



**AXIOM**  
SEATING SOLUTIONS

# AXIOM

## ORIGINS



Axiom Cushions were created to provide a cohesive family of seating products designed with a “Best in Class” approach, all based on the Science of Seating.

Every cushion was developed with the core design elements of Directed Loading and Surface Tension Reduction through the use of Pre-contoured shapes, high-end, quality materials and superior cover design.

It’s important for all cushions (from General Use on up) to have a properly designed Pre-contoured shape. That’s why we cooperated with Georgia Tech to study anthropometrics. The result... Designs that have the best possible cushion shapes to fit a wide range of sizes and needs.

We chose to use high-end materials in our foam and fluid components. You will see the foams have a high IFD and density, and our fluid is light-weight and non-temperature sensitive. Both elements lead to a long-lasting, comfortable and functional product.

Design elements like a back-cut front edge add to comfort, while rounded rear corners enhance wheelchair fitment.

Finally, you will see a consistent look and feel from all of our seating products. The cover has a sleek, minimalist look with a lot of high-end features like zipper pulls with a stow-away pocket, water resistant zippers and high-denier fabrics. Axiom cushion covers are not only highly functional, but are attractive enough to compliment any chair, regardless of color.

There was a lot of thought put into the Axiom seating line.

***It didn’t just happen, we designed it this way.***

## PRE-CONTOURED SHAPE

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## HIGH QUALITY MATERIALS

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## SUPERIOR COVER DESIGN

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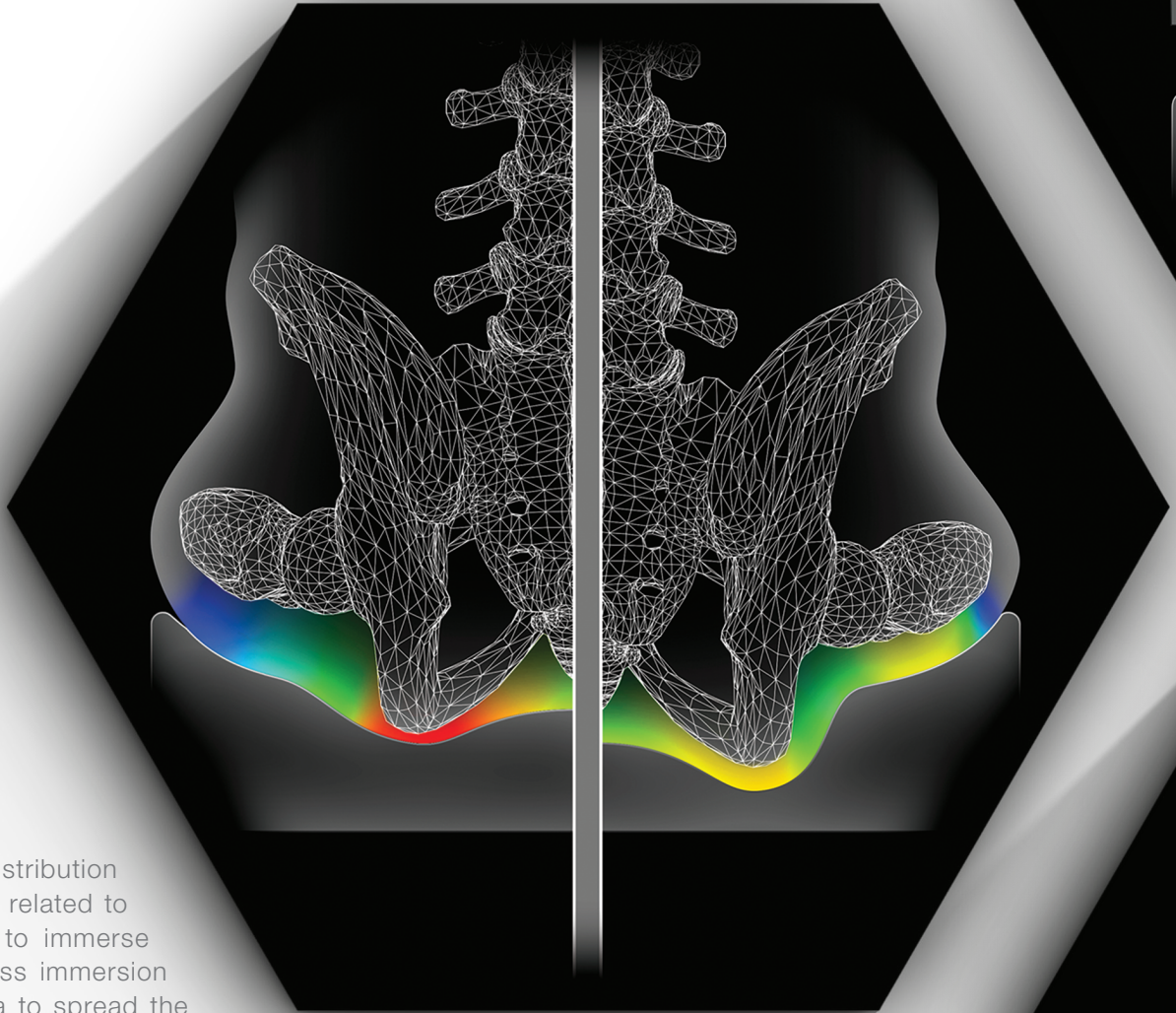


