

What to consider when choosing bedding for pressure care

Pressure care mattresses play a vital role in healthcare, by helping to prevent pressure ulcers and ensuring that patients remain comfortable during their stay in a hospital or care home. These include both castellated or multi-layered foam mattresses designed for patients at high or very high risk of developing ulcers, as well as dynamic pressure-redistributing mattresses, which continually adjust to redistribute pressure while providing an appropriate surface for the patient's body. However, the mattress is only one part of an effective pressure care system.

The bedding placed on top of the mattress is equally important, as unsuitable sheets can restrict its ability to redistribute pressure and perform as intended. Poorly chosen bedding can decrease patient comfort, increase the risk of wrinkles and friction, and create additional work for both ward and laundry staff. In contrast, good bedding that is designed to work together with pressure care mattresses helps to maximise patient comfort and improve operational efficiency by reducing bed remakes and laundry demands.

Why does bedding matter in pressure care?

The bedding used with pressure care mattresses, and especially dynamic mattresses, has a significant impact on their ability to redistribute pressure. Poorly chosen sheets may affect performance as the mattress moves: tight sheets create areas of hammocking – where the benefits of the mattress are lost – while loose sheets have the potential to create wrinkles, increasing friction and reducing effective pressure relief.

Another consideration is how well sheets stay in place. When using standard flat sheets, hospital corners can often come undone when the bed is profiled, causing the sheet to come untucked. Untucked sheets can impair mattress conformity and reduce patient comfort through bunching, which can lead to greater friction on the skin. Sheets

that frequently come untucked also create additional work for ward staff, as beds must be remade frequently.

It is also important to remember that modern healthcare bedding is not always a simple woven sheet. New methods of construction are enabling new designs with additional properties, including knitted four-way stretch fabrics – such as [MIP's SleepKnit® range](#) – which contain combinations of different fibres to ensure a good fit for dynamic mattresses.



What are the disadvantages of using a woven flat sheet on a dynamic mattress?

Traditional woven flat sheets are not well suited to dynamic mattresses because their tightly woven construction provides very little natural stretch. When the sheet is tucked tightly around the mattress using conventional hospital corners, it can create a hammocking effect or restrict the expansion and contraction of the mattress's air cells, limiting pressure redistribution. Woven sheets are also more prone to becoming loose over time, which can reduce both patient comfort and the performance of the surface.

Some of the key disadvantages of woven flat sheets on dynamic mattresses include:

- **Increased wrinkling and rucking:** loose fabric can bunch beneath the patient, contributing to discomfort
- **Greater friction and shear:** as the sheet moves across the mattress surface, it can increase friction and shear forces, particularly for patients with reduced mobility
- **Reduced mattress conformity:** the lack of stretch can restrict the mattress from fully responding to changes in pressure and patient movement
- **More frequent bed maintenance:** flat sheets are more likely to come untucked, requiring more frequent bed remakes, taking time from nurses and increasing linen usage and laundry demands
- **Limited adaptability:** woven flat sheets do not easily accommodate the varying depths and movement of modern dynamic and pressure-relieving mattresses, making it difficult to maintain consistent fit

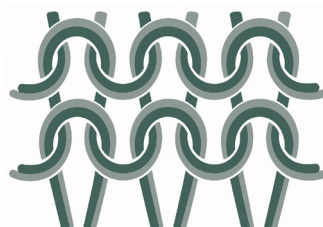
Is it better to use fitted or flat sheets on a dynamic mattress?

Fitted sheets are more suitable for use on dynamic mattresses because they remain securely in place, reducing wrinkling and fabric rucking while minimising the need for bed remakes. They are also designed to accommodate a wider range of mattress sizes and patient positions, providing a more consistent fit than traditional flat sheets.

However, the performance of a fitted sheet depends on its construction. Not all fitted sheets are suitable for dynamic support surfaces; the fabric must be able to stretch and move with the mattress as it inflates and deflates. Knitted fabrics with four-way stretch are particularly well suited to this application as, unlike more rigid woven fabrics, they conform to the changing shape of the mattress without reducing its pressure-redistributing properties, as well as providing a more breathable surface which has the potential to improve patient comfort.

What is the difference between a conventional sheet and four-way stretch plated knit smart sheets?

Four-way stretch sheets, including MIP's SleepKnit® range, are manufactured using a plated knit construction. Plated knit is a knitting technique that feeds two different types of yarns together in a way that keeps each fibre predominantly on one side of the fabric. This allows soft, comfortable yarn to sit against the patient's skin, while strong durable yarn forms the reverse side to improve durability.



Plated knit.

Unlike woven fabrics, which have a relatively rigid structure, knitted fabrics are formed from a series of interlocking loops. This gives the fabric flexibility and, when combined with the engineered design of SleepKnit®

sheets, creates a four-way stretch that allows the material to expand in all directions. As a result, the sheets conform to the surface of the mattress, reducing creasing and rucking.

Property	Conventional woven sheets	Knitted sheets
Construction	Formed by weaving yarns together	Formed from interlocking loops of yarn
Stretch and flexibility	Minimal natural stretch, generally rigid	Naturally provides four-way stretch, allowing movement in both length and width
Comfort	Tight weave reduces airflow. Firm texture gives less flexibility against skin	Knitted structure allows airflow, and soft cotton surface improves comfort.
Durability	Relatively durable but subject to increased wear from repeated ironing. Low tear strength	Durable yarn on the underside and comfortable yarn on the surface. High tear strength
Laundering	Requires ironing and folding after laundering, increasing labour and energy use	Does not require ironing or folding, reducing processing times and costs

SleepKnit® Smart sheets: designed for compatibility with pressure care mattresses

The bedding used on pressure care mattresses should support, rather than restrict, this movement. SleepKnit® Smart Sheets from MIP have been specifically developed with this in mind. Their four-way stretch plated knit construction allows fabric to move in harmony with the changing mattress surface, reducing

the risk of hammocking, wrinkling and fabric rucking.

SleepKnit® Smart Sheets provide a secure fit across a wide range of mattress sizes, creating a smoother, more comfortable sleep surface, reducing the need for bed remakes. The result is a bedding system designed to complement both foam and dynamic mattresses, improving patient comfort while reducing bed remakes and linen usage for greater operational efficiency.

[Click here to learn more about SleepKnit® Smart Sheets](#)