



Self help information for musculo-skeletal patients

Following your back pain assessment it has been recommended that you attend a functional restoration programme in the physiotherapy gym at the Royal Orthopaedic Hospital.

What is a functional restoration programme?

This is an education and exercised based rehabilitation programme to help you to improve your function and manage your back pain more effectively. Many of these types of programmes are now running around the country and are seen to be the best way to manage persistent back pain. The programmes are run over a period of several weeks and involve you both talking through your back pain and using graded exercise to improve your function.

What does a programme look like?

The programmes are done in small groups, as it is recognised that this often results in better outcomes. There will be exercise sessions, where you can try out activities you may be concerned about and also sit down sessions where you can learn information and new techniques to help manage your back problem.

How often do I need to attend?

The programme runs twice weekly, on a Wednesday from 2.00-4.00pm and on a Friday afternoon from 1pm-2pm and continues over a period of four weeks. You then attend a follow up session two weeks later on a Wednesday afternoon at 2.30pm.

Will it hurt?

The aim of the programme is to help you improve your function. To begin with you may feel more uncomfortable, especially after the first couple of sessions, but this normally improves as you continue.

How will I know if the programme is helping me?

We use a goal setting approach to help you build your function and manage your pain. By setting specific goals at the start of the programme, you can measure how you are managing to progress with your goals and whether the programme is helping you.

What should I wear?

As you will be exercising it is recommended that you wear a tracksuit, or t-shirt/shorts, and trainers. Shower facilities are available

If you have any further questions, we can answer these on commencement of the programme.

Good luck!



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Goal Setting

What do you want to achieve?

We all have ideas about things we would like to achieve in life. What may be a simple objective for one person may seem to be a great challenge to another. Sometimes it can seem very difficult to see a way forward. This may be especially true following an injury and a period of reduced activity. We tend to lessen our activity following injury. Things that you took for granted become much more difficult and you may find yourself avoiding certain activities all together. Very often it's the enjoyable things that fall by the wayside. People generally find that setting some goals is a useful method by which we can move gradually forward.

How can setting goals help my function?

Goal setting is widely used by many people in many areas of life and work. This has enabled some guidelines to be established to help us manage our goals. These may seem a little daunting at first but with a little help and practice you will soon be able to set your own goals using these principles. An important point to remember with all goal setting is that progress towards the final target or objective will probably need to be broken down into steps or stages, each with smaller goals along the way. Goals are not just there to test us. They are a way of moving from where we are to where we want to be. They help us to recognise our own successful progress and allow us to reward ourselves when each new goal is achieved. Research has also shown that being active will speed up your recovery.

The five steps in goal setting - SMART

Specific

State exactly what you want to achieve and how you're going to manage it. Make sure it isn't vague. e.g. 'I want to get fit' is too vague, fit to do what? How will you know when you've achieved it? 'I want to be able to swim 3 lengths' is more specific. "I want to be able to pick up my son " is better than "I want to be able to do family things".

Measurable

Ensure your goal is measurable: How will you know when you have achieved your goal? A goal doesn't do you any good if there's no way of telling whether you've achieved it. "I want to feel better" isn't a very good goal because it's not specific and it's difficult to measure. "I want to be able to walk 1.5 miles, on the flat, by x date" is a better goal because it's specific and measurable.

Achievable

Ask yourself whether the goal is within reasonable reach. For instance, completing a marathon may not be an achievable goal in the near future if you've never run before. However, completing a 1km run may be.

Rewarding / Enjoyable

This is really important. We are unlikely to do something if we don't see the point or don't enjoy it.



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So make sure it is something you want to achieve because you used to enjoy it.

Time Limited

Try and decide upon a time frame. Being able to track your progress encourages you to keep going and reach your goal. Look for ways to chart your improvements. It may be that you feel a certain length of time is realistic. Or perhaps you have worked out how much progress you can make in a week and then you can work out how long it will take you to reach your goal. Always err on the side of caution; don't set yourself up to fail.

Finally

Check that your goal will fit in with your life or make changes so that it is a priority.

What is the best type of goal?; the one you are actually going to do.

Make sure you want to and will do the goal.