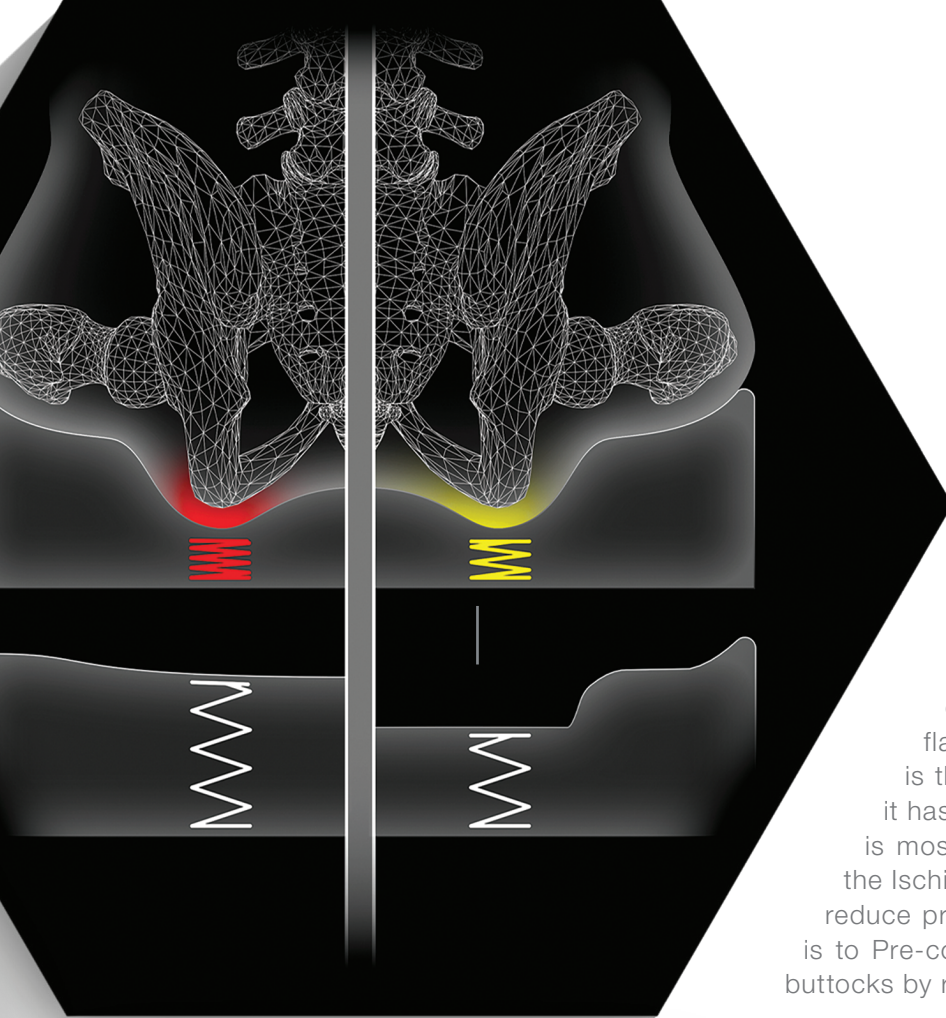
# THE SCIENCE OF SEATING

High quality polyurethane foam can be used to make a highly effective cushion. The efficacy does not just come from the quality of the materials, but also the specific shapes, densities and coverings. All aspects of design are critical to the cushion's performance. Let's cover some specific design concepts used throughout the Axiom line:

## SURFACE TENSION REDUCTION

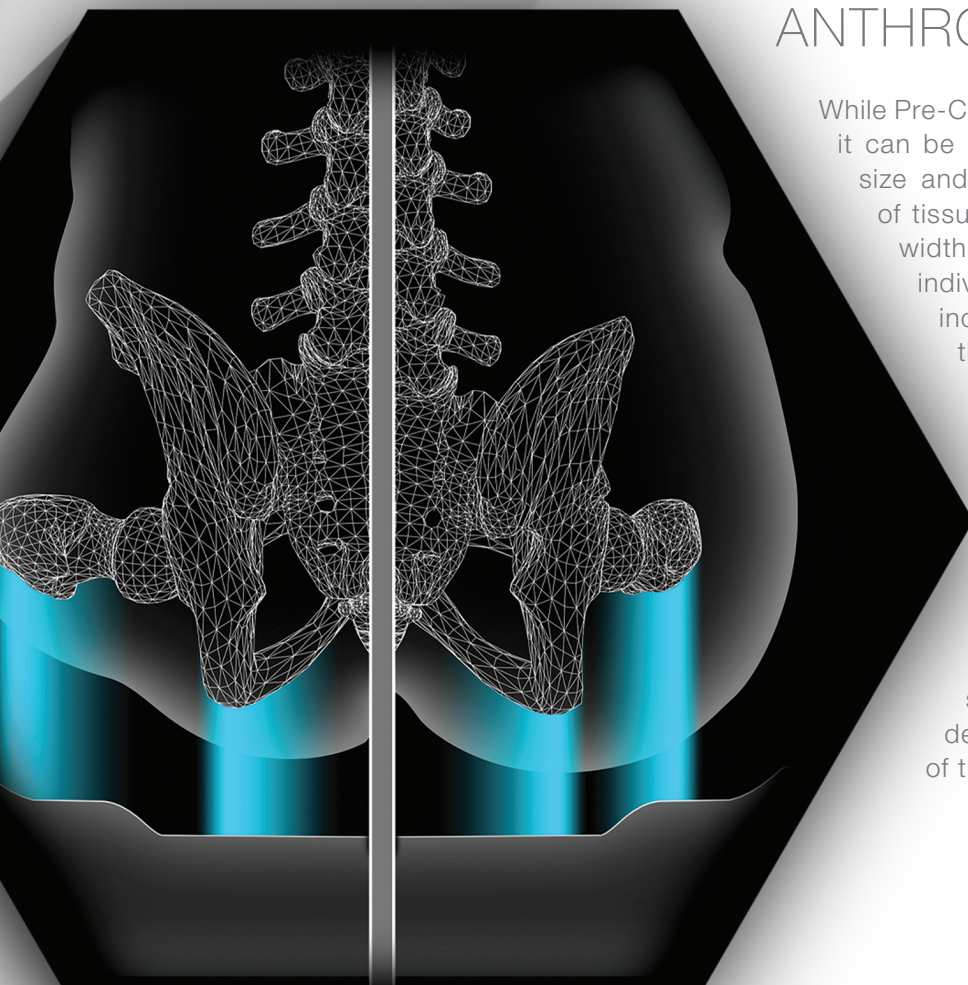
Improved pressure distribution and stability are directly related to the ability of the body to immerse itself in the cushion. Less immersion means less surface area to spread the load over and a smaller base of support for stability. Foam compresses under load to allow the body to immerse. Surface tension in the foam and its coverings can limit that immersion. This is the result of tension forming as the foam and cover materials attempt to stretch to accept the body. This tension can also change the shape the tissues supporting the bony prominences take under load, thus concentrating forces at the point of greatest immersion, usually the area around the Ischial Tuberosities.





## PRE-CONTOURING

Polyurethane foam is made by the formation of a gas at the same time as the urethane polymerization is occurring; resulting in cells with elastic walls. As a result, the foam acts like a spring; it compresses under load and rebounds when the load is removed. There is a reaction force “pushing back” in any compressed area. The greater the compression the greater the reaction force. In a flat foam cushion the area of greatest immersion is the area of greatest compression and therefore it has the greatest reaction force. Unfortunately, this is most likely to occur around the tissue supporting the Ischial Tuberosities; the area where we are trying to reduce pressure. One way to reduce this reaction force is to Pre-contour the cushion to match the shape of the buttocks by removing foam.

