

5-YEAR WARRANTY ON THE FRAME

SmartSeatPro II

Supporting Health & Social Care Professionals with their seating provision and meeting equipment criteria.

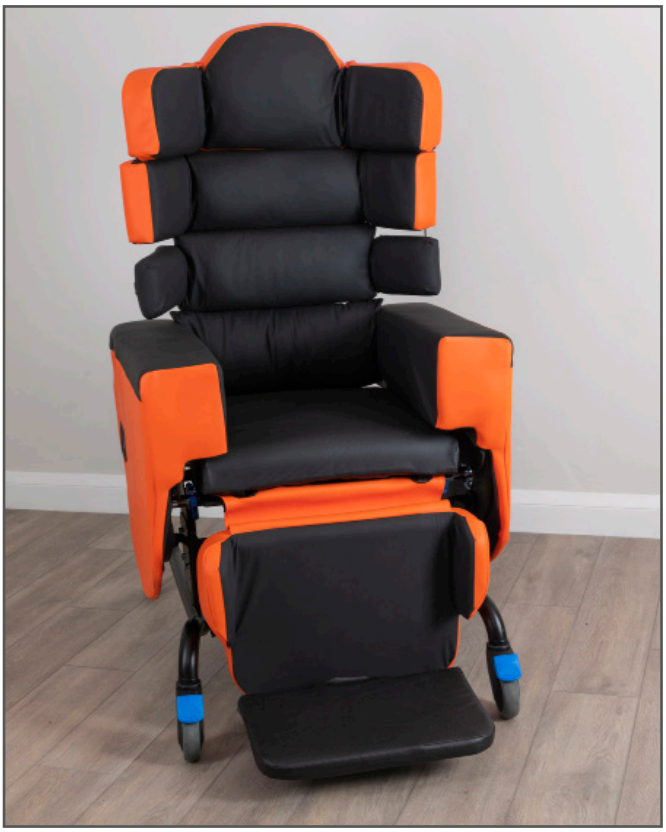
Clinical Justification & Case Studies

The SmartSeatPro II

The SmartSeatPro II is a highly adjustable modular seating system that takes specialist seating to the next level for those with complex postural management and pressure care needs. Available in Small and Medium chair sizes to support children through to the older adult of varying shape and size.

Introduction

The SmartSeatPro II's unique system allows for the set-up of a range of configurations to ensure postural asymmetries can be fully stabilised, accommodated and, where possible, corrected from the feet to the sacrum through to the cervical spine and the head. It has been designed to give Health & Social Care Professionals maximum adaptability to optimise posture, function and comfort for their clients in all environments, including domestic settings, schools, care homes and hospitals. Chair functions can be operated by manual gas action control or battery-controlled motors and a pro-control option. It provides high levels of comfort and the robust construction quality associated with CareFlex.



and wellbeing. Specialist seating aims to allow individuals, who might otherwise have difficulty, to achieve their optimum sitting posture to sit out comfortably, interact with their environment, participate in activities of daily living and enhance physiological function.

Top tip: Check out the CareFlex website for detailed information on specific postural challenges and how specialist seating can help.

The SmartSeatPro II has been designed and engineered for individuals who present with complex postural needs and are at risk of pressure injury:

- For cases where posture is at risk of significant decline without support as a result of the user's disability, injury, disease or illness.
- Total support is required to prevent or delay postural deterioration, encourage optimum physiological function and improve their health and wellbeing.
- Primary goals include safety, postural support and optimum pressure management.

The SmartSeatPro II meets the following chair requirements:

- Fully adjustable and highly flexible to correct or accommodate complex postural presentations.
- Safely supports the user to engage in everyday life and improve their quality of life.
- Integrated pressure management to reduce the risk of pressure ulcers as a result of asymmetrical postures and unequal loading of tissues.

Top tip: For individualised prescriptions for users with less complex postural needs, consider the HydroTilt, MultiAdjust or HydroFlex.

Seating Objectives

The SmartSeatPro II effectively balances four key objectives for specialist seating provision:

1. Comfort
2. Function

3. Postural management
4. Pressure care

The SmartSeatPro II achieves this by enabling the user to meet the basics of good sitting posture:[1]

- The body is conformed to the supporting surface symmetrically.
- Body weight is distributed equally over the maximum surface area.
- A balanced and stabilised body that can adjust to change.
- Body segments are supported and aligned as much as is possible.
- Upper limbs are free from their load bearing role for function.

