

A person-centred approach to the protection and restoration of body shape: how can equipment in sitting and lying help meet individual goals and changing needs to improve quality of life?

Tess Ellis, independent physiotherapist; postural care trainer for Simple Stuff Works
Helena Poulton, occupational therapist; clinical consultant to Etac R82 UK Ltd

Summary

Body shape and position impact all aspects of daily life. This presentation will consider how body shape changes can be predicted, and how appropriate equipment in sitting and lying can be used in a person-centred and effective way to protect and restore body shape.

Aims & Objectives

1. To highlight the predictable AND reversible nature of body shape changes and the need for ADAPTABLE equipment in lying AND sitting
2. To support delegates to conduct postural assessments in lying and sitting which take into account biomechanical forces acting on the body
3. To describe potential equipment solutions in lying and sitting
4. To consider solutions to common barriers to effective and person-centred equipment provision and usage

Background

Postural care is a fundamental need, particularly for those who find it difficult to change their position independently. Failure to consider or provide postural care solutions can result in body shape changes. The consequences of poor postural care are well known and documented (Crawford and Stinson, 2015; NHS Purchasing and Supply Agency, 2009) and include,

- Pain
- Decreased mobility
- Respiratory problems
- Decreased range of movement
- Bladder and bowel difficulties
- Loss of joint integrity
- Sleep problems and fatigue
- Swallowing problems
- Difficulties managing tone
- Communication difficulties
- Psychological problems

In short, poor postural care can have severe and life threatening consequences for people who have a limited ability to change position (Crawford and Stinson, 2015). Implementation of individually tailored posture management programmes can improve communication, cognition, functional skills, and participation (Gericke, 2006).

March 2013 saw the publication of the Confidential Inquiry into Premature Death of People with Learning Disabilities. This recognised that people with learning disabilities are at increased risk of

respiratory infection and associated medical needs and recommended that commissioning services acknowledge the need for 'expert and proactive postural care support'.

Expert, proactive postural care support requires knowledge of how body shape changes begin. The shortening of soft tissue due to immobility is a simple concept to grasp (Fulford and Brown, 1976). Hill and Goldsmith (2010) describe how gravity causes predictable changes to a person's body shape over time. These changes can be influenced by intervention and can be monitored with objective and validated measures (Goldsmith et al, 1992). Respiratory function, such as improved vital capacity, has been shown to be improved by supporting body shape (Nwaobi and Smith, 1986). More recently, a pilot study by Hill et al (2009) concluded that night time positioning equipment (NTPE) had no direct effect on respiratory function but did acknowledge that 3 of the 10 children showed higher oxygen saturations when using NTPE, and recommended that respiratory function be assessed when determining optimal positioning for use of night time postural equipment.

Over the past 15 years, there has been increased recognition of the benefit of providing postural care over the entire 24-hour period (Robertson et al, 2016). This usually involves prescription of NTPE and day time seating and lying equipment. In order to restore a person's body shape their lying AND seating equipment need to be reviewed and modified in a timely and collaborative manner. The same is true when there is an improvement to body shape. Both equipment options need to provide supportive yet adaptive solutions. However, the solution is not in the equipment alone. It is important that people with disabilities, their families and therapists are able to recognise the need for advice and/or equipment in the first place, and that they then have the skills and ongoing support to use this safely and effectively. Robertson et al (2016), describe a variety of reasons for the abandonment of NTPE such as difficulty sleeping, discomfort and temperature regulation difficulties.

On a day to day basis the person is usually supported to make use of this equipment by family and /or paid carers. Training and support must therefore include this group of people.

Discussion

What then does effective, person-centred postural care look like?

If body shape changes in people with movement problems are predictable it follows that the best form of postural care is successfully preventing these changes from occurring. Success can also be described as the restoration of body shape. In both cases this requires:

- Knowledge of who is at risk
- A workforce skilled in assessing lying, sitting and standing postures in order to determine the therapeutic versus destructive effect on the person's body
- A workforce skilled in predicting the biomechanical forces acting on a person's body in order to prescribe appropriate lying, sitting and standing equipment
- Access to flexible and adaptive equipment solutions in sitting and lying
- Ongoing care and timely reviews of posture and/or equipment (including adjustment when necessary) by services working together
- Training for the person's circle of support so that equipment continues to be used effectively and safely, and taking account of restraint and deprivation of liberty

Success can be determined by:

1. Achievement of personal outcomes set in partnership with the person and or the person's circle of support. These may include decreased pain, a good night's sleep, dignity in personal care,

less time in hospital for treatment of respiratory infections, ability to carry out aspects of personal care with increased dignity.

2. A measurable reversal of body shape changes using the approach described above.

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Email: tess@simplestuffworks.co.uk; helena.poulton23@ntlworld.com