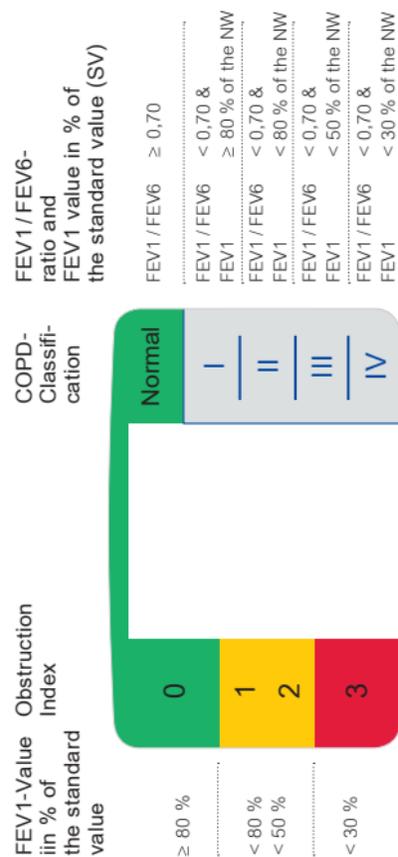


## DISPLAY EXPLANATION



## PHYSIOLOGICAL BACKGROUND

### The physiological background of the pulmonary parameters.

The lungs are made up of airways, bronchi, bronchiole and millions of alveoli. The diameter of the smallest bronchiole is very small compared to the large bronchi and the airways.

### The one second capacity (FEV1)

measures in the first second the maximum exhaled lung volume. This measurement predominantly mirrors a narrowing of the large airways. The six second capacity in contrast is the standard for the measurement of changes to the small airways.

Unlike to the bronchi, the bronchiole are not stabilized by cartilage, but rather, held open by elastic draws in the lung tissue. When inhaling deeply these draws cause the bronchiole to expand. When exhaling the draw of the lung tissue lets up due to the shrinking lung volume which narrows the bronchiole even more.

### The Six Second Capacity (FEV6)

measures the "rest" breathing volume after 6 seconds of exhaling. That is, at a point in time at which the retraction power of the lung volume, as described above, is significantly diminished. COPD is an illness which besides the larger airways (mucous buildup, narrowing) primarily effects the smallest airways and the pulmonary alveoli. This results in dissolution of the setting of the smallest airways and thereby causing a diminished holding open of these bronchial parts during exhaling. The FEV6 mirrors therefore the disturbances in the pulmonary periphery significantly better than the FEV1. From the ratio FEV1/FEV6 the narrowing of the smallest airways can be determined.

With illnesses such as pulmonary fibrosis (an airway restricting illness) the fibrosis affected lung tissue of the bronchiole is pulled apart, so that with a generally diminished FEV1 (due to diminished lung volume with pulmona-

ry fibrosis) the FEV6 is in comparison significantly increased.

With COPD we observe disturbances, which can be (partially) rectified with medicine and other changes which are caused by physical disturbances of the lung tissue and thereby cannot respond to medicine.

Here the physical therapy, for example with the RC-Cornet (basic cornet), can help. This respiratory therapy device loosens mucous, stabilizes and expands the small bronchi and reduces shortness of breath of the patient.

Detailed instructions for use are available at [www.cegla.de](http://www.cegla.de).

## RELATED PRODUCTS



**RC-Cornet®**  
Respiratory Therapy Device  
Loosens mucous, reduces shortness of breath and coughing.  
Article-no. 210EN  
PPN 1108 4186 6756  
PIP 392-5542



**Oxygen cannula craton adults**  
Comfortable to wear due to the soft kraton nose tips.  
Article-no. 710EN  
PPN 1103 3673 0429



**Oxygen cannula phthalate-free adults**  
With soft kraton nose tips, free of phthalate (plasticizers).  
Article-no. 760EN  
PPN 1110 3980 1541

The related products as well as accessories for the RC-Test are available in pharmacies, medical supply stores or at [www.cegla-shop.com](http://www.cegla-shop.com).

