

# LarySeal™ Multiple

## Choosing the correct size Laryseal

Size	Patient Weight	Patient Type
1	<5kg	Neonatal
1.	5kg – 10kg	Paediatric
2	10kg – 20kg	Paediatric
2.	20kg – 30kg	Paediatric
3	30kg – 50kg	Adult
4	50kg – 70kg	Adult
5	70kg – 100kg	Adult

Always use the Laryseal Cuff Inflator to ensure correct volume of air.

## Pre Use Checks

Always fully inspect the Laryseal Multiple during cleaning and immediately prior to patient use to ensure integrity for use. The inspection may be carried out as follows:

1. Examine the inside of the airway tube. Check for debris and blockage. Next, examine the exterior to the main tube along its full length. In particular check for cuts or gouges. If found, discard the Laryseal Multiple.
2. Flexibility. Hold the Laryseal Multiple at both ends (cuff and 15mm connector). Bring your hands together to increase curvature of tube, up to 180°. If the tube kinks, discard the Laryseal Multiple.
3. Integrity of cuff. With the cuff fully deflated, re-inflate the cuff with 50% more air than the maximum inflation value for each size. Examine the cuff for leaks and herniation. Once inspected, deflate the cuff. If the cuff shows signs of leakage or herniation, discard the Laryseal Multiple. Check the integrity of the inflation line and pilot balloon for signs of wear, cuts and gouges.
4. Breathing system connector. The connector is fitted to the main tube and it should not be possible to remove it using reasonable force. Do not use excessive force or twist the connector. If the connector is loose, discard the Laryseal Multiple.
5. Discolouration. Laryseal Multiple has a transparent main tube to assist inspection. Discolouration of the main tube may prevent a proper inspection being made and may also signal a reduction in main tube strength. If the tube is discoloured, discard the Laryseal Multiple.

## Preparation

Deflate the Laryseal Multiple cuff completely using an appropriate cuff deflator. This forms a symmetrical tip and leading edge to aid insertion. Lubricate the back of the cuff only immediately prior to insertion.

## Insertion

Ensure that anaesthesia is deep enough to permit insertion (after loss of consciousness and the cessation of voluntary movements). Always wear gloves.

1. Ensure the Laryseal Multiple cuff is fully deflated with the back adequately lubricated.
2. Position the head and neck as for normal intubation (neck flexed and head extended).
3. Hold the Laryseal Multiple like a pen, with the index finger placed at the junction between the cuff and main tube, next to where the inflation line meets the cuff.
4. Position the cuff in the patient's mouth, up against the hard palate. Ensure the tip has not folded over.
5. Using the index finger, press the Laryseal Multiple into the palatopharyngeal curve advancing the cuff through the oropharynx. The index finger is fully inserted into the patient's mouth to complete insertion. Do not insert other fingers. Use your index finger to maintain pressure on the palate throughout insertion.
6. When resistance is felt, the index finger should already be inserted into the patient's mouth. Use your other hand to hold the main tube steady, and then remove your index finger from the patient's mouth.
7. Check that the black line on the main tube is in line with the septum of the nose.
8. Immediately inflate the cuff without holding the main tube. Some movement may be noted as Laryseal Multiple seats to the correct position. Inflate the cuff with sufficient air to obtain a low pressure seal using the Laryseal Cuff Inflator or similar inflation device. Never over inflate the cuff.
9. Connect Laryseal Multiple to the Fresh Gas supply, holding the main tube during the connection in order to prevent displacement of the cuff. Gently inflate lungs to confirm correct placement and positive seal.

## Maintaining the Patient's Airway

1. Obstruction may occur if the Laryseal Multiple becomes dislodged or is incorrectly inserted. Poor insertion may cause the epiglottis to be pushed down thus blocking the airway.
2. Incorrect placement of the cuff tip into the glottis may mimic bronchospasm.
3. It is recommended that a suitable bite block be used.

## Removal of the Laryseal Multiple

1. Keep Laryseal Multiple in situ until the patient regains consciousness; i.e. when the patient can open their mouth on command.
2. The onset of swallowing is a good indication that reflexes are almost restored. Always ensure suction equipment is available at all times.
3. Laryseal Multiple may be removed either deflated, partially deflated or without any deflation.

## Cautionary Note

1. Laryseal Multiple will not prevent regurgitation or aspiration. Its use should be restricted to fasted patient's. Always take appropriate measures to ensure the stomach is empty.
2. Laryngeal spasm may occur in patients too lightly anaesthetized.
3. Handle the inflation line with care. Do not try to remove Laryseal Multiple from the patient using the inflation line. Do not expose the inflation line or pilot balloon to undue force.

## Decontamination and sterilization of Laryseal Multiple

In order to maintain its integrity and maximize its working life, correct cleansing is essential. Where possible, the use of an automated washer disinfectant is preferred to manual cleansing. Whichever mode of cleansing is used, always ensure the method is validated so as to prevent damage to the Laryseal Multiple.

Automated cleansing is preferred due to its efficient, reproducible process which offers greater control over manual methods. Automated systems also offer increased protection to cleansing personnel and are generally more convenient. Thermal washer disinfectants may also remove and destroy pathogenic microorganisms which may pose a risk to users when inspecting and packing.

The Laryseal Multiple should be cleansed as soon as possible after removal from the patient. This allows for secretions and other debris to be removed more easily.