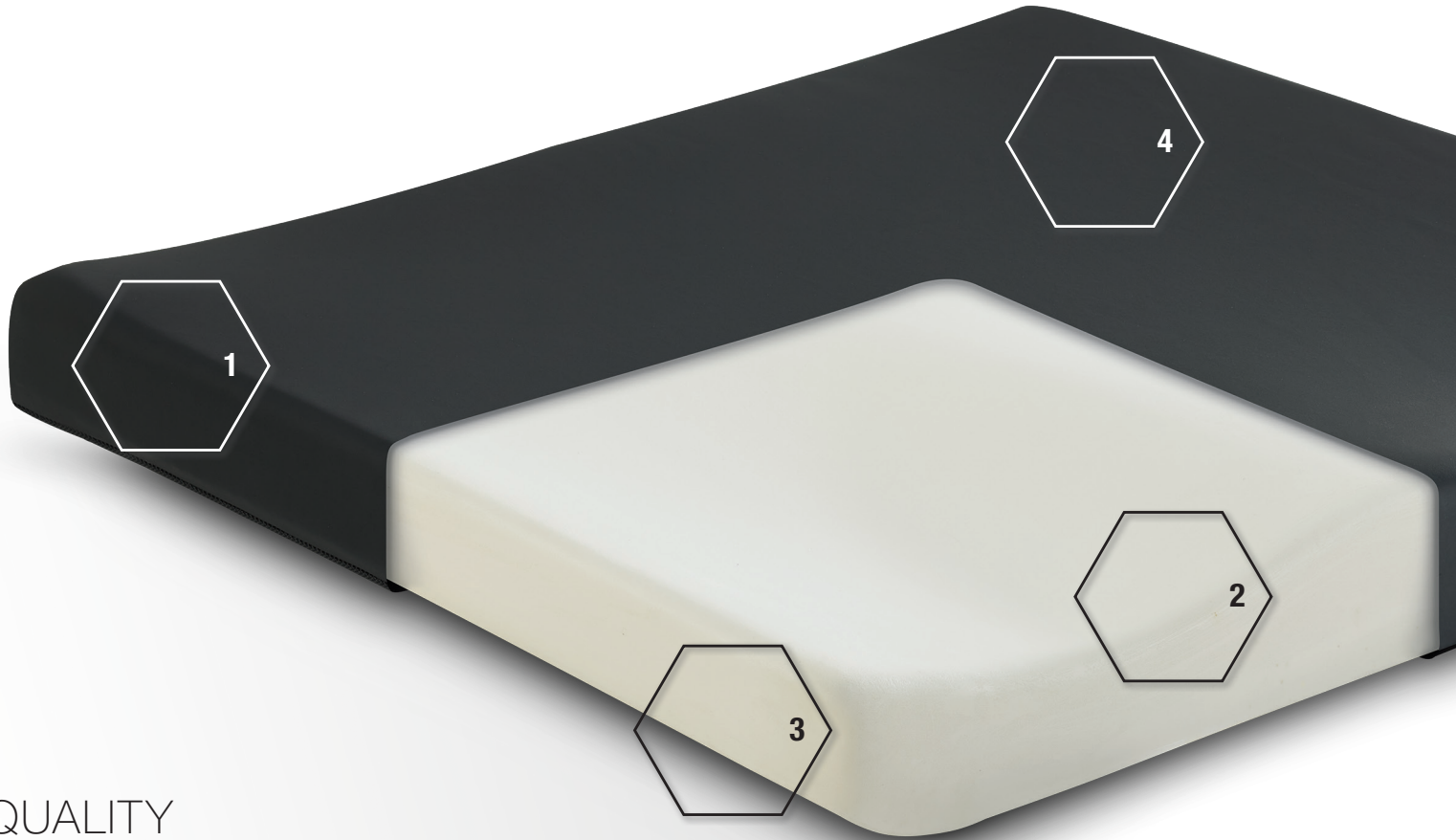


## ANTHROPOMETRICS

While Pre-Contouring is a very effective design technique, it can be difficult to execute because humans vary in size and shape, as well as the quality and amount of tissue surrounding the bones we sit on. Cushion widths relate directly to the overall width of the individual and their wheelchair. A paraplegic individual may have very little tissue outside of their trochanters. So, their overall width may closely relate to their bi-trochanteric width. Conversely, another person may have considerable redundant tissue lateral to their trochanters and therefore have a much smaller bi-trochanteric width relative to their overall width. Since loading of the trochanters improves stability by widening the base of support and reduces the load the tissue that supports the Ischial Tuberosities must bear, designers must understand the anthropometry of the pelvis to design an effective cushion.

# AXIOM

## ONE



### QUALITY WITHOUT THE COST

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Axiom One delivers the quality and comfort you expect from Axiom in an affordable general use cushion.

- 1 | Water resistant zipper with low profile zipper pull for easy cleaning.
- 2 | Low-Profile contour provides mild positioning guidance allowing freedom to move as necessary.
- 3 | Beveled bottom edge for sling seat compatibility.
- 4 | Wipeable Incontinence Resistant Cover is standard on Axiom One.



LEARN MORE

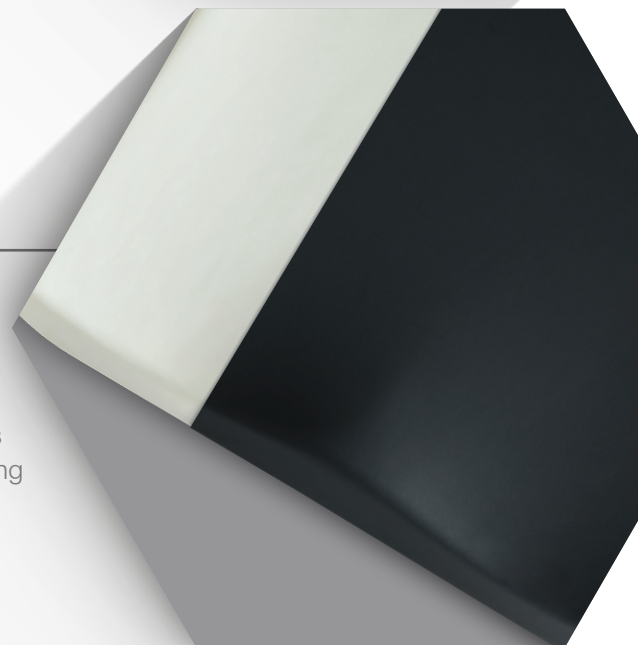
## INCONTINENCE-RESISTANT COVER

The wipeable, **incontinence-resistant cover** features a water-resistant zipper, protecting the foam base while ensuring easy cleaning and sanitation.



## HIGH QUALITY MATERIALS

Upholding Axiom's best-in-class standard, Axiom One delivers **high-IFD polyurethane foam** for lasting durability and comfort. Its skid-resistant bottom ensures compatibility on various seating surfaces.