Comfort

Comfort is key for quality of life, and for this reason it is the top priority at CareFlex. Comfort may seem an easily achievable goal but everyone has their own ideas on what being comfortable actually means. To some it could mean feeling safe, to others it could mean feeling energised, to those using other specialist equipment it could mean the opportunity for some freedom, and to those who experience pain it could mean finally being able to relax.

The challenges experienced by individuals with postural needs can make it difficult for them to sit comfortably. Individuals with complex disabilities can present with abnormal muscle tone and involuntary movements, which are associated with painful spasms and instability. Comfort is equally important for individuals who experience a more sedentary lifestyle, as spending prolonged periods in a seated position can result in stiffness and chronic pain.
Specialist seating that promotes comfort and feelings of safety can not only enhance an individual's daily life but also increase tolerance of a desired seated position and compliance with equipment. If an individual isn't comfortable then they may not use the chair regardless of the clinical benefits.[2] Consistency of use is crucial for achieving outcomes and thus reducing the risk of secondary complications.

Top tip: Comfort is subjective. In order to achieve comfort, the individual must be involved throughout the assessment and prescription process. The individual is at the centre and we need to ensure that their views are respected, along with all those involved in their care.

Function

Specialist seating is not only important for protecting the body segments and reducing the risk of secondary complications but also encouraging normal functional movement and the promotion of independence. Independence is crucial for an individual's wellbeing and is an important factor in living a fulfilling life. Freedom of movement is achieved through effective stabilisation of the pelvis and trunk[3] as the upper limbs are removed from their load bearing role. A stable posture has been shown to help an individual engage more fully in social activities at home, school or work, and as part of the community.[4]

Energy management is a critical part of promoting both comfort and function. Fatigue can affect all aspects of an individual's life and can significantly restrict their ability to engage in daily living, as well as having a negative impact psychologically and socially.[5] An unsupported posture can cause fatigue by making inefficient use of the body structure. Gravitational forces can also make sitting effortful for those who present with muscle weakness and abnormal muscle tone. Fatigue, if unmanaged, can be associated with significant postural challenges, including kyphoscoliosis, posterior pelvic tilt and contractures.
Early implementation of fatigue management strategies into daily life is critical, and could reduce the impact and the probability of fatigue becoming chronic.6 The appropriate use of specialist seating can encourage energy conservation, making it easier for individuals to live a meaningful life. Specialist seating systems allow users to be more involved in activities of daily living, including interaction and engagement, due to the opportunity to rest and recuperate resulting in more energy throughout the day.

The SmartSeatPro II

Postural Management

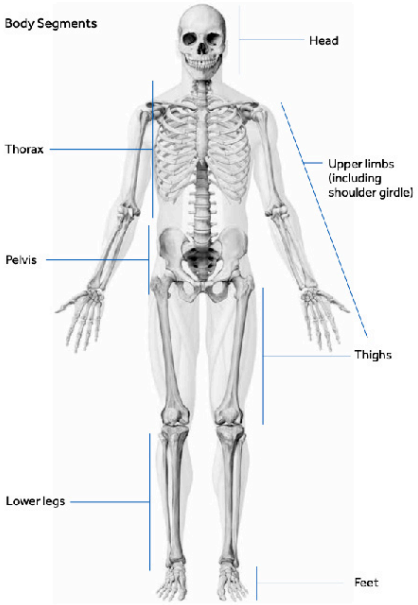
Postural care is the use of any technique to minimise postural abnormality7 and is evidently linked to an individual's ability to achieve their seating objectives. Lack of postural care and prolonged abnormal sitting postures can cause tension on the body and increase the risk of significant secondary complications, such as exacerbated pain and postural deterioration.[8] Proper positioning has demonstrated that it can decrease fatigue whilst helping to alleviate chronic discomfort and maximise function.[9] As the body structure is supported, and the segments work together efficiently, the user will experience improved comfort, stability, functional movement, and energy conservation.

Top tip: Effective postural care targets all body segments;1 pelvis, thorax, upper limbs, head, thighs, lower legs, and feet.

A major goal in postural management is to promote good health and enhance autonomic nervous system function.[10] A person's inability to sit upright can result in increased dependence and decline in overall health over time, primarily reflecting altered physiological function.[11] Trunk asymmetry and poor head position can impair respiration, cardiac efficiency, swallow function, and digestion. Consequently, increasing the risk of aspiration, infection, and any related hospital admission.

