




NSW State Spinal Cord Injury Service

Spinal Seating Professional Development Program

Clinical applications and handy tips for commonly prescribed cushions for SCI population – JAY®

The SSCIS Seating Professional Development Program is funded by the Agency for Clinical Innovation (ACI) in NSW Australia and has been developed in collaboration with the Assistive Technology and Seating in Royal North Shore Hospital

This presentation was adapted from the Spinal Seating Professional Development Program seating workshops. The material was developed and revised by Charisse Turnbull and Dr Iain Brown in 2015 as a resource for Spinal Seating Education website.

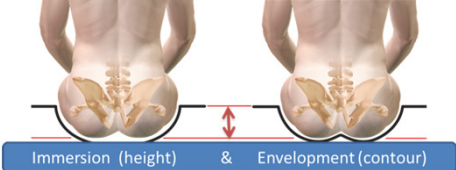
JAY® cushions

Commonly prescribed Jay® cushions for SCI population are J2, J2 Deep Contour, J3 and Jay Fusion™. These comprise fluid pad and foam base.

Jay® fluid pad which has good envelopment and immersion properties. The fluid pad has 3 segments to control fluid flow:

- Left and right compartments
- Posterior compartment retain fluid from moving rearward and coverage for coccyx

The Jay® foam bases are anatomically designed to **support and redistribute** weight through greater trochanters and posterior thighs; while the ischial tuberosities (ITs) are immersed in fluid pad.

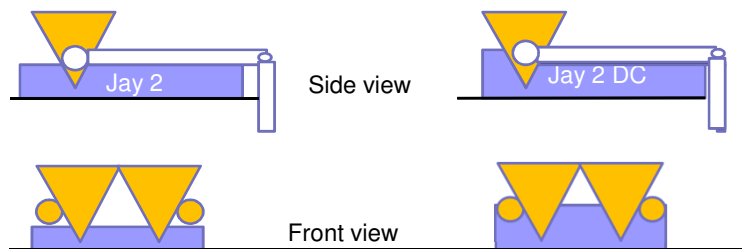


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Tips for selecting JAY® Cushions

Skin protection:

- The deeper the cushion well, the greater immersion capacity of the cushion to distribute pressure. Foot support height should be adjusted to allow good thigh contact.
- For example, Jay 2 has a well depth of 1.5" while Jay 2 DC has a well depth of 3.5".



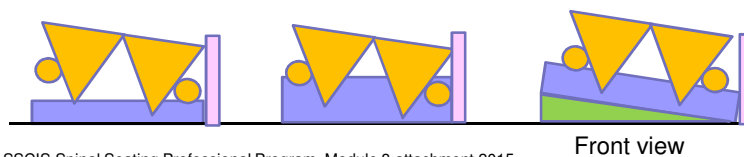
SSCIS Spinal Seating Professional Program Module 8 attachment 2015

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Tips for selecting JAY® Cushions

Skin protection with fixed pelvic obliquity:

- If the MAT demonstrated that the client has a fixed pelvic obliquity deformity, the higher hip would have less immersion than the lowered hip. It is important to note the amount of fixed obliquity in the assessment
- A deeper profile of the cushion should be chosen to distribute pressure from the lower ischial tuberosity (IT).
- A lateral seat wedge may also assist. However, Clinician should review if transfer is affected by cushion height variant.
- A lateral thigh support should be considered to align the pelvis over the well position







SSCIS Spinal Seating Professional Program Module 8 attachment 2015

Front view

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Cushion specifications:

	JAY 2	JAY 2 DC	JAY 3	JAY Fusion
				
Pressure Management	Pressure Management: 4.5/5* Suitable for trial with clients at high risk of skin breakdown.	Pressure Management: 5/5* Suitable for trial with clients at extreme risk of skin breakdown.	Pressure Management: 4/5* Suitable for trial with clients at medium-high risk of skin breakdown.	Pressure Management: 4.5/5* Suitable for trial with clients at high risk of skin breakdown.
Posture Management	Lateral support: 4/5* Forward support: 3/5*	Lateral support: 4/5* Forward support: 4/5*	Lateral support: 5/5* Forward support: 4/5*	Lateral support: 4.5/5* Forward support: 4/5*
Cushion Height	Cushion height = 2.5" Suits a low STFH needs.	Cushion height = 4.5" Deeper well requires a thicker cushion.	Standard height = 3.5" Deep Option = 4.5"	Cushion height = 4"
Cushion Well	Well depth = 1.5"	Well depth = 3.5" Significantly deeper well, enables deeper immersion.	Well depth = 2.5" 3 different PLA sizes: A, B & C Can vary well size with inserts or request manufacturer customised well size/position.	Well depth = 3" Base of well further forward – 2" at back. Well wraps posteriorly preventing fluid excursion. Roho variant (use Roho hand check for inflation).