### SPECIFICATIONS

#### Width

14 - 22"  
35.5 - 55.9 cm

#### Depth

14 - 20"  
35.5 - 50.8 cm

#### Height (Leg Troughs)

1.5" | 3.8 cm

#### Height (Overall)

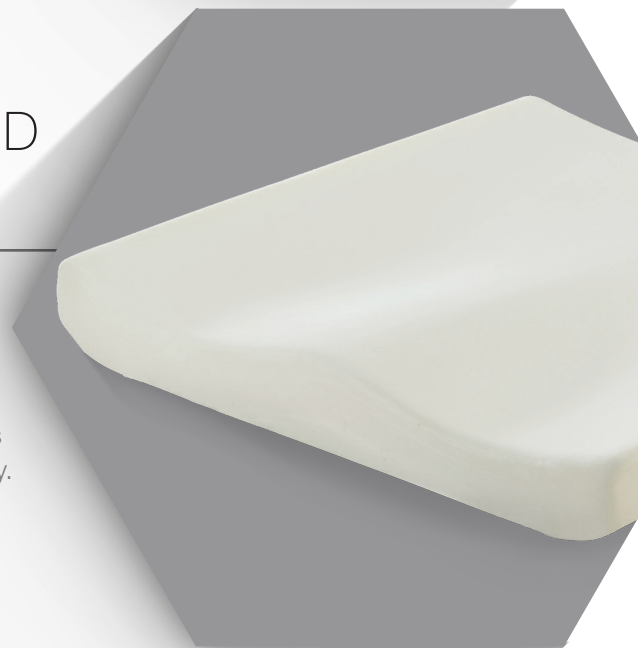
2.4" | 6.1 cm

#### Weight Cap.

350 lbs.  
159 kg

## PRE-CONTOURED SHAPE

Designed for comfort and stability, the **mild pre-contoured shape** supports envelopment for a secure yet unrestricted seating experience. The beveled bottom integrates seamlessly with wheelchair upholstery.



# AXIOM

## G | S | R



**Now available** in two cover options:  
Incontinence Resistant and Standard

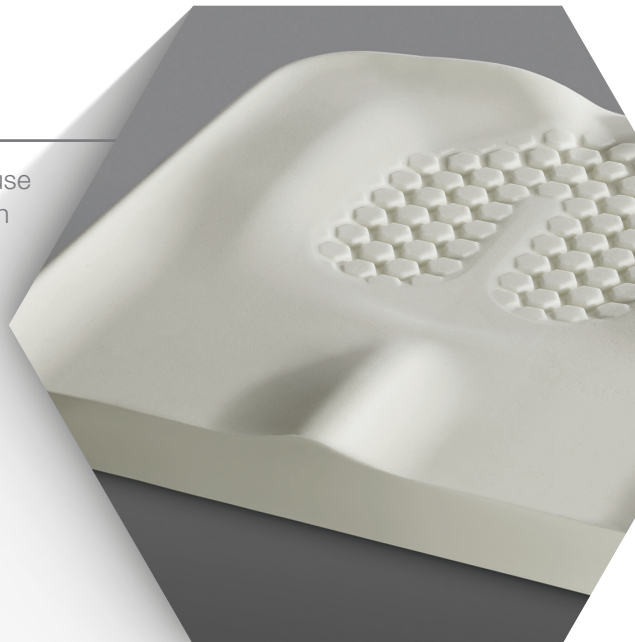
- 1 | Water resistant zipper and zipper pull make it simple to don and doff the cover while still protecting the foam.
- 2 | Unique hexagonal foam shapes that reduce surface tension and increase envelopment around the ischia and coccyx.
- 3 | Cover options include: Standard and Incontinent. All cover options provide breathable, wipeable, 4-way stretch and water resistant benefits.
- 4 | Easy-to-reach front handle comes with utility loops for hanging accessories.



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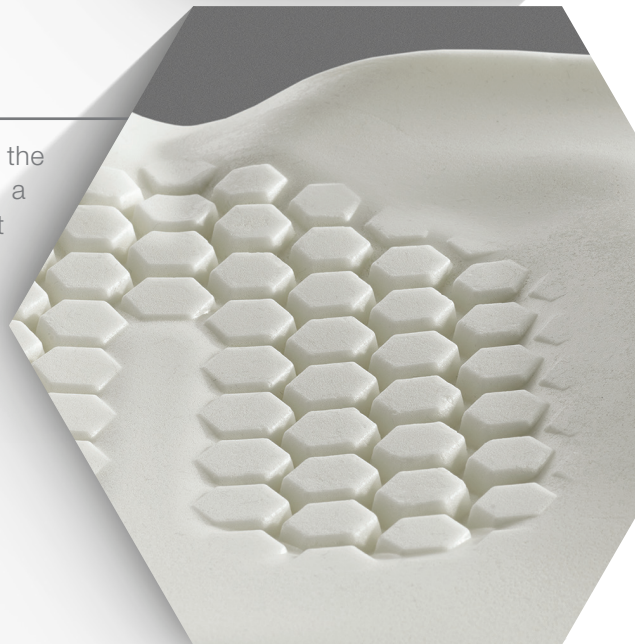
## AXIOM|G

A feature-rich, premium general use cushion that is anything but *Basic*. With its Pre-contoured shape, surface tension reducing well and high quality foam & cover materials, it is sure to be the professional's choice for years to come.