An appropriate seating system can provide the optimum position for respiratory and circulatory function.[8] An upright sitting position can also facilitate a normal swallowing pattern[12] and improve components of eating and drinking behaviour by maintaining good head alignment.[13]

Top tip: The pelvis is the foundation for a good sitting posture as it dictates what happens to the body segments above and below. Positioned at the person's core, it acts as a support system for the entire body.



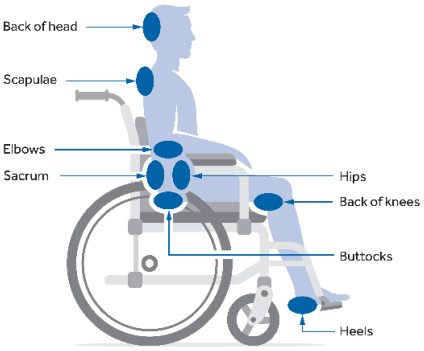
The pelvis should be stabilised in all planes of movement. The aim is to correct the pelvis if it can be corrected; however, any fixed pelvic challenges must be accommodated.

Reducing costs is also a long-term benefit of appropriate postural management.[14] It can reduce costs associated with hospital admission, pressure injuries and infection. It reduces the need for invasive and expensive interventions too.

Pressure Care

Posture and pressure are inextricably linked; body posture and positioning have a direct influence on the pressure going through specific body sites.[15] Even in the gold standard sitting position, body weight is distributed as follows:[16]

- Through buttocks and thighs: 75%
- Through the feet: 19%
- Through the arms of the chair: 2%
- Through the back: 4%



Clinical Justification

The body can only withstand high interface pressures for a short period of time, and when loading of tissues is unequal, and/or pressure isn't regularly relieved, pressure ulcers can occur.[17] There are also a number of contributing or confounding factors, including pressure, shear forces, friction and moisture, associated with pressure ulcers.

Everyone is potentially at risk of developing a pressure injury.[18] The impact of a pressure injury is profound, with individuals being affected physically, psychologically, socially, emotionally, spiritually, and financially.[19]

Top tip: Professional guidance from a Tissue Viability Nurse or District Nurse may be indicated.

A key intervention of pressure care is pressure redistribution; regular repositioning is critical for those deemed at risk of developing a pressure injury as it is believed to be one of the most effective methods for preventing skin damage.[15] The opportunity to sit out can offer a much-needed change of position to encourage blood flow and redistribute pressure. Specialist seating systems aim to reduce the risk of pressure injuries by distributing the user's body weight evenly throughout the chair over the maximum surface area with posture supported as aligned and symmetrical as possible.

Top tip: Tilt-in-Space* can aid repositioning with the aim of redistributing pressure regularly as part of the individual's 24-hour posture and pressure management plan. Appropriate management or, better still, prevention of pressure injuries can not only improve an individual's outcomes and quality of life, but it can also reduce the costs to health and social care services benefiting the wider community.

Specialist Seating Provision

Once an assessment is completed, Health & Social Care Professionals will need to justify their specialist seating prescription. Clinical justification is important as it aids in decision-making, prioritising and securing funding for equipment. It is the opportunity for Health & Social Care Professionals to advocate for the best client outcomes.

To clearly demonstrate an individual's need for specialist seating, and to comprehensively convey the clinical justification, a funding request should:

- Be holistic and, where possible, have a multi-disciplinary approach.
- Identify the seating needs, considering the aims and objectives of the individual, their support network and the environment.
- Present the clinical findings and prove how the chair can meet the seating needs, but also state the risks of not prescribing the chair.
- Back up any claims with evidence, including research, guidelines and legislation.
- Outline past and current interventions to demonstrate that less costly interventions have been considered.
- Demonstrate clearly the cost effectiveness of prescribing the chair and the cost implications of not prescribing the chair.

SmartSeatPro II Seating Solutions

The all-new SmartSeatPro II offers comprehensive seating solutions, due to a range of functions and accessories, which will enable individual users to achieve their seating objectives:

Reliability

- Since 1995 CareFlex has been collaborating with Health & Social Care Professionals to develop innovative and effective specialist seating; CareFlex understand the importance of balancing comfort, function, postural support and pressure care.
- CareFlex have confidence and pride in their specialist seating and the positive impact they know it can have on people's lives. They have therefore submitted their products for independent testing and evaluation over the years, including pressure mapping and published clinical research. For further information, a copy of the summaries can be obtained

The SmartSeatPro II

from the CareFlex website: https://www.careflex.co.uk/info-centre/clinical-evaluations/.



