



## Useful Apps for COPD Patients

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### The Age Of Smartphone Medical Devices Is Upon Us

With technology becoming such a large part of our everyday lives, it's hard to keep up with the next big thing.

But one thing's for sure: the age of smartphone medical devices is upon us, and this has seen an expanding range of smart phone apps for people with COPD and other lung conditions.

#### What Can Apps Do?

Future smartphones will not only be devices to monitor your health and fitness, they will also be medical devices that record your vital statistics continuously.

Why? With health systems in many countries unable to cope with a growing population and new health challenges, we are now seeing the emergence of monitoring systems to help patients and their carers better manage their disease and doctors to be able to monitor patients from anywhere.

Many companies are now in a race to develop apps that will change the landscape of doctor patient relationships and the way they communicate.

It's also looking like these apps are going to have a big impact on medical research, with apps like Apple's Health Kit and Research Kit getting a lot of attention in 2015. This means your health stats could help improve treatment for people in the future.

This is all great news, but how is going to impact you?

#### What About Apps for COPD?

Depending on the app, there are a number of great uses. The COPD Foundation's app has a clever quiz that asks you questions about your disease and then gives you treatment options depending on what information you've entered. You'll also find information about many different medications, recommended dosages, links, statistics on smoking as well as some general information.

Doctot has similar features to the COPD Foundations app, but it's a little more user friendly and is a partnership with GOLD - Global Initiative for Chronic Obstructive Lung Diseases. The Doctot app isn't free which maybe a deterrent for some people as other apps are free.

Lifemap Solutions are releasing what looks to be a pretty advanced app later this year that will help connect patient and doctor in a way that allows better monitoring of COPD.

Not all apps for COPD are focused purely on physical health and fitness, with My COPD Team a mobile social

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support network for COPD patients. You can share your experiences and ask advice from other patients on how they deal with certain aspects of COPD.

## **Testing Air Quality**

Having the ability to test for exposure risk and air pollutants, such as sulphur and nitrogen oxides, can be invaluable. While the technology to test for such things may at first seem overly complicated, the truth is that smartphone apps and sensors are easy to install and create a better quality of life for COPD patients.

With the nearly instant availability of app software for smartphones, and quick-purchase ordering for add-on sensors, the technology could literally be at the patient's fingertips whenever they have cause for alarm. The ability to perform monitoring from a smartphone device could assist COPD patients with gauging the safety of a new environment and informing them of pollutants when they enter a restaurant, apartment, a friend's house, or even an outdoor venue.

Studies propose that apps could help people with COPD avoid hazardous environments altogether by pulling data from a multitude of sources using sensors. The sensors gather data from several points, compile the information, and then relay that information to the user/patient with COPD.

*Next page: why do we need these apps?*

## **Testing Air Quality**

Data is collected from sensors placed in the environment itself, embedded into the landscape or architecture. The weather forecast is also consulted to display which conditions are expected. The smartphone would also have a sensor attached to it as a peripheral, actively monitoring the environment. Additional sensors carried by the user/patient would be the final source of fresh data.

Taking advantage of these applications would allow people with COPD to not only be aware of the dangers in the environment currently surrounding them, but also receive a warning about environments they plan on visiting in the future. For example, if someone with COPD wants to attend a concert venue, they could see the data streamed from on-site sensors.

The data is compared against the local weather forecast, offering a fairly accurate prediction of the environmental situation, and can assist the user in making a reasonably accurate assessment. Since COPD and weather changes can affect your day drastically, this information is crucial.

## **Do We Need These Apps?**

Apps can be useful tools to help patients better manage their conditions, but whether apps can be user-friendly enough is another question.

Manufacturers are refining their apps to allow patients to enter details about how they're feeling on particular days with these details being sent to doctors so they can determine whether an exacerbation is imminent and what course of action needs to be taken.

The developers should be looking at easy-to-use apps that patients can benefit from either through the information it provides or the information it can send to medical professionals.

## **Will Apps Work?**

With the advancement with technologies one gets the feeling that smartphone apps will change quickly, but whether patients can keep up with the rapid changes is concerning.

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My opinion is that the world of apps maybe a little too soon for some patients and I'm only speaking from what I've seen patients can cope with.

While many elderly patients have transitioned well into modern technology, many haven't and given that a higher percentage of patients with COPD are over 65, I fear that this technology will frighten them off.

While daunting, these new technologies will become a part of health monitoring whether we like it or not. In time generational change will mean that smartphone apps will become accepted and older patients will either have to accept change or miss the boat.

However, in saying that, imagine a world where COPD can be monitored 24 hours a day, seven days a week. This would go a long way towards better management of COPD as well as reducing hospital readmission.

### **Which App is For Me?**

If you decide to enter the world of smartphone apps, then your choice is relatively limited at the moment. Most of the apps available have similar features, with some more user friendly than others.

If you're overwhelmed by the thought then maybe the free app offered by the COPD Foundation is a good place to start, as I've found it easy to use and full of useful information. If you're looking for something more social, then The COPD Team may be for you.

Whether you find this new technological frontier appealing or not, I would urge everyone to at least have a look at what's on offer as one day it will be the new reality.