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## How to Record Your Peak Flow Readings

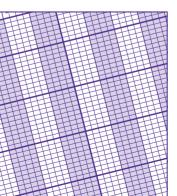
Measurement of your peak expiratory flow should be taken at least every morning and evening or as discussed with your Doctor or Specialist Nurse. It is important to keep a record of your highest Peak Flow readings using this chart. Place a mark on the chart with your highest readings in the space provided, dependant upon time of day taken. By connecting these marks you will form a graph as shown in the example next to this section. This will indicate and keep a record of how your peak expiratory flow varies from day to day.

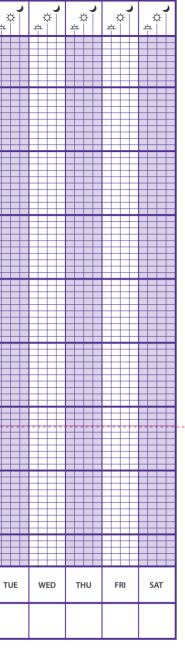
You should also perform this measurement and keep a record of your peak expiratory flow during times when you suddenly become breathless or wheezy and keep a note of time of day and what you were doing when this happened.

	☆ - MORNING   ☆ - MIDDAY   J - EVENING
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Mea

Standard Range Peak Flow Meter

adults and children peak expiratory flow in For the measurement of

## **FOR USE** INSTRUCTIONS



EN ISO 23747 Standard Conforms to:

## INSTRUCTIONS FOR USE



## CAUTION

#### Note:

Please read all the information in this leaflet before using the "Medi" Standard Range Peak Flow Meter.

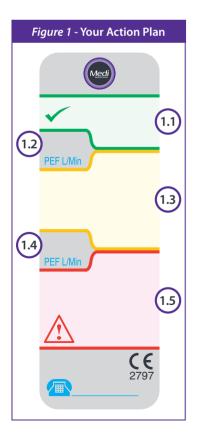
The "Medi" Standard Range Peak Flow Meter is recommended for single patient use.

The "Medi" Standard Range Peak Flow Meter should be initially used under the supervision of your Doctor or Specialist Nurse.

Patients symptoms take precedence over Peak Flow Meter readings.

If the "Medi" Standard Range Peak Flow Meter is used for longer than the three years, the accuracy of the device may deteriorate.

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#### What is a Peak Flow Meter?

A Peak Flow Meter is a device intended to measure how well your asthma is being controlled. The device measures air flowing out of your lungs as you blow into the device as fast and as hard as possible. Used mainly by patients with moderate to severe and persistent asthma, Peak Flow Meters can help determine:

#### When to seek emergency medical care

The effectiveness of a patients asthma management and treatment plan

#### When to stop or add medication, as directed by your Doctor

## What triggers the asthma attack (such as exercise induced asthma)

With asthma sometimes you may feel your breathing is fine, but the Peak Flow measurement may indicate that your lung function can be decreased. A Peak Flow Meter can help you determine airway changes and manage your asthma better.

# Asthma Care in Partnership with your Doctor

Your Doctor will take the time to educate you in Self-Management of your asthma. This will start upon diagnosis and continue with all members of the healthcare team. Your Action Plan will be tailored to your needs, but will include: basic facts about

asthma; roles of medication; skills required for your inhaler, spacer and Peak Flow Meter, environmental control measures; when and how to take rescue actions.

#### You and Your Asthma

Most people with asthma need to monitor their asthma at least twice a day and to have a plan of action to keep it under control. This leaflet provides detailed information on your Peak Flow Meter and how the Self-Management Action Plan works.

#### Q. What is Peak Flow?

A. Peak Flow is a measurement of how fast you can blow air out of your lungs. Your Peak Flow score will be higher when you are well, and lower when your airways get narrower. Peak Flow scores are therefore a useful guide to the openness of your airways at any given moment and hence, the severity of your asthma. You should measure Peak Flow as soon as you wake up and in the evening before taking your bronchodilator reliever medication, or as directed by your Doctor.

Although how you feel and what you can do is important, Peak Flow scores show accurately how your breathing is changing. Modern asthma medicines aim to give you the best possible Peak Flow score, keeping you in the green zone. It is also important to aim for stable Peak Flow, i.e. little difference between morning and evening scores and from day to day.

#### Q. Why do I need to measure my Peak Flow?

- A. Many people over the age of five will benefit from monitoring their asthma with a Peak Flow Meter, indicating when and how much to use their reliever medication. It will also help your Doctor because Peak Flow scores make it easier to see how well your asthma is controlled and when treatment needs changing.
- Q. How do I get an Action Plan?
- A. Only your Doctor can determine the best Action Plan for you. This is likely to be preceded by an initial assessment followed by a diagnostic phase. During the diagnostic phase you will need to record your Peak Flow scores on the chart provided overleaf. Your Action Plan is then assessed against your Peak Flow scores over several days. Your treatment and/or Action Plan may be changed following the diagnostic phase. This procedure may be repeated unil your optimum Action Plan is proven.

#### Q. What is my Normal Value?

Your Action Plan

outcome of your asthma

See Fiaure 1.

l/min BTPS

condition and circumstances.

Self-Management including Peak Flow

Your Doctor will decide on your Action

Plan, which depends on your individual

Only your Doctor or Specialist Nurse

should complete your Action Plan -

Your measured best Peak Flow is:

Your best means the highest Peak Flow

Your current Action Plan is written down

in Figure 1. Your Doctor or Specialist Nurse

may also mark your 'zones' on the scale

side of your Peak Flow meter. If so, use

these 'colour bands' instead of the scale

reading in your day to day management.

when you are feeling well.