Adjustability

- Every chair must be set-up to fit its user; if it is not then it can cause more harm than good.
- The SmartSeatPro II is available in Small and Medium sizes so can be set-up for individuals of varying shape and size, including children and adults.
- Adjustability is critical for postural stability and pressure distribution, and ensures the chair dimensions can be easily configured for individuals of different body shape and size.
- Correct seat depth ensures pelvic stability by supporting the pelvis posteriorly. Without posterior support, the user can go into a posterior pelvic tilt. If the seat depth is too long, the user won't be able to flex their knees over the seat edge so they will slide forward in the chair to allow knee flexion. If the seat depth is too shallow the area over which body weight is distributed may be reduced, which increases the risk of pressure injury.
- The SmartSeatPro II's seat depth can be easily adjusted to ensure the user's pelvis is supported at the back of the chair, correctly aligned and not tilting into a sacral sitting posture.
- An appropriate seat width helps to laterally stabilise the pelvis and can reduce the tendency for the user to lean or shuffle the pelvis. These undesirable movements can result in pelvic obliquity or pelvic rotation and the posture becoming increasingly unstable with unequal loading on tissues. Left unmanaged, this leaning posture could lead to the development of a scoliosis.
- Seat width adjustment is built into the SmartSeatPro II with a new quick release locking mechanism and width indicators as standard.
- The adjustable armrests can also be utilised to set the chair at different widths from front to back and left to right, which may be indicated for users with some degree of fixed lower limb postures such as windsweeping (additional seat inserts can be added to increase this range).
- Seat height is important for maintaining independence and function if the user is ambulant or able to rise to standing for transfers. If the chair's seat height is too high, the user will be unstable when they rise to standing or it will encourage posterior pelvic tilt as the user seeks foot support. If seat height is too low then they may not have adequate strength to complete a sit to stand. If the user is hoist transferred, then correct seat to footplate height is needed to achieve adequate foot support, which is critical for pelvic and upper trunk stability.
- The correct seat to floor height can be measured during the assessment and set appropriately at the manufacturing stage.
- Additionally, seat to footplate height adjustability can ensure an individual remains fully supported, especially for those with shorter or longer lower leg lengths.
- Arm height is important for users who can rise to standing by pushing up and out of the chair. It also encourages repositioning and enables optimum upper limb position for activities. Arm support can relieve tension in the neck muscles; however, it should not be used to achieve trunk alignment or control.
- Armrest height adjustment within the SmartSeatPro II allows the front and back to be set at different heights resulting in angled armrests, which may be indicated for users with specific upper limb positioning requirements.
- There is also an optional extra to prescribe a unique ratchet system arm (Medium chair only) for environments

Clinical Justification

where arm height needs to be adjusted regularly throughout the day with ease by the support network.



Robustness & Durability

- The SmartSeatPro II provides high levels of comfort and the robust construction quality associated with CareFlex.
- The maximum user weight of the Small is 100kg and the Medium chair is 160kg.
- The four fully braked castors have sealed bearing hubs for enhanced durability and smoother manoeuvrability.
- For peace of mind the SmartSeatPro II comes with a 5-year warranty on the frame and 1-year on all other parts and labour.

Infection Prevention & Control

- Specialist seating systems within health and social care environments can be a cause of cross-contamination and therefore infection prevention and control must be considered during the assessment and prescription processes.
- Hook & loop free covers with j-strip covering technology can help meet the demands of infection prevention and control.
- Covers are fully removable to aid thorough cleaning of the armrests, seat, leg rest and footplate.
- A chair protector is available that fits over the seat, armrests and lower back, which prevents contamination and stops debris getting trapped in the moving parts of the chair.
- A 'crumb catcher' can also be attached by Velcro to the underside of the seat base.

Tilt-in-Space*

- Tilt-in-Space can promote pelvic stability and assist with positioning by encouraging the pelvis to remain at the back of the chair.
- Tilt-in-Space can be a key function in order to achieve energy conservation by allowing periods of rest, without affecting the critical angles for sitting.
- Tilt-in-Space can be used to reposition an individual against the forces of gravity in different degrees of tilt to redistribute pressure and ultimately reduce the risk of pressure injury.
- The SmartSeatPro II offers 30° of tilt on the Small chair and 35° of tilt on the Medium chair, and a new informative inclinometer to aid seating prescription and safe use; the inclinometer can ensure compliance with care plans as it provides a clear visual indicator of tilt angle.



