

NSW SSCIS NSW State Spinal Cord Injury Service gmct

Spinal Seating Professional Development Program

Module 8 - Pressure Management

http://www.health.nsw.gov.au/gmct/spinal/sspdp/module_08_6b.asp

Resource attachment: "Handy tips for ROHO^R cushions prescriptions and set up"

Seating Education Website:
<http://www.health.nsw.gov.au/gmct/spinal/education.asp>

Commonly used cushions for clients with spinal cord injury : ROHO Cushions

A "Dry Air Flotation" system:
http://www.seatingdynamics.com.au/dry_floatation.asp


- check daily, and adjust cushion if required
- adjusted inflation after:
 - any change to wheelchair or seating
 - when there is a significant change in temperature or elevation. (Air expands in heat and altitude)

☑ Air cushions must be checked or adjusted with the user on the cushion

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ROHO Quadro

- One valve & four compartments
- High profile, 10 cm(4") or low profile, 5cm(2") cells
- Able to lock air into 4 chambers for postural stability (left to right and front to back) using ISOFLO, a sliding valve
- Assess pelvis positioning during setup to maximise postural positioning and stability.
- Can assist with management of pelvic obliquity and pelvic tilt
- Can be used as a single valve cushion



Use ROHO cushion cover to protect the cushion, not sheepskin or pillow covers as they reduce the envelopment property of the cushion.

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ROHO Contour Select

- One valve & four compartments, ISOFLO valve
- Combines 10cm(4"), 8cm(3") & 5cm(2") cells
- Able to lock air into 4 chambers for postural stability (left to right and front to back) using ISOFLO
- Can assist in managing posterior pelvic tilt
- Can provide more thigh contact to distribute pressure and to support lower legs than a low profile cushion




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ROHO Enhancer

- 2 valves & 2 compartments
- 10 cm(4"), 8 cm(3"), & 5 cm(2") cells
- The inside valve controls air inflation of the 4" outer cells for pelvic positioning.
- The outside valve controls air inflation of the 2" & 3" cells around the medial areas of the buttocks and thighs to optimise immersion
- Can provide good pressure relief for ITs
- Can accommodate posterior pelvic tilt and provide postural support for lower limbs




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ROHO Nexus Spirit

- Moulded foam base with ROHO cells in back of cushion
- Cells all same height 5cm(2"), option available for 8cm(3") cell height
- single valve with one air compartment
- Optional: dual valves with left and right compartments to allow postural stability and management of pelvic obliquity
- Can provide moderate pressure care for users
- Ease of performing self lift transfers or slide board transfers




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Basic ROHO Cushion Inflation

4 Steps

1. Over inflate
2. Position user on cushion
3. Find lowest bony prominence & release air
4. Allow a minimum of 1.5cm between bony prominence and seat close valve

Step 1 – Over inflate




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Basic ROHO Cushion Inflation

Step 2 - Position client on cushion

- Ensure armrests and footrests are properly adjusted.
- Ensure that client is seated as far back in the chair as possible.
- Be sure the client is seated in a normal resting position.

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Basic ROHO Cushion Inflation

Step 3 - Slide hand under lowest bony prominence and release air.





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My tricks of the trade:

1. To find the ischial tuberosities (ITs), check PSIS & ASIS positions to estimate pelvic tilt, obliquity & ITs position. (Posterior tilt = ITs are towards the middle of seat depth.)
2. Always check the **lowest** IT if pelvic obliquity is noted
3. The ITs are approx. 5 cm from midline. Your whole palm should be under the client to reach the IT. (if not, your are feeling the GTs)
4. Using the latex glove can increase friction as you move your hand under the client. Use a slippery glove or plastic bag over your hand/ glove to reduce friction.
5. I prefer the 'Palm Down' method once I locate the ITs. It gives me leverage to touch the seat base and sense the IT on top of my finger during air inflation.



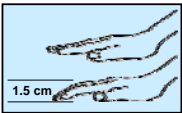


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Basic ROHO Cushion Inflation

Step 4 –

- When you can wiggle your fingers and touch the base close valve.
- About 1.5 cm of air will remain between the client and the base for maximum immersion.

1.5 cm between the client and the base.

The Concept is **IMMERSION**. Sit **IN** the cushion.

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ROHO setup and user guide

Video:
<http://therohogroup.com/medical/properadjust/instruction.html>

SSCIS user guides:

- ROHO Enhancer:
http://www.health.nsw.gov.au/resources/gmct/spinal/useroho2_pdf.asp
- ROHO Select:
http://www.health.nsw.gov.au/resources/gmct/spinal/useroho3_pdf.asp

http://www.health.nsw.gov.au/gmct/spinal/ssdp/module_08.asp

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Proximity sensor

The Merlin:

- monitors the **distance** between the base of the cushion and the lowest bony prominence
- alerts** the client when the distance between the bony prominence and seat base is too high or too low to the preset level
- does not measure internal air pressure
- is not a set-up tool, a hand check for air inflation / adjustment is required before setting the sensor
- is battery operated.

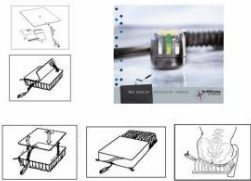


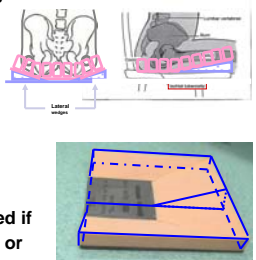
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Contouring Under ROHO Cushions

Seating Clinics can custom made contoured foam base or foam wedges under the ROHO air cushions.

- Creates larger surface area to distribute pressure
- Can assist in providing additional postural stability
- May need a larger cushion if using contouring under the cushion
- Cushion inflation must be readjusted if contouring is changed or removed, or changes made to wheelchair



See design: http://www.health.nsw.gov.au/gmct/spinal/pdf/roho_challenge.pdf

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Maintenance of ROHO Cushions

- Treat with respect**
 - use cushion cover provided
 - use yellow rope to carry, not the ISO-FLO valve
 - avoid contact with sharp objects & cigarettes
- Clean**
 - dirt, grit, chlorine & urine can damage
 - use warm soapy water & soft brush or a micro fibre glove.
 - use a heavy duty cover if indicated
- Check cushion**
 - daily if no sensation (checking daily does not mean adjusting daily!)
 - ensure user knows checking technique to inform carers.
- Repair damage**
 - use repair kit for small punctures
 - for more severe damage entire cells &/or valves may be replaced by ROHO distributor.

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Need replacement?

- Cell separation from the base
- Damaged air channel, or Iso-flo air lock
- Surface deterioration - cells are not collapsing for immersion
- Multiple patch / cell repairs

User's demand on the cushion affects the durability of the cushion.

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Try a ROHO Cushion on yourself or a colleague

- Set inflation
- Over inflate – how does it feel? Are you stable?
- Set cushions to correct inflation
- accommodate an obliquity / pelvic tilt with a Quadro
- Look at difference with & without covers
- Try to create channelling for legs

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