

*Disclaimer: this information has been provided by the European Lung Foundation (ELF) using their experience and expertise of previous spirometry events. This material can be adapted and used by each society.*

## A practical guide for hospital events

### BACKGROUND

#### What is spirometry?



Spirometry is the most common method for testing lung function. It is simple, quick and noninvasive. The test specifically measures the amount (volume) and/or speed (flow) of air that can be inhaled and exhaled by the lungs. Spirometry is an important tool and is helpful in assessing conditions such as [asthma](#), [pulmonary fibrosis](#), [cystic fibrosis](#) and perhaps most importantly [Chronic obstructive pulmonary disease \(COPD\)](#).

The measurement is used in the routine diagnosis and follow-up of patients with respiratory disease and is also increasingly used by GPs. There are few examinations in medicine that are so simple to perform and which provide such a large amount of information. The spirometry test is performed using a device called a spirometer.

#### Why perform the test on mass?

Many countries already organise spirometry testing days or weeks, and they have proven to be an easy and efficient way to attract not only the attention of the citizens and individuals concerned, but also the media. The events can identify local residents who may otherwise have not been previously diagnosed with an obstructive lung condition. It can also help to raise awareness of lung health and disease in the local population.

#### Who is the ELF?

The European Lung Foundation or ELF is the “public voice of the European Respiratory Society (ERS)”. Founded in 1990, the ERS is a not-for-profit, international medical organisation with more than 10,000 members from 100 countries. It is the biggest society in Europe in its field. The aim of the ELF is to disseminate information from the ERS to the public and the media and to raise awareness about lung health and disease.



#### What is the annual ELF/ERS spirometry event?

Every year, during the ERS Annual Congress, the ELF organises a public spirometry event.

This is usually performed in a public space, for example in a railway station or a marquee erected in a central square.

At the 2008 ERS Congress in Berlin, more than 3,500 people had their lung function measured over two and a half days.

# WORLD SPIROMETRY DAY

www.2010yearofthelung.org

These spirometry events have a dual purpose. On the one hand, they have a public health impact, enabling many people who have not been tested previously to have their lung function measured. In Berlin approximately 20% of people tested were advised to visit their doctor for further examination. On the other hand, these events provide a focus on lung health and lung diseases, facilitating increased public awareness. The event in Berlin was covered by the German national TV channels and the main newspapers.



These events create an opportunity to attract the attention of the health authorities, politicians and key opinion leaders. In Berlin, the ELF invited New York City Mayor Michael Bloomberg to attend the event. He visited the spirometry tent, had his lungs tested and gave a press conference.

For reports and details from the previous ELF spirometry events please go to:

[www.spirometryevent.european-lung-foundation.org](http://www.spirometryevent.european-lung-foundation.org)

## What have we discovered?

The results from six of the events will be published shortly. In summary, the general finding is that of over 12,500 people tested, nearly 20% had some degree of airway obstruction, nearly 50% were smokers and 5% had asthma.

The organisers of these events conclude that spirometry testing is a useful way to detect airway obstruction at an early stage in life, in a large proportion of city residents.

## How can you can work with the ELF?

On World Spirometry Day you will have the opportunity to organise and run events like the annual ELF/ERS Spirometry event. In addition, Thoracic Departments and sections of Paediatric Respiratory Medicine within hospitals will be open on October 14 to enable ordinary people to have their lung function tested.

The aim of this document and the associated websites of the [Year of the Lung](#) and the [ELF](#) are to provide assistance with organising a spirometry event. The experience of the ELF is provided to help with the concept and the amount of funding needed for the event. We have also made the documentation and signage that we used available and welcome those of you who may be interested in following the protocol to use the same resources (available in the World Spirometry Day Kit). In addition, if using the same questionnaire, equipment and protocol, results can be submitted to the ELF for further group analysis.

## CONCEPT AND ORGANISATION

### Aim

The aim of mass spirometry testing is to raise awareness among the general public, politicians and authorities about lung diseases and lung health in general, and to focus upon harmful exposures such as smoking. Running an event will also encourage medical professionals to work together and test as many people's lungs as possible.

### Location

Spirometry events performed in hospitals or surgeries will use the facilities and equipment that are already in place. This means that the event organiser(s) must consider the locality and waiting areas available. If possible other equipment can be obtained to enhance the capacity for testing.

The target population in the hospitals will differ between the adult and paediatric departments. In adult departments, the target population should be 40 years and older. In the paediatric respiratory departments the target age should be from six years up to adulthood.

There should be minimal or no costs involved for performing the tests in a hospital or surgery. The most significant costs will be those related to advertising and staffing during the event, and ensuring participation from the general public.

