

Memory and Concentration

**‘To equip people affected by CFS / ME with the skills
for self-management towards a better quality of life’.**



Pride in our older people's and adult community services

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Memory and concentration



Many people with CFS/ME are concerned about the impact this condition has on aspects of memory, as well as on concentration and word-finding. These symptoms are very common and can be very frightening. Many people are alarmed by their poor ability to remember things and there can be a fear that this is a sign of some form of dementia. However, the underlying problem is a lack of energy, leading to difficulties with concentration and memory, where, for reasons detailed below

information does not get stored in our memories in the first place. Mental fatigue is experienced in the same way as physical fatigue. It is important to acknowledge that energy is used to think and the thought processes become tired in the same way as our joints and muscles become tired. When the symptoms of fatigue are managed more effectively, problems that are experienced with memory and concentration should begin to improve.

The effect on memory is typically on 'short term' or working memory. People may forget what they have just been told, forget people's names, forget what they were just about to do, and so on. Decision-making, acquiring new knowledge and accessing existing knowledge can all become affected. These things bunched together often get referred to as brain fog. In general, these cognitive symptoms fluctuate depending on levels of fatigue and other symptoms. They can also be made worse by sleep disturbance. Sleep quality and quantity is important for laying down memory and other key brain functions. If sleep is an issue please ask for a copy of our sleep information.

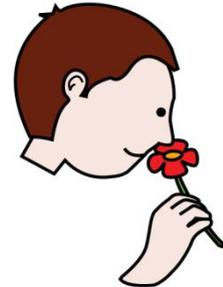
Before we discuss strategies for memory and concentration, let's look at memory and concentration in more detail:

Memory:

To begin to understand why you are having difficulty remembering even simple things, it may be helpful to give you an overview of how your memory works.

Sensory integration system

Your brain is continuously receiving information both from inside the body and from the external environment. Your immediate memory has the ability to hold on-going experiences in your mind for only a few seconds. Information from the senses (smell, touch, hearing, taste and sight) are selected from your environment and filtered, perceived and then organised. This system acts like a filter so that your brain does not become overwhelmed by lots of information being received at once.



Here's an example:

If you smell something, your olfactory system senses the smell, which is filtered or distinguished from other smells around you. It is then perceived by your brain, working out what it specifically means (i.e. is it food or perfume?) and whether it is recognised. If it is something that reminds you of something else it will make more sense and then be organised (or filed) in the correct place in your brain.

Our immediate memory also provides us with an on-going sense of being in the 'present'.

Short term or working memory:



Short term memory deteriorates quickly and has a limited capacity. Loss of information from the short term memory occurs when new information continuously replaces older information. This often means we have a desire to complete tasks that are held in our short term memory as quickly as possible. The short term memory can hold only around seven pieces of information. This is often why a telephone number can be easier to remember if broken into chunks rather than one single, long number. For example, 841739 if written 84-17-39 means your brain remembering three numbers instead of 6 (8 and 4 and 1 and 7 and 3 and 9) (84 and 17 and 39).

How information is presented or organised to your brain can determine whether it makes it through your memory processes.

Long term memory:

Try to recall what happened to you last week, in great detail- chances are you can remember some things about this but not in greater detail. The things you are able to remember about last week are stored in your long term memory. While short term and working memory persist for around 18-30 seconds, information can remain in your long term memory for days, weeks or indefinitely. This includes childhood memories. Information is more likely to be stored in your long term memory if you have focused on learning it or if you have come across it a number of times.

Your long term memory is your brain's filing cabinet- storing, retrieving and recognising information.

Concentration:

To concentrate is to focus our attention to one particular object or activity. A common problem with this condition is how levels of concentration can fluctuate day to day, hour to hour, minute to minute. This can lead to worry and frustration, with a loss of concentration having a direct impact on a person's daily activities.

Concentration difficulties can include:

- Difficulty following a conversation
- Problems with reading a book or dealing with numbers
- Feeling fuzzy headed or slow in thinking

Concentration can be affected by a number of internal and external factors:

- **Your physical state-** In addition to the impact fatigue has on your mental processes, other symptoms such as pain, headaches, nausea can influence your ability to focus and concentrate. If pain is part of your symptoms then you may notice that this affects your sleep.
- **Your emotional state-** If you feel relaxed, rested and calm, you are more likely to notice the positive influence this has on your concentration levels. Equally, if you have a lot on your plate or are experiencing distress or worry, this is likely to have a negative impact on your ability to concentrate
- **Enthusiasm-** If you are interested in an activity and find something enjoyable and meaningful, you are more likely to be able to concentrate on this.