Article-no. 160EN  
PPN 1107 1177 1670

**CEGLA**  
MEDICAL TECHNOLOGY

07/2015



Manufacturer:  
R. Cegla GmbH & Co. KG  
Horresser Berg 1  
56410 Montabaur  
Germany  
[www.cegla.de](http://www.cegla.de)



The Digital Pulmonary Function Test for COPD and Pulmonary Emphysema

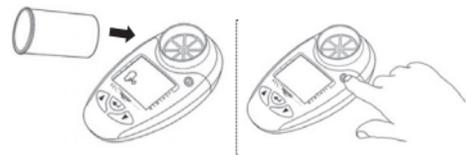


Please read the instructions for use of the RC-Test COPD carefully before first use.

**CEGLA**  
MEDICAL TECHNOLOGY

## RC-TEST PREPARATION

Before first use, please put in the batteries.



1. Fasten the mouth piece\* onto the device.
2. Turn on the device.
3. After the battery indicator goes out then the device is ready for use.
4. Enter the age of the patient and confirm the entry with the **enter** key.
5. Enter the size of the patient and confirm the entry with the **enter** key.
6. Enter the sex of the patient and confirm the entry with the **enter** key.

\* With the RC-Test COPD can be used the safety mouthpiece (per patient | no to be cleaned | article-no. 460EN or the reusable mouthpiece (for one patient | article-no. 180EN). Mouthpieces are available separately in pharmacies or at [www.cegla-shop.com](http://www.cegla-shop.com)

## DEVICE SYMBOLS

- Battery charge condition
- Now blow
- Bad maneuver (delayed start or cough)
- Biological lung age
- Age
- Size
- Sex

## APPLICATION DESCRIPTION

The patient must position the device in the hand so that the backside opening is not covered. The patient stands upright, inhales deeply and encloses the mouthpiece tightly with his/her lips. Afterwards he/she exhales as fast and as powerful as possible for 6 seconds.

After 6 seconds a beep will sound. Afterwards the exhaling maneuver should be carried out another two times.



The device recognizes a bad or an insufficient exhale maneuver and shows this as a ! on the display.



The best test can be displayed with the enter key.

If the device is not used for two minutes then it automatically turns itself off.

To turn the device off please hold down the power button for three seconds.

## TEST ASSESSMENT

### Normal



Notice that both arrows point to the green area!

### Possible COPD or Emphysema Result



A possible COPD indication results when the left arrow points to the yellow area and the right arrow indicates a number I to IV. Recommendation: Spirometer Examination

### Possible Restriction Result



Indications of a restrictive pulmonary illness, for example fibrosis, result when the left arrow points to the yellow area and the right arrow to the green area. COPD indication is unlikely. Recommendation: Spirometer Examination

### Indication of severe COPD



When the left arrow points to the red and the right arrow indicates a number III to IV, then that is a sure indication

of severe COPD. Recommendation: Spirometer examination COPD.

### Display of the pulmonary function parameters



1. The display shows the FEV1 (absolute) and the FEV1 in % of the standard value. Each value of the breathing maneuver is displayed until the enter key is pushed.

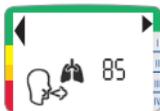
2. By pushing the **▲**-key you can check the following displays one after the other:



a) a. FEV6 (absolute) and FEV6 in % of the standard value



b) a. FEV1/FEV6 ratio and FEV1/FEV6 in % of the standard value



c) a. Estimated biological age of the lung

## CLEANING AND DISINFECTION

All surfaces should be cleaned weekly (wiped down), more often when needed. We recommend for cleaning the use of disinfectant disposable wipes. Special attention should be paid to the device head.

To clean or disinfect please remove the device head with a light tug from the device body. Now the device head can be soaked in a soap water bath or disinfectant solution for 15 minutes. Afterwards rinse with warm water to accelerate the drying process. The device body itself may not come into contact with water.

