Liverpool University Hospitals
NHS Foundation Trust

Patient information

Back Pain Management Programme

Pain Medicine Department

Contents

1. About The Back Pain Management Programme (B-PEP)

Why have I been referred to the Back Pain Education Programme (B-PEP)?

You have been referred to the Back Pain Education Programme (B-PEP) at Broadgreen Hospital because your experience of pain is having an impact on your quality of life. Your referrer has offered you this service because they believe that attending B-PEP will help you reduce the impact that pain has on your life.

What does the back pain education programme (B-PEP) involve?

The B-PEP is run by a multidisciplinary team of clinicians from The Pain Medicine Unit who deliver the programme together with particular team members taking the lead at times.

The main aims of the programme are to help you:

- Understand more about how pain works in the body.
- Help you learn more about the different approaches involved in managing pain.
- Advise on managing medication.
- Support you to recognise lifestyle patterns and make some helpful changes.
- Provide specific advice about movement and gradually returning to activity.
- Set achievable and meaningful goals.
- Teach you coping strategies to help you work towards your goals.

Who runs the back pain education programme (B-PEP)?

The programme is run by a team of pain specialists including:

- Pain Consultant – who oversees the medical assessment and treatment plan for patients.
- Specialist Pain Nurse – assesses and supports treatment plan for pain and can advise on medications as well as non-medical strategies.
- Clinical Psychologist – supports patients to address the psychological impact of pain and advises on coping strategies to work towards their goals.
- Physiotherapist – assesses and advises on how patients function with pain and advise on how to increase activity safely.

2. What is chronic back pain?

Back pain is a common problem – affecting four out of five adults at some point in their lives. It may impact on your health, employment and quality of life. Back pain is known as ‘chronic’ when it lasts 3 months or more.

Definition of pain

The official definition of pain is ‘An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms such as damage’.

This definition is important to be aware of as we will further explore:

- ✓ The **sensory** aspects of pain we feel such as an ache, shooting or sharp pains.
- ✓ The emotional impact as pain can make us feel concern, upset, anxiety and low mood when in pain.
- ✓ How the pain science tells us that what we feel in our senses and our emotional response does not always match the amount of tissue damage.

Pain can be felt even if there is little or no damage

- People with only minor tissue damage can experience severe pain that feels disproportionate to the damage caused. For example, a paper cut or knocking your ‘funny bone’ on your elbow or biting your tongue.
- Some people even feel pain at the thought of something like the dentist or seeing someone else fall over.
- There is also the famous case of the builder admitted to hospital with a nail through his boot who was given lots of medication to help the severe pain he reported before realising the nail went in between his toes.

Even when there is tissue damage, a person might not experience pain

- There are many stories from soldiers at war who sustained a severe injury, even losing a whole limb, and yet they reported little or no pain at the time.
- Similarly, where severely burnt people have run back into burning houses to save children and again, did not report any pain at the time.

Acute versus chronic pain

Short lasting (acute) pain usually has a clear cause and is limited in duration. It makes us respond to and protect the painful part which is helpful in aiding recovery. However, persistent (chronic) pain, that is not related to on-going disease, is no longer helpful for your body to respond to even though continues to be experienced.

Why do we need to feel pain?

Pain is very valuable and necessary as part of the body's protective system. Pain is normal, it protects you and alerts you to danger, usually before you are injured or injured badly. Pain can cause you to move differently, think differently and behave differently in order to 'protect' ourselves from further pain and damage. For example, if you twist your ankle, you wouldn't go out running for a while.

While the pain protector response is helpful in acute pain, it is not helpful for chronic pain as trying to avoid things due to pain can start to mean we become less active, less confident and more depressed about what we can no longer do.

How is pain processed in the body?

Even though you might not be aware, your brain and spinal cord (central nervous system) are monitoring what is going on in your body all the time. For us to feel pain, a message must travel from the part of the body under threat to the brain. This message is carried by nerves; our electrical wires. This message is processed by the brain and it 'decides' whether we need to be alerted to a 'threat'. If the brain decides pain is an appropriate response, we will feel pain.

Why does it become chronic?

In some people, what starts as acute pain injury can turn into chronic pain. For others, chronic pain can develop even when there was no injury to trigger it. The latest pain science tells us the central nervous system becomes heavily involved in producing pain signals because it thinks it needs to keep warning you even when it does not. What may have been a 'quiet road' in your body is now a superhighway of signals. This is also known as increase sensitivity – activities that did not hurt you before are now painful. It is like the alarm/protection system is faulty.

Research suggests that pain persists due to:

- **Sensitivity:** Changes in nerves which carry messages about pain to the brain: nerves can become hyper-sensitive so even light touch is interpreted as pain. This is a common symptom of chronic pain.

- **Memory:** Our brain remembers pain and can cause us to feel pain when we reproduce a previously painful movement based on stored memory of past pain. **Reminder us to take care in future – to avoid touching that hot kettle again**

- **Representation:** Our brain contains a map representing the body. The more we use a certain body part, the larger the representation of that part on the map. In chronic low back pain, the area representing the lower back can become larger in the brain and can even take over other areas of the body map. This means movement from other body parts can result in pain felt in the low back.

- **Emotion:** Having pain that stops you doing things you enjoy is associated with low mood, decreased activity and fitness, and increased stress and frustration. All of these factors can lead to increases in the pain experienced and continuation of the pain.

It isn't all in your head….

Being told there is more danger at the tissues than there actually is can be difficult to believe because we are so used to responding to pain. Having chronic pain also does not mean it is all in your head or a psychological problem.

It is important to know it is possible to 're-wire' the nervous system to become less sensitive to painful activities – **this can be achieved by changing how you respond to pain and developing a toolbox of self-management skills as learned on this programme!**

What else contributes to back pain

- Poor posture.
- Lack of exercise resulting in stiffness and deconditioning.
- Muscle spasm.

Conditions such as:

- **Spondylosis** – similar to Osteoarthritis.
- **Sciatica** – leg pain caused by nerve irritation.
- **Stenosis** – legs usually worse when walking.
- **Disc prolapse** – Back pain and numbness, tingling and weakness in legs.

You may have had a diagnosis of one of the above conditions which is contributing to your pain as well as sensitivity of the nervous system which will we will explain more in the next chapter.

Why don't my scans show how much pain I'm in?

The amount of pain you experience does not necessarily relate to the amount of tissue damage you have or haven't sustained.

Scans show us a picture of the bones and tissues in your spine, but they do not show us how the wires are working. These scans are not able to show pain messages.

What is happening in your tissues is just one part of the complex pain experience.

Consider this in the context of low back pain:

- Research has shown us the amount of pain a person experiences rarely fits with the amount of tissue damage shown on a scan.
- In fact, many people have large disc bulges or compressed nerves and yet never experience any pain from it. At first, this may seem concerning, however, many of these tissue changes are just a normal part of life and do not have to result in pain.

There are many factors involved in the pain experience, but it is the brain that decides whether something hurts or not, all of the time.

I've tried medicines and interventions but I am still in pain – why?

- **Pain medications** can be very helpful for acute pain and inflammation but rarely very helpful for chronic or persistent back pain.

- **Spinal injections** do not always work and their effects are never permanent. There are also risks of rare complications such as infection, bleeding, headaches, nerve injury, allergic reactions and increased pain. Injections can open up a temporary window of relief to help progress your activity and exercise levels.

- **Spinal surgery** also carries some risk of complications. Some people continue to have symptoms after surgery, or develop symptoms again within a few years. Surgery is a last resort for when there is a clear indication that an operation is needed.

- The main reason spinal operations are not effective and some patients experience continued pain afterwards is because the part that was operated on is NOT in fact the cause of the pain.

Back pain myths – Chartered society of physiotherapy (accessed April 2021 https://www.csp.org.uk)

Busting myths and reinforcing what is the latest evidence says is best for your back.

- **Myth:** Moving will make my back pain worse

  Fact: Don't fear twisting and bending – it's essential to keep moving. Gradually increase how much you are doing, and stay on the go.

- **Myth:** I should avoid exercise, especially weight training

  Fact: Back pain shouldn't stop you enjoying your exercise or regular activities. In fact, studies found that continuing with these can help you get better sooner – including weights where appropriate.

- **Myth:** Pain equals damage

  Fact: This was the stablished view but more recent research has changed our thinking. Modern physio takes a holistic approach that helps people understand why they are in pain.

How can self-management help me?

Self-management approaches for chronic pain include non-medical strategies you can apply to help you cope and improve your quality of life living with your symptoms. Self-management approaches require you to make some active changes to your lifestyle. Unlike medicines and interventions, developing your own 'tool box' of self-management skills can empower you to take an active role in your own health care.

