Assessment Steps in the development of head control for children with Cerebral Palsy.

from the maintenance of static equilibrium to development of dynamic, reactive control.

1. Can the child hold their head in midline when in a supine position?
   - The head may assume an asymmetric position in supine due to the effect of gravity or tone. Achieving midline requires neck muscle activity indicating the early development of postural control.
   - **Activity:** Hold your face close to the child’s face to optimise gaze and attention while chatting and singing.
   - **Did you know?** Between 2 and 8 weeks old, typically developing infants hold their head midline more often when crying, because crying increases the activity of the neck muscles.1

2. Can the child lift their head from supine/prone?
   - Anti-gravity control develops as muscle strength increases, enabling chin tuck from supine / head lift from a prone position.
   - In pre-term children, persistent head lag and poor ability to lift the head whilst in prone are associated with poor motor outcomes.4
   - **Activity:** Use positioning to encourage chin tuck during pull to sit. Grade difficulty using an inclined starting position as a wedge, and if required, support shoulder girdles from behind during transfer.
   - **Did you know?** There is a direct positive relationship between the amount of time spent in an awake prone position and the level of head control in typical development.5

3. Can the child hold and move their head from a neutral position, when held in an upright posture?
   - These skills develop due to a combination of increased strength and integration of reflex movements.13 Inability to maintain static head control is an early developmental concern.
   - **Activity:** Grade assistance required in sitting and standing using supportive equipment. A tray could be used to achieve weight bearing through shoulders to facilitate head movement.
   - **Did you know?** There is a direct relationship between poor head control and drooling in children at GMFCS levels IV and V.2

4. Can the child visually track with or without head movement?
   - Head control enables the development of gaze control and in turn vision helps to control the head in space.6 Head control also precedes visual hand regard, intentional reaching, grasping, and hand-eye co-ordination.10
   - **Activity:** Use sounds, toys and social interaction to encourage visual tracking and head movement. Vary the timing, range and direction of movement used by the child to achieve success.
   - **Did you know?** Approximately 48% of children with CP have some dysfunction of their visual system which may be partly responsible for postural compensations such as head tilt, face turn, or upper body adjustments.9

5. Can the child sustain head lift during transition between positions?
   - Head control requires stability of the entire body, including the head over the trunk. Head control facilitates development of vestibular function required for balance and movement.9 Consequently, head control contributes to the development of sitting and walking.1,2,11
   - **Activity:** Grade difficulty maintaining head control using movement between positions within the gross motor developmental sequence.
   - **Did you know?** Fully mature head control is not normally achieved until after adolescence.12

References: