## Intellectual Disability and Dementia

Medical advances and improvements in health and social care have led to an increase in the life expectancy of people with learning disabilities thus leading to the conditions and illnesses of older age. People with learning disabilities are at an increased risk of developing early onset dementia this is particularly the case for people with Down syndrome.

## The Link between Alzheimer's Disease and Down Syndrome

Studies have shown that in later life almost all people with Down syndrome develop the changes in the brain associated with Alzheimer's disease (AD). This is thought to be due to the fact that people with Down syndrome have an extra copy of chromosome 21. Chromosome 21 is responsible for the production of beta-amyloid protein that is found in the plaques and tangles characteristic of AD. However, some people with Down syndrome who are older than 40 show no signs of having AD.

## Symptoms

Dementia generally affects people with learning disabilities in a similar way to the general population. However, in those with Down syndrome, changes in behaviour or personality are more commonly reported as an early symptom of AD, than memory loss. The middle and later stages of dementia in people with Down syndrome are similar to these stages in the general population.

## Diagnosis

Making a diagnosis of AD can be difficult when a person has a learning disability or Down syndrome for a number of reasons:

- People with Down syndrome are susceptible to a number of reversible conditions such as hypothyroidism or depression that can be mistaken for AD. The side effects of some medications can also mimic AD.
- The usual skill tests used for diagnosis do not take into account the existing problems of a person with a learning disability.
- The limited communication skills of some people with a learning disability may affect the assessment.

Only a doctor can make a diagnosis of AD. Making the diagnosis in a person with Down syndrome is usually based on excluding other possible causes of symptoms. Reports from family and carers about the person's medical history can help to separate pre-existing conditions from the symptoms of AD.