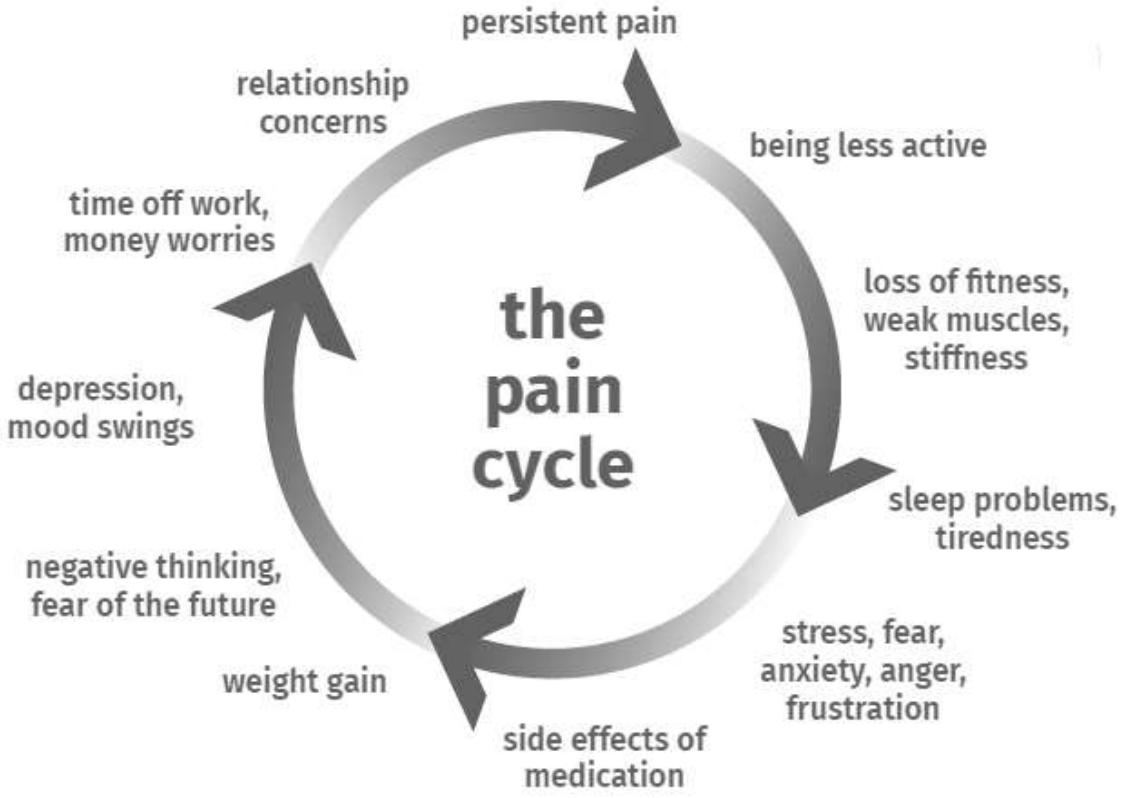
We know from the research that chronic pain is processed in the central nervous system (your brain, spinal cord and nerves). This system is influenced by what goes on in the body and what happens outside of the body. Some of the psychological and social influences on our central nervous system can be helpful and unhelpful. For example, you may have noticed that when you need to go to an appointment, the increase in activity can worsen the pain.
You may have also noticed stressful experiences can increase the pain. By starting to identify other factors that affect the 'volume' of the pain, we can find helpful ways to manage it.

Research shows that self-management approaches can improve quality of life for many people living with pain. Even though self-management approaches are not a medical treatment, changing your behaviour and attitude towards the pain can have direct benefits to your central nervous system to help 'turn down the volume' the pain messages.

The pain cycle

We know from research and clinical experience medical approaches to pain management are limited. You may also have had the experience of hoping a treatment will help you to only be disappointed when the improvement in your symptoms was not as good as you hoped. We also know that having pain for a long time can start to bring about other problems and can start to form a 'vicious pain cycle' that is difficult to break as shown in the image below.

Unhelpful Pain Cycle (From Live Well With Pain 2019)



This vicious cycle shows there are many issues that need addressing other than pain in order to start to break this cycle and develop a helpful one. By attending pain management programmes such as this, it is hoped that you will develop and apply strategies that aim to reverse some of these effects of pain.

The self-care cycle (from Live well with pain 2019)

The research shows that self-management approaches to pain are the most successful for improving quality of life for the long term. This includes a range of methods such as pain management physiotherapy, cognitive-behavioural therapy, mindfulness, developing a flare up plan, lifestyle changes, valued goal setting or accessing support in the community to become gradually active. Where possible, your GP and pain clinic staff will discuss how to effectively manage any pain relief that you may be taking.

It is known when we start to make helpful changes to our lifestyle and access support such as this pain management programme, we can start to develop helpful self-care cycles such as shown in the image below.

Helpful pain cycle (From Live Well With Pain 2019)

Can you start to identify how you would like to develop a self-care cycle? Please write down any ideas here:

……

……

……

Making changes and valued goal setting

We often find that pain interrupts what is most important to us. For example, pain makes it more difficult to be around others even if we want to spend time with them. Pain can also stop us from going out or being as independent as we would like.

On the programme, you will be asked to think about what is most important to you and to set some goals around that. For example, being able to go out of the house more, spending time with family, being able to cook, exercise or feeling happier and less irritable.

Adapted From Live Well With Pain (2019)

It is common for goal setting to feel overwhelming at first as you might think "where do I start?" or "but I'll never be able to achieve that". It is normal to think in this way and we will spent time on this programme helping you break down your goals into manageable parts. We find using the '**SMARTER**' goals approach helpful. The following page provides an example of how we apply this in pain management. There is also space for you to add your own notes.

When setting goals, useful points to remember are:

- ✓ Goals should be meaningful and improve quality of life.
- ✓ Goals need to be realistic and achievable.
- ✓ Goals should be able to be easily broken down into achievable small steps.
- ✓ It is okay for goals to change over time.

- **S**pecific What **exactly** do you want to work on?
  e.g. walking further, cooking a meal from scratch, improving my mood by going out more.

My specific goal is…….....

……

- **M**easurable It is important to be able to measure what you are doing
  e.g. Do X for **ten minutes** or do X **three times a week.**

  I can measure it by……..……

- **A**chievable It is important to set an achievable goal. Am I 80% sure that I can do this?

- **R**elevant It is important that your goal is relevant to you and you get a sense of enjoyment and/or achievement when you have done it.

What are my values behind this goal?……..……

……..……..……

Time frame When would I like to achieve this by? E.g. in two months' time?

……

Evaluation It is important that you review your progress regularly.

When and how can I evaluate how I am doing with my goal?

……..……

Reward Remember to recognise and reward small achievements.

What can I do for myself as a reward?

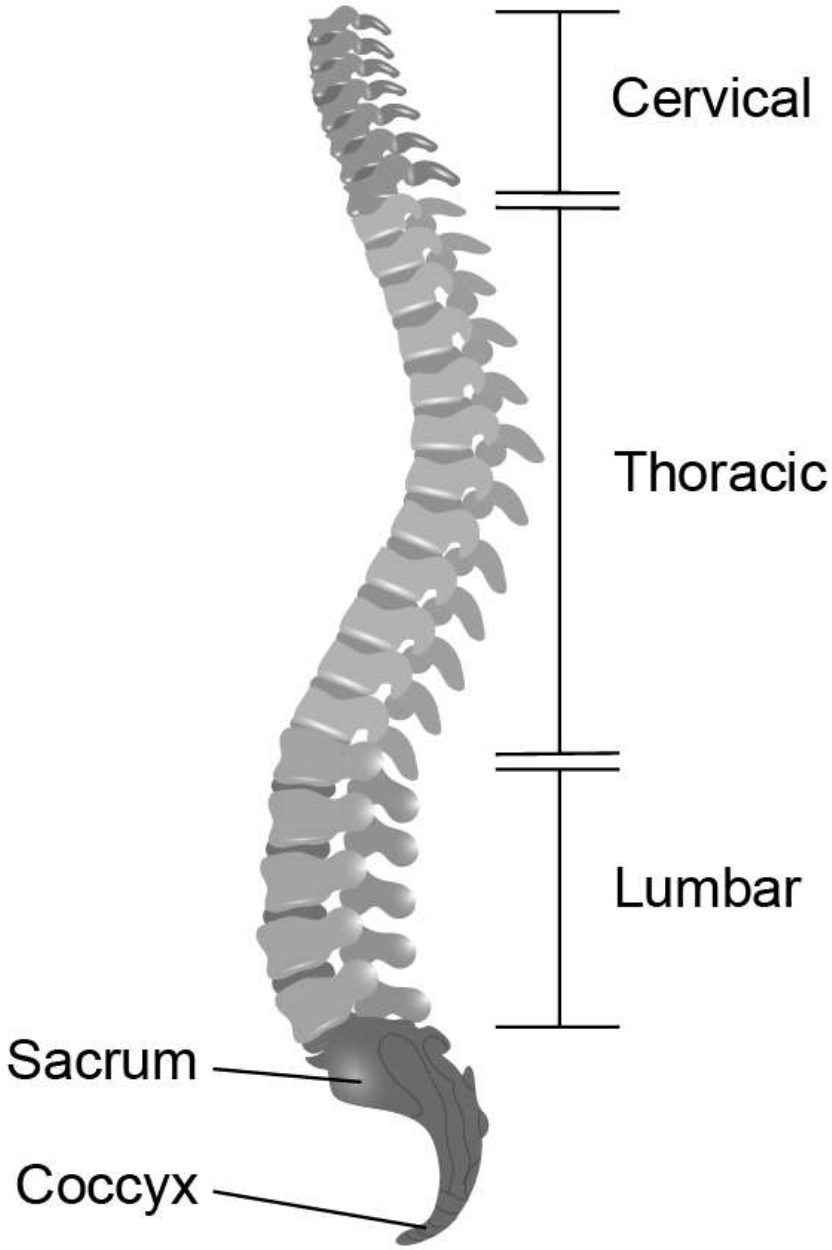
……

Back anatomy and diagnoses

The spine

Your spine is one of the most important parts of your body. It gives your body structure and support and it allows you to move about freely and to bend with flexibility. It is one of the strongest parts of the body and can sustain weight but can get stiffer as we get older. Keeping your spine healthy is vital for keeping active and well.

The adult spine has a natural S-shaped curve which allows for an even distribution of weight. The lower portion of your spine holds most of the body's weight, but each segment relies upon the strength of the others to function properly.