### Raising awareness

Any PR activities should focus on promoting the event to local residents to encourage them to attend and could include:

- Contacting local press, radio and TV, and providing information on the event itself and also on lung diseases and COPD
- Poster and flyers which can be sent to nearby GPs to be circulated in surgeries and made available in waiting areas
- Adverts in local free newspapers
- Depending on the level of local interest, a small press conference at the opening of the event where journalists can test their lungs

Examples of all the materials described can be found on the Activities page at:

[www.2010yearofthelung.org](http://www.2010yearofthelung.org)

### Ethical issues

Depending on the rules in each country, approval before the event from the regional/national medical ethics committee may be needed. In some countries approval may also be needed from national data authorities if the results are going to be stored.

### Funding

The costs for performing an event in a hospital should be minimal. Less than €1,000 may be necessary to cover the costs of basic signage, flyers, posters, mailings to local GPs and contact with local media. The equipment already available should be used and hospital personnel who usually perform these tests should perform them on the day. Sponsorship may be needed for additional equipment and personnel.

If required, sponsorship should come in the form of an unrestricted grant from a company with an interest in promoting awareness of lung diseases and lung health. The funds given should hold no restriction on the event and any agreement made with a sponsor should ensure that no input in the

running of the event is permitted. The return they get for their support is the inclusion of their logo in posters and press material.

## Equipment needed

The following equipment will be necessary:

- Spirometers
- Printers
- Mouth pieces
- Tissues
- Water and cups
- Waste baskets

You may wish to provide all personnel staff with t-shirts and a name badge to make them stand out from people coming to have their lung function tested. An example of a t-shirt design can be found in the Promotional materials pack at: [www.2010yearofthelung.org](http://www.2010yearofthelung.org)

## Information to public

A spirometry event provides a unique opportunity to educate members of the public while they are waiting to have their lungs tested. Therefore, it would be advantageous to have a range of appropriate reading material on lung disease available. Many patient organisations may have relevant material available, as well as staff who can attend the event. Examples of ELF materials on smoking cessation, spirometry and living well with COPD can be found in the Patient information pack at: [www.2010yearofthelung.org](http://www.2010yearofthelung.org)

## Personnel

Personnel necessary to run an event include the following:

- An event organiser: to work with all the doctors and nurses before and during the event.
- A welcome team: to explain the process, to hand out questionnaires if being used, to organise a queuing system and to distribute leaflets to those in the area or passing the event.
- Nurses/technicians: to carry out the tests and enough staff to set up a shift pattern as all staff members will need to take breaks. Each test should take 10 minutes based on a patient performing three blows.
- Doctors: to give immediate advice to those with restricted airflow or those who wish to quit smoking.
- Smoking cessation support groups: to advise patients in the waiting area.

## Follow-up information

A letter should be given to anyone with unusual results. The letter should be addressed to their GP to request a confirmation of the findings and for further follow-up to be performed.

An example of this letter can be found in the Correspondance pack at: [www.2010yearofthelung.org](http://www.2010yearofthelung.org)

Information for those working on the registration desk

- Personnel should be available to answer questions and direct people to the correct areas.
- Waste baskets should be emptied on a regular basis where the spirometry test are being performed.
- Children should be referred to the paediatric testing ward and only tested in the presence of their parent/guardian.

## Information for nurses/technicians

- A training session and full guidelines on how to use all spirometers should have been conducted before the event.

- If using questionnaires there should be a link (ID number) between the questionnaire and the spirometry test.
  - Three accepted blows (if possible) should be performed by each person.
  - A printout of the results should be handed to the person and any problems should be documented on the printout.
  - Those showing an abnormal spirometry result (abnormal curves or values) or people who have symptoms and are worried should be given a letter to take to their GP explaining the event.
  - These people should also be given the opportunity to speak to doctors available onsite.
  - If children have abnormal values, GP letters should be given to the child in the presence of the parent/ guardian.
  - This is a screening event under non-perfect testing conditions and, therefore, a diagnosis cannot be definitely given.
- COPD is indicated by: FEV1/VC <70 % or FEV1/FVC <70% (from 65 years of age the limit is <65%).
- If someone is a smoker and concerned about their lung health, introduce them to a smoking cessation expert onsite or give them contact details for a local smoking cessation group.

## Information to provide to your personnel

Make sure that clear contact details of the main organiser are provided to all event personnel so that they can be contacted with any questions.

## General information

- Due to security reasons people should be advised to leave bags at home and avoid bringing coats and personal belongings if at all possible.
- Encourage everyone to arrive in good time.
- The event organiser should be informed of the arrival of all personnel to ensure appropriate people are manning each area.
- Personnel should be advised to pick up specific clothing (if used) and pick up a name/title badge.
- A water cooler and cups should be made available for patients and personnel. Its location should be indicated to staff and they should be requested to inform the appropriate person if the water runs out.
- Directions to the nearest toilet should be given.
- Details on food provided (if any) should be given.
- Information should be provided on what to do if someone is taken ill.

Take part in World Spirometry Day and help raise awareness of lung health in your country! For more information, please visit [www.2010yearofthelung.org](http://www.2010yearofthelung.org)