Don't set it because you feel you should, or someone else said you should.

Write your goal down, get some support and encouragement, and reward yourself when you succeed!

Examples of Goals that Follow the SMART Formula:

Goal: To drive a 1 hour journey

When do I want to achieve it by: 4 weeks

How I'm going to do it: Draw up and stick to a driving plan

John wanted to achieve this goal. Initially he could only sit for 30 minutes in the car. He set himself a plan to build up his activity (this will be covered in the next session) over a period of 3 weeks, using a stepped approach. He stuck to this plan on both good and bad days. At the end of three weeks, he had built his activity levels up sufficiently to be able to achieve this.

Your turn

Goal 1

When do I want to achieve it by:

How am I going to do it:

Goal 2

When do I want to achieve it by:

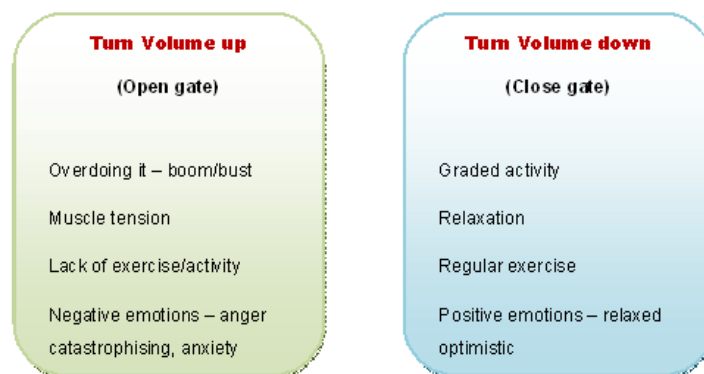
How am I going to do it:

Chronic Pain

The experience of chronic pain is quite different to that of acute pain. In simple terms, researchers have shown that pain signals don't just go up to our brain, but once they reach the brain they send signals to individual electrical switches, or gates, within our nervous system. These gates are volume switches which can turn the pain up or down. How we feel about pain,

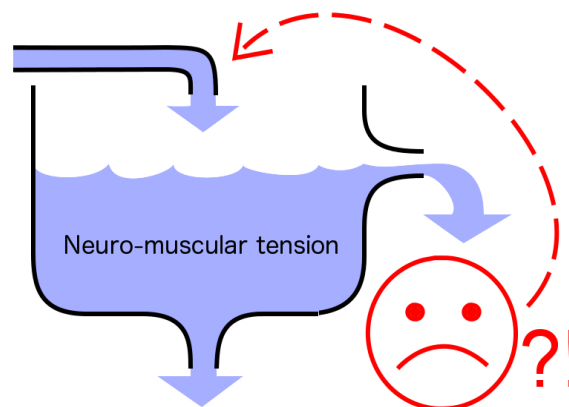
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how we interpret it, and what we do about it can often influence these pain volume switches. It is recognised in many people with chronic pain that there is often a problem with what they have been told about their pain, what they do about it and how they learn to manage it. If this problem goes on for a prolonged period the nerve pathways to the brain can become sensitised. That is, less of a threshold needs to be reached in our receptors for a pain signal to be initiated. Therefore although an original injury has healed, pain can persist for long after because the nerve pathways have become more sensitive. Long-term pain usually means the brain has misinterpreted signals and the pain isn't serving a useful function. There are many other factors which can influence our pain volume switches. For example, exercise turns our pain volume switches down. Many persistent pain sufferers consistently report feeling better immediately after exercise. Another important pain control mechanism is our mood. For example, when you are stressed or depressed, the pain volumes switches are turned up - this is why pain often seems much worse when we are feeling frustrated, gloomy, under pressure or simply tired. The table below shows some other things we can do which can turn our pain volumes up and down. Through the programme you will be using many strategies to help you to close the gates.