Back Angle Recline*

- Back angle recline adjusts the angle between the chair and seat back promoting comfort, relaxation and energy management for the user.
- Back Angle Recline can accommodate reduced range of movement at the hips, alleviating pain associated with the lower limbs, and reducing abdominal pressure.
- It can also play a key role in pressure redistribution when used in combination with Tilt-in-Space.
- A new visual back angle indicator for degree of recline is present on the SmartSeatPro II to aid seating prescription and safe use.

The SmartSeatPro II

WaterCell Technology

- The seat cushion uses CareFlex WaterCell Technology and vapour permeable upholstery, which work synergistically to provide continuous pressure care.
- CareFlex WaterCell Technology provides a reliable and dynamic pressure care solution for people at medium to high risk of pressure injury.
- It enables the individual to achieve a stable and functional posture without compromising on pressure care and comfort.
- The water cells work by allowing the seat cushion to contour naturally and effectively around the user's body.
- The layer of Visco-Elastic Memory Foam moulds to the shape of the buttocks and thighs, distributing weight over a larger surface area and minimising pressure build-up under bony areas.
- A range of cushion sizes are offered as standard to enable appropriate postural support and pressure distribution.

Multi-Adjustable Back and Head System

- The level of flexibility offered by the upgraded unique four-part back and head system ensures the SmartSeatPro II can be easily configured to suit individual needs, aiding pelvic stability as well as trunk and head alignment.
- Soft and configurable padding at all sections of the system allows enhanced comfort and provides support exactly where indicated.
- The individual components can be quickly and easily adjusted tool-free to ensure that a range of postural asymmetries such as kyphosis, lordosis and scoliosis, can be fully supported, stabilised and, where possible, corrected from the pelvis to the head.
- Each section can be altered in height, depth, angle, offset and rotation.
- The upper two sections include built-in adjustable wings that can be individually positioned to contour to the user.
- In-built mild lateral supports are also present to support the trunk upright and as midline as possible; they can be used as posterior upper limb support too.
- The top head section allows for specific profiling of the back of the chair to accommodate more complex head positions and an increased thoracic kyphosis; combined with tailored adjustment of the wings a stable and safe head position can be achieved ensuring maximum comfort for the user.



Adjustable Lateral Support

- Adaptable thoracic control with independent height and width adjustment is achievable with the updated ergonomically shaped external lateral support.
- This support may be indicated for individuals who require firmer trunk control to achieve an optimum upright midline position.
- Two lateral supports can be positioned on both sides of the back column.



Pelvic Support

- A seat wedge can be provided to form an acute hip angle, to stabilise the pelvis at the back of the seat.
- Specialist contoured cushions may be indicated to effectively support the most complex seating needs, encouraging postural stability and optimum pressure

distribution.
- Blockers can also provide comprehensive lateral support for the pelvis and thighs.

Soft Headrest
- A comfortable rectangular pillow that can support the head if an individual presents with weakness or fatigue, available in shallow and deep.

Soft Profiled Headrest
- A contoured pillow that comfortably supports the shoulders, neck and head to encourage head alignment for interaction and optimum physiological function for users with reduced head control.

InLine Headrest
- Memory Foam lining providing full cranial support with cut-away sides for unobstructed sight and hearing.
- Vapour permeable fabric to all contact areas.

Soft Pillow Headrest
- A deep, ultra-soft pillow that conforms to the shape of head and shoulders providing a higher level of comfort.

Foam Headrest
- Available in shallow, medium and deep, providing basic lateral head control.

Neck Headrest
- Has a deep profile to give greater lateral control.

Removable Transfer Armrests
- Fully removable armrests can facilitate users' lateral transfers from both sides, promoting independence and encouraging activity.
- The ability to remove the armrests can also assist with sling application and removal for improved positioning.

Channelled Negative Angle Leg Rest
- An effective and appropriately utilised leg rest can provide optimum lower limb positioning whilst promoting alignment and stability.
- The angle of leg rest elevation tolerated by an individual is dependent on their hamstrings muscles and knee joint range of movement; inappropriate elevation of the lower limbs can cause pain, a posterior pelvic tilt, and sliding down the chair increasing shear and friction forces.
- The SmartSeatPro II's elevating leg rest provides comfortable lower limb positioning. The channels as standard also help maintain an aligned and safe position.
- The new negative angle at the leg rest can accommodate limited knee range of movement allowing a more comfortable seating position for those with contractures or tight hamstrings muscles. A negative angle leg rest can also facilitate safe standing by allowing optimum foot placement.
- The Smartseat Pro II Small comes with the option of two leg rest sizes, standard or wide; this will dictate minimum seat width and seat height configurations.



