

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 large 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

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](http://www.yearofthelung.org) and the [ELF](http://www.european-lung-foundation.org) 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

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

As a mass spirometry testing event in a public location can be costly, funding may be required. Costs may include: rental of a public space, tent or marquee in which to house the event, furniture and equipment used for the event, toilet facilities, power and personnel to carry out the testing.

Any funds obtained should come in the form of an unrestricted grant from sponsors, foundations, companies or health insurances with an interest in promoting awareness of 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 allowed. The return they get for their support is a sign at the event including their logo and inclusion of their logo in posters and press material.

However, if you are looking at organising a smaller event in your locality you may need to raise a much smaller amount of funds just to cover some advertising, and you could look to local businesses for support.

Costs

Less than €1,000 will cover the costs of basic signage, flyers, posters, mailings to local GPs and contact with local media. However, to run a larger event to attract media interest, a larger sum may

be required to pay a local PR agency to organise cooperation with local TV and radio and possibly a small press conference. In a situation where raising awareness is your main focus you should plan on splitting your budget for the event between PR and logistics (60:40, respectively).

Equipment needed

The following equipment will be necessary:

- Spirometers - the most practical option is a hand-held device
- Printers to allow results to be printed out and distributed
- Mouth pieces
- Tissues
- Water and cups
- Waste baskets

For the personnel it can be very useful to provide some clothing which will make them distinctive and stand out from those coming to have their lungs tested. During previous ELF/ERS events all personnel have been provided with a T-shirt to wear, which was made available in at least three sizes (small/medium/large). An example of a t-shirt design can be found in the Promotional materials pack at:

www.2010yearofthelung.org.

A name badge with a description of position/role is also useful for all your personnel.

Information to public

A spirometry event provides a unique opportunity to educate those taking the test in the period when they may be waiting. Therefore, it would be advantageous to have a range of appropriate reading material available on lung disease, specifically COPD and smoking cessation. Many patient organisations in your country may have this material available and staff who can be present during the event.

Examples of useful resources on:

- spirometry testing
- smoking cessation and
- living well with COPD

can be found at www.2010yearofthelung.org

Personnel

The personnel needed to run a large 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.

Where possible the ELF has obtained personnel willing to work at the event on a voluntary basis. However, where this is not possible, a fee of €10 per hour has been paid to the nurses and technicians who have given up their time.

Follow-up information

A mass testing event should never be performed without a planned follow-up for people who are found to have some level of restriction in their lungs.

During ELF spirometry events a letter is provided to anyone with unusual results. This letter is addressed to their GP requesting that further tests and follow-up are performed.

An example of this letter can be found in the Correspondance pack at: www.2010yearofthelung.org

Information to provide to your personnel

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

Information for those working on the registration desk

- Personnel should be available to answer questions and direct people to the correct place.
- Waste baskets should be emptied on a regular basis where the spirometry is being performed.
- Children should only be allowed to take a test if in the presence of their parent/guardian.

Information for nurses/technicians

- A training session with the spirometers to be used should have been conducted before the event.
- Full guidelines for using the specific spirometer should be provided.
- If using a questionnaire there should be a link (ID number) between the questionnaire and the spirometry test if possible.
- 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 about the event.
- These people should also be given the opportunity to speak to any doctors available onsite.
- If children have abnormal values, GP letters should be given to the child in the presence of the parent/guardian.
- COPD is indicated by: $FEV1/VC < 70\%$ or $FEV1/FVC < 70\%$ (from 65 years of age the limit is $< 65\%$).
- This is a screening event under non-perfect testing conditions and, therefore, a diagnosis cannot be definitely given.
- If someone is a smoker and concerned about their lung health, direct them to speak to a smoking cessation expert on site or give them contact details for smoking cessation help.

General information

- Due to security reasons people should be advised to leave bags at home and avoid bringing coats and personnel 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.
- Personal 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