It is made up of:

- 24 bones (Vertebrae).
- Discs – tough shock absorbers.
- Strong ligaments.
- Strong muscles for support.
- Facet joints for flexibility.
- Nerves which pass through spaces between vertebrae.

The spine also protects your spinal cord. The spinal cord is a column of nerves that connects your brain to the rest of your body, allowing you to control your movements. Without a spinal cord you could not move any part of your body, and your organs could not function. The spinal cord is also part of the communication system in the body for pain processing.

Diagnoses

There are some spinal conditions that are associated with chronic back pain.

- **Spondylitis** – Can also be known as Spinal Osteoarthritis. It can affect lumbar (low back), thoracic (middle back), and cervical (neck) regions of the spine. Although ageing is primarily the cause, the location and rate of degeneration is individual. The lumbar region is the most affected because it carries most of the body's weight, therefore symptoms such as pain can occur. When a person suffers from lumbar spondylosis, there can be changes in the joints, discs and bones and tissues. A person with this condition may also experience joint stiffness, which can limit motion.

- **Sciatica** - Sciatica is when the sciatic nerve, which runs from your hips to your feet, is irritated. You may feel your bottom, backs of your legs, feet and toes. You may also notice other sensations like tingling, 'pins and needles', numbness or weakness.

- **Stenosis** - back pain that can be linked with pain in the legs that starts after a few minutes' of walking and tends to get better when you sit down. This can happen from birth or develop as we get older. This causes the spinal canal or nerve root canal to become squeezed by bone or ligament. Symptoms often affect both legs but one may be worse than the other. The pain usually eases when you sit down and rest, and some people have less discomfort if they walk a little stooped. Like sciatica, the main problem tends to be leg pain more than the back pain.

- **Slipped Discs** – we have spinal discs separating the vertebrae in our backs and acting as shock absorbers. Despite the name, discs don't actually "slip" out of place. A disc bulge, prolapse or herniation can put pressure on our spinal nerves, which can lead to pain in the back and the area controlled by those nerves. A disc problem can resolve completely without any intervention. Not all slipped discs cause symptoms. Many people will never know they have a slipped disc.

- **Degeneration –** MRI scans of our backs often report 'degeneration' which can also be described as 'wear and tear'. These are normal age-related changes and are common, even in people without pain. Just like wrinkles in our skin, they should NOT limit what we choose to do in our lives!

Motion is lotion

You may have had a diagnosis of one of the above conditions and had other interventions in the past which may or may not have helped. What we know from research is that **Motion is Lotion** for all of these painful conditions. Too much rest means people stiffen up and get more pain overall. Moving regularly keeps joints and soft tissues more flexible and less painful.

It is understandable why you may think “but when I sit my back feels ok and when I get up the pain is terrible” In order to manage this, research shows by resting less and moving more, we can ‘retain’ ourselves to balance this better.

Soft tissues – ligaments, tendons, muscles – will shorten and tighten if not moved through their full range regularly. If those soft tissues are inflamed, they will also become more swollen when held still. When those inflamed tissues are moved again, it will feel painful for the first few movements.

When sore, inflamed tissues are moved gently and regularly in a non-aggravating way, they will actually become less painful. This is true at the time of doing the movement, and also for the overall condition. Many patients with back pain have learned that regular daily, appropriate, exercise is a good way to manage their painful symptoms.

6. Medication management

Medicines are often prescribed to manage chronic pain. The aim is to help manage some of your pain symptoms but complete relief is not usually possible. As you have learned earlier in the programme, pain involves many complex processes and unfortunately there is not one ‘super pill’ that can resolve all of it.

There are a wide range of medicines available which you may have tried or are still taking. Ensuring safe and effective use of medication in conjunction with other strategies will help you opitmise your pain management and improve your quality of life.

You may already be aware that medication has limited uses in the management of chronic pain for many reasons which we will discuss on this programmme. It can be helpful to consider medication as ‘one slice’ of a whole pain management cake and there are other slices needed to make a ‘whole’ approach. Pain relief is prescribed as a means to help create a window of opportunity to help improve your functioning whereas there are many other factors for your pain management. For example, as well as optimising your medication, it is important to make helpful changes in your life style, building in movement and activity to your routine and managing stress. Medication on its own is not as effective for moving forward with your overall pain management.

On the programme, we will be encouraging you to consider which medications are not helping as well how you can lower the risks from side effects. It is normal for this suggestion to be anxiety provoking at first however many of our patients feel the benefits of reducing medication soon enough and with the self-management skills taught on the programme, you may feel more confident in reducing…

This section will give you information about the different types of medication used, the potential effects and side effects. As professionals, we are unable to predict whether a medicine is effective or not, that is down to your body’s unique response. Having enough of the right information about medicines will allow you to make informed choices and continue management.

Types of medications

These can be divided in to several categories. Within these categories are the names of different drugs, however the aim is still the same no matter what the name of medication is.

- **Non-steroidal Anti-inflammatory Drugs (NSAID's)**

  Examples: Naproxen, Ibuprofen, Diclofenac, Celecoxib

These are used to have a lasting analgesic effect and to reduce inflammation in the tissues after damage. Sometimes NSAIDs are prescribed for people with chronic pain for particular conditions. Pain can sometimes reduce after a few days of taking the medicine, however if effect is not noticed after about three to four weeks then another NSAID can be tried. It is thought about 60% of people will respond to an NSAID's. For certain types of pain, it is better to take this medication during a flare up rather than regularly.

There is an increased risk of a having a myocardial infarction (heart attack), stroke or gastro-intestinal (stomach) ulcers / bleeding if you take these regularly. The risk increases the higher the dose and the longer length of time you take them. There are many other side effects with taking these medications which, the benefits and risks should be discussed further with a medical professional.

It is therefore recommended that you take the medication at the smallest dose and for the shortest time possible.

- **Antidepressants and anticonvulsants**

  Examples: Amitriptyline, Duloxetine, Gabapentin, Pregabalin

Some medicines we currently use for pain have previously been used to manage other symptoms such as depression or epilepsy. These medications can also be used to help manage neuropathic (nerve type) pain. They work on the nervous system by calming down misbehaving nerves in your body. They can take up to several weeks to have an effect and it is important to give the medication enough time to see if they reduce your pain. The doses are often increased slowly depending on the effects and side effects. So as when you start the medication, if you decide to stop them they should be slowly reduced in dose and then stopped.

It is important to remember you are prescribed this type of medication because you have nerve type pain and **not** because you are depressed or anxious. However people with chronic pain can often find it difficult to cope or feel low in mood. The combination effect can sometimes be helpful.

There are many side effects to taking these drugs. The common side effects are dizziness, drowsiness and disorientation; however these can sometime reduce or settle with time. Antidepressants like Amitriptyline / Duloxetine can often cause a dry mouth this does not tend to improve. Anticonvulsants like Gabapentin / Pregabalin can cause an effect on your mood and stimulate your appetite (make you eat more). If you do experience any of these effects, you must discuss this further with your GP

- **Opioids – morphine type medications**

  Examples: Codeine, Dihydrocodeine, Tramadol, Morphine, Oxycodone, Tapentadol

Opiate medication is used to manage moderate to severe pain; they are not particularly helpful for neuropathic type pains. Morphine based medications affect the whole nervous system (your brain and spinal cord) which is why they are associated with a range of side effects that can be dangerous. Ideally, these medications are prescribed for the short term which is why they are often used in hospitals to treat pain after injury or surgery. For some people, they are prescribed for chronic pain.

Research shows repeated and prolonged use of these medicines can cause physical dependence and addiction, reduce your ability to fight infection and alter your sex hormones. In the short term, they can cause constipation, which is often a trigger for a flare-up of abdominal or pelvic pain, and this side-effect does not decrease with time. Many other patients report feeling 'out of it' or noticing memory problems.

Over time your body will become tolerant to the morphine type medicines. When this happens, increased doses need to be given to have the same analgesic effect. Taking large doses of a medication you are dependent on is dangerous. GP's are not always happy to continue to prescribe these drugs and they can cause problems with permission to drive or travel abroad.

Imagine your morphine receptors like tea cups. Imagine the dose of morphine as a pot of tea. You will have a certain number of tea cups which are filled up with tea (morphine). The body soon starts to adapt to the morphine entering the body and creates more tea cups wanting to be filled. But you've only a certain amount of tea in the pot. This means you need more tea to get the same effect i.e. higher dose. Then the same process starts again even when the dose is increased.

You must only take your prescribed dose and no extra. It is important you regularly assess whether these drugs are helping to reduce some of you pain otherwise there is no benefit in taking them. Regular contact with your prescriber is recommended in order continue safe management.

Limits of pain medication

You will be aware pain medication has limitations and does not fully take away the pain. It is also well known that medicine which worked at first are less effective over time. The best way to manage a sensitive nervous system is to develop strategies to improve how you function with the pain and your own response to it. Evidence shows changes in your behavior can make physical changes in your brain.

When using high amounts of pain relief, you may find it is difficult to get benefit when you need pain relief during a flare up. By considering how much, how often and when you take your medication, you can help develop a regime that works better during a flare up it. Remember, feeling the need to keep increasing your pain relief might suggest that it is not working for you.

Making changes to my medication

When you have been using pain medicines for a while, it is likely a health care professional has discussed where you may wish to consider switching medications and reducing it. It is understandable that this conversation can be stressful when you have pain as it may seem like medication is your only option. It is our aim as pain clinicians to support you to bring your medication regime to a 'optimum' status. This means you are gaining benefit from what you are taking at the time and the long term effects are minimised as much as possible.