Angle Adjustable Flip-Up Footplate
- Insufficient foot support can negatively impact on postural stability and pressure risk; individuals naturally seek support through the feet to obtain the proprioceptive feedback required.
- The SmartSeatPro II's upgraded footplate is robust and simple to use, whilst promoting stability and sensory feedback for the user.
- The angle adjustability can accommodate fixed angles of plantar flexion at the ankle or correct foot posture to a more neutral position for comfort and pressure distribution.
- A detachable footplate pad or pillow is available to provide greater comfort plus a channelled option for improved alignment and security (Medium chair only).

The SmartSeatPro II

- The Small SmartSeatPro II offers two footplate size options, depending on need.

Belts & Harnesses*

- A padded pelvic belt is an intervention that is available for anterior pelvic stabilisation and can be used as a safety belt when portering users.
- A 4-point padded pelvic belt has a centre pull adjustment and comfort pads to reduce pressure on the front of the pelvis with secondary straps that pull down over the thighs at right angles to the seat base to maximise pelvic stability and reduce the risk of sacral sitting.
- A groin harness is a positioning aid that provides maximum pelvic control to help stabilise the position of the pelvis and prevent the user from sliding forward in the chair.
- A dynamic chest harness provides anterior support and comfort whilst not restricting active positioning and function; the lower straps have multi-direction buckles that swivel to avoid twisting.
- A dynamic sternum harness provides greater upper trunk stability but allows for user movement.

Adjustable and Swivel-Head Pommel

- An external pommel can encourage thigh alignment and further assist with maintaining pelvic stability.
- The SmartSeatPro II's all-new fully padded pommel provides both lateral and swivel tool-free adjustments to accommodate deformities such as windsweeping (lateral adjustment on the Medium chair size only).

Tray

- A tray with a low profiled edges can be prescribed to offer further upper limb support and enable engagement in activities or occupation.

Support Network Considerations

- It is imperative that the individual's support network and the environment in which the chair will be used are considered to ensure compliance and consistency of use given the potential complex presentation.
- The SmartSeatPro II has been designed with the user's support network in mind; there is a height adjustable push handle for safe and easy handling.
- The frame has also been developed for use with a variety of hoisting and transfer equipment with increased ground clearance for improved manoeuvrability.
- Four braked and swivel castors promote security and smooth portering, with care homes, hospital wards, hospices and respite settings in mind.
- Tilt-in-Space can assist with positioning during moving & handling by utilising gravity to position the pelvis at the back of the chair.
- Both Tilt-in-Space and Back Angle Recline are clearly labelled on the chair's handles to aid appropriate use of functions.
- The removable armrests also allow easy access to slings and can facilitate transfers from both sides.



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The SmartSeatPro II

James' Story

CareFlex were extremely grateful to be able to meet with James recently and provide him with the all-new SmartSeatPro II specialist seating system for its very first trial.

Quintin Watt, CareFlex Business Development Manager, met with James and his Therapy team at his home where he is supported by his Care team. James recently made the move from his parents' home; his father remains fully involved in his life and is very supportive. The aim of the visit was to find out if CareFlex specialist seating could improve James' quality of life.

James is a 48-year-old gentleman who enjoys music and film. James has complex disabilities with a diagnosis of cerebral palsy, epilepsy and severe learning disability. Full assistance is needed in all areas of daily living. He communicates through body language, facial expression and noises, and relies on his support network to help him communicate his needs as they know him best. He uses a sling and hoist with full assistance for all transfers. He also has swallowing difficulties and has been prescribed a modified diet by Speech & Language Therapy.

Prior to CareFlex involvement James used his previous chair to watch DVDs in the lounge, hum along to his favourite songs in his bedroom, and socialise with visitors within the home. James' previous seating system was provided many years ago and sadly his presentation and needs have changed significantly since then. On assessment, it was evident that James has the following postural challenges:

- Poor postural control
- Pelvic instability
- Scoliosis
- Hypertonicity
- Contractures of the hips and knees
- Windsweeping deformity
- Fatigue
- History of sliding anteriorly within the chair



Appropriate positioning through effective specialist seating is key for James to manage his health and wellbeing, particularly protecting his body shape, reducing fatigue, encouraging interaction and engagement, and promoting safe eating and drinking. Another seating objective is the ability to manoeuvre between rooms at his home as this is critical to continued enjoyment of activities. It is also essential that any seating system provided is robust due to James being very strong.