*According to JAY Product Reference Guide Self-Assessed Product Ratings.

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	JAY 2	JAY 2 DC	JAY 3	JAY Fusion
Cushion Base & Insert	Closed cell foam base, sealed upper layer incorporates softer foam layer and fluid Tri-pad well insert.	Closed cell foam base, sealed upper layer incorporates thicker, softer foam layer and deeper fluid (more volume) Tri-pad well insert.	Closed cell foam base. Fluid or Roho insert option. Fluid pad pleated to reduce migration, can be ordered Factory filled or Field Variable. Roho can be ordered either single or dual valve.	Closed cell foam base with a soft memory-like foam upper. The base is enclosed in a water proof cover. Well filler attaches to outside of inner cover. Fluid pad available in Factory Filled or Field Variable. Roho air insert in Single Valve or Dual Valve.
Measuring cushion size	Measure GT to GT width. Cushion width is generally hip width. GTs should be supported on edge of well with ITs immersed in the fluid pad. Cushion Length: 1 – 2" clearance behind knee.	Measure GT to GT width in the same way as the JAY 2. Refer to JAY cushion guide for technical information. Cushion Length: 1 – 2" clearance behind knee.	Measure hip width to specify cushion width. Choose well size (A, B or C) to ensure GTs are on shelf and ITs in well. Cushion Length: 1 – 2" clearance behind knee.	Measure hip width to specify cushion width. Average pelvic bone measurements used to determine PLA for each cushion width. No sizing chart currently available. Consider carefully if client is atypical BMI. Cushion Length: 1 – 2" clearance behind knee.
Weight	Weight = 2.5 kg (16" x 16")	Weight = 2.8 kg (16" x 16") Heavy to lift	Weight = 2 kg – Fluid insert 1.3 kg – Roho insert (16" x 18")	Weight = 2.4 kg – Fluid insert 1.7 kg – Roho insert (16" x 18")
Covers	2 covers now supplied with every cushion order Options: Standard & Incontinent	2 covers now supplied with every cushion order Options: Standard & Incontinent	Cover has a foam spacer – foam will deteriorate with use 2 covers now supplied with every cushion order Options: Standard & Incontinent	Outer and inner covers; outer cover washable and has foam spacer – foam will deteriorate; inner cover is water proof. 2 sets of covers now supplied with every cushion order
Warranty	2 years	2 years Cushion replacement to be explored after 3 years as volume of fluid can diminish	2 years Outer cover (6 months): foam in cover degrades/flattens quickly.	2 years

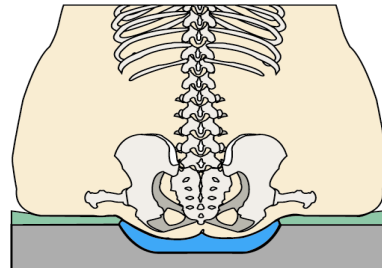
Disclaimer: information collated in the tables applied within the context for NSW spinal clinician group in 2014

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Correct Width J2 & Jay 2 Deep

Correct well width

- Fits the client's pelvis (skeletal) anatomy
- The greater trochanters (GTs) should be supported on the edge or slope of the well
- The ischial tuberosities should be allowed to immerse into the pressure-relieving fluid in the well

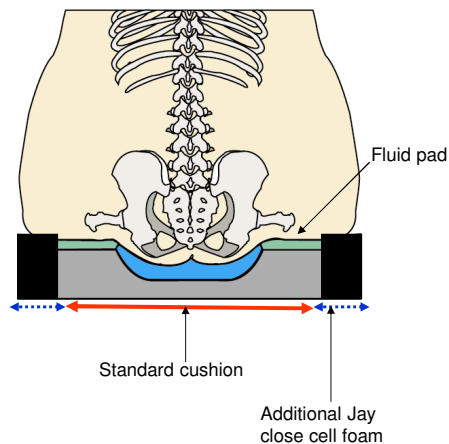


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Measuring for Jay2 & Jay 2 Deep cushions

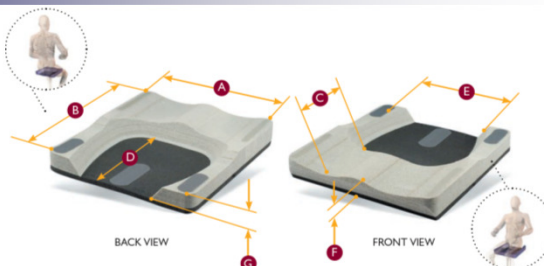
- Measure GT to GT width for Jay 2 and Jay 2 Deep cushion width
- If hip width is wider than GT width, still order GT width with extra foam on sides. Eg, for GT width of 16", hip width at 18", order the cushion 16" wide build out to 18" wide (no extra cost)
- Consider well dimensions which vary for each cushion size. Refer to Jay Cushions and Backs brochure.