When it has been suggested that you start to reduce medication, it is important to be aware that this needs to be done gradually and at a pace that works for you. Starting with one medicine at a time is the best approach. We advise you choose a good time to start so you are not reducing just before you are due to go on holiday or when you need to attend a wedding etc. We also advise you are supported to develop self-management skills for pain to help you feel more confident in managing on less medication.

It is important to take responsibility for what you are taking. Make sure you know the names and doses of your medication and also familarise yourself with the side effects so you know what to monitor about your health.

Management or changes to medication should be done with the help of your GP or who prescribes them.

Support with medication

Your GP is usually the prescriber for pain relief and is responsible for monitoring how you are responding. When a consultant makes a recommendation at the pain clinic, it is your GP that continues to prescribe the medication for you. It is important to discuss your medication regularly with your GP and they can also support you in reducing it.

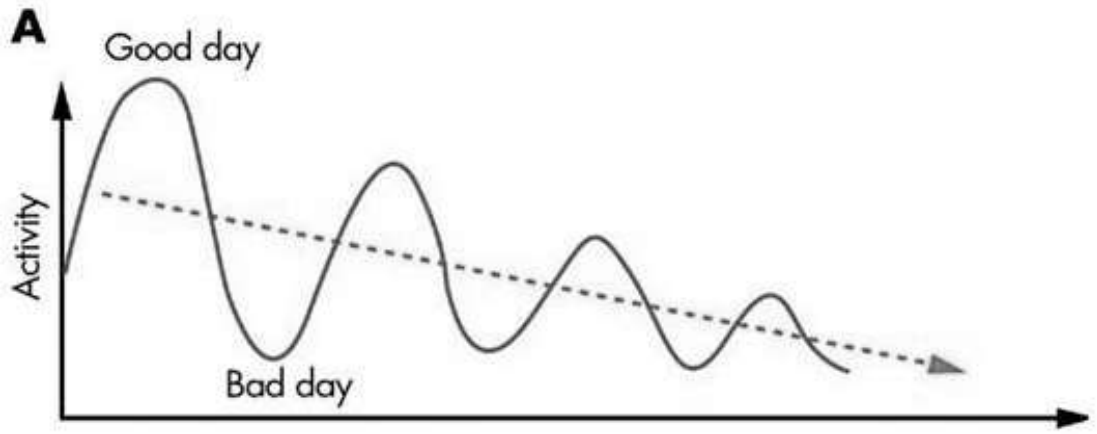
On this programme, you will be learning about other options to manage pain in addition to medication. Applying other strategies to manage pain and improve quality of life can help us feel more confident about making changes to medication. Many of our patients tell us that they often feel much brighter having reduced medication and that their pain did not increase.

7. Strategies

Below are the key strategies we will discuss on the programme that aim to help you develop a toolbox of skills to help you work towards your goals for a better quality of life living with pain.

➢ Pacing

Pacing is a gradual approach to changing a person's activity. This may involve building on what they can presently comfortably achieve or to limit overactivity. Pacing means balancing activity so the day is divided into periods of rest and activity. It helps people to manage the day better and, by keeping to a planned target, means they are more in control of how much they do.



Pacing also means doing the activity whether feeling good or bad, not doing too much and not doing too little. The aim is to maintain an even level of activity over the day and week. From this, you can start to build up activity as we will explain later.

Pacing makes activities led by time or number of repetitions rather than being determined by your pain. If we were to use pain as a guide as to when to stop, it could lead to either underactivity as we may feel pain soon after starting, or we could continue doing something that feels fine at the time, but then pay for our overactivity with increased pain the next day.

- ✓ **Prioritise -** Decide the most important things that need to be done. That is, what has to be done immediately and what can wait until another time.
- ✓ **Plan -** Plan activities so that difficult ones are spread out and not done all in one go. Decide what order to do things in and whether you need help to do them, or need to do them in a different way.
- ✓ **Tolerance level** - Work out your baseline level or time level for each activity in your plan, that is, how much of the activity can be done without overdoing it.
- ✓ **Evaluate** - Stick to the plan. After several days carrying out this plan you should look back and decide if any changes need to be made.

This pacing principle can also be applied to any activity including exercise, particular movements or walking. Rather than follow the 'no pain, no gain' principle of exercising, or stopping as soon as you feel any pain, start with an easily manageable baseline. Build up your exercises, first with the guidance of the therapist, then gradually learn to do it for by yourself.

➢ Movement and desensitisation of the central nervous system

The longer you are in pain the weaker the actual link between the state of your tissues and pain becomes. Our pain system can become overly sensitised, sometimes, even after an injury or disease process has healed, sensitised pathways continue to send signals to the brain. These signals feel just as real and sometimes worse than the pain caused by the original injury or disease process, but our pain system is dynamic and can be changed.

Research into how pain is processed in the brain has shown differences between people with chronic low back pain and those without pain.

People with back pain who are subjected to a 'pain experiment' in a laboratory experience more pain for longer and display increased activity in pain-related areas in the brain. This gives us scientific evidence to show that people with pain are 'sensitised' to pain and that treatment should aim to 'desensitise' their nervous system.

How can I start to desensitise the nervous system?

Movement and activity

On the programme, we will encourage you to set an activity based goal. Although this may feel daunting at first, this can be broken down into manageable parts. For example, some people start with gentle stretching and movement then building up to a functional activity like walking. This can then help you feel more confident about being able to try exercises that will help like swimming or going to the gym.

By approaching activity in this graded way, we can start to desensitise the nervous system to be able to tolerate more without exacerbating the pain. Our team will help you start to plan how this would fit in with your goals.

A supervised training program has beneficial effects on physical capacity and aids desensitisation. The exercise regimen should begin gradually with low load and low impact activities, and while pain should be acknowledged, its presence should not drive the direction of the program.

This approach to activity

- enables you to safely and slowly get going again
- allows you to see that you're able to do more without making your pain worse
- allows you to start easy and build slowly.

Small, slow steps lead to bigger, faster steps! Everyday activities should be broken down into smaller, more manageable blocks. This approach focuses on how much was accomplished in a given timeframe. The aim is to reframe your mind set from pain-focused with function limited to function-focused with pain respected.

Setting baselines

In order to have an effective pacing plan we need to be able to work out where to start for each activity. This is called setting a manageable **baseline**, which is the amount of an activity someone can easily manage.

Once the baseline has been worked out it will enable you to start at a level that is manageable. To work out baselines, three measurements of the activity you would like to build up needs to be made:

1. How much you can manage of this activity on a difficult day = **Measure one**
2. How much you can manage of this activity on a better day = **Measure two**
3. How much would be a realistic compromise between **Measure one and two = Measure three**

Read through the example below of baseline setting for walking:

- Choose the best time of day to walk and select a good place to start.
- Using time (in minutes) can be a good way to measure walking activity.
- Walk at your own pace for the set time decided for Measure three . You may have to make an educated guess at this stage, but use your knowledge and experience of roughly how much is manageable.
- Record the amount of time you have managed.
- Assess if this was manageable – if you feel you pushed yourself, you may need to do a little less next time. If it felt too easy, try building in a little more.
- Stick to this measure three regularly, e.g. for a week or two .

Going forward:

- ↑ Stick with your baseline activity level on good and bad days i.e. don't be tempted to do more on a good day.

- ↑ If you have managed to achieve your baseline on most days over a one or two week period, then you can increase your baseline activity by 10-20%.

- ↑ Applying this to the previous walking example, if you have managed to achieve a ten minute walk several times a week for one or two weeks, you could then increase this by 10-20%. So in this example, you would aim to walk for 11 or 12 minutes several times a week.

The baseline activity should only be increased by a small amount so as to give the body time to get stronger/more flexible. These small increases are less likely to result in flare-ups from progressing too quickly.

If you do experience a flare-up from increasing your activity level then you can go back to the previous level and stay there for a while longer before increasing, or you can increase it by a smaller amount.

Stretch

The following pages show exercises that are useful for low back pain. There are three options for each exercise and it is important to start out at a level that is right for you. (Used with permission from 'Back Skills', University of Oxford, Accessed 2019).

As practiced on the programme, start with what is **manageable** for you. Try to get in the habit of recording how often and how many to give you an idea of your **baseline**. When stretches start to feel 'easy', you can start to increase the amount you do and how often. Remember in a flare up, you may need to reduce repetitions slightly and then get back on track.

Back Twist

This is a movement the back likes to do but often gets stiff when activities are limited due to back problems. Doing this gentle stretch allows the back to move more normally.

Option One

Lie on your back with both knees bent and your feet flat on the floor.

Your arms should be relaxed and slightly away from your body.

Slowly let both knees fall to one side, bring them back to the middle and repeat to the other side.

Baseline:

Option Two

Lie on your back with one knee bent with the foot on the floor, and the other leg straight.

Relax your arms and place away from your body.

Slowly let the bent knee fall across the straight leg.

You can use your hand to help pull the knee down closer to the floor.

Bring your knees and arms back to the middle and repeat to the other side.

Baseline:

Option Three

Sit on a firm chair.

Use your arms to start the movement and slowly twist your back around as far as you can so that you are looking behind you.

Repeat to the other side.

If this is comfortable and you want to make the stretch a bit stronger, use your hands to hold onto the back of the chair.

Baseline:

Back Bending

We are often told to avoid bending when we have back pain but this is not helpful. Our backs like to bend but if we have lost this movement it can be uncomfortable. Slow stretching into this movement eases twinges, enabling normal movement.

Option One

Lie on your back and bring both knees up to your chest with your legs bent.

Hug your knees into your chest so that your back has a good stretch.

Relax your arms and repeat.

Baseline:

Option Two

Sit on a firm chair, with your legs apart.

Slowly bend your head and back forwards, sliding your hands down the front of your legs.

