

Supporting Students with NF1 in the Classroom: Facilitator Guide

Neurofibromatosis (NF) is a neurological disorder that causes tumours to form on the nerves of the body. There are three types of NF: Type 1, Type 2, and Schwannomytosis. In particular, **NF Type 1 (NF1)** is one of the most common genetic disorders, affecting about 1 in 2500 people. NF1 symptoms can range from mild to severe and is usually characterized by brown spots on the skin, growth under the skin, and scoliosis. The disorder is not contagious and although there is no cure, early intervention can make a difference. Particularly, 50-60% of children with NF1 experience learning challenges but with the right support, these students can still succeed.

Learning and Behavioural Challenges

Visual Perception

Difficulty processing information in graphics or writing, reading words in the correct order, or experiencing visual information overload.

- Provide graph paper for homework to help with reading
- Give verbal or visual explanations

Language

Difficulty following instructions in speech or writing, and understanding the meaning behind words.

- Provide time and patience for students who are struggling to respond
- Use visual aids

Fine and Gross Motor Skills

Difficulty in precise movements such as writing or larger movements such as participating in sports activities.

- Engage in activities that improve these skills (fine art activities or non-competitive sports)
- Avoid putting pressure on the student as they may be trying their best

Executive Function

Trouble organizing their time, deadlines, and resources to approach tasks such as homework.

- Provide support especially in organization through the use of calendars or tutors
- Break down projects into smaller tasks and use checklists

Social Skills

May struggle with interaction and communication with peers.

- Plan play-dates or partnered activities with suitable peers in the class

Behaviour and Attention Difficulties

Students can have ADHD (restless, impulsive, or inattentive) or ASD (trouble with flexibility or social awareness).

- Modify assignments or exams to test knowledge and not attention span
- Provide extra time and understanding for these students

Individualized Support/Educational Plans

Students can be provided with an **Individualized Educational Plan** if the child has been evaluated with a school designation. This plan is tailored to the needs of the student by outlining the goals and strategies to succeed, involving the whole education team which consists of the student, teacher, and family. This will be reviewed regularly throughout the student's school career and updated at least once a year.

Social-Emotional Support for Students

Students with learning disorders can also have challenges developing peer relationships and it is important to be aware that bullying can occur. This can be counteracted by educating the class using accurate information in a general setting (i.e., class discussions) if granted consent.

Teachers also must be vigilant for behavioural changes in their students and inform the parents if they are worried. Some behavioural changes or indications to be aware of include:

- A reluctance to go to school
- Faking illnesses or skipping school
- Personal belongings getting lost or damaged
- Lack of confidence and acting withdrawn from others

Students with NF1 can also suffer from poor self-esteem as they lose confidence in tasks, therefore, linking success with effort and practice is ideal. Educators should not minimize expectations as the students can still excel.

Additional Resources

There are many organizations dedicated to help people with NF1 such as the Tumour Foundation of BC and the Children's Tumour Foundation. Online communities within Facebook and Reddit are also available to connect with those living with NF1.

For more information or questions, please contact the Tumour Foundation of BC at 1-800-385-2263 or info@tumourfoundation.ca. We would be happy to hear from you and thank you for making a difference.