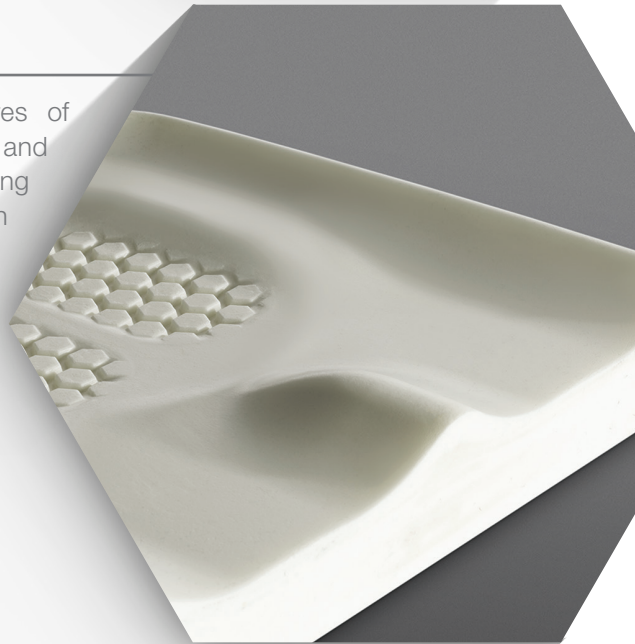
## AXIOM|S

A skin protection cushion offering all the great features of the Axiom G, with a special emphasis on the area that distributes pressure around the tissues that support the bony prominences. Deeper hexagonal shapes allow for increased immersion with better envelopment, making **Axiom S** a great entry level skin protection cushion.



## AXIOM|P

Offering all the same great features of the Axiom G, with better medial and lateral stability. With superior positioning features and surface tension reduction in the well, the **Axiom P** proves positioning cushions can still be comfortable while providing positioning and stability.



### SPECIFICATIONS

#### Width

14 - 22"  
35.5 - 55.9 cm

#### Depth

14 - 22"  
35.5 - 55.9 cm

#### Height (Leg Troughs)

2.25" | 5.7 cm

#### Weight Cap.

350 lbs.  
158 kg

#### Height (Overall)

**G** | 3" | 7.6 cm

**S** | 3" | 7.6 cm

**P** | 3.5" | 8.9 cm

#### Weight

**G** | 2.2 lbs. | .99 kg

**S** | 2.2 lbs. | .99 kg

**P** | 2.3 lbs. | 1 kg

#### HCPCS Code

**G** | E2601/2

**S** | E2603/4

**P** | E2605/6



# AXION

## SP VISCO

Now available in two cover options:  
Incontinence Resistant and Standard



- 1 Super 4-way stretch Lycra outer cover for optimum surface tension reduction or optional 4-way stretch Incontinence Resistant Wipeable cover for additional protection.
- 2 Both outer covers feature a microclimatic spacer fabric layer with horseshoe design around the well for layer reduction, and increased immersion.
- 3 Pleated 4-way stretch inner cover with self-sealing zipper is water resistant and is easy to clean.
- 4 Viscoelastic foam insert with unique hexagonal shapes increase envelopment and reduce compression around the ischia and coccyx.
- 5 Dual density polyurethane foam base offers firm support in the lower layer with a durable comfort layer on top.



## SPECIFICATIONS

### Width

14 - 22"  
35.5 - 55.9 cm

### Depth

14 - 22"  
35.5 - 55.9 cm

### Height (Leg Troughs)

3.25" | 8.25 cm

### Height (Overall)

4.5" | 11.4cm

### Weight

3.5 lbs.  
1.59 kg

### Weight Cap.

350 lbs.  
159 kg

### HCPCS Code

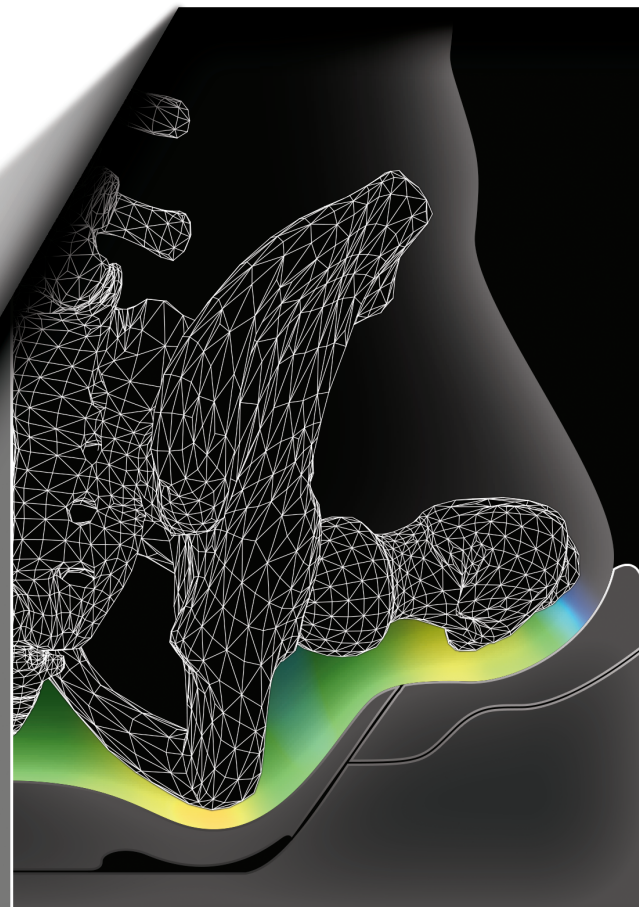
E2607/8

Axiom SP Visco is designed to provide increased immersion, allowing the trochanters to bear an effective load. This improves stability by widening the base of support and reduces the load the tissue that supports the Ischial Tuberosities must bear. A thick section of a specially designed Viscoelastic foam deforms to immerse and envelop the Ischial Tuberosities. Using anthropometric design, this section also has two small areas where foam is removed under the Ischial Tuberosities to facilitate immersion.

Viscoelastic material is both viscous (changes shape slowly) and elastic (it returns to its original shape). It deforms and returns to shape very slowly. There is a significant lag between when you deform a viscoelastic foam and when it returns to shape. Because energy is effectively absorbed and dissipated during the time lag there is less reaction force pushing back after deformation.



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# AXION

## SP FLUID

Now available in two cover options:  
Incontinence Resistant and Standard



- 1 Super 4-way stretch Lycra outer cover material reduces surface tension.
- 2 Outer cover features a spacer fabric layer with a horseshoe design, providing microclimatic airflow along with layer reduction over the Hydrolite® fluid bladder. Available with Standard or Incontinent out cover options.
- 3 The Hydrolite® fluid bladder is designed to sit on top of the waterproof inner cover; reducing surface tension and maximizing envelopment of the ischia and coccyx.
- 4 Dual density polyurethane foam base offers firm support in the lower layer with a durable comfort layer on top.



## SPECIFICATIONS

### Width

14 - 22"  
35.5 - 55.9 cm

### Depth

14 - 22"  
35.5 - 55.9 cm

### Height (Leg Troughs)

3.25" | 8.25 cm

### Height (Overall)

4.5" | 11.4cm

### Weight

3.6 lbs.  
1.63 kg

### Weight Cap.

350 lbs.  
159 kg

### HCPCS Code

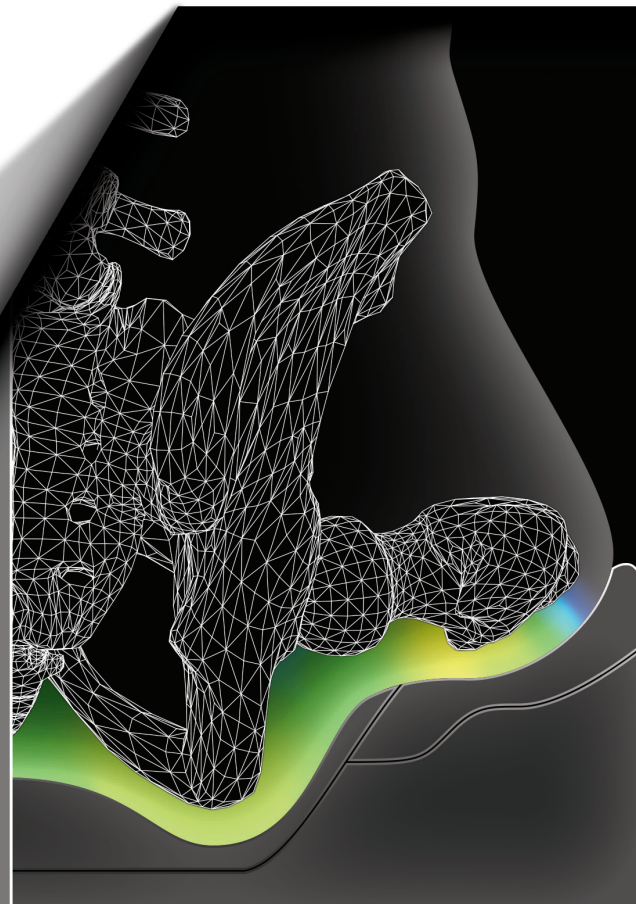
E2607/8

Like the Axiom SP Visco, the Axiom SP Fluid is designed to provide increased immersion, allowing the trochanters to bear an effective load, widening the base of support, and reducing the load the Ischial Tuberosities must bear. The Axiom SP Fluid uses a **Hydrolite®** fluid bladder instead of Viscoelastic Foam. The bladder rests directly under the super stretch outer cover, allowing it to conform to the tissues supporting the Ischial Tuberosities.

