



# Tri-Chair Brochure

A unique modular linked chair frame  
offering **unparalleled flexibility**





## Introducing the **Tri-Chair**

**Tri-Chair** is the latest evolution of specialist posture and pressure care management seating from Channel Healthcare Ltd. The innovative Tri-Chair offers a choice of three distinct seating systems each with its own design and configuration options, underpinned by the same unique chair frame.

**Each of the three Tri-Chair models are designed to adapt to the user's body shape** to ensure they are always sitting in an ergonomically-sound sitting posture with optimal body support, resulting in increased comfort, enhanced function, and reduced pain. This is achieved by each of the three chairs models offering dynamic positioning, seat height, seat depth, seat width and arm height adjustability.

**Key to the Tri-Chair design is the unique modular linked chair frame** shared by all three chairs providing unparalleled flexibility. The modular design and commonality of parts aids repair and refurbishment and assists with recycle and reuse policies. All Three Tri-Chair models are available on a same or next day dispatch making the Tri-Chair the perfect choice for Community Loan Stores.

# Benefits of the **Tri-Chair** for Equipment Loan Stores

Ultimate flexibility and versatility are fundamental to the **Tri-Chair**.

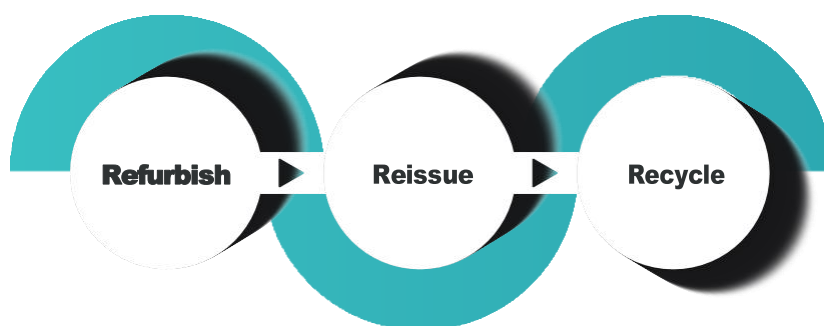
Aiming to make life easier for those tasked with equipment provision, the Tri-Chair has the potential to evolve and adapt to an individual's needs as conditions progress or indeed as users change.

Importantly, the **Tri-Chair's** modularity reduces the cost of specialist seating provision enabling equipment loan stores to refurbish and reallocate a chair to a new user at a fraction of the cost of buying new.

Recycling of a **Tri-Chair** to a new user has a number of potential benefits not only to the efficiency of equipment provision by the loan store, to the effectiveness of Occupational Therapy community service, to the user who is in urgent need of postural support and

pressure management, or indeed the hospital discharge team looking to release beds. Having a readily available specialist chair that is suitable for those that are ambulant yet require some posture and pressure care through to those with complex sitting postures following some simple adaptations is revolutionary to seating provision.

The intuitive design of the **Tri-Chair** makes the adaptations and adjustments straightforward for store engineers to undertake without the need to hold exhaustive amounts of costly stock. Furthermore, it is the **Tri-Chair's** adaptability that enables it to be recycled to new users thereby extending the product's lifecycle, minimising wastage and helping to reduce the carbon footprint of stores. Even in this small way, the **Tri-Chair** is contributing to a greener planet.



Scan the QR code to view the **benefits of the Tri-Chair for care settings**



Scan the QR code to view the **benefits of the Tri-Chair for individual users**

# Benefits of the **Tri-Chair** for care settings

The impact the **Tri-Chair** can have within care settings is considerable. Not only does it provide the ultimate in comfort, positioning and pressure management for its occupants, it has benefits for the management of the care setting and the efficiency, effectiveness and wellbeing of staff.

Improved posture and pressure management for residents through use of the **Tri-Chair** can reduce staff workload and improve the quality of time available for carers to spend with residents. Those occupants seated in a **Tri-Chair** will experience more comfort and therefore less need for interventions such as frequent turning in bed to reduce pressure build up.

