by its tag. Make sure the loading tool has the side marked TOP facing upwards.
2. Place the clear half of the gel cap into the centre hole. Throw the red half away.
3. Push the valve into the gel cap and out of the loading device using the push rod.
4. Remove the valve from the loading tool.
5. Put the valve onto the introducer and attach the tag over the safety peg.

INSERTING THE VALVE

1. Remove your old valve from your stoma by pulling the tag.
2. Insert the stent for 10 minutes and tape it to neck.
3. Apply a slight coating of lubricating jelly over the tip of the gel cap.
4. Push gently on the stent to introduce it fully to stretch the fistula (hole for the valve).
5. Remove the stent.

6. Immediately push the valve through the fistula until you feel it click into place.
7. Remove the tag from the introducer and press it against the neck with one finger.
8. Tape the tag to your skin.
9. Check the valve looks in position – if unsure remove and refit.
10. Wash the stent, valve and introducer in tap water with plain soap. Dry on a towel/piece of gauze and store in the box.

COPING WITH PROBLEMS WITH VALVE CHANGING

- Always push the valve in the direction you have been shown. Valves often settle at an angle eg. up and to the left.
- If the valve will not go in after a few attempts, refit the stent and try again 15 minutes later.
- If the valve will still not go in or if there is a lot of bleeding/pain, insert the rubber catheter and come to the hospital. You do not need to come immediately as long as the catheter is in place. If this happens at night you can come to the hospital the next morning.
- If you cannot insert the catheter or stent inform your CONSULTANT and come to the hospital as quickly as possible. The fistula can close in 45 minutes, which will mean you will have to have a small operation to have it re-opened under anaesthetic.

DAILY CARE FOR STOMA

After a laryngectomy (removal of the voice box) the top of the trachea, or windpipe is sewn to the opening in the neck. The opening or hole is called a STOMA, which you breathe through. It is a permanent opening and will not close over. It is vital to keep the stoma clear and free from crusting. Anything that touches the stoma or surrounding area should be clean including your fingers!

1. Clean the stoma at least once a day
2. It is essential to have a good light and a clean mirror in order to clearly see the area being cleaned.
3. Clean the stoma with a cotton wool bud or gauze dampened with freshly boiled water (which has cooled) or saline solution, i.e. one teaspoon of salt to a mug of freshly boiled (but now cold) water.
4. Do not use any sharp instruments to clean or probe down the stoma.

HUMIDIFICATION

Humidification is necessary to keep the stoma moist. The following types of humidification can be used.

- **DAMP GAUZE/BUCHANAN COVER/HME FILTERS.** Some people find gauze square or Buchanan cover sprayed with sterile water is adequate to prevent crusting. Gauze squares and Buchanan covers should always be positioned and secured around the neck with tape tied at the back.

EXCESSIVE CRUSTING

1. The following tips will help reduce excessive crusting.
2. Fill a sink with boiling water, lean forward and inhale the steam **OR**
3. A soak in a steamy bath may be beneficial; care must be taken for water not to reach the stoma **OR**
4. A boiling kettle in an enclosed room produces a damp atmosphere. Care must be taken not to let the kettle boil dry and to position the kettle safely.
5. Drink plenty of water, i.e. 6 – 8 glasses a day.

DAILY CARE OF STOMA TUBES

It is important that the tube is cleaned and changed at least once a day or according to your doctors instructions.

1. The tube can be washed under the tap or soaked in sodium bicarbonate solution. A bristle brush or pipe cleaner may be necessary to remove persistent secretions. Before re-inserting the tube, ensure that it is clean and dry.

REMEMBER THESE TUBES ARE VALUABLE AND NOT DISPOSABLE

STOMA PROTECTORS

As you breathe through your stoma, the stoma protector helps warm and filter the air before it passes directly into the lungs. It also:

- 1 Prevents secretions from staining the clothes.
- 2 Provides a cosmetic covering over your stoma, which will make you feel less self-conscious.

TYPE OF STOMA PROTECTORS

➤ **BUCHANAN PROTECTOR**

This will wash for 8 – 10 times before its filtering properties become ineffective.

➤ **LARYNGOFOAM**

These small foam squares are adhesive and should only be used once and thrown away.

Both of the above should be stored in a cool, dry place.

➤ **HME's**

The speech and language therapist will advise you whether these are suitable. She will then provide you with relevant training.

GOING ON HOLIDAY

ADVICE FOR INDWELLING BLOM-SINGER VALVE USERS

If you plan to go away for a weekend or for longer contact the hospital for advice as soon as possible. Also seek advice if a special event, eg. a wedding, is coming up – valves always leak when you least want them to!

Before you go on holiday:

1. You will have your anti-fungal medication to prevent candida growing on your valve. Candida is a fungal infection that can make valves leak soon after fitting.
2. We will give you a special device to stop the valve from leaking until you can get to hospital for it to be changed. This is in case the valve leaks while you are away. This is unlikely if a new valve has been recently fitted.