The SmartSeatPro II's unique, highly adjustable, modular system allows for the individualised set-up James requires, whilst optimising postural support at all body segments, promoting comfort and safety, and encouraging meaningful participation in daily life.

- **Flexibility** with a range of seat adjustments, including seat depth, seat width and armrest height, promotes postural stability, and will provide long term support with the ability to reconfigure the chair should James' needs change again in the future.
- Utilising the **Tilt-in-Space*** function further encourages postural stability, in conjunction with a 4-point padded pelvic belt*, to manage James' pelvic instability and high muscle tone. The new inclinometer provides a visual

indicator to ensure continued safe and appropriate use of this function as James can only tolerate a defined posterior tilt safely due to his swallowing difficulties.

- Tilt-in-Space also allows for **periods of rest** by reducing the impact of gravity for a period of time, as fatigue is a significant contributing factor to his leaning posture and sliding anteriorly in his previous chair.
- **Back Angle Recline*** further supports energy management during daily use, whilst also accommodating James' hip contractures. New visual indicators ensure the inappropriate use of excessive recline is limited as this could impact on James' pelvic stability, hypertonicity and aspiration risk.
- The **multi-adjustable back and head system** accommodates, and corrects where possible, his spinal rotation and scoliosis. This system encourages trunk alignment to promote optimum physiological function, especially swallow function for safe eating & drinking. The lower lumbar section can also be utilised to support James' pelvic rotation.
- The external **pommel** encourages thigh alignment and further assists with maintaining stability; the all-new fully padded pommel provides both lateral and swivel tool-free adjustments to accommodate his windsweeping deformity.
- The **channelled leg rest** further supports his windsweeping and maintaining optimum alignment as the position of the lower limbs will affect the pelvis and trunk.
- An **angle adjustable footplate** enables full support at the feet and offers the feedback necessary for postural stability to allow relaxation and freedom of movement in the upper limbs. An encompassing footplate pillow is available should greater comfort and pressure redistribution be indicated in the future.
- **Removable chair arms** aid sling application and removal to reduce the impact these manoeuvres can have on optimum positioning.
- **Four braked swivel castors** and a larger ground clearance promote security and smooth portering to ensure James is able to continue to access all areas of his home for his much-loved activities and socialising.
- **WaterCell Technology** as standard provides a reliable and dynamic pressure care solution; it enables the James to achieve a stable and functional posture without compromising on pressure care.

On review, James' Therapy team reported a noticeable change in his ability to engage in daily life. James had more energy and was able to maintain an improved upright sitting position for socialising and completion of his hobbies and interests. The SmartSeatPro II is effective in supporting him appropriately to improve his overall health and wellbeing. We are so proud that we were able to change James' quality of life for the better and look forward to visiting him again to deliver his very own SmartSeatPro II.

At CareFlex, we strongly believe in our ethos: we strive to balance postural care and pressure management with the individual's own objectives, whilst promoting comfort and independence. Get in touch to arrange a free no-obligation assessment if you are working with an individual, like James, who is in need of a chair that will integrate seamlessly into meaningful daily living.



The SmartSeatPro II

Anderson's Story

CareFlex had the pleasure of meeting with Anderson recently and provided him with the all-new SmartSeatPro II specialist seating system to trial.

Quintin Watt, CareFlex Business Development Manager, met with Anderson and his Therapy team at his home. The aim of the visit was to discover if CareFlex specialist seating could improve his quality of life.

Anderson is a sociable 52-year-old gentleman who lives in a house of multiple occupancy – his family visit regularly and he thoroughly enjoys his time with them. He also enjoys trips in the car, shopping, bingo, going to church, meals out and holidays. Anderson experienced an accident as a child, which resulted in quadriplegia and epilepsy due to a traumatic brain injury. He requires full support with all aspects of daily living, including bathing, dressing, eating and drinking, and accessing the community. Communication is non-verbal via eye pointing or by spelling out words on a communication board. He is hoisted for all transfers and uses an in-situ sling. Speech & Language Therapy have also provided eating and drinking guidelines.