Integration of the **Tri-Chair** into care settings reduces the need for manual handling by carers thereby improving safety and dignity of the user and indeed, making manual handling and transfers simpler and more effective. It is often difficult to get up as a result of reduced muscular strength and impaired functioning of the joints. Having the right chair can assist with all types of transfers and often reduces the dependency on transfers thereby helping with care routines and patient dignity.





The **Tri-Chair** range helps to facilitate assisted transfers as the occupant, who has the correct seat height, can safely place their feet firmly on the floor contributing positively to the sit-to-stand movement. Alternatively, the **Tri-Chair** has removeable arms thereby aiding side transfers, making transferring into a wheelchair via a sideboard or bed via a slide sheet easier. For the less able, the **Tri-Chair's** tilt-in-space facility allows easier and more accurate pelvic positioning by simply having the chair in a backward tilt when moving the occupant into the chair which can be useful when using mobile hoists/ceiling track hoists.

Falls can be a regular occurrence for those with low mobility and impaired strength or as a result of medication or cognitive impairment. The **Tri-Chair** can keep these individuals safer, more secure and at lower risk from falling. Tailoring the Tri-Chair particularly to an individual's height, leg length and clinical need will reduce risk of falling or slumping and ensure that the chair comfortably accommodates the individual. Key **Tri-Chair** functions that help to reduce falls and sliding from a chair include tilt-in-space facility, back recline, seat depth adjustment, and the adjustable footrest.

Further benefits to a care setting by incorporating **Tri-Chairs** into the care package for residents is that effective management of both posture and pressure can contribute positively to the rehabilitation of users, where feasible. The **Tri-Chair** can also assist in improving the quality of life for those with poor balance and proprioception, those that have a tendency to lean or drop their head or slide forward in their chair or have complex postures or for someone who previously has been bedbound 24/7. By enabling an individual to be seated out of bed, to interact as part of communal settings whilst their posture is correctly managed in turn leads to improvements with breathing, digestion, circulation, eating and swallowing and achieving quality rest and relaxation which has a positive effective on resident and staff alike.

From a practical perspective the **Tri-Chair** is simple to maintain, easy to clean and adjust to accommodate an individual's changing needs. Similarly, the chair is highly mobile with directional lock castors, ensuring staff do not experience the "shopping trolley" effect when moving residents, the **Tri-Chair** glides whether occupied or unoccupied.



**Tri-Chair** are more than just good sitting!

# Benefits of the **Tri-Chair** for individual users

The comfort, postural support and pressure management provided by the **Tri-Chair** is what makes this specialist chair standout. Users can be assured that their **Tri-Chair** has been tailored specifically for their individual needs and has the ability to meet their often-changing requirements.

The **Tri-Chair** has a range of all encompassing features and benefits that make it the ultimate specialist chair.

## Tilt-in-Space

Aiding posture and pelvic stability, pressure management, blood and lymphatic circulation, tilt-in-space functionality enables the occupant of the chair to be tilted forward or backwards in a chair whilst maintaining the position of the knees and hips to achieve a resting position. By keeping the angle between the chair seat and back at around 110°, the occupant will not slide forwards into an uncomfortable, slumped position.

Furthermore, tilting the body has the effect of distributing weight over a larger contact surface area providing a simple and effective way to combat the build-up of pressure reducing the risk of pressure ulcers in vulnerable areas such as the sacrum and ischial tuberosities.

When hoisting, tilt-in-space enables gravity to assist in correct position of the occupant's pelvis at the back of the chair.



## Seat Height Adjustment

Achieving the correct seat height for the user allows the feet to be positioned firmly on the floor or footboard to ensure even weight distribution and assist the ambulant user to stand from the **Tri-Chair** more readily. Ensuring the correct seat height also avoids any susceptibility to pressure build up on the back of the thighs or the user "perching" on the chair.

An excessively high sitting position with legs swinging can lead to veins and nerves becoming blocked causing varicose veins, sleeping legs and numbness whereas an excessively low seat with an acute angle between the torso and upper legs can give rise to intestinal problems. The **Tri-Chair's** functionality enables easy adjustment to suit each individual.