**Action Plan** 

Understanding your

monitoring will significantly improve the

A. Your 'Normal Value' is the best Peak Flow value that you can achieve. This is your 100% or 'reference' value. Population normative standards are not clinically useful in ongoing serial monitoring of your asthma.

- 1.1 Above the green boundary, your asthma is well controlled. Your Doctor writes in a plan, such as: '2 puffs preventer inhaler morning and evening'.
- The Peak Flow value in the box between green and yellow is typically 80% of your best.
- 1.3 Yellow means additional treatment such as: '2 puffs reliever every half hour'
- 1.4 Between yellow and red, this box will show your warning threshold value PEF (Peak Expiratory Flow) which is typically 60% of your best.
- **1.5** Red means medical alert, e.g. 'take half steroid tablet' or simply 'contact Doctor'.

#### **Updating your Action Plan**

You should visit your Doctor at least twice a year to assess any changes in your condition and change your plan if required. If you find yourself in the yellow zone most of the time, inform your Doctor immediately.

#### How to use your Peak Flow Meter

Stand up if possible (unless your Doctor advises otherwise). *See Figure 2.* 

- **2.1** Slide the pointer down to the bottom of the scale at the end where you blow in.
- **2.2** Hold the meter on its edge in front of you with the scale away from your hand. Ensure that your fingers are clear of the scale and that you do not obstruct the holes at the end of the meter.
- 2.3 Breathe in as deeply as possible. Holding your breath, place the mouthpiece well into your mouth and seal your lips firmly around it. Keep your head upright.

Blow as **HARD** and as **FAST** as you can for a second or for as long as possible. Be careful not to block the mouthpiece with your tongue or teeth. A "spitting" action will give falsely high readings.

If you experience any side effects such as dizziness or fatigue, do not take any further readings and inform your Doctor or Nurse accordingly.

2.4 Your Peak Flow reading is shown on the scale against the pointer. Take a note of the corresponding meter reading and also the colour band in which the reading is applicable before sliding the pointer back to the bottom of the scale.

Repeat this process starting from the original position at least three times using your highest reading as the reading to enter on your chart record.





## Making sense of your Peak Flow Score

If you often fall below your usual Peak Flow, it may be a sign that your asthma is getting worse. Similarly, bigger differences between morning and evening scores may mean your asthma is worsening, especially if you also start waking at night wheezing or coughing.

### Your own Asthma Action Plan

Following the Action Plan enables you to adjust your treatment according to your Peak Flow scores. If you act quickly, you can usually prevent severe asthma attacks occurring.

Your Peak Flow scores will fall within one of the Self-Management colour zones. Follow the Action Plan instructions, which apply to that colour zone.

#### Important Note:

Only your Doctor or Specialist Nurse should complete or change your Action Plan, so it is important to take your meter with you whenever you visit the Doctor. If you are starting a new Action Plan your Doctor will need to see your diagnostic phase record as well.

Your Peak Flow Meter may have coloured tabs on the scale label to simplify matching your Peak Flow score with the relevant colour zone of your Action Plan.

# DO NOT CHANGE THE POSITION OF THE COLOURED MARKERS YOURSELF.

If this should occur inadvertently, contact your Doctor or Specialist Nurse for advice. You may cover the sliders with invisible tape to prevent them from being moved accidentally, but do not block the orifice where the pointer slides.

Before performing a test session, ensure the coloured tabs are in their correct position by checking them against the numeric values on your Action Plan.

## The Diagnostic Phase

When your Doctor first diagnoses your condition and as your disease improves or worsens, recording your Peak Flow scores two or more times a day is required for a week or longer. This is to ensure that the treatment you are following is adequately keeping your Peak Flow score in the green zone. If the diagnostic phase proves unsatisfactory, your Doctor will change your treatment and start a new diagnostic phase. After satisfactory scores and an Action Plan are established you will probably no longer be asked to record your Peak Flow scores, but simply to follow your Action Plan.

## Care and Cleaning your Peak Flow Meter

Your Peak Flow Meter should continue to give reliable measurements for up to three years, after which time you should ask the Doctor for a new unit, even if the product has not been used for a period of time.

Keep the device clean and dust free. The outer surfaces should be thoroughly cleaned every week, more often if necessary. Either use an ordinary alcohol wipe or alternatively some mild detergent paying special attention to the mouthpiece area.

#### NEVER ATTEMPT TO DISMANTLE THE UNIT. THIS CAN CAUSE INCORRECT READINGS.

If you suspect the unit is damaged or is measuring incorrectly, report this to your Specialist Nurse as soon as possible.

#### Warranty:

Your Peak Flow Meter is guaranteed for one year. Replace if it is faulty, otherwise replace after every three years.

#### **Disposal Note:**

This product can be disposed of as normal household waste.

## **Technical Specifications:**

Material: Recyclable ABS plastic

Accuracy: +/- 10 L/min or +/- 10% of the reading

**Repeatability:** +/- 5 L/min or +/- 5% of the reading

#### Altitude Effects: Increased altitude lowers readings by approximately 5% per 1000m (Decreased air density increases readings

(Decreased air density increases readings by approximately 5% per 1000m)

Highest Resistance to Flow: 0.00384 kPa/L/min @ 720 L/min

Measurement Range: 50-800 L/min BTPS

Storage Conditions: Temperature: 10-35°C

**Relative Humidity:** 30% - 75%

**Frequency Response:** Profile A/B difference less than 15 L/min/15%