





Know Your Numbers

A guide to self-care for people with respiratory disease.

Lyndsey Wigelsworth Exercise Physiologist

Knowsley Community Respiratory Service

Liverpool Heart & Chest Hospital, Thomas Drive, L14 3PE, United Kingdom

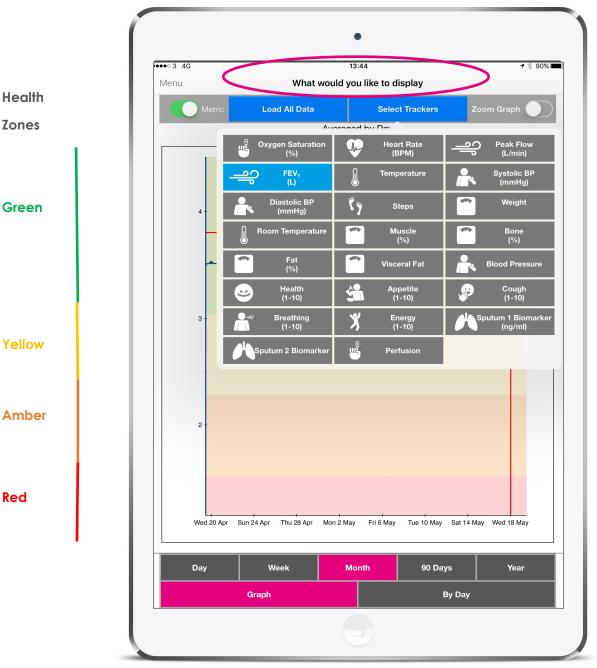




Zones

Red

Lung Health App displays your daily data on a chart page



At the end of your daily reading you can **Select Trackers** on the charts page, selecting one at a time. We overlay your readings on a Traffic Light system, where **Green** is the best and healthy zone and **Red** is declining health and warning sign. **Amber** and **Yellow** in between can indicate your Normal reading but you need to check if they are moving in a positive (Yellow and Green) or negative (Amber or Red) direction. The aim is to keep your readings within Yellow and Green and seek help earlier if it goes into Amber.



Lung Health App and Self-Care



Now that you have been using the Lung Health iPad solution from **Activ8rlives** for a while, we would like you to learn and interpret the information you are generating.

The purpose of this leaflet is to help support you to care for yourself and **Know Your Numbers** - what your vital signs and wellness scores are like when you are well and when you are ill or are becoming ill.

Having a respiratory disease means that you will suffer frequent bouts of ill health or exacerbations. You can reduce the number of these and how severe they become, by early treatment with your home rescue packs of antibiotics and steroids provided to you, and by getting advice from Knowsley Community Respiratory Service on 0800 073 0236.

By taking action sooner **before** you are about to have an exacerbation of your respiratory disease, you can often reduce the severity of bouts of illness, spend less time with us in hospital and be treated at home — if you learn to recognise the warning signs and act on them...

Know Your Numbers is part of becoming an expert patient in staying well.

It is all about you — Know Your Numbers and take action earlier!

The information you have collected since you have been using the iPad and monitors from **Activ8rlives** has built a record presented to you on the iPad in colourful charts.

You will find this in the 'Select Trackers' button on top of the Graphs Page that is shown to you after you have collected your data each day.

Getting support — earlier!

Know Your Numbers can be seen on your iPad. Your Family or Friends can also see **Your Numbers** (but only with your permission) via the **Activ8rlives** website. Instructions for this can be found at the end of this leaflet.

Letting others see **Your Numbers** can be helpful if your family is involved in supporting you in staying well.

Often, we don't notice when our health is declining but those around us do. Staying well is about: "A stitch in time, saves nine!"...





How to Know Your Numbers?

We would like you and your family/carers to start using the charts on your **Activ8rlives** iPad **Lung Health App** to help identify your trends.

For example, if your heart rate is normally between 90 and 105 beats per minute (bpm) when you are well, then this is your normal range.

If your heart rate goes up or down by 20 bpm for example, recheck to make sure it is not an error in recording.