## Seat Depth Adjustment

Having a correct seat depth for the occupant is important to maintain pelvic stability and avoid sacral sitting. The ability of the **Tri-Chair** to be able to adjust its seat depth to each individual in multi-user environments or in situations where the chair may be recycled and reissued to another user is beneficial to reduce the occurrence of pressure issues.

## Seat Width Adjustment

Seat width adjustment functionality ensures the occupant of the **Tri-Chair** has the correct seat width to contribute to pelvic and general postural stability. An appropriate seat width, normally the width of the occupant's hips with a small amount of room either side, will allow the occupant to sit in supported comfort with arms resting on the armrests.



## Arm Height Adjustment

Appropriate armrest height will assist with comfort and postural support without raising or dropping the occupant's shoulders and should support the full length of the forearm. The simple adjustment of the **Tri-Chair's** arm height provides that necessary comfort and postural stability.



## Independent Back Recline (available on Tri-Chair Two and Three)

Traditionally facilitating a resting or napping position, the **Tri-Chair's** independent back recline is suitable for those who are able to maintain their position independently and require more horizontal positioning. For those with less pelvic stability, back recline in conjunction with an angled or ramped seat enables the benefit of a resting position, likewise for those that need the hips to be opened out, greater comfort can be realised.

## Elevating Legrest

The **Tri-Chair's** elevating, arcing legrest can assist with lymphatic and blood circulation. Lifting and extending forward as it elevates helps to maintain the position of the feet on footboard, if applicable, as well as allowing the blood to circulate more freely, reducing the effort required by the heart and arterial systems. Raising the legs can also help alleviate leg oedema, a build-up of fluid in the legs as well as helping the user to relax, giving an greater degree of comfort.

# Pressure Management

Integrated pressure care within the **Tri-Chair** can help prevent and minimise pressure damage. Having the pressure cushion integral to the seat module of the chair prevents having a loose cushion on the top of an existing seat module. Loose pressure cushions have the potential to slip and slide, get lost, as well as affect the chair dimensions (seat height and seat to arm height of the chair) thereby potentially increasing the pressure risk as well as postural stability. Appropriate pressure management can reduce pain, risk and ultimately the exorbitant cost of managing the rehabilitation of a pressure sore – prevention is far more cost effective than the cost of cure!

Fundamentally, the Tri-Chair provides each user with a tailored seating system for their individual needs, giving comfort, postural stability and pressure management. **Tri-Chair's** look to improve their occupant's quality of life by enabling them to be seated out of bed, to interact as part of communal settings whilst their posture is correctly managed which in turn leads to improvements with breathing, digestion, circulation, eating and swallowing and achieving quality rest and relaxation.



**Tri-Chair** are more than just good sitting!



# Tri-Chair One

**Tri-Chair One** is simple and effective in design providing superior comfort, support with a feeling of security

## Tri-Chair One Overview

Tri-Chair One is simple yet effective in design providing superior comfort, support, and a feeling of security for those spending long periods sitting down. A tailored seat height facilitates easy standing, and the Tilt-in-Space enables the occupant of the chair to be tilted forward or backwards without compromising pelvic stability whilst effectively distributing body weight and reducing the build-up of pressure.

The Tri-One chair can be easily converted into a more complex nursing care chair by increasing the seat height and adding an angle adjustable, flip-up footplate and independent back angle recline.

## Key Features

### **Tilt-In-Space**

**Adjustable Seat Height**

**Adjustable Seat Width & Depth**

**Adjustable Arm Height**

**Removable Arms**

**Elevating, Articulating Legrest**

**Medium Risk Pressure Care as Standard**

**Waterfall Back Cushion**

**100mm Directional Lock Castors**

**Ergonomically Positioned Push Handle**



### **Tri-Chair One is most suitable for the following users:**

- Adults requiring comfort and moderate postural support when seated
- Ambulant and Semi-ambulant users who may require assistance when getting in or out of the chair
- Those requiring to sit with their feet on the floor as opposed to resting their feet on an elevated footplate
- Users with complex sitting postures would be better suited to either the Tri-Chair Two or Tri-Chair Three

### **Tri-Chair One is suitable for use in:**

- Nursing and Residential Homes
- Hospitals
- Hospices
- Private Home Environments

# Tri-Chair Two

**Tri-Chair Two** represents the very latest in specialist seating design and development

## Tri-Chair Two Overview

Tri-Chair Two represents the very latest in specialist seating design and development. Tri-Chair Two is most suitable for semi-ambulant and non-ambulant users in a wide range of care settings. The lateral support waterfall back cushions provide exceptional immersive comfort and support required to maintain a good midline sitting position.