Bring yourself back upright and repeat.

Baseline:

Option Three

Stand with your feet hip width apart with your knees slightly bent.

Slowly bend your head and back forwards, sliding your hands down the front of your legs.

Bring yourself back upright and repeat.

Baseline:

Back Arching

We spend a lot of our day doing activities in a bent forwards position. Arching our backs in the other direction can improve our suppleness, meaning we are less likely to get twinges during everyday life.

Option One

Lie on your tummy with your elbows bent, hands and arms flat on the floor.

Push up with your hands and forearms so that your chest is lifted off the floor and your back is slightly arched. Your hands and forearms stay flat on the floor.

Lower yourself back down and repeat.

Baseline:

Option Two

Lie on your tummy with your hands on the floor by your shoulders, elbows bent.

Push up with your arms until your elbows are straight.

Your hips should stay on the floor as your back is arched.

Lower yourself back down and repeat.

Baseline:

Option Three

Stand with your feet hip width apart, hands on your back just above your bottom.

Slowly move your shoulders back and your hips forward as you arch your back.

Bring yourself back upright and repeat.

Baseline:

Hamstrings (back of thigh)

If you have not been as active as usual because of your back problem, the hamstring muscles can tighten making you feel a bit stiff. Stretching the hamstrings allows the back to work more normally.

Option One

Lying on your back, bring one knee to your chest, supporting the back of your thigh.

Slowly straighten your knee as far as you can without moving your thigh.

Feel the stretch at the back of that leg.

Repeat with the other leg.

Baseline:

Option Two

Sit on the edge of a chair with one leg out straight, the other knee bent. Keeping your back straight, bend forward from the hips so you are reaching towards your knee. Look at something in front of you.

You can support yourself with your arms.

Repeat with the other leg.

Baseline:

Option Three

Stand with one leg in front of you with the knee of the other leg slightly bent.

Keeping your back straight, bend forwards from the hips.

You can support yourself by resting your hands on the top of the bent leg.

Repeat with the other leg.

Baseline:

Sit to Stand

This is a wonderful exercise for strengthening your thigh and bottom muscles as it gets all the muscles working together as you get up and down from a chair.

Option One

Sit on an ordinary dining-type chair.

Stand up straight using your hands to help you (either by pushing on your thighs, on the arms of the chair or a table in front of you).

Slowly lower yourself back down onto the chair, again using your hands to help you.

Repeat.

Baseline:

Level Two

Sit on an ordinary dining-type chair.

Stand up without using your hands to help you.

Slowly lower yourself back down onto the chair again without using your hands to help you.

Repeat.

Baseline:

Level Three

Sit on the edge of an ordinary dining-type chair

Stand up without using your hands to help you.

Slowly lower yourself back down onto the chair without using your hands to help you.

Repeat.

Baseline:

Tummy Curls

A great exercise for strengthening tummy (abdominal) muscles. Tummy muscles provide a 'brace' that helps your back move normally. This exercise will also make getting out of bed a lot easier.

Level One

Sit on a chair and slowly lean back, keeping your bottom on the edge of the chair and feet flat on the floor.

When your head/shoulders touch the back of the chair, breathe in.

Tighten your tummy muscles and slowly bring yourself back upright. Do not jerk when doing this exercise.

Baseline:

Level Two

Sit on the floor or a bed with your legs out as straight as you can and with your arms straight out to the side.

Tighten your tummy muscles and slowly lean back at the same time as moving your arms back until your hands rest on the floor. Breathe in.

Tighten your tummy muscles and slowly bring yourself back upright. Do not jerk when doing this exercise.

Baseline:

Level Three

Sit on the floor or a bed with your legs out as straight as you can and with your hands resting on the side of your bottom.

Tighten your tummy muscles and slowly lean back keeping your hands on the side of your bottom until your forearms rest on the floor. Breathe in.

Tighten your tummy muscles and slowly bring yourself back upright. Do not jerk when doing this exercise.

Baseline:

The Bridge
This exercise strengthens your tummy and bottom muscles as well as those in the back of your thigh (hamstrings) at the same time. These muscles support your body as you move around during the day.

Level One 	Lie on the floor or bed. Tighten your tummy muscles and press the lower part of your back against the floor. You know you are doing this right when your pelvis tilts towards you. Baseline:
Level Two 	Lie on the floor or bed. Tighten your tummy and bottom muscles. Slowly lift your bottom off the floor until there is a straight line from your knees to your shoulders. Slowly lower your bottom back to the floor. Baseline:
Level Three 	Lie on the floor or bed. Tighten your tummy and bottom muscles. Slowly lift your bottom off the floor until there is a straight line from your knees to your shoulders. Holding this position, slowly straighten one leg by lifting the foot off the floor and keeping your knees together. Return foot to floor. Repeat with the other leg. Slowly lower your bottom back to the floor. Baseline:

➢ Mood management

It is common for people with chronic pain to feel more stressed than they usually would and report low mood. This is understandable given pain sensations are difficult to experience as well as all the limitations pain has on our lives. Finding ways to improve mood is an important part of pain management as this can help you to release your body's own feel good neurochemicals in the body which give you a sense of wellbeing as well as helping turn the volume down on pain.

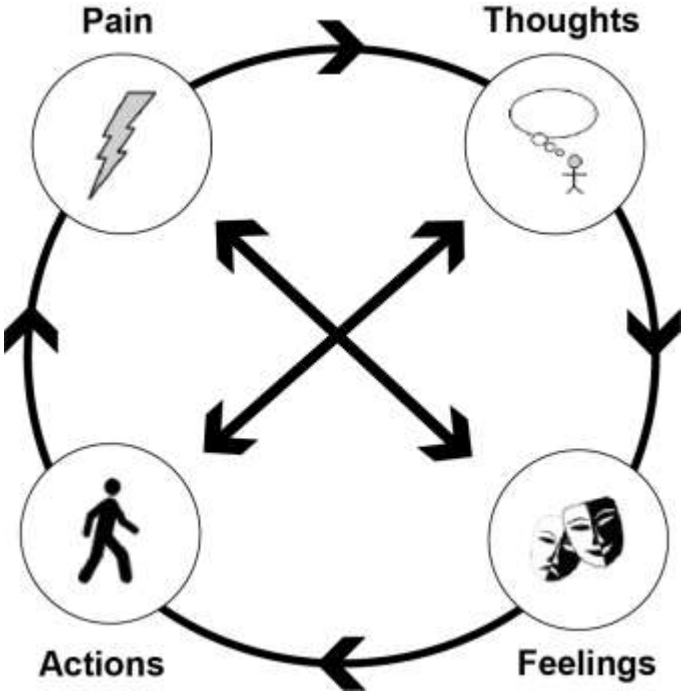
Relationship between thoughts, feelings, actions and pain

Psychological models have helped us to understand there is a relationship between how we feel and what we are thinking. When we talk about 'thinking', we are referring to that internal string of sentences and images going on all the time in your head - a bit like a thought bubble you may see in a comic.

For example, when thinking about something that really made you laugh, you'll notice feeling happy or uplifted. When we're thinking about something difficult or upsetting, you may feel stressed or low in mood.

Our thoughts and moods can affect our actions i.e. what we choose to do or not do in a situation. If we're low and worried about what would happen to the pain if we go out, we may be more likely to stay in. This can feel like a vicious cycle because staying in can also make us feel low because we are not able to do the things we used to.

Pain will also be a reason we choose to do something or not. We may even play out in our minds what we think will happen if we do something, e.g. "If I go out to the shops, I know I'll be in really bad pain later. It's just not worth it". You may also notice that when you're anxious, the pain gets worse. Again, this can form a vicious cycle as pain can make us feel anxious in the first place.



Breaking unhelpful cycles can be difficult and it is our aim on this group to help you think about where you can form helpful cycles. Below are some suggestions that can help.

General life style

It might seem obvious but are there aspects of your life style that would benefit from changing to help you feel better. For example:

- **Am I eating well?**
- **Are there habits I need to change to help myself?**
- **Do I get enough activity (within what I can manage at the moment)?**

Being aware of my thinking traps and challenging them

We have discussed on the programme how it is common for us to fall into thinking traps. This is where our minds become dominated by unhelpful thoughts that spiral into what we call 'thinking distortions' such as imaging worst case scenario ('catastrophising') or focusing on what we can't do and ignoring what we have done ('mental filtering'). Do you fall into '**Thinking Traps'**? See table on the following page. As discussed on the programme, the table shows how you can question these thinking traps and learn how to think in more flexible and helpful ways.

