





VenUS III: Ultrasound Trial
Quick guide to applying the ultrasound treatment

Version 2

1. Set up the ultrasound machine by plugging mains lead into the back (unless you want to use the built in battery) and the lead of the transducer head into the output socket on the front of the machine -  Place transducer head into the holder on unit.
2. Position patient's limb on a pillow/ foot rest.
3. Visually inspect the wound and check for contraindications
4. If this is the patient's **first** treatment session, take a digital photo of the **reference** ulcer, tracings of **all** the ulcers and calculate the duration of ultrasound treatment for the reference ulcer according to its size. This should be repeated **every 4 weeks**.
5. Clean the face of the transducer with 70% isopropyl alcohol (e.g. sterile swab)
6. Apply contact gel to the face of the transducer and the skin **around** the ulcer.
7. Smooth the gel over the **skin surrounding the ulcer** using the transducer face.
8. Switch on the ultrasound machine with a long press of the power button - 
9. Explain to the patient that they should not feel anything when the treatment starts. If they feel pain or heat, they must tell you straight away.
10. Place the transducer head on the skin.
11. Set the **timer** (clock symbol that is highlighted when machine is first switched on) according to the size of the ulcer, by turning the rotary control clockwise.
12. Press the up button () to move up to the **output** display –  and set to **0.5 W/cm²** by turning the rotary control clockwise
13. Move the transducer *in a slow and controlled manner* **around the edges of the wound** in overlapping circles to cover the skin evenly.
14. Always ensure the transducer face is in contact with the skin and that there is adequate contact gel present.
15. When timer has finished its countdown, lift the transducer off the leg.
16. Switch off the machine with a short press of the power button.
17. Wipe the excess gel from the transducer face with a tissue or swab. Clean it with 70% isopropyl alcohol and place into holder on unit. Wipe excess gel from the patient's leg.
18. Inspect skin for undue reddening.
19. Record the ultrasound treatment time and the dose in the patient records.
20. Apply dressing and bandage as usual.

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Quick guide to the care of the ultrasound machine

1. Check daily that the machine is working by covering the transducer head with a fine layer of contact gel. Turn the machine on, set the timer to any length, select the output display by using up button (▲) and turn the intensity up until you see the gel move. This means the machine is working. Turn off and clean the transducer head.
2. Always ensure that you clean the face of transducer head with 70% isopropyl alcohol before *and* after use.
3. When you have finished treatment, you may find it useful to place the handle end of the transducer into the large round hole on the machine, as this will prevent transfer of gel onto any surfaces prior to its cleaning. When the head is clean, it can be placed face first into the same hole and clicked into place.
4. Please ensure that the ultrasound machine, mains cable, transducer head and contact gel are all returned to the carry case after treatment.
5. When not being charged and when not in use, please keep the ultrasound machine in its carry case.
6. On return to base, the battery should be recharged. The manufacturers recommend charging the battery when it is cold e.g. first thing in the morning. However this is not essential and the machine should be recharged at your convenience.

Calculating the length of ultrasound treatment for the reference ulcer

Area of ulcer	Treatment time
5cm ² or less	5 minutes
6cm ²	6 minutes
7cm ²	7 minutes
8cm ²	8 minutes
9cm ²	9 minutes
10cm ² and over	10 minutes

The treatment time should be calculated at the **first** treatment session and then recalculated **every 4 weeks** thereafter – i.e. on the visits when a digital photo and tracings are scheduled to be taken.