- **Skill-** If you know how to do something and are confident with more established activities and roles, this is likely to have less of an impact on your ability to concentrate. If you are trying something new, initially it is likely to require more concentration from you.
- **Environment-** There are many external influences that can affect concentration. Noise, temperature, light, being around people that 'stress you out' can all have an influence on your ability to concentrate effectively.

What can you do to improve your memory and concentration?

Targeting other areas that may be affected by, or continue to perpetuate your CFS/ME symptoms can often have a positive influence on your memory and concentration:

- **Sleep disturbance or unrefreshing sleep-** this is a common problem with CFS/ME. As already discussed, sleep quality is important for laying down memory and other key brain functions. Try to stabilise a poor sleep pattern with sleep hygiene advice (ask for a copy of our sleep handout and do some of your own self- research into sleep). Working on levelling out of boom and bust patterns (refer to the activity management handout) and the use of relaxation techniques to help switch off before bedtime can all help towards achieving a better quality of sleep.
- **Learning to manage anxiety and low mood-** Both of these can have a negative influence on your ability to remember and to concentrate effectively. Unhelpful thoughts like "I'm useless", "I'm never going to remember any of this" only serve to perpetuate the problem and create more negative thinking.
- **Avoiding things that seem to make brain function worse-** such as alcohol, caffeine (and caffeine based drinks) or certain medications.

Strategies to improve memory and concentration:

Grading

- Grading and managing your daily activities can be a useful first strategy to apply to memory and concentration difficulties. Consider setting yourself smaller, more achievable goals, such as reading a paragraph from a book, rather than trying to complete the whole chapter or the whole book in one hit! When a paragraph is manageable, increase it gradually i.e. two chapters and so on.
- Plan ahead- planning your daily and weekly activities using a diary, schedule or planner can ensure a better balance of activity demand. Trying to engage in tasks that require your concentration when you are mentally exhausted will be difficult and may reinforce any boom and bust patterns.
- Prioritising your tasks. Again, using planners can help ensure a spread of activities through the week and make you feel more productive.
- Remember to take regular breaks between activities. Set yourself time limits on mental tasks and take short rest breaks in between, or mix mental and physical tasks around a little.
- Try to focus on one thing at once



Environment

Is lighting appropriate for the task you are engaging in? For example using a reading light when reading a book. Is the room too light or too dark for the task? Give consideration to the glare from computer screens and phones/tablets.

- Is the environment that you are in too noisy? Are people or things in your immediate environment causing a distraction to you? Can you change the environment you are in or maybe use headphones to reduce noise levels in the environment?

Resources

- Keep lists and use 'post it notes'



- Use calendars and diary properly. Keep them in a place where you will regularly see them and will get into the routine of checking them
- Use a Dictaphone to record conversations, college lectures, seminars etc.
- Keep message books next to the telephone or in your handbag/pocket
- Rehearse and repeat things that you want to remember in your head
- Repeatedly write things down or say them out loud, if you are trying to learn something new
- Read messages back to people and summarise key points of a conversation- try to write these down straight away afterwards if possible

Expectations of yourself and others

- Try not to set standards too high or repeatedly compare your previous memory to your current abilities
- Delegate and ask others to share responsibilities- don't overload yourself!
- Trying to juggle too many things at once can be overwhelming. Try to break tasks into manageable pieces so as not to overwhelm yourself

Comparing previous concentration levels and how you used to do things can create negative, unhelpful thinking patterns. If you can be kinder to yourself you should find that you feel less pressure. Research has found that you are able to concentrate properly for around 20 minutes. Try not to expect yourself to start at that level as we know that CFS/ME affects memory and concentration, therefore it is important that you set realistic goals. Applying the principles of grading and considering a baseline from which to build on is a more realistic approach. For example speaking to someone on the telephone for 5 minutes might be a realistic baseline, with the view of gradually increasing this by 1 minute every 1 to 2 weeks. Try to involve family and friends with this and ask them to help you work on your goals.

Information contained in this booklet sourced from:

Stanley, S. and Hinds, L. (2012) Memory and Concentration. In: Pemberton, S. and Berry, C. (ed.) Fighting fatigue a practical guide to managing the symptoms of CFS/ME. London: Hammersmith Press Limited, pp.92-113.

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For information about CPFT services or to raise an issue, contact the Patient Advice and Liaison Service (PALS) on Freephone 0800 376 0775, or e-mail pals@cpft.nhs.uk

Out-of-hours service for CPFT mental health service users

Please call **NHS 111** for health advice and support.

If you require this information in another format such as braille, large print or another language, please let us know.

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