There are many reasons for **Your Numbers** to change significantly such as: walking around, using your nebuliser, laughing, coughing, talking or being anxious.

Therefore, it is very important that you are **relaxed and at ease**; having rested for at least 10 minutes being taking your daily measurements.

Ideally, your measurements should be taken at about the **same time** and **every day** as the measurements may vary at different times of the day. It is easier for you to see your trends if you take daily readings. Missed readings makes it harder for you to see the trends.

Trends are the important thing — not a single number

If despite repeating the measurements your trends indicate that your readings are heading towards the **Amber** or **Red** Zones and an exacerbation, call your Respiratory Team for advice.







What do we mean by Trends?

We want you to know and understand what your trends are so that any significant changes give you an early warning of an exacerbation.

But you do need to compare like-for-like. For example, you will need to compare resting blood oxygen % on Monday AM to resting blood oxygen % on Tuesday AM etc.

This is so you can see your pattern, your normal parameters, your own personal trend and that you get to **Know Your Numbers**.

If you cannot identify a reason why Your Numbers have changed then:

- 1. First take a rest:
- 2. Relax for 15 minutes;
- 3. Then Recheck.

It can take a few attempts over several days to really get used to using your monitoring equipment. So don't worry if you get some odd results to begin with. We can help you get your technique to the standard of a professional!

If your measurements are still different from your normal numbers then:

Look at the bigger picture

Have a look at your other measurements you have taken that day. It may be easier to check them one at a time using the charts page.

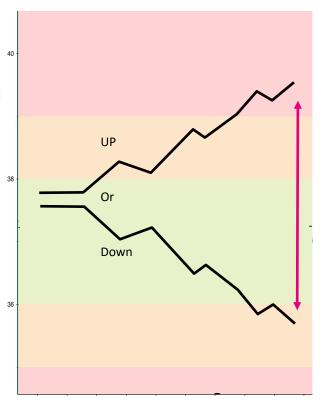
Ask yourself:

- Are any of my other measurements changing?
- If so, are they heading toward the **Red** (slightly pink zone) on the chart?
- Do I feel that I am heading towards another exacerbation?



Weight change chart from the Activ8rlives Lung Health App.





Ask yourself:

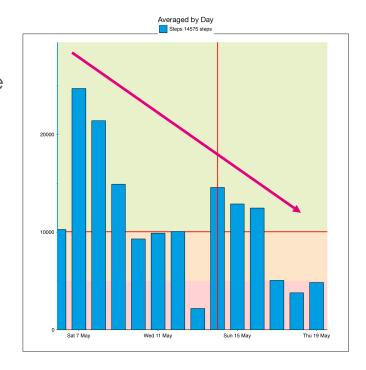
• Is my weight increasing or decreasing over several days?

We often become less active right before we become ill because we just run out of energy.

Changes can sometimes be a sign that you are feeling less well.

Step Count chart from the Activ8rlives Lung Health App.





Ask yourself:

• Is my step count decreasing over a number of days?

Monitoring how active we are and our weight changes are ways to see if we are becoming ill.



How do you interpret Your Numbers?



There are several possible reasons for changes in **Your Numbers**.

Activ8rlives Body Analyser — measures your weight.

Key Warning sign is:

If you have lost more than 1kg in weight over 24 hours.

Ask yourself:

- Have I lost my appetite?
- Am I off my food because I am poorly?
- Take another look at the self-report questions?

Key Warning sign is:

If you have gained more than 1kg in weight.

Ask yourself:

- Have my activity levels reduced?
- Are my energy levels less than normal?
- Do I feel more fatigued when poorly?

Activ8rlives BuddyBand2 Activity Tracker — records how active you are.

