Chronic Obstructive Pulmonary Disease (COPD)
The Lungs

• You have two lungs

• They sit inside your chest, above your stomach and surround your heart

• The lungs have a very important job inside your body.
When you breathe in, air enters the lungs.

The air enters in through your mouth/nose and travels down your windpipe.

The wind pipe then divides into two smaller air tubes.

One air tube goes into the left lung and one into the right lung (left and right bronchus).

The air tubes then branch out into smaller air tubes (bronchioles).

The air travels through the lungs and enters the body as oxygen.
The Lungs

- The smaller air tubes (bronchioles) look like the branches of an upside down tree. At the end of the bronchioles are tiny little air sacs that look like tiny bunches of grapes, these are called alveoli.

- The air sacs (alveoli) have an important job of giving the good air (oxygen) to your blood and taking the used air (carbon dioxide) out.
The Lungs

You breathe in good air called **oxygen** and you breathe out used air called **carbon dioxide**.

The good air (**oxygen**) you breathe goes into your lungs then goes into your blood. **Oxygen** gives your body energy to work properly.
The Lungs

Chronic Obstructive Pulmonary Disease (COPD)

Healthy

COPD
What is COPD?

COPD = Chronic Obstructive Pulmonary Disease
It is lung sickness that makes the air flow out of the lungs slow. It makes you short of breath.

Chronic = means it won’t go away
Obstructive = means partially blocked
Pulmonary = means in the lung
Disease = means sickness.
What causes COPD?

Obstructive = means partially blocked.

Blockage is caused by:

- The alveoli (air sacs) getting damaged. Not all the air comes out and so there is not enough room for new air to get in. This over stretches the air sacs.

- The bronchioles (small breathing tubes) get swollen. Not much room left for air to move in and out.

- Swollen bronchioles make more phlegm to try and soothe the swelling. The phlegm also blocks the breathing tubes.
What causes COPD?

- SMOKING - 1 in 5 people who smoke will get COPD
- Living and working in smokey and dusty places
- Chest infections when you were a child
- Earlier lung problems.
Signs and symptoms

You may not have all of these symptoms, some might be:

- Coughing for a long time.
- Cough up phlegm.
- Get very short of breath.
- Become tired easily.

You might have only one of these signs and symptoms, or you might have all......... everyone is different.
What doctors need to know?

- Have you ever smoked?
- How long have you been sick?
- Do you get short of breath when you walk?
- Do you cough?
- Do you/have you worked? What type of work do you do?
- Is there a lot of smoke or dust where you live or work?
- Do other members of your family have lung sickness?
What tests do the doctors do?

- Chest x-ray
- Blood tests
- PFT’s - Pulmonary Function Test (Spirometry)
- Oxygen test
- Cough up phlegm test
- Listen to your chest, temperature, pulse, respiratory rate and blood pressure.
- Special x-ray (CT)
- Chest x-ray
There are different levels of COPD

**Mild**
You get short of breath if you work or walk fast and go up hills and stairs.

**Moderate**
You find it harder to walk fast, go up stairs and hills and do jobs around the house.

**Severe**
You can only walk a few steps and you cannot go up stairs or hills. You get tired easily.
Treating COPD: Lifestyle changes

Try and stop smoking, it might take a few tries to stop.

There are medications to help you stop smoking – ask your doctor or health worker.
Treating COPD: Medication

1. **Relievers** (puffers to be used with a spacer)
   - Ventolin Puffer
   - Atrovent Puffer
   - Bricanyl Turbuhaler (not used with spacer)

2. **COPD Medicine**
   - Spiriva handihaler
   - Onbrez Breezhaler

**Relievers**
- Work fast
- Help your short wind, cough or wheeze
- Open up the airways
- Help you cough up phlegm.
Treating COPD: Medication

3 Preventers

- **Preventers**
  - Make airways less sensitive.
  - Reduce swelling.
  - Dries up thick phlegm/mucus.

