

# Low Muscle Tone

## What is low muscle tone?

'Low muscle tone' is a condition of abnormally low muscle tone, the amount of tension or resistance to movement in a muscle. Low muscle tone occurs when the length of the resting muscle is slightly longer than typical. This means that the muscle fibers are not overlapping at an optimal level and there are fewer points where the fibers can attach and generate pull on the muscle. As a result, the person's muscle needs to go through a greater range of motion and, as a result, more energy is used. On top of this, it often takes greater stimulation for the muscle to activate, which also increases the response time of the muscle and it directly influences the child's performance abilities. The use of extra energy contributes to the decrease in the child's endurance.

## What are the common features of low muscle tone?

- Decreased strength.
- Increased flexibility and movement in joints.
- Poor endurance.

## Common difficulties often (but not always) experienced by those with low muscle tone:

- Fatigues quickly.
- Poor posture.
- Increased flexibility, increasing susceptibility to injuries.
- Poor persistence to gross motor tasks.
- Lack appropriate body awareness feedback.
- Avoids chewy foods.
- Preference to engage in sedentary activities.

Management strategies that support the child with low muscle tone (at preschool, school and/or home):

- Reward system.

- Appropriate set up for school desk.
- Encouragement.
- Provide opportunities to succeed by simplifying activities.
- Extra time to complete tasks.
- Recognise and reinforce the child's strengths.

## Occupational Therapy approaches and activities that can support the child with low muscle tone and/or their carers include:

Gross motor activities: Increase participation in gross motor activities.

Motivation: Make activities achievable and appealing for the child.:

Fun/play: A child is more likely to persist with tasks if they are fun and play based.

Develop underlying skills: such as postural control, endurance and body awareness.

Play based activities to promote longer participation.

Graded activities so they gradually develop a child's strength and endurance.

Hard muscle work exercises/games to build strength and endurance.

Speech Therapy approaches and activities that can support the child with low muscle tone and/or their carers include:

Muscle strength in the face: Activities to increase muscle strength in the face (e.g. drink yoghurt/thick-shakes through a straw, blowing up balloons).

Articulation: Improving articulation of specific speech sounds within words.

Oral awareness: Developing oral awareness (i.e. movement of the tongue in the mouth).

Alternative forms of communication: Teaching alternative ways of communicating through sign language or PECS (Picture Exchange Communication System) whilst muscle tone is improving.

Communication strategies: Working together with parents to devise goals and strategies to help develop areas of communication which the child is having difficulty with.

Daily activities: Providing families with strategies and advice that can be utilised at home within daily activities and routines to help develop communication skills.

Step by step goals: Making small step by step goals that are achievable and show the child's progression within the skill areas.

Visual information: Incorporating extra visual information through the use of a more formalised gesture system, pictures and/or symbols to aid understanding and use of language where appropriate.

Positive reinforcement: Providing lots of positive reinforcement and encouragement throughout therapy to help build confidence and self esteem.

Liaising with educational staff (where appropriate) about the child's communication skills and providing information and ideas that can be used in the educational setting to help the child access the curriculum.

## If left untreated the child with low muscle tone may have difficulties with:

- Learning to talk, speech intelligibility and clarity.
- Managing a full school day due to poor strength and endurance.
- Participating in sporting activities leading to an inactive lifestyle, increasing the risks of other health related issues such as obesity, diabetes, cardiovascular disease or similar conditions.
- Self esteem and confidence when they realise their skills do not match their peers.
- Bullying when others become more aware of a child's difficulties.
- Fine motor skills (e.g. writing, drawing and cutting) due to poor core stability, meaning they do not have a strong base to support the use of their arms and hands.
- Completing self-care tasks (e.g. doing up shoelaces, buttons, zips, using cutlery).
- Accessing the curriculum because they are unable to attend to tasks long enough to complete assessment criteria.
- Anxiety and stress in a variety of situations leading to difficulty reaching their academic potential.
- Academic performance: Developing literacy skills such as reading and writing and coping in the academic environment.
- Academic assessment: Completing tests, exams and academic tasks in higher education.