Key Warning sign is:

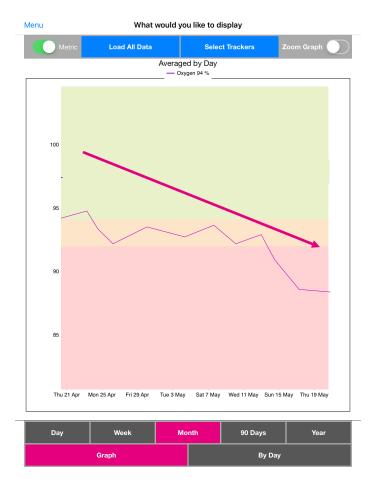
If your step count is decreasing.

Ask yourself:

- Has my activity level dropped over the last few days?
- Are my energy levels decreasing?
- Do I feel ill, fatigued or depressed?



Blood Oxygen chart from Activ8rlives Lung Health App.



Ask yourself:

• Is my blood oxygen % in a downward trend over several days?

This may be important, as an exacerbation comes on gradually. This decrease can be an early warning sign for you.

Heart rate chart from Activ8rlives Lung Health App.





Ask yourself:

• Is my Heart Rate increased significantly over the last few days? This may also be a warning sign to act now and get advice.



Blood Oxygen % — Activ8rlives Pulse Oximeter



Ask yourself:

- Has my blood oxygen level decreased over 2-3 days?
- Am I feeling more breathless than normal?

Key Warning signs are:

Your blood oxygen levels decrease by 4 percentage points (e.g. from 94% to 90%).

Your oxygen levels fall below 90% even while you are on your home oxygen treatment.

Ask yourself:

- Have I just been active? If so rest, relax then re-check.
- Have I got nail varnish on or false nails? Or nicotine stains on my fingers? If so, preferably remove varnish, false nails or nicotine. Alternatively try putting finger in sideways.
- Have I got cold fingers and therefore poor circulation? If so, try to warm hands up gently.
- Does changing the position of my finger slightly in the Pulse Oximeter improve the values (accurate placing of finger is important to get a proper result).
- Am Lunwell?

Heart Rate — measured using Activ8rlives Pulse Oximeter

Key Warning sign is:

If your heart rate is **higher than 110 beats per minute** (BPM) at rest.

Ask yourself:

- Have I just been active? If so, rest, relax then recheck.
- Am I stressed, anxious and worried in anyway? If so, try to relax as being anxious can raise your heart rate. Maybe take it again later in the day.
- Have I drunk more caffeine or alcohol than normal? If so, maybe take your reading later in the day.
- Have I taken my heart medications today? If not, take your medications then rest, relax and recheck later in the day.

Key Warning signs are:

If your blood oxygen is <u>LOWER</u> or your heart rate <u>HIGHER</u> than your usual values and the trend is in the wrong direction.



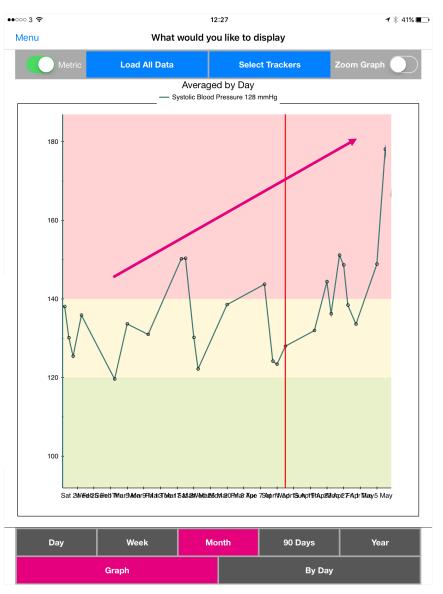
Systolic Blood Pressure

chart from

Activ8rlives

Lung Health App.





Blood Pressure has two numbers: The highest one is the **Systolic Blood Pressure** (mmHg) and lower one is the **Diastolic Blood Pressure** (mmHg).

Ask yourself:

- Is my Blood Pressure beginning to increase?
- Is my Blood Pressure beginning to decrease?
- Am I starting to feel dizzy? Seek advice from the helpline immediately.



Blood Pressure



Key Warning sign is:

If the top reading of your blood pressure (Systolic Pressure) is <u>HIGH</u>, which is **greater than** 150mmHg.