The Bathtub

Negative life events
 Worry / tension
 Poor quality sleep
 Low mood
 Anger / fear
 Feeling useless
 Too little/much physical activity
 Boredom/
 Introspection



Understanding the pain
 Pleasurable physical activity
 Relaxation
 Connection with others
 Sense of meaning and purpose
 Acceptance
 Distraction/fun

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Pain and Activity

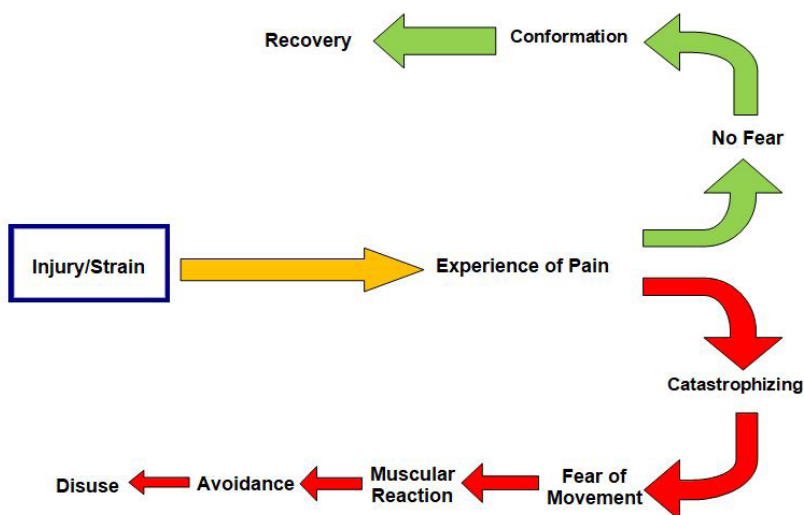
An Introduction to Pain

Most of us tend to think of pain as some form of physical discomfort. However, most of the experts now agree that the experience of pain is the result of a complicated set of different factors. Most of the time this experience is linked to some type of injury or illness, which may involve damage to one or more parts of the body. Pain felt at the time of an injury or illness and soon after is called acute pain, whilst pain which continues after the normal healing times for an injury have passed is known as chronic pain. Pain can be very distressing and may significantly restrict what we feel able to do. This may include hobbies, work or even just spending time with our friends and family.

Pain and harm

Unnecessary concern about what pain means leads to us stopping doing normal activities and our fear of pain may limit us significantly. This makes us less confident and more sensitive to many activities, both now and in the future. The less we do, the less we find ourselves able to do. This is termed a 'hurt and harm' belief and is one of the main reasons why pain is often maintained long after healing has occurred.

Fear Avoidance Model



The fear avoidance model helps to explain what happens if we believe our 'hurts' will 'harm' us. The model suggests that when we experience pain, if we are given negative information about the impact of our pain, or we think about the worst case scenario, or we believe we have caused ourselves lots of irreversible damage, we are likely to do less and less in the way of activity. As a result our muscles and ligaments become weaker, we lose the stamina to do normal everyday

activities and we lose confidence in our own bodies. As long as we continue to believe we have significant damage, we are likely to remain inactive. If this belief is reinforced by other people, we remain in this cycle of inactivity. However this inactivity has more to do with our beliefs regarding the problem, than the problem itself. It is therefore really important that you are confident that you are not going to damage yourself before you start increasing your activity, otherwise you are likely to continue to avoid activity. It now becomes clear that longstanding pain is less dependent on the original injury and more dependent on other factors, such as the ones described above. For these reasons pain is not always a good indicator of how much activity we should be doing. The science

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tells us, contrary to common myth, that staying active is actually good for people with pain. The longer you are inactive, or off work, the more likely you are to maintain the problem.

Boom and Bust

A common cycle for people with pain involves tending to push yourself until the pain tells you to stop. This is usually followed by a period of increased pain, causing you to rest or do less. When the pain has settled a bit you get going again and overdo it once more. This vicious circle is called the over-under activity cycle. When you cut back on activities, rest more or generally do less your

body starts to get out of condition - joints become stiffer and muscles weaker. Consequently you are less able to cope with activity and your pain comes on sooner/increases when you try to do anything. It can seem like you are getting worse medically when in fact you are just getting worse physically.

Every time you overdo it, you are more likely to avoid these activities in the future, thinking that you can't do them or don't want to suffer the consequences in terms of more pain. However, it's not that you can't or shouldn't do these activities, it's just that you are trying to do too much of them, too soon.