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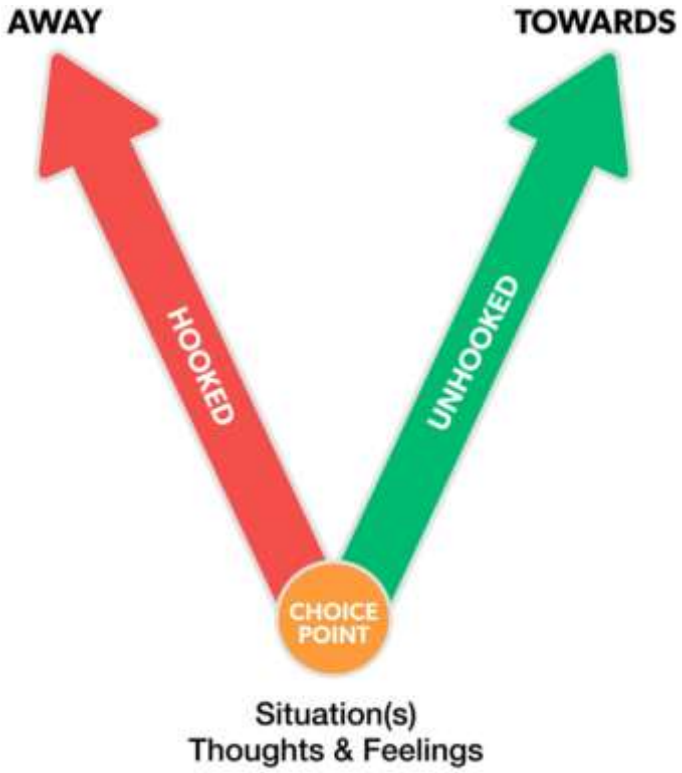
Unhelpful Thinking Habit	Alternative more balanced thought
Mental Filter 	*Am I only noticing the bad stuff? Am I filtering out the positives? Am I wearing those 'gloomy specs'? What would be more realistic?*
 Mind-Reading	*Am I assuming I know what others are thinking? What's the evidence? Those are my own thoughts, not theirs. Is there another, more balanced way of looking at it?*
Prediction 	*Am I thinking that I can predict the future? How likely is it that that might really happen?*
 Compare & despair	*Am I doing that 'compare and despair' thing? What would be a more balanced and helpful way of looking at it?*
Critical self 	*There I go, that internal bully's at it again. Would most people who really know me say that about me? Is this something that I am totally responsible for?*
 Shoulds and musts	*Am I putting more pressure on myself, setting up expectations of myself that are almost impossible? What would be more realistic?*
Judgements 	*I'm making an evaluation about the situation or person. It's how I make sense of the world, but that doesn't mean my judgements are always right or helpful. Is there another perspective?*
 Emotional Reasoning	*Just because it feels bad, doesn't necessary mean it is bad. My feelings are just a reaction to my thoughts – and thoughts are just automatic brain reflexes*
Mountains and molehills 	*Am I exaggerating the risk of danger? Or am I exaggerating the negative and minimising the positives? How would someone else see it? What's the bigger picture?*
 Catastrophising	*OK, thinking that the worst possible thing will definitely happen isn't really helpful right now. What's most likely to happen?*
Black and white thinking 	*Things aren't either totally white or totally black – there are shades of grey. Where is this on the spectrum?*
 Memories	*This is just a reminder of the past. That was then, and this is now. Even though this memory makes me <u>feel</u> upset, it's not <u>actually</u> happening again right now.*

Being aware of how my thoughts affect my choices

Through understanding the cycle of pain, as shown above on page 29, we have learned t the way we think and feel can affect our choices. For example, you may have a thought such as "Last time I did this (e.g. walking to the shop), I ended up in so much pain and I couldn't do it". This can lead someone to feel low, disappointed and anxious about having do it again. This can then mean a person will more likely avoid it because that seems like the best way to prevent pain worsening. However, at what cost does the avoidance choice mean? For some people with pain, it means they never get the opportunity to progress, practice or find new ways to approach it. Over time, they can lose confidence. This just shows how powerful our thoughts and memories can be on our assumptions and predictions.

On the programme we will encourage you to consider where thoughts may affect your choices that move you away or towards those activities that are important to you.



Using mindfulness to loosen the impact that my thoughts have on me

The mindfulness approach is explained more on page 38 of this manual and you will have practiced some exercises on the programme. Using mindfulness can be very helpful for developing an awareness of how you tend to think and feel in certain situations that are difficult. By developing mindful awareness and practice as a skill, you may find that you can 'respond' more helpfully rather than react unhelpfully.

Motivation comes from doing the small things

It is very understandable to not feel up to doing anything or thinking "what's the point?" at times – that's what pain makes us feel! Feeling you've achieved something and developing a routine is helpful for mood even if you don't feel like it at first. Ever noticed feeling pleased with yourself after you have got something done that you've put off for a while? Sometimes by breaking up an activity into small chunks by **time** rather than **task completed** can give you a sense of achieving something every day. This can then build your confidence to do more and pump out those feel good neurochemicals. Remember, motivation doesn't necessarily come to you…you need to go to it!

Talking to others

Sharing how you are feeling with someone you trust or a health care professional can be helpful. It is common for many of us to 'bottle up' our emotions or put on a brave face at times. This can sometimes start to affect us long term and as emotions can bubble up in unhelpful ways. See the suggestions below for further support if you need to talk to a professional about your mood.

Remembering my achievements

It is common to notice more about what you can't do or what you wish you could do rather than what you have achieved. On the programme, we will be encouraging you to notice even the smallest of achievements to help you start to build confidence and feel more positive about making progress. You may wish to write down your achievements and share them with those around you.

Reducing tendency to 'overthink'

Have you ever noticed your mind tends to predict the future or go back into the past and make comparisons? Have you ever noticed you may not be aware of how much time has passed when you're sat thinking about things? Or felt you are somewhere else other than where you are when your mind is going through things. Even though it is natural for us to think about our problems, sometimes we can 'overthink' which does not necessarily help us feel any better or come to solution.

You will be taught mindfulness skills on the programme which can be a useful strategy to:

1. notice when you are getting caught up in your thoughts.

2. how to bring yourself back into the present moment and remind yourself of what is most helpful for you there and then. These skills can help us learn to 'respond' rather than 'react'. See the mindfulness section below.

Pacing myself

As mentioned in the physiotherapy sessions, pacing your activities is also important for stress. When we've too much to do, we are more like to deny ourselves a break and push through. Although this is understandable, it isn't helpful for our stress levels. Planning your tasks and ensuring you have good quality breaks is essential for your wellbeing.

Giving myself permission to say “No”

Many of us feel it is important to be there for other people and often have others that rely on us. We may even do things for others than can mean our pain levels increase – but that’s what we do for those we care about! Sometimes it is worth considering whether you perhaps push yourself too much for others and it might be better for you to consistently be there for others if you take good care of yourself now. It can feel difficult to put yourself first in some situations or say no to someone. Having boundaries with others can help you to manage your pain better and sometimes avoid flare ups. This means you can build up your activity more consistently.

Relaxation and breathing

We cannot emphasise the importance of breathing and relaxation enough! Your nervous system is wound up and needs to produce its own feel good neurochemicals to help wind it down. Ensuring you take the time to relax and practice breathing exercises as shown on the programme will help you to release more of those feel good neurochemicals.

Think about what helps you to relax. This is different for everyone and can be something you do regularly now or used to do but stopped. Some of us find a cup of tea and a good book is relaxing. Others find a funny TV programme or interesting documentary works. For others, it can be a warm bath with candles or a craft activity. Have a think about what activities help relax you can how you can apply them more at home. Importantly, we need to give ourselves **permission** to relax as it can be common to prioritise other things.

Breathing exercises and meditation are more formal methods of relaxing and managing stress. For many of us, it takes guidance, training and practice to learn how to relax or meditate. We will be learning mindfulness meditations on the programme and short breathing techniques. We recommend shorter practices several times a day can help to manage both stress and pain.

Imagery can be a very powerful way to help us manage stress. Some audio recordings on CDs or online can help you to create a calming and safe place in your mind. It may also remind you of somewhere you have been or a place that makes you feel relaxed like a beach, forest or mountain.

What’s best for me right now?

Give yourself permission to stop, take a break or doing something for you. It is common to do the things on your ‘to do’ list first before you allow yourself a break. We would like to encourage you to take a step back and consider what is best for you in this moment and break those habits of saying “I’ll take a break when I’ve got all that done”. These small changes can help you pace better, regulate your nervous system and your stress levels. Even if you feel it is important to do lots of things for others, it is important for your pain management to aim for a balance. The more we look after ourselves, the more we can do for others too!

Further support for mental health

- **Speak to your GP**
- **Talk Liverpool Services (GP or self-refer) https://www.talkliverpool.nhs.uk/**
- **Local support groups: https://www.thelivewelldirectory.com/**
- **Self-help books and website.**

Sleep

Sleep is important for us to maintain alertness, be able to function during the day, concentrate and to form memories. Many of our patients also tell us pain affects their sleep and this can also make the pain worse. Approximately one in five adults will experience difficulties getting to sleep, staying sleep or feeling refreshed. For some of us, sleeping too much can also make us more tired.

Sleep process

Sleep is not a passive process – the brain cycles through several sleep stages that all have a unique purpose for your body and brain to carry out important functions.

Our sleep patterns are determined by to key processes: 1) **Sleep pressure** and 2) **Body clock**

1. **Sleep pressure** means the longer you have been awake, the greater your body needs to sleep.

2. **Body clock:** Our body 'clocks' are located in the brain. These clocks time the rhythm of particularly bodily functions including sleep, temperature and hormones. Our sleep clock works independently whether you are tired or not and aims to keep sleep timed regularly. When traveling to a different time zone, many people struggle to go to sleep at the intended bed time of the new time zone. This is because their body clock is timed differently.

Both your sleep pressure and body clock need to work together to form a healthy and predictable sleep routine. However, factors such as illness, extended bed rest, demands, young children, bereavement, stress, bed room environment and choice to stay up interrupt these processes.

Sleeping tablets

Sleeping tablets are sometimes suggested by health professionals to help improve sleep. Sleeping tablets are meant to be offered as a short course to give you a window of opportunity to get your sleeping pattern back on track. Similarly to pain medication, prolonged use of sleeping tablets is associated with side effects, tolerance and dependence. Research shows that applying non-medication based strategies to your sleep routine has better outcomes that medication for the long term.

Changing coping with sleep loss

When we are tired, it is common to use the following to manage however they further contribute to poor sleep long term.

Caffeine is a stimulant and stays in the body between six and fourteen hours of consumption. If you have sleep problems, it is worth reducing your intake. Be aware of what has caffeine in it. This includes tea, coffee, some fizzy drinks, chocolate, certain pain killer and medications.