With Tilt-in-Space, independent back angle recline, legrest elevation and adjustable sizing, body weight is naturally distributed to promote enhanced comfort and pressure care management.

Fitted with 100mm directional lock castors and an ergonomically positioned push handle this lightweight, robust chair can be easily and safely moved around any care environment.

## Key Features

**Tilt-in-Space**

**Independent Back Angle Recline**

**Elevating Legrest**

**Flip-Up Footplate**

**Adjustable Seat Height**

**Adjustable Seat Width & Depth**

**Adjustable arm height**

**Removable Arms**

**Medium Risk Pressure Care as Standard**

**Lateral Waterfall Back Support Cushion**

**100mm Directional Lock Castors**

**Ergonomically Positioned Push Handle**



### Tri-Chair Two is most suitable for the following users:

- Adults requiring comfort and a medium to high degree of postural support when seated
- Users with complex sitting postures and requiring high level pressure care management
- Adults with unconventional body shape including Scoliosis, Kyphosis, Lordosis and contractures
- Stroke
- Brain injury

### Tri-Chair Two is suitable for use in:

- Nursing and Residential Homes
- Hospitals
- Hospices
- Private Home Environments

# Tri-Chair Three

**Tri-Chair Three** is a highly adjustable seating system providing exceptional postural support and pressure care management

## Tri-Chair Three Overview

Tri-Chair Three is a highly adjustable seating system providing exceptional postural support and pressure care management for the most complex seating challenges. Tri-Chair Three is ideally suited for semi-ambulant and non-ambulant users.

Tri-Chair Three can be configured in terms of seat height, width and depth, arm and back height, incorporating Tilt-in-Space, independent back angle recline and legrest elevation creating the ultimate in comfort and support. Correct sizing and precise articulation of the seat, back and legrest, stabilises the pelvis without compromise and distributes body weight to effectively manage pressure care.

Tri-Chair Three is highly durable, lightweight and fitted with directional lock castors to improve mobility. The chair has been designed to be used with most hoists and stand aids to ease transfers into and out of the chair.

## Key Features

### **Tilt-in-Space**

### **Independent Back Angle Recline**

### **Elevating Legrest**

### **Flip-Up Footplate**

### **Adjustable Seat Height**

### **Adjustable Seat Width & Depth**

### **Back Height Adjustment**

### **Adjustable Split-Wing Head Rest allowing independent Head and shoulder support**

### **Removable Arms**

### **Medium Risk Pressure Care as Standard**

### **Lateral Waterfall Back Support Cushion**

### **100mm Directional Lock Castors**

### **Ergonomically Positioned Push Handle**



### **Tri-Chair Three is most suitable for the following users:**

- Adults requiring comfort and a very high degree of postural support when seated
- Users with complex sitting postures and requiring high level pressure care management
- Adults with unconventional body shape including Scoliosis, Kyphosis, Lordosis and contractures
- Stroke
- Brain Injury
- Cerebral Palsy

### **Tri-Chair Three is suitable for use in:**

- Nursing and Residential Homes
- Hospitals
- Hospices
- Specialist Treatment Facilities
- Private Home Environment

