



BSI Standards Publication

**Selection, placement and fixation of
flexible postural support devices in
seating – Specification**

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Summary of pages

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 October 2019. It was prepared by Subcommittee CH/173/1, *Wheelchairs* under the authority of Technical Committee CH/173, *Assistive products for persons with disability*. A list of organizations represented on this committee can be obtained on request to its secretary.

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Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

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Introduction

Postural support devices, such as positioning supports, have a specific purpose, which is to support an individual, to help maintain and increase day-to-day functionality for the individual, and to protect against the development of skeletal deformities, or to correct them. These devices, with their postural support purposes, are not to be confused with belts and similar devices designed to act as vehicular occupant restraints.

The records of MHRA (Medicines and Healthcare Products Regulatory Agency) show that over the last 15 years there have been four reported deaths and 17 serious injuries in the UK involving, or attributed to, pelvic postural support devices or anterior trunk postural support devices. These deaths are thought to have occurred as a result of inappropriate placement, adjustment or failure of the supports. There appears to be confusion as to best practice, and the reasons why postural supports need to be placed and adjusted according to the occupant's needs.

The MHRA originally provided guidance in the UK on the placement of pelvic positioning supports, but the advice was in effect more appropriate for wheelchair tie down and occupant restraint systems, rather than positioning supports. This advice was updated in 2015 in MDA/2015/018 [1]. This new guidance places the onus on the manufacturer or equipment prescriber to decide what might be best for an individual; although with minimal guidance on how this is to be ensured. This introduced the risk of a variety of interpretations, which might not be consistent, and which could cause further confusion.

For this reason, this British Standard has been produced to specify the selection and placement of positioning supports when used in seating systems and chairs, including wheelchairs and bathroom equipment (such as shower chairs) and, where applicable, hoists. This standard has been created for use by clinicians, engineers, carers, manufacturers, retailers and repairers.

NOTE 1 In this document, nomenclature has been based on BS ISO 7176-26 and ISO 16840-1. Thus, a support described as a positioning support might have the name adapted to include a description of its function based on the part of the body to which it is applied: e.g. a pelvic positioning support helps to position the pelvis, but might not be applied directly to the pelvis. However, an anterior pelvic support would be applied anterior to the pelvis.

NOTE 2 Positioning support placement can differ based on clinical and risk assessment.

1 Scope

This British Standard specifies requirements for the selection, placement and fixation of flexible postural support devices within seating devices and systems, and to chairs, including wheelchairs and bathroom equipment. Seating devices can be involved in one or more situations, including static seating, wheelchair seating, shower chairs, etc. The devices enable the seated person (the occupant) to be positioned to maximize their functional activities and to do so in a safe environment. These requirements have a balance of maintenance of posture and of safety.

This British Standard covers flexible positioning supports (padded or otherwise) used for postural positioning and/or safety. It does not cover belts and harnesses used in transportation for restraint, nor postural support devices made from rigid materials such as metal, wood or hard plastics, nor postural support devices designed solely for use in sports-related seating.