

**HYGIENE INSTRUCTIONS FOR MINI WRIGHT, AFS & AIRZONE PEAK  
EXPIRATORY FLOW METERS  
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**Introduction**

The Mini-Wright Peak Flow Meter was designed as a portable device to help healthcare professionals monitor lung function; to minimise the risk of cross-infection, it has an integral one-way valve that prevents the patient from breathing in any of the previous patient's exhaled breath that could remain in the meter.

The importance of peak flow monitoring results in many patients receiving their own personal Meter for home monitoring of lung function, through prescription or recommended purchase; Doctors surgeries and Hospitals may also wish to issue Peak Flow Meters on a loan basis and therefore need a means of reprocessing each device before reissue. The following instructions have been prepared to facilitate both single and multiple-patient use.

Note: We would recommend that if the last user was diagnosed or suspected of having a serious communicable disease that the meter should be disposed of.

Devices used for multiple patients may need to be replaced more often than those used by only one person.

**Patient at Home Cleaning Instructions**

1. Detach mouthpiece (if applicable) from Peak Flow Meter and immerse both pieces in warm (not hot) water and washing-up liquid for 2 – 3 minutes (maximum 5 minutes as some detergents have an adverse effect on the scale adhesive). Agitate the meter to ensure thorough cleansing. Do not insert any object, such as a washing-up or bottlebrush, into the meter when cleaning as damage may occur.
2. Rinse in clean water and shake gently to remove any excess water. Put to one side and allow to dry naturally before using again. Do not insert cloth or paper towels into the meter to speed up the drying process.
3. **Frequency:** Once a month. Clean thoroughly if the meter has not been used for some time.

**GP/Hospital Clinic Cleaning & Disinfection Instructions**

It is recommended that hospitals and clinics provide one of the following for each new patient using the Meter:

- a) Disposable One-Way cardboard mouthpieces
- b) Disposable cardboard mouthpieces
- c) Sterilizable plastic mouthpieces
- d) Disposable bacterial filters (low resistance, Spirometry type)

Discard or Reprocess mouthpieces as appropriate, between patients.

- a) Disposable One-Way cardboard mouthpieces

Disposable mouthpieces are available that only allow the patient to exhale through the meter; discarded after use, they prevent the patient from inhaling potentially contaminated air through any Peak Flow Meter or Spirometer. These are available in different pack sizes.

- b) Disposable cardboard mouthpieces

Disposable mouthpieces do not prevent the patient from inhaling through a peak flow meter, unless the design of the meter includes a one-way valve (e.g. Mini-Wright). They are discarded after use.

- c) Sterilizable plastic mouthpieces

Sterilizable plastic mouthpieces do not prevent the patient from inhaling through a peak flow meter, unless the design of the meter includes a one-way valve (e.g. Mini-Wright). They are sterilised after use.

- d) Disposable bacterial filters (low resistance, Spirometry type)

Low-resistance bacterial filters provide a barrier against micro-organisms passing into the peak flow meter, and should be discarded after use.

For the Meter itself, the following frequency of cleaning and disinfection is advised:-

<b>Mouthpiece Type</b>	Disposable One-Way cardboard mouthpieces	Disposable bacterial filters	Disposable cardboard mouthpieces	Sterilizable plastic mouthpieces
<b>Frequency</b>	<b>WEEKLY</b>	<b>WEEKLY</b>	<b>Between Patients</b>	<b>Between Patients</b>

**Reprocessing - Sterilizable Plastic Mouthpiece**

- Clean using an automatic dishwasher (2 min pre-wash, 3 min detergent wash, dry)
- Autoclave in saturated steam (max. 134°C - 137°C) for 3 minutes (refer to autoclave manufacturers instructions for details of cycles available).

**Reprocessing - Peak Flow Meter**

Clement Clarke **does not recommend autoclaving** peak flow meters as the process destroys the accuracy and distorts the meter.

- A. Inspect the unit for signs of damage or wear, if any is evident replace meter.
- B. Prepare a solution of Lancerzyme<sup>1</sup> in accordance with the manufacturer instructions in a container large enough for the Peak Flow Meter(s) to be totally submerged.
- C. Follow the manufacturer instructions to ensure proper cleaning and agitate the meter whilst in the solution to ensure any trapped air is expelled. Do not use any mechanical aids such as brushes or cloths. Rinse and dry as recommended.
- D. Pour a quantity of Tristel one day<sup>1</sup> into suitable container and immerse the Peak Flow Meter, again agitate the meter to ensure air is expelled and leave it in the solution for 5-10 minutes. Rinse as stated, shake gently to remove any excess water and allow to dry naturally.

Note 1: Lancerzyme and Tristel one day are manufactured Lancer UK Ltd and The Tristel Company Ltd respectively please refer to their manufacturers instructions for information concerning use, dilution, rinsing, disposal etc.

Note 2: The above procedure has been validated by an independent laboratory.

**Comparison of Meters**

	<b>Mini-Wright Standard Range</b>	<b>Mini-Wright AFS Low Range</b>	<b>AirZone Standard Range</b>	<b>Other commonly-used Meters</b>
<b>Exhalation only device (One-way Valve in meter itself, preventing inhalation through meter)</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>
<b>Compatible with One-Way Valve disposable mouthpieces</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Not all</b>
<b>Can be Autoclaved?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No Data Available</b>
<b>Lancerzyme/ Tristel one-day solution for disinfection?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No Data Available</b>
<b>Replaceable, sterilizable mouthpiece?</b>	<b>Yes</b>	<b>Yes</b>	<b>Optional</b>	<b>Not all</b>
<b>Single or Multiple patient use?</b>	<b>Single AND Multiple</b>	<b>Single AND Multiple</b>	<b>Single AND Multiple</b>	<b>Varies</b>