Ask yourself:

- Have I just been active? If so, rest, relax then recheck
- Is the cuff on properly on my upper arm? Make sure the cuff is in a straight line and sits smoothly on your skin between the elbow and shoulder joint.
- Am I stressed, anxious and worried in anyway? If so, try to relax. Being anxious can raise your blood pressure. Maybe take another reading again later in the day.
- Have I drunk more caffeine or alcohol than normal? If so, maybe repeat the reading later in the day.
- Was I talking or moving my arm around when I was taking the reading? If so, rest relax then recheck.
- Have I taken my blood pressure medications today? If not, take your medications then rest, relax then recheck.

Key Warning sign is:

If the top reading (Systolic Pressure) of your blood pressure is <u>LOW</u>, which is less than 90mmHg.

Ask yourself:

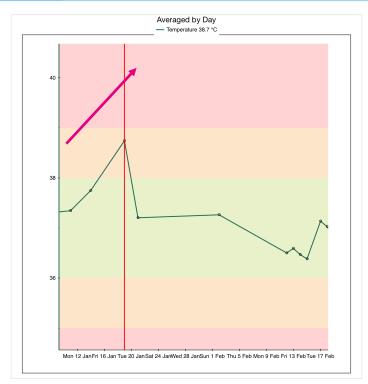
- Is the cuff on properly on my upper arm? Make sure the cuff is in a straight line and sits smoothly on your skin between the elbow and shoulder joint.
- Am I dehydrated and thirsty? If you have not drunk any water for a while, then drink a glass of water and recheck your reading later in the day.
- Was I talking or moving my arm around when I was taking the reading? If so, rest relax then recheck.

Key Warning signs are:

A blood pressure reading which is too <u>HIGH</u> or too <u>LOW</u> (for you) may be an indication that your health is declining. Seek advice from the helpline immediately.

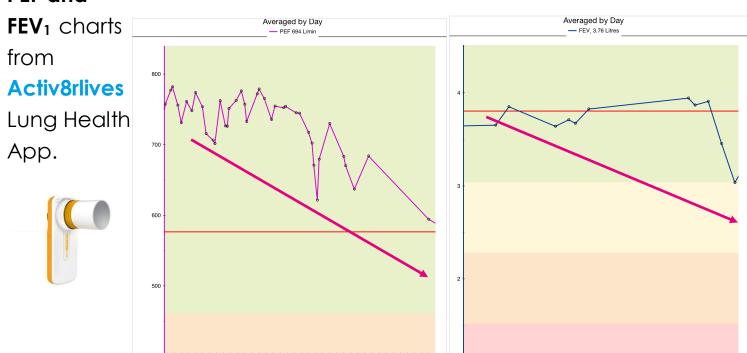


Body
temperature
chart from
Activ8rlives
Lung Health
App.



An increase in your body temperature above 38°C, perhaps combined with other health signs such as lower Blood Oxygen, higher heart rate, decreased energy and step count, or decreased lung function and a perception that you are not at your best, can together, warn that you are heading towards an exacerbation or chest infection.

PEF and



Decreasing Peak Expiratory Flow (measured in litres per minute) in the chart on the left, and decreasing Forced Expiratory Flow at 1 second (FEV₁) which is measured in litres, together with other vital signs that are heading in the wrong direction, are all warning signs to **Act Now**. Acting sooner by seeking advice from the support line can make the difference between being treated in the comfort of your own home or having to spend 7 days admitted to hospital.





Temperature — using the Activ8rlives Contactless Thermometer

Key Warning sign is:

A high temperature can be a sign that you have an infection.

If your temperature is higher than 38 degrees Centigrade (38°C).

Ask yourself:

- Is the room temperature higher than normal? If so, put a fan on rest relax then recheck later in that day.
- Have you got an infection? (Please see "COPD flare up management plan" leaflet for more information)

If your temperature is lower than 36 degrees Centigrade (36°C).

Ask yourself:

Is the room cold?

Key Warning signs are:

A temperature reading which is too <u>HIGH</u> or too <u>LOW</u> (for you) may be an indication that your health is declining.

