

# Brain and Behaviour in Dementia:

## Frontal Lobes

### Transcript

*Female presenter:*

As Alzheimer's disease gets worse, it spreads forwards and starts to affect the front part of the brain known as the frontal lobe. This area is very important in humans, as it brings together and makes sense of all the information coming from the different parts of the brain, rather like the conductor of an orchestra. The fact that this part of the brain is relatively large and well developed compared to the rest of the brain is one of the things that distinguishes us from other animals. Much of our character and personality resides in the front part of our brain and it also helps us to focus and concentrate, to plan and organise our activities, and to have an understanding of how we're doing. Dementia illnesses often affect the outer, inner and underside of the brain, which creates different symptoms depending on the part affected.

*Male presenter:*

The outer parts of the frontal lobe help us plan and organise whatever we're going to do. For instance, if I was going to cook a meal, they would help me organise what ingredients I wanted, how much of those ingredients, when to put them in and how long to cook the meal for. If this part of my brain was damaged, then I'd become disorganised, and be unable to cook the meal. The middle part of the frontal lobes helps regulate levels of activity so that in order to get motivated to make the meal, this part of my brain must be working. If it is not working properly, then I would become apathetic and disinterested, and would not be able to look after myself, let alone cook a meal. Apathy is often extremely frustrating for carers as once active and interested people may become almost switched off.

*Female presenter:*

Apathy is often seen in dementias known as fronto-temporal dementia or Pick's disease. Another symptom of these dementias is a tendency to be repetitive and this is known as perseveration. The person may go to a drawer to look for an object and instead of stopping when they've located that object, they'll carry on and unpack the whole of the drawer and maybe even all of the drawers in the cupboards. They find it difficult to stop.

*Carer 1:*

Given half a chance, he'd shave himself constantly all day. He likes to shave and he likes the routine – he has, you know, a lot of bathroom routines that go on and he's ... um ... and he likes to sit in a certain place. He rocks, and he used to have a lot more repetitive things but he's sort of limited now – you don't really ...

*Male presenter:*

How do you manage those over time?

*Carer 1:*

I just don't get irritated. Just know that he's going to do it and not get irritated and it's not easy at all! (laughs) Just try and keep a sense of humour about things.

*Male presenter:*

The area of the frontal lobes just above our eyes helps regulate our behaviour so it is appropriate to our circumstances and also keeps us focused on what we want to do. If this area becomes damaged, then the sufferer may become very easily distracted and flick from one thing to another and follow anything that draws their attention. This often leads to aimless wandering. Some people may become disinhibited and do or say things that are inappropriate. They may shout, swear, become aggressive, which is totally out of character. In addition, some people will not realise or understand how they're behaving or what effect it is having on other people. We call this problem with self awareness a "lack of insight". Some people may think they're doing a really good job but when it's pointed out to them that they're not, they may become extremely angry.

*Carer 1:*

It didn't have any impact on him; he just didn't seem to care about anything which was, em, socially very difficult to deal with because there was, you know, most people sort of apologise or, you know, there's some sort of social graces and he was, you know, a very erudite person, you know, very knowledgeable person and very caring so that was one of the things before he was diagnosed, it was so difficult to understand that he was no longer conscious of the way people were reacting to him and it made social situations really difficult.

*Male presenter:*

It is not uncommon for people with dementia to be living very chaotically, not looking after themselves, not eating, sleeping, or washing themselves properly; to be thinking they're doing a really good job and there's nothing wrong to see.

This means their brain is not giving them proper feedback and they have a "lack of insight".