

Physiotherapy for Clients with Cerebral Palsy: The Impact of Warm Weather through Summer

Cerebral palsy (CP) is a neurological disorder that affects movement, muscle tone, and motor skills, typically due to brain damage occurring during or shortly after birth. The condition presents with a broad range of symptoms, from mild to severe, and can involve spasticity, weakness, coordination issues, and in some cases, cognitive impairments. One of the most effective treatment options for individuals with CP is physiotherapy, which aims to improve motor function, enhance mobility, and reduce pain or discomfort.

Managing CP can become more challenging under certain environmental conditions, particularly during the warm weather of the summer months. While physiotherapy remains critical year-round, understanding the effects of heat on individuals with CP and adapting treatments to accommodate these changes can significantly improve their quality of life.

The Role of Physiotherapy in Treating Cerebral Palsy

Physiotherapy for clients with cerebral palsy primarily focuses on improving functional mobility, muscle strength, coordination, and range of motion. The core treatment areas include:

Strengthening Weak Muscles: Developing specific exercise programs to help individuals strengthen weak muscles thus improving overall function in daily activities.

Reducing Spasticity: Many individuals with CP experience spasticity, or muscle stiffness, that limits their range of motion and mobility. Techniques such as stretching, sustained positioning, and passive movements are employed to reduce spasticity.

Improving Balance and Coordination: Balance and motor coordination can be challenging for individuals with CP, so exercises that focus on enhancing postural control and limb coordination are crucial for mobility and daily functioning.

Pain Management: Clients with CP may suffer from joint pain or musculoskeletal discomfort due to abnormal posture or muscle tension. Techniques such as manual therapy, exercise, and stretching can be used to alleviate such pain.

The Impact of Warm Weather on Cerebral Palsy

As we enter the warmer months of the year it is essential to understand that warm weather can have a unique and sometimes challenging impact on individuals with cerebral palsy. The physical response to increased temperature is unique to each individual, however many experience exacerbations of the aforementioned symptoms during hot or humid conditions. Understanding these effects is key to adjusting physiotherapy sessions to ensure the individual remains comfortable and continues to progress in their rehabilitation.

Heat Sensitivity and Spasticity: One of the most common issues faced by people with cerebral palsy in warm weather is increased spasticity. High temperatures can exacerbate muscle tightness, which may lead to increased discomfort, pain, and difficulty in performing physical tasks.

Fatigue and Dehydration: Warm weather can also lead to quicker fatigue and dehydration, especially if a person is exerting themselves during physiotherapy sessions. Excessive heat can

cause increased perspiration and fluid loss, which can, in turn, contribute to fatigue, dehydration, and diminished muscle function.

Impact on Motor Control and Coordination: For some individuals with CP, warm weather can exacerbate difficulties in motor control and coordination. Heat can sometimes make it harder for individuals to maintain proper posture or engage muscles effectively. In these conditions, balance may become more compromised, and individuals may experience difficulty maintaining correct posture.

Strategies for Effective Physiotherapy in Warm Weather

Physiotherapists working with individuals with cerebral palsy during warm weather can employ several strategies to minimise the impact of heat and ensure the therapy remains effective:

Adjusting the Environment: Therapy sessions should be scheduled during the cooler parts of the day, such as early morning or late afternoon. It is also helpful to conduct therapy in air-conditioned spaces or well-ventilated areas.

Lower Intensity Sessions: In hot weather, therapy intensity can be reduced, focusing more on stretching, joint mobility, and passive range of motion exercises rather than strenuous physical activity.

Incorporating Hydrotherapy: Water-based therapies, such as swimming or aquatic physiotherapy, can be beneficial in warm weather. Water provides resistance without putting undue stress on the joints, and it helps regulate body temperature, reducing the risk of overheating.

Hydration: Ensuring the individual remains well-hydrated throughout therapy sessions is critical. Encourage drinking water or if necessary, electrolyte-rich beverages before, during, and after therapy.

Experience working with a CP client in summer

Whilst working with one of my patients with cerebral palsy during the warm summer months, my primary focus is on ensuring our sessions remain comfortable and effective despite the heat. Warm weather can worsen spasticity and fatigue, so I tailor the therapy to avoid overexertion and accommodate for heat sensitivity. For hands-on therapy, I often focus on gentle stretching and passive range-of-motion exercises, particularly targeting areas with increased muscle tightness, which in this case tends to be the muscles of the hips and legs due to long hours spent in a wheelchair. This treatment helps reduce spasticity and improve flexibility while minimising her strain. I also incorporate soft tissue techniques including myofascial release and muscle energy techniques to help relax overactive muscles and improve mobility. Since these interventions often require direct contact with the patient, I make sure the room is cool and well-ventilated, and we take breaks as needed to prevent overheating. During therapy, I also encourage deep breathing and relaxation which can help manage any increased muscle tension from the heat. Adjusting the intensity and duration of the session is key, as maintaining a slower pace and offering hydration breaks between exercises helps prevent fatigue and ensures the patient is comfortable throughout the session.

Physiotherapy plays a crucial role in improving the quality of life for individuals with cerebral palsy, helping to enhance mobility, reduce pain, and increase independence. By understanding how temperature affects the condition and adapting physiotherapy approaches accordingly, as therapists we can ensure that clients continue to make progress while minimising the negative impacts of heat.