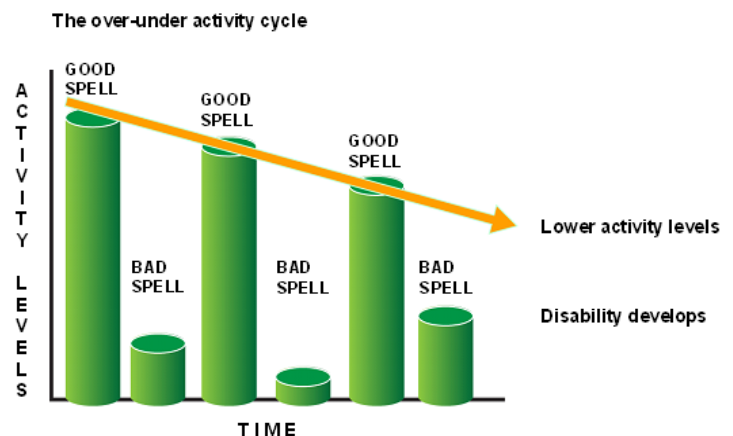


People stay in the Activity Cycle because:

- There is work that "has to be done", and things they want to do
- It feels better to finish the job
- Of feeling guilty about overloading others
- Of trying to ignore or beat the pain
- Periods of rest/doing less do ease the symptoms in the short term but prolonged rest/doing less leads to deconditioning and this doesn't help us to return to normal activity in the long run

What are the negative consequences of the Activity Cycle?

- Get more pain, because we keep overdoing it
- Get punished for trying to do things
- Periods of rest/doing less add up and cause deconditioning



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- Tend to be making less progress over time with activity when we want to be making more progress
- Can't make plans or commitments
- Pain and activity are unpredictable leads to deconditioning and more pain
- Pain decides how much you do, when you do it etc, not you - your symptoms are in charge when you should be
- Leads to feelings of frustration and failure

Warning!

Avoid over and under activity

By over and under activity we mean the tendency that some people have of doing too much when things are going OK, and then suffering for it later. This can become a common pattern for people with variable but longstanding health conditions. By recognising your triggers for over and under activity, and then working to more realistic and manageable levels of activity, you can minimise the possibility of this happening to you.

Graded activity: How to break Boom / Bust or fear avoidance and increase activity

The good news is that there is an alternative to the over-under activity cycle and its called graded activity. Graded activity enables you to gradually increase your ability to do a particular activity or position in a stepwise manner. e.g. sitting, lifting, driving.



Graded activity = small steps

Sportsmen and women instinctively understand these principles. Following an injury, they rest for a short while. But they are then quick to get back in action and gradually build-up their activities – despite the pain. Of course most athletes are also very positive mentally about their ability to recover from injury. This may not be an easy thing to do when you have had pain for such a long time, but it is the best way to recover. We can now look at how you can increase your activity.

Principles of graded activity

1. Work out your starting point — That is how much of the activity you can do now, without overdoing it. This is the amount you can do on a good day and on a bad day. e.g. if you can manage to walk for 10 minutes but it's a real struggle, maybe your starting point is 8 minutes. Baselines can be in any unit of measurement (time, distance, number of lengths, number of shirts ironed, no of lampposts walked past etc)
2. Write up a realistic plan for the week ahead (using the pacing up chart)
3. Make sure the plan progresses in small equal steps. Progress every day, every second day or

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every third day- keep increases small but consistent.

4. Stick to the plan on good or bad days. It is tempting on your good days to do a lot more, then do less on the bad days. Make sure therefore on the good days that you pace your self and don't overdo it. On the bad days stretch yourself a little.
5. Review the plan at the end of the week and make and necessary changes. If you have had one bad day- progress the plan at the same rate. If you have struggled a few days in a row – this would suggest you have been too ambitious and need to slow the rate of progression down in next week's plan. If you feel you could progress quicker, speed the rate of progression up.
6. Expect some increased symptoms as you increase your activity, this is normal, to be expected and will settle. Your plan should be realistic and will therefore keep any increased symptoms to a minimum. Remind yourself that you are not harming yourself, your body is already sore and is bound to complain as you ask it to do more. If your activity levels are significantly increasing your symptoms and putting you off being active then you may be overdoing it. In this case, you should start from a lower level of activity or slow down your rate of progression. Bear in mind that if you overdo things it may not be until later that you feel it. If you have any new symptoms and are worried then ask about them. (You can use the activity diary to make a note of how you have managed with each day).