Lung Function — using Activ8rlives SmartOne Peak Flow Meter

Key Warning signs are:

If your peak flow or FEV $_1$ is <u>REDUCED</u> by 20% (for you) or is declining over a couple of days.

Ask yourself:

- Have I taken my inhalers today?
- Was my blowing technique ok?
- Do I have a chest infection or exacerbation?

Key Warning sign is:

A <u>LOWER</u> than usual Peak Flow and FEV₁ reading for you may be an indication that your health is declining.

0800 073 0236





Remote monitoring online by your Family, Friends or Carers

Having a close friend or a family member looking out for you, using the **Activ8rlives** monitoring technology, can be very reassuring — for you and also for your family.

Sometimes, it is difficult to recognise that we are becoming ill again, or are heading towards an exacerbation. It can sometimes be easier for our family or carers to see what is happening to our health than it is for us to recognise the warning signs.

Also, once we do start to feel unwell, we can often lack the energy to make contact with the **Respiratory Health Team** and having an advocate who can help us get the care and support we need can make a big difference to your health.

How can our Family, Friends and Carers access our recorded Data?

For our trusted friends and family, you can share your data with them. To do this, you can give your account details (your **Username** and your **Password**) for **Activ8rlives** online at **www.activ8rlives.com**

This will allow them to see your data remotely. They can do this anywhere they can get access to the internet.

If you would like to get training for your family or friends, please contact **Activ8rlives** directly (t: **01480 352 821**) and they would be happy to help them learn how to use the system.



Seeing your data on the Website www.activ8rlives.com

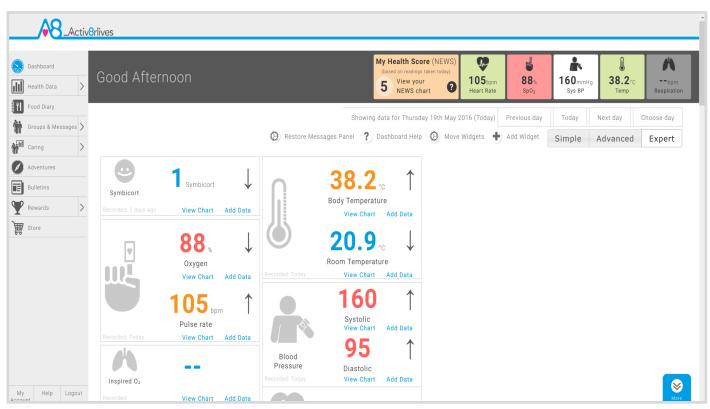
Friends and Family may be able to help look-out for you, even if they live a long way from where you are.

This can be helpful to have another person looking at your numbers to make sure you are alright. Sometimes exacerbations or chest infections can come on gradually. So subtly that we don't notice our declining health. But often this is obvious to other people who know us.

If you want to see your numbers on a website rather than your iPad, you can see them at www.activ8rlives.com

You have to **Login** with your **Username** and **Password** that were written on your information sheet.

If you want to share your numbers with a family member or friend, they can use the same **Login** details.



This is how your data is displayed via the **Activ8rlives** website **www.activ8rlives.com**. The panel on the top right is your **National Early Warning Score** (**NEWS**). Again this uses the traffic light system of colour coding so you can see immediately if some of your parameters are declining.

If you are interested in learning more about **Your Numbers** and how to use the **Activ8rlives Lung Health App** or the website version, please call **Activ8rlives** directly on **01480 352 821** and tell them that Lyndsey from Liverpool asked you to call.





If in doubt, give us a shout!

Knowsley Community Respiratory Service: 0800 073 0236

24 hours, 7 days a week

For technical assistance call Activ8rlives: 01480 352 821

Produced by

Knowsley Community Respiratory Services
Liverpool Heart & Chest Hospital, Thomas Drive, L14 3PE, UK
and

Activ8rlives (Aseptika Limited)

14 Elizabeth Drive, Hartford, Huntingdon, Cambridgeshire, PE29 1WA, UK