Asthma - Peak Flow Meter

This leaflet provides information about the peak flow meter which is used by some people with asthma. Another leaflet in this series, called *'Asthma'*, gives more general information about asthma.

What is a peak flow meter?

A peak flow meter is a small device that you blow into. It measures the fastest rate of air (airflow) that you can blow out of your lungs. It records airflow in litres per minute (l/min). Your doctor may prescribe a peak flow meter for you if you have asthma. There are different brands of peak flow meter. They all do the same job.

How do I take a peak flow reading?

Your doctor or nurse will show you how to take a peak flow reading. It is important to do this correctly, otherwise the readings can be misleading. Briefly, you must put the marker to zero, take a deep breath, seal your lips around the mouthpiece, then blow as hard and as fast as you can into the device. Note the reading.

Each time you check your 'peak flow', you should do three blows, one after the other. The 'best of the three' is the reading to record. However, when you do three blows straight after each other, the readings should all be about the same. If they are not, then you may not be blowing into the device correctly. A common error is to not to blow as hard as you can. Another common error is to not to put your lips right round the mouthpiece to make sure that all the air you blow out goes through the device.

What is a normal peak flow reading?

Normal peak flow readings vary, depending on your age, size, and sex. The range of normal peak flow readings is published on a chart, and doctors and nurses refer to the chart when they check your peak flow reading.

Normally, in healthy people, peak flow readings vary slightly from time to time. The reading is often slightly higher in the evening compared with the morning.

How can a peak flow meter help with asthma?

To help diagnose asthma

If you have untreated asthma:

- Your peak flow readings will usually be low. No matter how strong you are, if your airways are narrowed, your peak flow will be lower than expected for your age, size, and sex.
- Your peak flow readings will tend to vary quite a lot. Typically, the readings are lower in the morning compared with the evening. This difference is much greater in people with untreated asthma than the normal small variation seen in most people.

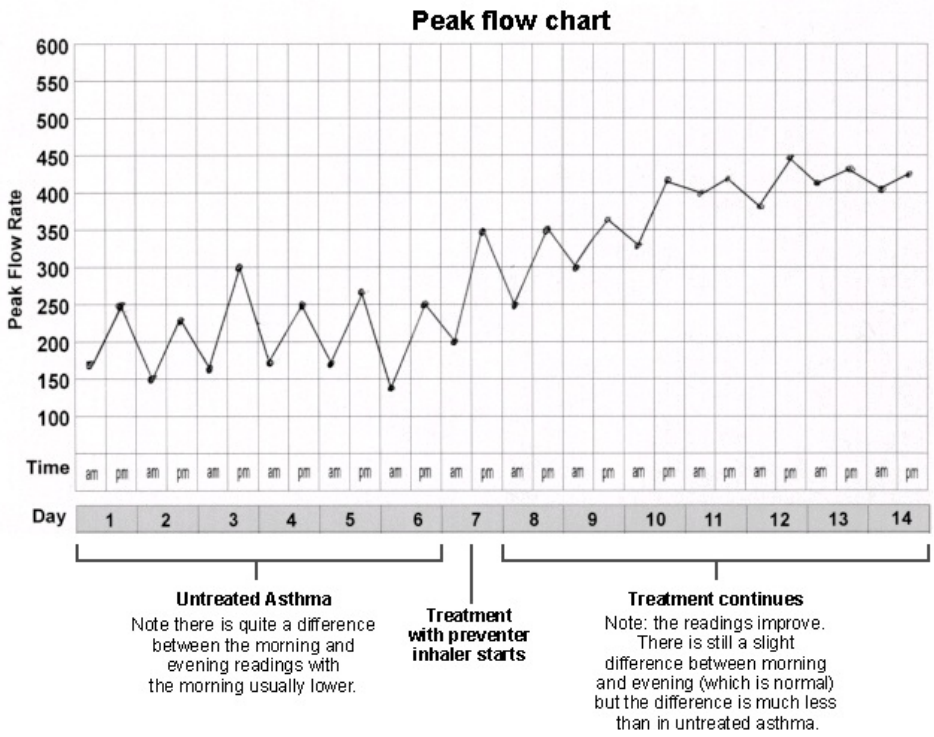
Sometimes a doctor or nurse will give you a chart (like the one below), and ask you to keep a record of your peak flow readings for a week or so. You will normally be asked to take a 'best of three' peak flow reading each morning and evening.

Sometimes a peak flow reading is done 'before and after' you take a dose of treatment to open up your airways. If the treatment causes a large improvement in your reading, this too is typical of asthma.

To monitor treatment

Regular peak flow readings can be used to help assess how well treatment is working. Peak flow readings improve if narrowed airways open up with treatment.

Below is an example of a two-week diary of peak flow readings done by a child who has quite bad asthma.



Further help and information

Asthma UK

Summit House, 70 Wilson Street, London EC2A 2DB
Asthma Helpline: 08457 01 02 03 Web: www.asthma.org.uk

Further reading & references

- Asthma, Clinical Knowledge Summaries (2007)

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