Alcohol - even though alcohol can help us get to sleep, it leaves the system rapidly and causes frequent night awakenings, dehydration and early morning awakenings. Avoid alcohol four to six hours before bed.

Smoking (nicotine) is a stimulant and can affect your ability to fall asleep. Cutting down on smoking, especially in the evening can help.

Napping can weaken your sleep pattern. Try not to nap. If you are very tired, you can try 'healthy napping'. This involves napping no longer than 40 mins no later than in the afternoon. Try to find an activity to distract you from thinking about napping. Gradually increasing your daytime activities will also help reduce the need to nap.

Managing mood and stress Are things on your mind? it is important to consider factors other than sleep as this can affect the degree to which you sleep well at night. You could try to implement mood lifting and stress management strategies.

Changing evening routine

Bathing before bed raises your body temperature and can counteract the natural drop in temperature when approaching your sleep window. This can make it harder to fall asleep. Although baths are relaxing and might help pain, try to take baths earlier, at least two hours before bed.

Computer use - A hormone known as 'melatonin' starts to increase during the evening as part of your circadian rhythm and when we are exposed to less light. This hormone helps facilitate the sleep process. The amount of light from a computer screen can decrease your melatonin levels and can make you feel more alert which affects ability to sleep. Not using the computer at least two hours before bed. This includes tablets and prolonged phone use.

Not winding down – Doing things before bed tells your brain that you might not be going to bed yet, and can make you more alert. Schedule in 60 to 90 mins of wind down time before bed. This time should be used for calming activities and relaxation.

What can I do upon going to bed?

Ideally, the brain needs to 'expect' you will be going to sleep soon and feeling sleepy. This is why it is important to try to manage concern upon going to bed and focus on how you can feel calmer before going to bed. These particular skills can help:

Going to bed sleepy - Only go to bed when 'sleepy'. Learn to recognise the distinction between being sleepy (high sleep pressure) and fatigued (a desire to rest but not sleep). Winding down properly and going to bed a little later (to start off with) can help facilitate greater sleepiness before going to bed.

Putting pressure on yourself self to sleep can make it even harder to sleep. Caring less about being awake can make it less stressful.

Poor sleeping environment - aspects of our sleeping environment can also contribute to poor sleep. It is common for those with sleep problems to sleep with the TV or radio on all night but this may unconsciously reduce sleep quality. Adjust your sleeping environment: is there too much light? Is your bed comfortable? Are you too hot or cold? Can you hear noise?

What can I do to help during the night?

Irregular bed/wake times - It is important to develop a strong sleep pattern for predictable sleep. Keep the same bed time and wake time (even at weekends). Try to find a wake time you can stick to every day, even at weekends. Try to do this no matter how badly you slept the night before.

Too much time in bed whilst awake for long periods of time can train the brain to 'learn' to be awake in bed. This forms an unconscious association that may affect our ability to sleep without us even realising. Reduce time in bed: try going to bed later rather than attempting to invest in longer sleep duration. But make sure you still get up at the same time every day.

Using time in bed to problem solve or worry - It is often easier for us to think about things during the night because it is quieter and there are no distractions. Try not to get into unhelpful thinking habits while you are in bed such as problem solving, mulling things over, rehearsing, planning or thinking about the fact you're not sleeping.

Find a time in the early evening (not your wind down time) to spend 20 mins or so writing down all the things you might be tempted to think about whilst in bed. Mindfulness skills can also be useful here.

Communication and relationships

Many of our patients tell us that talking about pain with others can be difficult for many reasons. Others might not understand the pain or how badly it affects you. It may also be the pain interacts with how you communicate. On the programme, we will explore how to help your interactions with others from those you are close to as well as health professionals.

It can be helpful to be aware of what styles of communication you adopt in certain situations. Remember communication is more than what you say, it is also the tone of voice and body language.

Styles of communication broadly fall into these styles:

- **Passive** – saying very little even though you strongly feel so.
- **Aggressive** – language and tone of voice that suggests anger or frustration.
- **Passive-aggressive** – comments or actions that suggest you are angry without saying so such as "well I'll have to walk won't I?".
- **Assertive** – clear, open, neutral tone and being specific.

You may need to ask someone you trust about your communication style if you are not easily aware of how you are in some situations. Remember aggressive communication usually brings a reaction in the other person. Passive communication may mean you don't move forward with what you need from the other person. Aiming for assertive communication can help us achieve what we need to in a conversation.

Here are some of the difficulties that our patient's often tell us they experience and suggestions in how to manage these situations.

1. Asking for help

For some of us, it can be challenging to ask for help when you feel you "should" be able to do it yourself or do not wish to bother someone else. However asking and accepting help may be important for you to pace your activities and working towards needing help less in future. Remember the other person might be more than happy to help as you might be if someone asked you. Being assertive takes practice and you may even find your confidence starts to increase the more you develop it.

2. Leaving an event early or cancelling something

Having a pain condition often involves cancelling plans or having to explain you need to leave early. Although we may worry what others think, they may be more understanding than we think. Being assertive about your needs and trying to compromise may help you to still be social while you are trying to build up your activity. Again, your practised phrases can be useful here such as "I have a pain condition which means I have difficulty in….and need to…".

3. Having to explain why the pain has not reduced or been 'cured'

Others struggle to understand why your pain has not been cured or why you can manage something on one day but not the next. It is also common to hear that because you "look fine", it is assumed that you are fine. Preparing and practicing phrases to say to people can help you assertively explain you have a chronic pain condition that you are learning to manage yourself. Keeping your explanations short can help as you do not need to justify yourself or share your medical history.

4. Explaining what pain management involves

Talking to those around you about what you have learned in the pain clinic can help them to support and encourage you. For example, you may wish to tell your family you plan to pace yourself by moving around regularly so you feel better able to cope with social events which involve a lot of sitting down, such as going to a restaurant.

5. Containing your emotions in conversations when upset, stressed, frustrated or angry

When in pain, it can be difficult to manage emotions in certain conversations. Our emotions can alter the language and tone of what we say as well as our actions towards that person. Sometimes our emotions can also affect our interpretation of what the other person is trying to communicate. It is normal to be upset at times however in some situations, you may wish to take a pause and choose to talk at a different time.

6. Avoiding difficult conversations

It is understandable that you may wish to avoid having difficult conversations with others – whether this is about pain or not. It is normal for us to just hope that the issues will resolve on their own or the other person will change. Usually, if there is something that has been bothering you for some time that involves another person, it is unlikely that this will change unless you are able to talk about it. It can take a lot of courage to start a difficult conversation however it gives you the best chance to make a change.

Some of our patients find it helpful to use the topics discussed in a pain management group as a conversation starter. You may also wish to have a difficult conversation outside of your home environment where it might feel more contained. Remember, some conversations need to be repeated as bringing about change takes time.

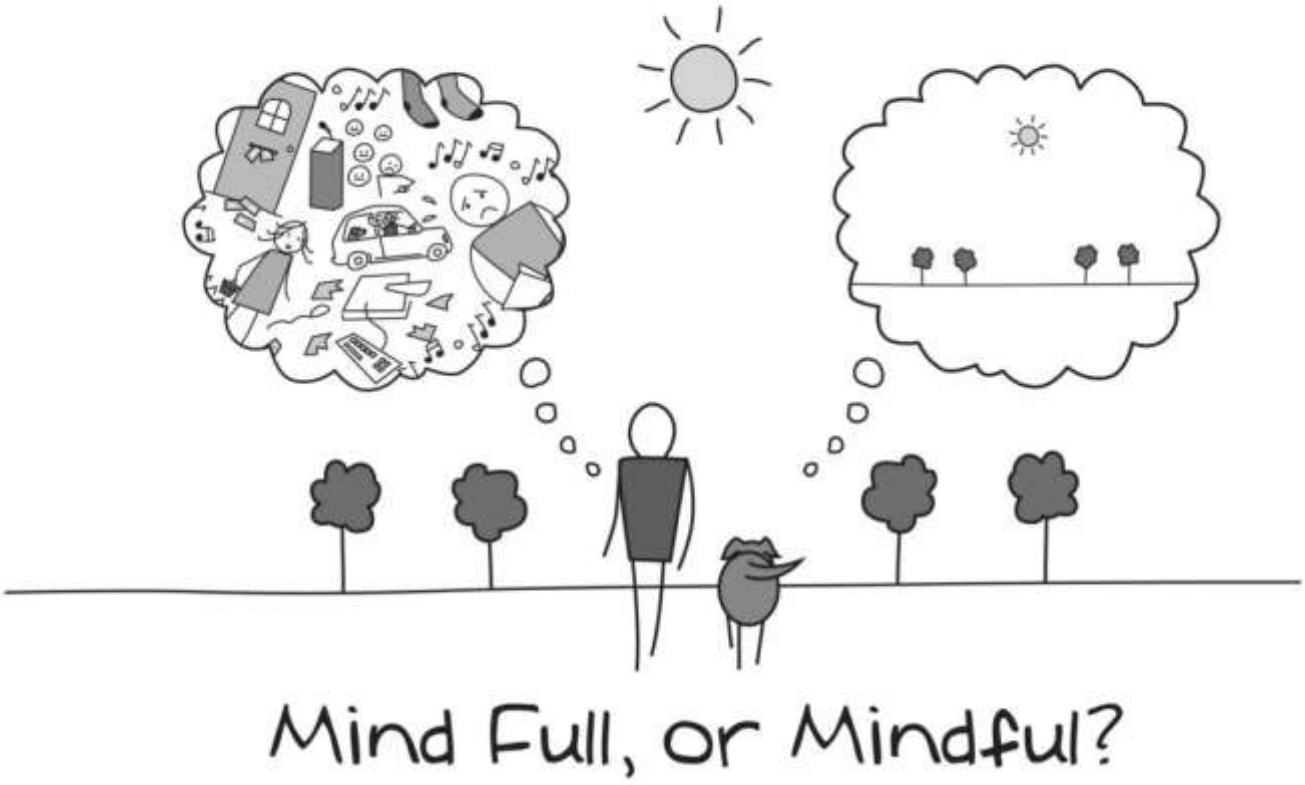
Mindfulness

How can mindfulness help me?