You can apply these principles to almost anything, although some things are harder to grade up and require a bit of imagination.

Case study

Jane finds that on some days she can do plenty of activity, but she then pays for it later. The following day she finds she can't do much because of her pain. When she's doing a job, she always wants to complete it, irrespective of how her pain is. This is how she always worked before her pain problem came on. However, Jane wants to return to work and is concerned that whilst she can manage working on some days, she can't on others.

Since attending a program similar to this one, Jane has learnt to pace herself through each day. On days when her pain isn't too bad, she makes sure she doesn't overdo things. This ensures that the following day she is still able to do the things she wants to. By setting herself achievable targets each day, she is able to maintain a good level of function by pacing herself.





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Pacing Up Chart

Pacing Up	10 min	11 min	12 min	13min	14 min	15 min	16 min	17 min	Sunday
Time from previous week									
Monday									
Tuesday									
Wednesday									
Thursday									
Friday									
Saturday									
Sunday									



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Functional Restoration Graded Activity Worksheet

Problem One

John's job involves a lot of walking. He knows that at the moment he can walk for 35 minutes, but only just, it's a real struggle and he pays for it later.

Q1 John wants to get a plan together to increase his walking. What amount could he realistically start with?

Problem Two

Erica managed to swim 4 lengths last week, the week before she managed 3 and the week before that she managed 6

Q2 What would be a sensible starting point for her?

Q3 How did you decide this?

Problem Three

Alex decides that her starting point for walking is 10 minutes. She decides to increase her walking by 5 minutes a day. At the end of the first week her plan looks like this.

How many days did she manage to do the plan?

Where did she go wrong?

Day	Plan (Minutes)	Actually did
1	20	20
2	21	55
3	22	0 (lying down - lots of pain)
4	23	0
5	24	8
6	25	22
7	26	3

Problem Four

Robert wants to be able to stand for longer so that he can watch a football match. He can stand comfortably now for 20 minutes. He decides to increase it by one minute a day.

How many targets did he reach?

Where did he go wrong?

Day	Plan (Minutes)	Actually did
1	20	20
2	21	55
3	22	0 (lying down - lots of pain)
4	23	0
5	24	8
6	25	22
7	26	3



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Write down three activities/positions that you are currently not doing or are struggling with. 'Guestimate' how much of each activity you could realistically start with, without overdoing it. Write it down next to the activity.

Activity / Position	How much could you start with?
1.	
2.	
3.	

Write up a separate realistic plan for each activity/position on the graded activity plan sheets you have been given (start from tomorrow's date).

Do This At Home

1. Carry out your graded activity plans (Start tomorrow).
2. Review them at the end of the week.
3. Make any necessary changes to the rate of progression when you write up the following weeks plan.
4. Carry out the following weeks plans and so on.

Remember to stick to the plan on good and bad days

Managing Flare Ups

What are flare-ups?

When we have a persistent pain problem it is common to experience flare-ups. A flare-up is usually characterized by a sustained increase in symptoms

- They often have triggers—these can be physical, negative thoughts and feelings, or life events. Remember that these triggers are often not immediately obvious.
- There may be situations that make the flare-ups more likely.
- There is often a vicious cycle that maintains this flare-up.

If you can identify your triggers you can reduce the likelihood of a flare-up. You therefore may be able to break this vicious cycle and manage these situations better. As a result you may find that



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flare-ups become less problematic, you can manage them better, they don't last as long and you can get back on track much sooner.

How do I respond to a flare-up?

When symptoms become really bad it is difficult to do anything else but dwell on them – this is natural but can get in the way of recovering quickly from a flare-up. How we respond to that increase in pain and what we think about it will often influence how quickly we recover from a flare-up.