- Flixotide Puffer
- Qvar Puffer
- Pulmicort Turbuhaler

4 Combination

- **Combination medications**
  - Inhaled preventer and symptom controller. Prevent inflammation and swelling of the lining of the airways and keeps your airways open longer.

- Symbicort Turbuhaler
- Seretide Puffer
- Prednisone tablets
COPD puffer medicine is best taken using a spacer to get more medicine into the lungs.

How to use a puffer with a spacer

1. Remove the cap from the puffer.
2. Shake puffer well and put it into the hole at the end of the spacer.
3. Put the mouth piece of the spacer into your mouth, and close your lips around it. Breathe out gently.
4. Press down on the puffer once to spray medication into the spacer.
5. Breathe in and out for 4 breaths.

- Wash the spacer once a month in warm soapy water.
- Leave it to dry.
- Do not rinse or wipe it dry.
Treating COPD: Physiotherapy

You might see a physiotherapist who will teach you some exercises you can do everyday.

Exercises like hunting, fishing, walking, swimming can make you feel better and help you get rid of the phlegm inside your lungs.

Other exercises can be done with special breathing equipment.

The physiotherapist will teach you different ways to breathe.
Pulmonary rehabilitation is a program for people who have COPD. The program will help you feel better.

Lots of people will work with you to make a good program that will help you feel better.

The program will look at things like:

• Exercises
• Helping you to understand your lung disease
• Good ways to get the best out of food
• Services that may help you to manage better.
Treating COPD: Eating well

If you eat 5 small/soft meals you will have more energy to do more activities and fight off infections.

Your short of breath is not as bad.

People with COPD
- Breathe fast
- Use a lot of energy
- Don’t feel like eating.

If you don’t eat well you will have no energy, become weak, get more infections, and won’t be able to get around.

Your short of breath will get worse.

Try and keep a healthy weight.
Treating COPD: Stress/feeling sad

People with COPD can feel very sad, you might worry about:

- Sickness
- Work
- Family
- Money
- Get scared when your breathing is worse.

How to feel less sad:

- Go out with family and friends.
- Eat small meals.
- Exercise often.
- Get plenty of sleep.
- Medicines may help.
- Talking to people about feeling sad.
Not all people will need oxygen.

Using oxygen can help you:

- Feel better when you wake up
- Have less short of breath when having a shower or walking
- Think better
- Have more energy.

There are important things to remember when you are using oxygen at home:

- No Smoking
- Do not go near gas stoves or open fires.
Working out how sick you are

Feel OK

- Easy to breathe
- Normal amount of phlegm/no bad smell
- Normal medicine
- Not feeling hot
- Eating well
- Normal energy levels.

Feel a little bit sick

Go to clinic or Doctor

- Hard to breathe
- Bit more phlegm/yellow/green/no smell
- More medicine to help breathing
- Bit hot
- Off food/feeling sick.

Feel very sick

CALL AMBULANCE – GO TO HOSPITAL

- Very hard to breathe
- Lots more/dark/thick/smelly phlegm
- Lots more medicine for breathing
- Hot
- Not eating/vomiting.

- You will need to stay in hospital.
- Need oxygen.
- Increase usual medicine.
- Antibiotic medicine in a drip.
- Other medicine.

Use your action plan guide
Some people with COPD will often have other chronic diseases such as:

- Heart disease
- Asthma
- Diabetes.

It is very important to understand and look after these diseases.
Ways to help improve your lungs

- Quit smoking
- Keep a healthy weight. Eat small meals often.
- Stopping getting germs by keeping yourself clean.
- Visit your doctor / clinic:
  - when you are well
  - when you are sick.
- Make sure you get all your immunisations like the flu needle every year.
Why do we need to look after our lungs?

Strong lungs can help you enjoy your life.

If your lungs are sick, it is important to understand the sickness.

You need to know how to look after your sickness.

People with weak lungs can go on to have other problems later in life like heart problems.

Lots of people with lung sickness, spend a lot of time in hospital.
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