Mindfulness is an approach that has shown usefulness in pain management. It is a way of teaching you how to manage the mind's tendency to get caught up in thoughts - especially ones about the past or the future. It is a way of helping us respond more helpfully in a situation rather than react. Mindfulness skills are learned through awareness, mindful meditation practice and mindful activity which we have covered on the programme.

What is mindfulness?

Have you ever noticed you can be doing a task and not even be aware of what you are doing because you do it automatically, like cleaning your teeth? Usually, these types of daily or mundane tasks, we go onto 'autopilot' are not being very mindful. Mindfulness means 'paying attention on purpose' with curiosity and without judgement; to observe your experiences as they are and being able to bring your attention back to the present moment. This means our minds are able to be less caught up in things that can affect our mood and allow us to break habits that can be unhelpful for us by making better choices.



How can I learn to be more mindful?

- Mindful meditation practice – exercises such as the three minute breathing space, body scan or imagery can help you learn to be mindful internally and practice bringing your attention back to the task. These skills are best learned through listening to pre-recorded audio which you can access online for free (see resources below).

- Mindful activity – being mindful of an activity where you tend to fall into ‘autopilot’ can be good to practice mindfully. We will practice this with stretching and movement on the programme. We will also invite you to try it at home during an activity such as having a cup of tea, taking a mindful walk or sitting outside to be mindfully aware of what you observe in your senses.

Flare ups

What is a flare up?

A flare up is the term we used to describe an increase in your usual chronic pain symptoms. This will be a familiar pain to you and often occurs when you’ve been particularly active. You may have well known triggers for flare ups or sometimes they can occur for no reason at all – even when doing very little!

You may notice other symptoms in a flare up such as increased tiredness, increased anxiety and irritability and thoughts such as “here we go again” or “this will never end”.

It is important to act on a new pain or change in symptoms that is not usual for you. Remember, having chronic pain does not mean we do not develop other conditions that need medical attention.

What happens during a flare up?

A flare up can last for several hours to several weeks. You may need to cancel activities and struggle to do what you need to do during that time. You may also notice you take more medication and find you are spending more time in bed.

How can I manage a flare up?

Being aware of the early warning signs of a flare up and acting on them straight away gives you the best chance of effectively helping the flare up resolve more quickly and be less distressing for you. Developing a flare up plan can help you to feel better prepared and start to apply strategies at the early onset.

Please see the example flare up plan on the next page followed by a blank version.

Example flare up plan

My flare up is: increased period in my usual chronic pain that lasts about two days; I feel increased fatigue; thoughts like “here we go again” or “what’s the point?”; can’t get comfortable; want to eat unhealthily; stop doing the things that help; I feel very low mood.

Early Warning Signs: pain in my back starts to creep up; I start to feel very tired and irritable

What can contribute to a flare up: over activity, stress, sometimes I don’t know.

Plan of Action:

★the sooner I implement this plan, the better the effect★

Activity	How I’ll do it
Let family know I’m starting to have a flare up and explain what I need.	Remind me to use the plan. I would like someone to check on me in one hour rather than asking every five minutes.
Flare ups are an awful but normal part of chronic pain	Remind myself that this is part of having chronic back pain. It’s nothing serious
Helpful things to remember	It will go away and it won’t last forever. I’ve coped before with flare ups and I will cope again. I’ve been in pain for 15 years and have learned many things I can do to help.
Have a lie down on couch	20 minutes
Breathing	Five to ten minutes slow deep breaths
Gentle Stretch	Fiveminutes
Colouring in	15 minutes
Watch TV *funny programmes release endorphins (your body’s own morphine)	30 minutes
Gentle Stretch	Five mins
Breathing	Five to ten minutes slow deep breaths

My flare up plan

My flare up is:

Early warning signs:

What can contribute to a flare up:

Plan of action:

★ the sooner I implement this plan, the better the effect★

Activity	How I'll do it

8. Resources

In addition to the information we will provide to you at your first appointment, you may find the following resources useful to give you more information about living with pain.

Pain management resources

- **Health Talk Online:** videos of people's experiences with Pain Management Psychology
  Website: http://www.healthtalk.org/peoples-experiences/chronic-health-issues/chronic-pain/learning-about-pain-management

- **Pain Concern:** information, local support groups and podcasts on difference subjects of pain.
  Website: http://painconcern.org.uk/
  Phone: 0300 123 0789

- **Pain Tool Kit:** self-help resources written by people with pain.
  Website: https://www.paintoolkit.org/

- **Arthritis Research UK**
  Website: www.arthritisresearchuk.org

- **Back Care:** Information, guidance and advice to people with back and neck pain.
  Website: www.backcare.org.uk

- **Retrain Pain:** Free online pain education available in 22 languages.
  Website: www.retrainpain.org

- **Tame The Beast:** Free online pain education
  Website: www.tamethebeast.org

Mindfulness

- **The Free Mindfulness Project:** free audio meditations
  Website: www.freemindfulness.org

- **Search 'mindfulness in The Live Well Liverpool directory.**
  Website: https://www.thelivewelldirectory.com/
  Email: enquiries@healthwatchliverpool.co.uk
  Telephone: 0300 77 77 007

  Living Well With Pain And Illness: Using mindfulness to free yourself from suffering - Vidyamala Burch
  (£6-£8 Used)

Getting active

- **Fit for me:** Free or low cost activities including dance, Tai Chi, Yoga, chair based exercise, jogging, walking, cycling and gardening in five locations across Liverpool.
  Website: www.fitforme.info

- **Let's ride Liverpool:** Free guided cycling along planned scenic routes
  Website: www.letsride.co.uk

- **Liverpool Ramblers:** Groups organise regular walks led by local experts, a great way to get outside and make new friends.
  Website: www.liverpoolramblers.org.uk

- **Livewire Liverpool Health Trainers:** Is a free service available to anyone aged over 16 who lives in Liverpool. They provide support, guidance and motivation to adults across Liverpool, who want to make a change to their lifestyle. The service can also signpost individuals to other services, groups and organisations in the local area.
  Website: https://livewireliverpool.co.uk
  Contact: 03000032322 or ask your GP to refer you

- **Mindful Yoga and Mindful Meditation Liverpool:** The Old School House, St Johns Road, Huyton with Roby, Liverpool, L36 0UX. Sunday's class is held in the warm studio at Yoga for the People, Childwall Lane, Liverpool L14 6TT.
  Website: https://www.yogahub.co.uk/listing/united-kingdom/merseyside/liverpool/mindful-yoga-liverpool

- **Over 50's Project:** Lottery funded over 50's club, offering various activities including exercise classes, arts and crafts, day trips and more. Some classes are free and some are highly subsidised. 294-296 Mill Street, Liverpool, L8 6QW
  Website: www.scctliverpool.com/wheel-meet-again-project
  Phone: 0151 708 0435

- **British Health Qigong association:** Tai Chi and Qigong combine slow movement, relaxation and breathing exercises. Enter your postcode to find a class near to you in Liverpool (Aigburth, Allerton, Mossley Hill, University of Liverpool and Blundellsands) .
  Website: www.healthqigong.org.uk/info/find_class.php
  Or contact Angela Howarth on 07568567602 or angela@angelataichi.co.uk

- **Walking for health:** Use this website to find health walk schemes closest to you.
  Website: www.walkingforhealth.org.uk

- **NHS Fitness Studio:** Fitness advice and exercise videos to complete at home. Including beginners Pilates and Yoga, chair based Pilates and Pilates with Fibromyalgia.
  Website: www.nhs.uk/conditions/nhs-fitness-studio

Local groups

- **WHISC – Women's Health Information and Support Centre.** WHISC is open daily for general enquiries and you can drop in Monday to Thursday, 10am-4pm.
  It is a free and confidential service which offers support groups, exercise and relaxation classes (including Yoga, Pilates and Tai Chi), craft workshops, reading groups and education opportunities. They also offer a course of free one to one counselling for women over 18. 120 Bold Street, Liverpool, L1 4JA.
  Website: www.whisc.org.uk
  Tel: 0151 707 1826

- **Search groups available of interest in The Live Well Liverpool directory.**
  Website: https://www.thelivewelldirectory.com/
  Email: enquiries@healthwatchliverpool.co.uk
  Telephone: 0300 77 77 007

- **SMILE:** A local charity set up to support chronic pain sufferers. They meet every Monday to provide gentle exercise and relaxation, plus a form of Tai Chi.
  Old Roan Methodist Church hall, Altway, Liverpool L10 1QL.
  Website: www.smileliverpool.co.uk

How can I contact the pain team?

Should you have any queries, please discuss at your next appointment or contact our pain secretarial team on:

Tel: 0151 706 3190 or 0151 706 3382.
Text phone number: 18001 0151 706 3190

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

If you have any questions please contact the department on
Tel: 0151 706 3190 / 3382
Text phone number: 18001 0151 706 3190/3382

Author: Pain Medicine Department
Review date: May 2024

Activity planner

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning							
Afternoon							
Evening							

All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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