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Correct measurement
E.g., Jay2 Deep
Contour:



PART #	CHAIR SIZE	ACTUAL WIDTH	ACTUAL LENGTH	FEMORAL SUPPORT LENGTH	PELVIC CONTOUR LENGTH	PELVIC CONTOUR WIDTH	OVERALL HEIGHT	PELVIC CONTOUR DEPTH
		A	B	C	D	E	F	G
2400-MJ	20x20	19.75	19.75	7.25	10.625	18.00	4	3
2406	20x16	19.75	15.75	5.25	8.625	18.50	4	3
2408	20x18	19.75	17.75	6.25	9.750	19.38	4	3
2426	22x16	21.75	15.75	5.25	8.625	20.25	4	3
2428	22x18	21.75	17.75	6.25	9.750	21.63	4	3
2444	14x14	13.75	13.75	4.75	7.625	11.75	4	3
2446	14x16	13.75	15.75	5.75	8.625	12.50	4	3
2448	24x18	23.75	17.75	6.25	9.750	23.50	4	3
2455	15x15	14.75	14.75	5.13	8.000	13.00	4	3
2457	15x17	14.75	16.75	6.00	9.125	13.88	4	3
2460	16x20	15.75	19.75	7.50	10.500	14.25	4	3
2466	16x16	15.75	15.75	5.50	8.500	14.50	4	3
2468	16x18	15.75	17.75	6.38	9.500	15.38	4	3
2475	17x15	16.75	14.75	4.75	8.000	15.25	4	3
2477	17x17	16.75	16.75	5.88	9.125	16.00	4	3
2480	18x20	17.75	19.75	7.50	10.625	16.38	4	3
2486	18x16	17.75	15.75	5.38	8.625	16.50	4	3
2488	18x18	17.75	17.75	6.63	9.500	16.13	4	3

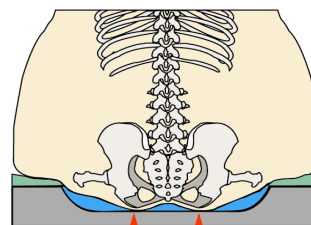
All listed measurements are in inches.

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J2 Cushion Incorrect Size

Well size too wide:

- GTs sink into well and are not supported on edge
- ITs bottom out in well
- Common with:
 - Bariatrics - hip (soft tissue) width is significantly >GTs width. Cushions ordered to fit hip width or chair width vs GTs width
 - Pediatrics - build in too much growth
 - Geriatrics - in standard chairs that do not fit



Client complains of
"bottoming out"

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How to test for bottoming out?

- Position client in chair in optimal position for 20–30 minutes
- Transfer client out of the cushion by lifting as much as possible (vs sliding) to ensure minimal disturbance to fluid pad.
- Find points of deepest immersion of the pelvis in the fluid
- Push into the fluid at these points – there should be at least ½" (~ finger thickness) of fluid between the deepest points and the firm foam base

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Why Is Client Bottoming Out

1. Bottoming out in middle of well bilaterally
 - Cushion too wide?
 - Overall cushion width correct, but well size too wide?
2. Bottoming out in front of well
 - Cushion too short?
 - Sitting in posterior pelvic tilt?
 - Fixed – does client need cushion with longer well?
 - Flexible – can posture be corrected to upright?
 - Cushion sliding back behind back posts?
3. Bottoming out on one side
 - Fixed or flexible obliquity?

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Maintenance

- Clean with warm soapy water
- Covers can be washed in washing machine
- Check for leaks in fluid pad
- Check for bottoming out in areas of fluid pad, if present knead fluid so good distribution over entire area

Replacement:

- Fluid leakage
- Fluid volume may decrease
- Fluid is firm
- Velcro attachment failed
- Seam detached on fluid pad

Jay cushion SSCIS user guide:

http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0004/155263/usejay.pdf

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