Prior to CareFlex involvement Anderson had access to a moulded wheelchair and a static chair for all activities throughout the day – returning to bed during the day for repositioning was not a consideration for him. Anderson uses a night-time positioning system at night too. Anderson had recently been complaining of pain in his static chair, which was provided some time ago and no longer met his needs, and he was refusing to use at times; he would subsequently become sore and fatigued when using his wheelchair for extended periods. On assessment, it was evident that Anderson has the following postural challenges:

- Pelvic instability
- Kyphoscoliosis
- Increased lumbar lordosis
- Hypertonicity
- Contractures at upper and lower limbs
- Windsweeping deformity
- Fatigue





Specialist seating is a critical part of Anderson's 24-hour postural care to protect his body shape, promote health and wellbeing, encourage continued engagement in activities, reduce fatigue and discomfort, and enable effective communication. Specialist seating enables a critical change of position and freedom of movement for individuals with limited active movement and who use alternative moulded systems and fixed night-time positioning.

The SmartSeatPro II's unique, highly adjustable, modular system allows for the individualised set-up Anderson requires, whilst managing comfort and energy levels, encouraging active socialising, and achieving effective postural support at all body segments.

- **Flexible set-up**, including seat depth, seat width and armrest height adjustments, promotes comfort and postural stability, and will provide long term support should Anderson's presentation change.
- The **multi-adjustable back and head system** accommodates and fully supports Anderson's kyphoscoliosis. The lower lumbar section also supports his

increased lumbar lordosis. This system encourages trunk and head alignment to promote effective communication when Anderson utilises eye pointing and his communication board.

- **New ergonomically shaped external laterals,** with independent height and width adjustment, offer further trunk control precisely where needed for multi-point support.
- **Tilt-in-Space*** further encourages postural stability in conjunction with a 4-point padded pelvic belt* to manage Anderson's pelvic instability and increased muscle tone. The **new inclinometer** provides a visual indicator to ensure continued safe and appropriate use of this function.
- Tilt-in-Space also allows for periods of rest and recuperation to help him manage his energy levels as fatigue has a detrimental impact on his ability to engage in activities and socialising.
- **Back Angle Recline*** further promotes energy conservation, whilst accommodating reduced range of movement at the hips. New visual indicators ensure the inappropriate use of excessive recline is limited as this could impact on Anderson's postural stability and hypertonicity.
- The **channelled leg rest** supports Anderson's windsweeping deformity and maintains optimum alignment at the lower legs and feet. The ability to both elevate the leg rest and set at a negative angle means the ideal position to support contractures at the knees can be achieved.
- An **angle adjustable footplate** enables full support at the feet and offers the feedback necessary for postural stability to allow relaxation in the upper limbs to manage Anderson's discomfort.
- **Hoist compatibility,** four braked swivel castors, and a larger ground clearance ensures that Anderson's Therapy and Care teams are able to complete moving & handling safely and with ease between the chair, wheelchair and bed.
- **WaterCell Technology** as standard provides a reliable and dynamic pressure care solution; it enables Anderson to achieve a stable and functional posture without compromising on comfort or pressure care.

On review, Anderson communicated that he was very happy sitting in the SmartSeatPro II with no recurrent pain reported – he contentedly sat in the chair both morning and afternoon when not out in the community in his wheelchair. Anderson's Therapy team reported that his upper limbs were more relaxed, his shoulder girdle was open, and muscle tone was reduced in the chair. Anderson was extremely reluctant to end the trial – no higher praise indeed! We are looking forward to visiting Anderson again to deliver his very own SmartSeatPro II.

Achieving the key principles of seating is fundamental to individuals, like Anderson, who depend on specialist equipment to enable them to lead fulfilling lives. Get in touch to arrange a free no-obligation assessment if you are working with an individual who presents with complex postural care and pressure management needs, and who requires a supportive yet comfortable chair.



DISCLAIMERS

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The information given in this book represents current advice at the time of publication. It is intended as general information and guidance and is not a substitute for professional medical advice which should be sought for specific, individual cases. It is the responsibility of the treating clinician, relying on independent knowledge and skills, to determine the best intervention and method of application for the client.

Tilt-in-Space and Back Angle Recline should always be prescribed responsibly, ensuring that they are safe and appropriate for the user following a comprehensive assessment of posture and risk, with advice sought from the multi-disciplinary team where indicated. In some cases, these functions will be contra-indicated, and they could also increase shear and friction forces.

All belts and harnesses (positioning aids) must be prescribed, implemented, and monitored responsibly following a comprehensive risk assessment. Please see the following for further information:

- Medicines and Healthcare Regulatory Agency (MHRA) (2015) MDA/2015/018 All posture or safety belts fitted to supportive seating, wheelchairs, hoists and bathroom equipment London: MHRA
- British Standard (BS) (2019) 8625:2019 Selection, placement and fixation of flexible postural support devices in seating London: BSI

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