# Clinical Evidence

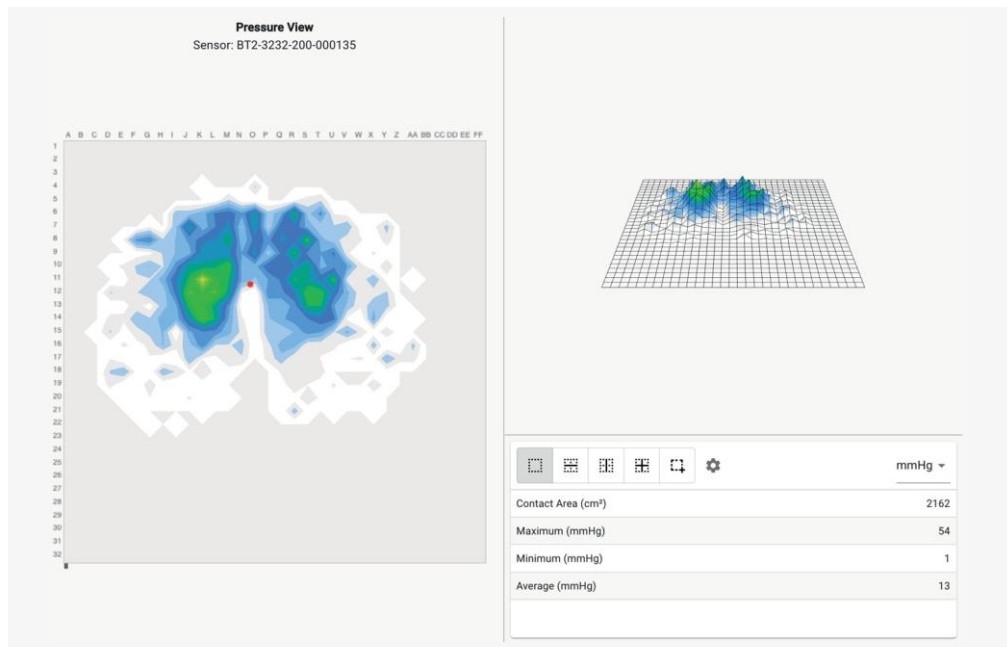
The **Tri-Chair** seating range has the option of pressure care cushion inserts to provide pressure reducing properties required for the determined user risk category which have been clinically evaluated to MDD 93/42/EEC Annex V & MDR 2017/745 standards.

## Cushion Inserts Available:

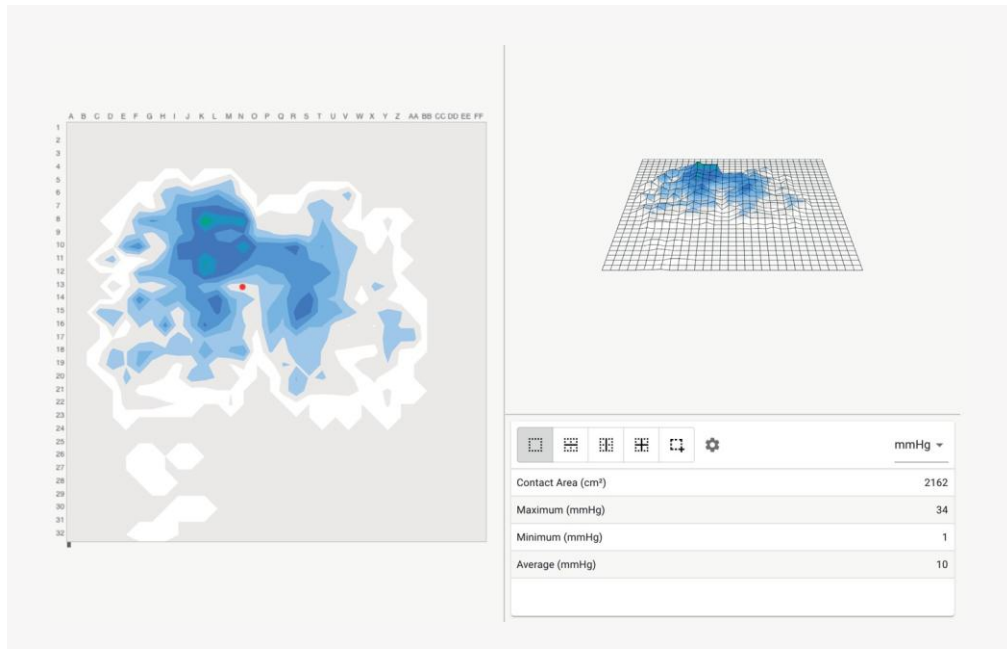
Cushion	User Risk Category
Tri Air & Foam	Medium Risk
Tri Gel	High Risk
Roho	Very High Risk
Dynamic	Very High Risk