If we think the worst when we experience a flare-up and reduce our activity levels it can often take a long time to recover. However, if we view flare-ups as a normal part of a pain problem, and are reassured that it is safe to get moving, we often recover much quicker.

Remember that flare-ups are usually time limited, so whilst you may need to reduce your activity for a short while, it is important to gradually increase activity in a short period of time.

Flare-up Emergency Plan

- Keep calm, it will get better
- Assess whether this is a new pain or your familiar one
- Use relaxation principles (eg breathing exercises) and do some gentle exercises
- Take it slower for a few hours
- Keep active, but be prepared to modify activities
- Begin to build physical activities up gradually
- Take your usual analgesic medication if it helps
- Aim to keep in control of your recovery
- Reflect on what might have triggered the flare-up in order to learn from it
- Congratulate yourself afterwards for managing it well

Managing triggers

Initially there may be a trigger which causes a setback. We may have an excessively busy day which we weren't expecting, or we may forget to take our medication, or we may receive some bad news about something. As a result of this our pain can often increase.

We may be able to control some of these triggers. For example a common trigger for back pain is sustained sitting. By taking regular breaks from sitting, by getting up and stretching, we can reduce the chance of a setback from happening. Other techniques to reduce the chances of setbacks from happening include doing exercises, going for a walk, changing to another activity, or doing relaxation exercises.

However, in spite of employing these techniques there will be times when setbacks cannot be avoided. Setbacks are not always triggered by particular activities and not all triggered pain is controllable. However, through applying the techniques recommended in the setback emergency



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plan, the impact of setbacks can be reduced.

Functional Restoration and Managing Setbacks

1. What sort of things/situations might trigger a set back?

Think of the last time you had a setback. What sort of things happened to you that resulted in you having a setback? When you had your setback, what sort of things did you think or do?

2. What can I do to manage a set back?

The aim is to find ways in which you can deal with your set back pro-actively, using methods that both acknowledge the difficulty but put it in perspective, leaving you with a greater sense of control. Try to identify things you can do to help manage a future setback..

3. What caused the set back?

Naturally you will want to know what caused the set back so that you can learn from experience. Be careful not to jump to conclusions though. Don't dwell on what caused it for too long (it may lead to frustration). If you do not know what caused it, 'let it go', acknowledge that sometimes we don't have all the answers.

SETBACK EMERGENCY CARD

- Don't panic – this will get better
- Assess whether this is a new pain or your familiar one
- Try to relax and do some gentle exercises
- Take it slower for a few hours
- Keep active, but potter about
- Begin to pace your exercises up gradually
- Take some of your usual medication if necessary
- Keep in control – don't seek further referral to a 'specialist'
- Try and work out why the setback happened
- Congratulate yourself afterwards for managing it well

Maintaining Change

The improvements you feel using the graded activity approach will remain beneficial if those improvements are maintained.



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It is important that you keep your goals up and set new ones once you have achieved them. Without specific goals it is often difficult to motivate yourself to maintain changes, and things like exercising regularly, can fall by the wayside.

Situations will arise which will challenge your ability to maintain graded activity, or your goals and it is important you are able to identify these.

Try and identify situations or events that will challenge your ability to keep active ahead of time (Consider mood, thoughts, social, motivation, life events, environmental, other). For example, busy periods at work might make it harder to find time to exercises or relax. Problem solve this - Making exercise and relaxation a priority, good time management, being organised, going for a walk at lunch time, delegating at work and leaving work on time might all help you to keep on exercising and relaxing, even during this busy time.

1. What are the reasons why you might stop thinking / doing things like you are now? (These factors increase the temptation to cope through old thoughts, beliefs and behaviour)
2. Reinforcing your new ideas and behaviours.
 - You need to find reinforcers for your new thoughts and behaviours (remember reinforcers work better than punishment)
 - What has worked in the past? (think of how you motivated yourself to study, go to the gym, diet etc. in the past)
3. How can you reward yourself for doing well?

Continuing Activity

Now lets look at what you have learnt. Why is it important to continue with the things you have learnt over the past few weeks?

1. Why?
2. What are you going to do to keep things going physically? How often?
3. When would you stop progressing things?