

What's the Evidence? 'Snowdrop for Brain Injured Children'

Key findings

- Snowdrop for Brain Injured Children is a private organisation with charitable status that provides alternative therapy for children with developmental health conditions.
- It is difficult to understand exactly what the therapy entails; the programme appears to be individually tailored sensory activities, dietary and lifestyle recommendations.
- Snowdrop is not delivered by professionals regulated by the Health and Care Professions Council.
- There is no evidence from research that the Snowdrop programme is effective to improve children's abilities beyond what would be expected due to recovery from brain injury and development alone.

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What were we asked?

A parent of a young child with an acquired brain injury following treatment for brain tumour asked us about 'Snowdrop for Brain Injured Children'. They wanted to know if the Snowdrop programme was likely to be more effective than standard speech and language therapy to help their child understand more and to use speech as her main way of communicating.

What did we do?

First, we carried out a general Internet search to find out about the Snowdrop for Brain Injured Children. We then searched [publically accessible databases](#) including NHS Evidence, The Cochrane Library, TRIP, NICE, and PubMed. We looked for studies that evaluated the effectiveness of the Snowdrop programme for children and young people with any condition.

We also contacted the founder of Snowdrop for information and in case there was any research evidence we had missed.

What did we find?

Snowdrop for Brain Injured Children is a private organisation operating as a charity that aims to improve the abilities of children with developmental problems. Snowdrop provides therapy programmes for children of all ages with a wide variety of diagnoses.

Snowdrop is an alternative therapy not delivered by clinically qualified health professionals regulated by the UK Health and Care Professions Council. The founder has [academic degrees and diplomas](#) related to neuroscience and child development.

It is difficult to discern exactly what the therapy involves. Following an assessment, an individually tailored programme is recommended that appears to consist of sensory activities, such as music and light exposures, dietary advice and lifestyle recommendations. Snowdrop recommend that their programme is revised every 5 months.¹

Snowdrop state that their therapy is based on brain plasticity.¹ Neuroplasticity is the ability of the brain to reorganise its structure, function and connections. Whilst we know neuroplasticity occurs, it is not fully understood how to manipulate it.

Neuroplasticity can be both positive and negative. Positive changes include gains in function. However, neuroplasticity can also be associated with negative consequences such as loss of function or increased injury.² Neuroplasticity happens for a number of reasons,² including:

- During development
- In response to the environment
- In response to disease
- In relation to therapy
- In relation to learning

There is still a lot that is unknown about neuroplasticity. Current understanding is that brain plasticity is greatest in children. However, it is also understood that the brain does not have limitless potential for plasticity. Different areas of the brain have different functions. This means that some areas of the brain are not able to take over the function of other areas.³

There is a lot of interest in using therapies to induce brain plasticity to promote functioning. However more research is needed to understand exactly what types and doses of therapy are effective to achieve this, and the best time in development for this therapy to take place.^{4,5}

Note: the views expressed here are those of the Peninsula Cerebra Research Unit (PenCRU) at the University of Exeter Medical School and do not represent the views of the Cerebra charity, or any other parties mentioned. We strongly recommend seeking medical advice before undertaking any treatments/therapies not prescribed within the NHS.

We welcome feedback – please email us at pencru@exeter.ac.uk if you have any comments or questions.

What's the evidence that Snowdrop programmes are effective?

We did not find any scientific evaluation of the Snowdrop programme. The founder of Snowdrop confirmed that there is no evidence from research regarding the effectiveness of their programme.

There is no evidence that Snowdrop for Brain Injured Children programme is likely to be effective to help a child understand more and to use speech as their main way of communicating.

What do we think?

- There is no evidence from research that the Snowdrop programme is effective to improve children's functioning beyond what would be expected due to recovery after brain injury and development.
- We advise caution as the Snowdrop programme is not delivered by clinically-qualified health professionals regulated by the UK Health and Care Professions Council.
- More research is needed to understand how, and when, the brain can respond positively to therapy-induced neuroplasticity.^{4,5}

Signposts to information

The Snowdrop for Brain Injured Children website: <http://www.snowdrop.cc/>

The [Charity Commission website entry for Snowdrop for Brain Injured Children](#).

References

- 1 Snowdrop. About us. [Online] Available at: <http://www.snowdrop.cc/about-us.aspx>
- 2 Cramer, S.C. (2011) Harnessing neuroplasticity for clinical applications. *Brain*. 134 (6): 1591-609.
- 3 Thomas, M.S.C. (2003). Limits on plasticity. Essay Review. *Journal of cognition and development*. 4(1): 95-121.
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- 4 Reid, L. et al. (2015) Rehabilitation and neuroplasticity in children with unilateral cerebral palsy. *Nature Reviews Neurology*.
- 5 Mayston, M. (2014) Intervention planning, implementation and evaluation. In: Dan, B et al. eds. *Cerebral Palsy. Science and Clinical Practice*. Mac Keith Press. pp. 339.