During clinical evaluation the Tri Gel cushion was evaluated against the Cool Gel cushion which is popular with other seating solutions currently on the market:

## Pressure Mapping Results – Cool Gel Cushion – Male 51yrs 80KG



## Pressure Mapping Results – Tri Gel Cushion – Male 51yrs 80KG



Pressure mapping comparison results confirmed both the Tri Gel & Cool Gel provided identical user contact areas (2162cm<sup>2</sup>).

The Cool Gel cushion provided a maximum contact interface pressure of 54mmhg compared to a maximum interface pressure of 34mmhg for the Tri Gel confirming a 58% reduction in peak pressure.

The Cool Gel cushion provided an average pressure of 13mmhg across a contact area of 2162cm<sup>2</sup> compared to an average pressure of 10mmhg across the same contact area for the Tri Gel indicating a 30% reduction in average pressure.

Based on the above results, the Tri Gel provides lower interface pressure and thereby, increased comfort. It is deemed suitable for those at high risk of developing pressure issues.

Research completed in September 2022

# Tri-Chair Technical Specifications

	Tri-Chair One	Tri-Chair Two	Tri-Chair Three
Seat Height to floor	460mm-610mm / 18"-24"	460mm-610mm / 18"-24"	460mm-610mm / 18"-24"
Seat Height to foot board	360mm-500mm / 16"-21"	360mm-500mm / 16"-21"	360mm-500mm / 16"-21"
Seat Width	305mm-510mm / 12"-21"	305mm-510mm / 12"-21"	305mm-510mm / 12"-21"
Seat Depth	460mm-560mm / 15"-23"	460mm-560mm / 15"-23"	460mm-560mm / 15"-23"
Back Height to be added	790mm / 31"	560mm - 950mm / 22"-37.5"	560mm - 950mm / 22"-37.5"
Arm Height	180mm-270mm / 7"-10.5"	180mm-270mm / 7"-10.5"	180mm-270mm / 7"-10.5"
Overall Length	420mm-550mm / 16.5"-21.5"	420mm - 550mm / 16.5"-21.5"	420mm - 550mm / 16.5"-21.5"
Overall Width *	660mm / 26"	660mm / 26"	660mm / 26"
Overall Height	1250mm / 49"	1250mm / 49"	1170mm-1550mm / 42"-61"
Head Rest Adjustment (fore/aft)	NA	NA	120mm / 5"
Lower Wing (fore/aft)	NA	NA	75mm / 3"
Tilt-in-Space	37 degrees from (-5° to +32°)	37 degrees (-5° to +32°)	37 degrees (-5° to +32°)
Back Recline	NA	40° Recline	40° Recline
Legrest Elevation	40° Elevation	40° Elevation	40° Elevation

\* with arms in the narrowest position

# Tri-Chair Standard Features and Benefits Matrix

	Tri-Chair One	Tri-Chair Two	Tri-Chair Three
Modular Construction	✓	✓	✓
Tool Free Adjustment	✓	✓	✓
Tilt-in-Space	✓	✓	✓
Articulating Legrest	✓	✓	✓
Push Handle	✓	✓	✓
Directional Lock Castors	✓	✓	✓
Adjustable Seat Height	✓	✓	✓
Adjustable Seat Width	✓	✓	✓
Adjustable Seat Depth	✓	✓	✓
Adjustable Arm Height	✓	✓	✓
Adjustable Back Height	✗	✗	✓
Back Angle Recline	✗	✓	✓
Flip-up Footplate	✗	✓	✓
Lateral Back Cushion	✗	✗	✗
Split Wing Headrest	✗	✗	✓
Lightweight Aluminium Back Rest	✗	✗	✓

## Notes



**To book and appointment or find out more  
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