

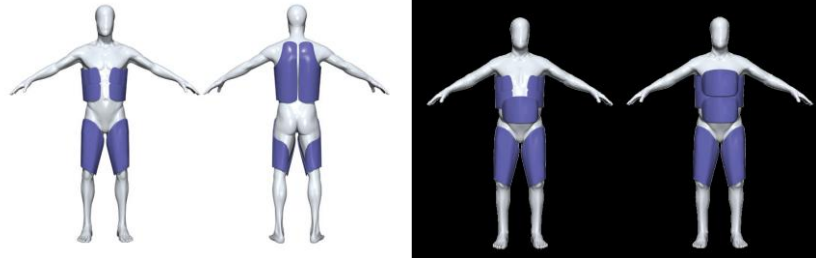
To ensure correct set up, turn on machine & watch **New User Guide** training video

**PADS AND DEVICE
ARE STORED IN L5
EQUIPMENT ROOM**

Pads need dry skin they can adhere over hair & can overlap. Leave a finger gap either side of the spine.

Preferably use small pads (as better adherence) and add a universal pad if required over the abdomen to ensure maximal cover (aiming 40% of body surface area).

Use the sizing chart attached to the device to assist with deciding what size pads to use.



Use an oesophageal or rectal core temperature probe; our regular sensors can attach to the Arctic Sun machine.

Use a secondary source of measurement (e.g tympanic) hourly to verify accuracy of the core temperature reading.

Attach connectors from the pads¹. Turn machine on – may take approx. 1 min to reach therapy selection screen.

For neuro patients, select “normothermia” option: 37^oc.

Do not alter this target temp.

Check water reservoir level - if < 3 bars, press “fill reservoir” on screen and follow the instructions; use sterile water, connected to the “fill tube”².

If you need to fill the reservoir during use on patient, you must empty the pads and disconnect them first.



Press start.

Target temperature should be reached within 4 hours. Record the temperature hourly (verify it against another means of monitoring, e.g tympanic). Also, record hourly water temperature and flow rate – input into the hypothermia section under the neuro nursing tab on metavision.

Assess shivering hourly using the bedside shivering assessment scale (BSAS).

Ensure inflammatory markers are measured at least once daily.

Peel back pads 4 to 6 hourly to check for pressure damage. It is not mandatory to wash under the pads

**24 HR ADVICE LINE
01293- 606876**

**FOR FURTHER ADVICE LOCALLY DURING OFFICE
HOURS: CALL Leana Maharajah, Clinical Specialist on
07971 812612**

AVOIDING SHIVERING

Always employ counter warming measures from the outset for any patient not already being paralysed.

These are shown to reduce the incidence of shivering - blankets wrapped around arms and legs; and consider Bair Hugger device, set on medium or high (38 or 43°C)

Assess shivering hourly using bedside shivering assessment scale (BSAS):

0 – NONE: No shivering

1 – MILD: Shivering localised to neck/thorax, may be seen only as artefact on ECG or felt by palpation

2 – MODERATE: Intermittent involvement of the upper extremities +/- thorax

3 – SEVERE: Generalized shivering or sustained upper/lower extremity shivering

Consider increased sedation then possibly add in neuromuscular blockade if shivering occurs despite counter warming. Continued shivering increases metabolic demands and prevents normothermia.

X-RAY / CT / MRI-

The pads are radio opaque and safe in the scanner. Prior to going to scan, press STOP, and empty pads as prompted. Disconnect pads. Pads maintain water temp for approx. 40 mins. The machine can be turned off, then you can resume the same patient settings when you turn it back on by choosing 'current patient'

FOR PATIENTS GOING TO THEATRE-

The pads will need to be removed. Use the backing sheets on the pads to help maintain moisture in the hydrogel and re-apply on return from theatres if therapy is to be continued.

PAD REPLACEMENT-

Pads last up to 5 days. Please note the date placed on the pads. Consider keeping the pads on throughout the five days even if the patient is maintaining normothermia. Only remove if neuroprotective measures are no longer being employed for the patient. The water temp helps to indicate whether active cooling is still required after 5 days, whereby the pads should be replaced.

IF TARGET TEMP ISN'T BEING ACHIEVED-

If starting temperature is very high (over 40°C) it may be necessary to give a cold saline challenge first. Consider: insufficient surface area, insufficient water flow rate (<2.3l/min) or shivering as causes.

Refer to help index → display → faq's → pt not controlling for assistance.

THE WATER TEMP-

This indicates how hard the machine is working to achieve target temperature. A falling water temperature may indicate a worsening sepsis or another cause (e.g. hypothalamic injury, seizure) which would otherwise have caused a raised temperature. It is clinically useful/ important to observe the trend in water temperature. A fluctuating water temperature may be indicative of insufficient pad surface area, insufficient flow rate or shivering. Refer to help index for assistance.

STOPPING TREATMENT-

Do not discontinue the treatment whilst the machine still has to work hard to achieve the target temperature. Ideally, wait until the water temperature is reading 25°C- 35°C for 12hrs.

REMEMBER TO EMPTY PADS (AS PROMPTED) AFTER STOPPING THE TREATMENT.