## Mechanical Cleansing

### Use of Thermal washer Disinfectors

#### Equipment Required

- A. Dedicated washer / disinfectant for anaesthetic / respiratory equipment. Machine must have validated cycle.
- B. Suitable load carrier which will ensure all internal and external surfaces of the Laryseal Multiple can be accessed for cleaning. The Laryseal Multiple should be connected to a spigot allowing water / detergent to flow through the tube during processing.
- C. A compatible detergent preferably supplied from a metered automatic dosing system. Rinse aids should not be used (Some rinse aids used in combination with high temperatures may damage the breathing system connector).
- D. A mechanical drying facility. This may form part of the automated process or be a separate purpose built drying cabinet.

#### Method

- A. Check to see if the washer disinfectant is certified ready for use.
- B. Wearing the correct PPE (Personal Protective Equipment) load the washer disinfectant ensuring that the loading configuration does not impede the cleansing process.
- C. Secure the door, select the cycle and start the washer disinfectant.
- D. When the cycle has run its course, check to make sure all stages and parameters have been achieved. Unload the machine and visually assess the cleanliness of the Laryseal Multiple. Pay particular attention to the internals of the cuff and main tube. There should be no loose particles present.
- E. If a drying process is not present, drain off excess water and transfer to the automated dryer. Laryseal Multiple must be completely dry prior to sterilization.
- F. Complete the necessary documentation supplied with the Laryseal multiple.

#### Scope of cleansing action

Cleansing is only achieved after continuous spraying or irrigation of Laryseal Multiple with water and detergent during several stages of a pre set cycle.

#### A typical cycle may comprise the following:

- A. Cold rinse cycle below 35°C (higher temperatures may coagulate protein).
- B. Warm wash with detergent at approximately 55°C.
- C. Thermal disinfection. The surface temperature of Laryseal Multiple should exceed 71°C for three minutes, 80°C for one minute or 90°C for 12 seconds.
- D. Drying

It is preferable that the washer disinfectant chosen should be purchased and operated in accordance with BS 2745 Parts 1 and 3.

## Manual Cleansing

Hand washing of Laryseal Multiple should only be undertaken when other automated methods are either inappropriate or unavailable.

#### Equipment Required

- A. Suitable sink (not a wash hand basin) of a size capable of ensuring complete submersion of the Laryseal Multiple.
- B. Compatible detergent solution at the correct dilution at a temperature which will not permit proteins to coagulate or skin to become scalded. (The user must verify that the solution used is suitable for use as a cleanser. Ensure detergent contains no skin or mucous membrane irritants). If a compatible detergent is not available, then a 10% sodium bicarbonate solution can be used: Mix 1 part baking soda with 10 parts water.
- C. A supply of rinse water (clean sink or receptacle).
- D. A surface to allow Laryseal Multiple to drain, and a suitable drying cabinet.
- E. Brushes, (including soft bristle and pipe cleaner) and a jet washer.

#### Method

- A. Ensure the cleansing tools are clean and dry.
- B. Wearing the correct PPE, fill the sink with the correct water / detergent solution allowing for complete submersion of the Laryseal multiple.
- C. Immerse the Laryseal Multiple in the solution and ensure that all air is displaced.
- D. Brush, wipe, irrigate or jet wash all surfaces of the Laryseal Multiple and remove all visual contamination. Keep the Laryseal Multiple submerged at all times to prevent splashes and the creation of an aerosolized mist. Clean the inside of the main tube using an appropriate pipe cleaner. Brush from the cuff end of the Laryseal Multiple.
- E. Remove Laryseal Multiple from the solution and allow draining before transferring to the rinsing area.
- F. Rinse thoroughly with clean water.
- G. Remove from rinse water and allow to drain. Inspect Laryseal Multiple for cleanliness paying particular attention to the inner main tube and inner patient cuff. There should be no loose particles remaining.
- H. Place Laryseal Multiple in a suitable drying cabinet.
- I. Complete the appropriate documentation provided with Laryseal Multiple.

#### Scope of Cleansing Action

Manual cleansing will remove visual debris and other contaminants, but it does not incorporate a disinfection process. Handling prior to sterilization therefore poses a risk of cross contamination to processing staff.

#### Sterilization

To be completed after cleansing.

Laryseal Multiple has been designed to withstand steam sterilization to temperatures up to 137°C.

Flexicare recommend that a steam sterilizer (autoclave) be used which incorporates a vacuum air removal cycle. This allows for use on items which have inner lumens like for example Laryseal Multiple.

Laryseal Multiple must be completely dry.

The patient cuff must be completely deflated immediately prior to entering the autoclave. Failure to completely eradicate air in the cuff may result in herniation of the patient cuff and will dramatically reduce the working life of your Laryseal Multiple.

Laryseal Multiple should be placed in sterilization pouches and only with other laryngeal masks. Autoclaving should be carried out within a standard steam sterilization cycle, for example at a minimum of 134°C or a maximum of 137°C for three minutes.

#### Caution

Do Not Expose Laryseal multiple to:

- |                                   |   |
|-----------------------------------|---|
| A. Formaldehyde                   | B. Gluteraldehyde                       |
| C. Ethylene Oxide                 | D. Prolonged Exposure to Chlorohexidene |
| E. Iodine based antiseptics       | F. Silicone based lubricant sprays      |
| G. Solvent based solutions        | H. Rinse Aids                           |
| I. Ultrasonic cleansing equipment | J. Gamma Irradiation                    |

Laryseal Multiple is not suitable for sterilization using Sterrad NX or similar.