Physical activity and Chronic Obstructive Pulmonary disease (COPD)

What happens when you are more active?
As you start to move about the muscles in your body send messages to your brain that they need more oxygen. Your brain then sends signals to the muscles that control your breathing – your diaphragm and the muscles between your ribs – so that they shorten and relax more often. This causes you to take more breaths. More oxygen will be absorbed from your lungs and carried to the muscles you are using to exercise – mainly your arms and legs.

What happens if you become less active?
People who suffer from COPD tend to avoid exercise because they find that they get short of breath when they take part in moderate physical activity. Many people then avoid activities in an attempt to control this shortness of breath.
This lack of activity causes muscles to weaken & weak muscles use more oxygen than strong ones and don’t work as efficiently. This then leads to people feeling short of breath from mild exercise such as walking on the flat - then they avoid further exercise.
The whole body then weakens and people suffer from breathlessness when doing every day activities such as bathing, dressing & even just sitting in a chair.

Remember – the less you do - the less you will be able to do!
Why be more active?
It is very hard when you suffer from COPD to actively make a decision to be more active, because the very nature of being active makes you breathless, but overleaf are a list of reasons why keeping active is so very important.

- Walking is a better exercise as it improves your fitness levels
- It can reduce disability associated with COPD by improving strength and endurance
- It can improve breathing efficiency and exercise tolerance
- It can increase energy levels and reduce fatigue
- It can improve heart and lung Performance – if heart and breathing muscles are in shape they are more efficient and can work with less oxygen – you are stronger and can do more before you feel tired.
- It can help relaxation and sleep and improve mood and general wellbeing.
- It can maintain and increase bone density
- It can enable people to participate in recreational and or vocational activities despite their COPD
- It can help to reduce anxiety about breathlessness.
- It can help to prevent isolation and depression
- It helps prevent hospital admission and reduce exacerbations and chest infections
- Whilst exercising makes sure that you feel moderately to somewhat severely breathless (numbers 3 to 5 on the breathlessness scale of 0 to 10). This amount of strain on your lungs is safe and is necessary to help increase your stamina levels.
Types of Activities

**Cardiovascular / Aerobic** – this type of activity helps the heart and lungs the most. Aerobic exercise uses the body’s largest muscle groups in continuous, rhythmic, sustained movement and requires oxygen for the production of energy. Regular aerobic activity will improve the ability of your heart and lungs to use oxygen efficiently. Types include: walking, home-based circuit programme, any activities that you enjoy that will get you ‘moderately’ out of breath.

**Muscular strength and endurance (MSE)** activities help to strengthen and tone muscles. With improved muscle strength and endurance, less effort will be required to do daily activities because oxygen uptake is more efficient. These types of activities will help to improve posture and reduce falls by improving core strength and stability. Types include: sit to stand; wall press; bicep curls using hand weights or alternatively with milk cartons filled with water.

**Flexibility and stretching** activities are important as part of your overall physical activity because when combined with the aerobic and MSE activities flexibility activities will help to make everyday tasks much easier e.g. putting shopping away, fastening zips, reaching into a cupboard etc. Types include: stretching exercises within the programme.
Personal Goal Setting

Goal setting is a process for personal planning. By setting goals you decide what you want to achieve, and then move step-by-step towards achieving these goals.

The process of setting goals allows you to choose what you want to get out of pulmonary rehabilitation (and out of life in general). By knowing precisely what you want to achieve, you know what you have to concentrate on to do it.

By setting goals, you can measure and take pride in the achievement of those goals. You can see forward progress in what might previously have seemed a long pointless grind. By setting goals, you will also raise your self-confidence, as you recognise your ability and competence in achieving the goals that you have set.

Think about 1 goal you know you can achieve. It may be you would like to be able to take daily walks, or be able to walk further, or get dressed more easily.

I would like to be able to ..........................................................
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Name ........................................ Date .........................

We will re-visit this goal at the end of the programme
Goal review

Date ……………………………

Think about the goal you set for yourself during the Pulmonary Rehabilitation programme.

On the scale below, place a mark at the point where you feel you are at in terms of achieving your goal.

<table>
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<tr>
<th></th>
<th>Not at all</th>
<th>½ way there</th>
<th>I have achieved my goal</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>5</td>
<td>10</td>
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If you haven’t quite achieved your goal just yet, don’t worry – 6 weeks is a relatively short period of time for some goals to be met.

All you have to do is continue to work towards this goal, even though your pulmonary rehabilitation programme is complete – GOOD LUCK!