Fluid functions very differently than foam. While foam must compress and has elastic characteristics, fluid displaces. It actually moves away from a shape and tries to create an equilibrium where all the areas in contact with the shape have equal loading. **Hydrolite®** is a non-Newtonian fluid that behaves as a solid under the force of gravity, but flows as a viscous fluid under load, which can help minimize shear. It is also incredibly light, eliminating the "weight penalty" of other fluid cushions.



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# AXIOM | AS & ASP



## THE FIRST FIELD ADJUSTABLE LIGHTWEIGHT FLUID CUSHIONS

Our patented self-adjusting fluid system makes fitting and adjustment incredibly simple. Getting the optimum fit the first time, is as easy as sitting.

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### SPECIFICATIONS

Width	Depth	Height	Height (Overall)	Weight	Weight Cap.	HCPCS Code
14 - 22" 35-56 cm	14-22" 35-56 cm	(Leg Troughs) 3.8"   9.5 cm	AS: 4.5"   11.5 cm ASP: 5.5"   14 cm	3.3 lbs 1.5 kg	350 lbs. 159 kg	AS: E2622/3 ASP: E2624/5

- 1 | Pleated 4-way super stretch Lycra cover to eliminate cover tension.
- 2 | Microclimatic spacer fabric layer over reticulated foam comfort layer for airflow.
- 3 | Structural Foam Base with Fluid reservoir channels allow for individual adjustment of fluid volume.
- 4 | Bilateral Ischial Fluid inserts with more mobile fluid for shear reduction.
- 5 | Independent Trochanteric fluid inserts, with stiffer fluid for stability.
- 6 | Vents allow the cushion to adjust to changes in ambient pressure.



## FITTING & ADJUSTMENT

Axiom AS & ASP employ a patented self-adjustment fluid system that uses the rider's bodyweight and physical characteristics to dictate the degree of immersion and envelopment into the cushion.

Fluid is displaced only until directed loading is reached. Once the desired fitting is achieved, the adjustment can be locked in. Fitting can be repeated as needs change but refitting solely for maintenance is not necessary.



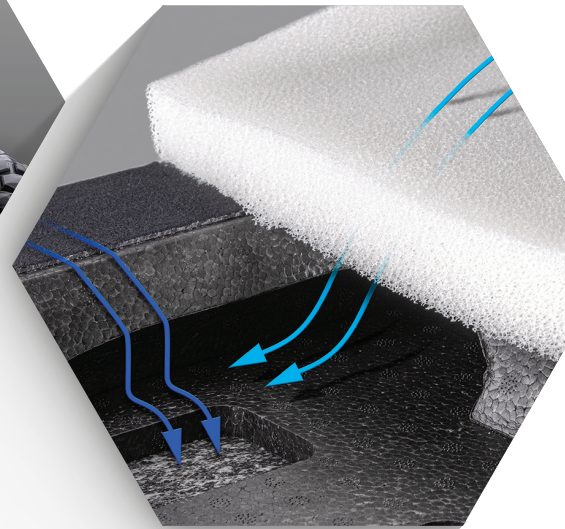
## INCREDIBLY LIGHT

Axiom's Hydrolite is incredibly light, eliminating the "weight penalty" of other fluid cushions. Also, it's less sensitive to hot or cold, for consistent performance regardless of the climate.



## OPTIMIZED PRESSURE DISTRIBUTION & MAXIMUM STABILITY

The cushion allows the femurs, trochanters, and ischia to all be independently loaded. The fluid under the ischia is specifically engineered to reduce shear strain while the trochanteric bladders are filled with a stiffer version of Hydrolite for stability when moving and reaching.



## SUPERIOR MICROCLIMATE

The cushion base features a dense layer of reticulated foam under a layer of spacer fabric to allow air to flow. The foam base is closed cell and designed with pathways that allow moisture to flow through and away from the body, maintaining a cooler and drier skin interface.

# AXIOM | AIR | LTE

## EASY ADJUSTMENT, COMFORT, AND QUALITY

Axiom Air LTE, the lightweight and cost-effective air cushion option, is designed for general purpose applications. Delivering easy adjustment, comfort, and quality construction to suit a variety of care settings and environments.



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# AXIOM for Kids

## KIDS COME IN ALL SHAPES AND SIZES

Axiom for Kids cushions deliver a better fit for optimal comfort and outcomes by using varying foam softness and shapes by cushion size.

Available in two models: PXP (Positioning) and PXSP (Skin Protection & Positioning).

Ki Mobility manufactures wheelchairs, seating and positioning products in the United States. Ki and Axiom products redefine their respective segments by raising the bar in innovation and quality. Ki Mobility continues to improve upon the experience for consumers and professionals by delivering on the “Better By Design” approach to products and services.

Ki Mobility has been a part of Etac since 2021.

Founded in 1973, Etac is a world-leading developer and provider of ergonomic assistive devices and patient handling equipment. Through specialized product brands, Etac offers state-of-the-art products for a wide range of daily needs and care settings, for people at all stages of life. Etac’s product brands include Convaid, R82, Star, Molift, Immedia, Klaxon, Etac, Ki and Axiom.