

Venous investigations with **VenoPulse** venous compression unit

User manual



1. The unit may be attached to the ultrasound scanner. Preferably fasten the unit using the inbuilt attachment brackets.
2. Connect the unit to mains power (230 V). Turn on unit. The display should read approximately 000 mmHg. A few mmHg offset is quite acceptable.
3. Connect the unit to pressurized air (4-12 bar). A weak leak is heard – and is normal (adjustment bypass leak). The display indicates cuff compression pressure. Normally 130-150 mmHg is used. The pressure is adjusted at the back, after unlocking the locking nut and carefully turning the wheel. Fasten the locking nut after adjustment.
4. The cuff is connected to the front outlet and placed around the calf of the extremity to be investigated. The patient is best investigated standing, or lying at a very steep angle.
5. Locate the stem vein or side branch to be investigated by the ultrasound scanner. Preferably start investigation with colour flow mode (Fig. 1A, 1B) and finalize with colour duplex spectrum (Fig 1C).
6. Inflate cuff by the front cover switch “Cuff inflate” or the foot switch (Fig. 1A). Keep it pressed for 2-3 seconds, and then release. Note flow status following release (Fig. 1B). Normally there is a short distal reflux while the venous valves close; a reflux exceeding 0.5 seconds is usually defined pathological (Fig. 1C).

No special maintenance is required.

Replacement of pneumatic cuff:

Welch Allyn (Tycos) #5082-26, Cuff & Bag, Large Adult - **2 tubes**

or

Boso 121-4-130 Large arm - **2 tubes**

or similar, **with 2 tubes!**

The corrugated **grey hose** between the VenoPulse device and the cuff is a standard kitchen dishwasher outlet hose (length 2.5 m is standard). The hose can be purchased from kitchen appliance retailers (e.g. Elgiganten, Power, etc.) and at some hardware stores. If the hose connection to the device or cuff connection becomes loose, you can wrap stretchable tape around it.

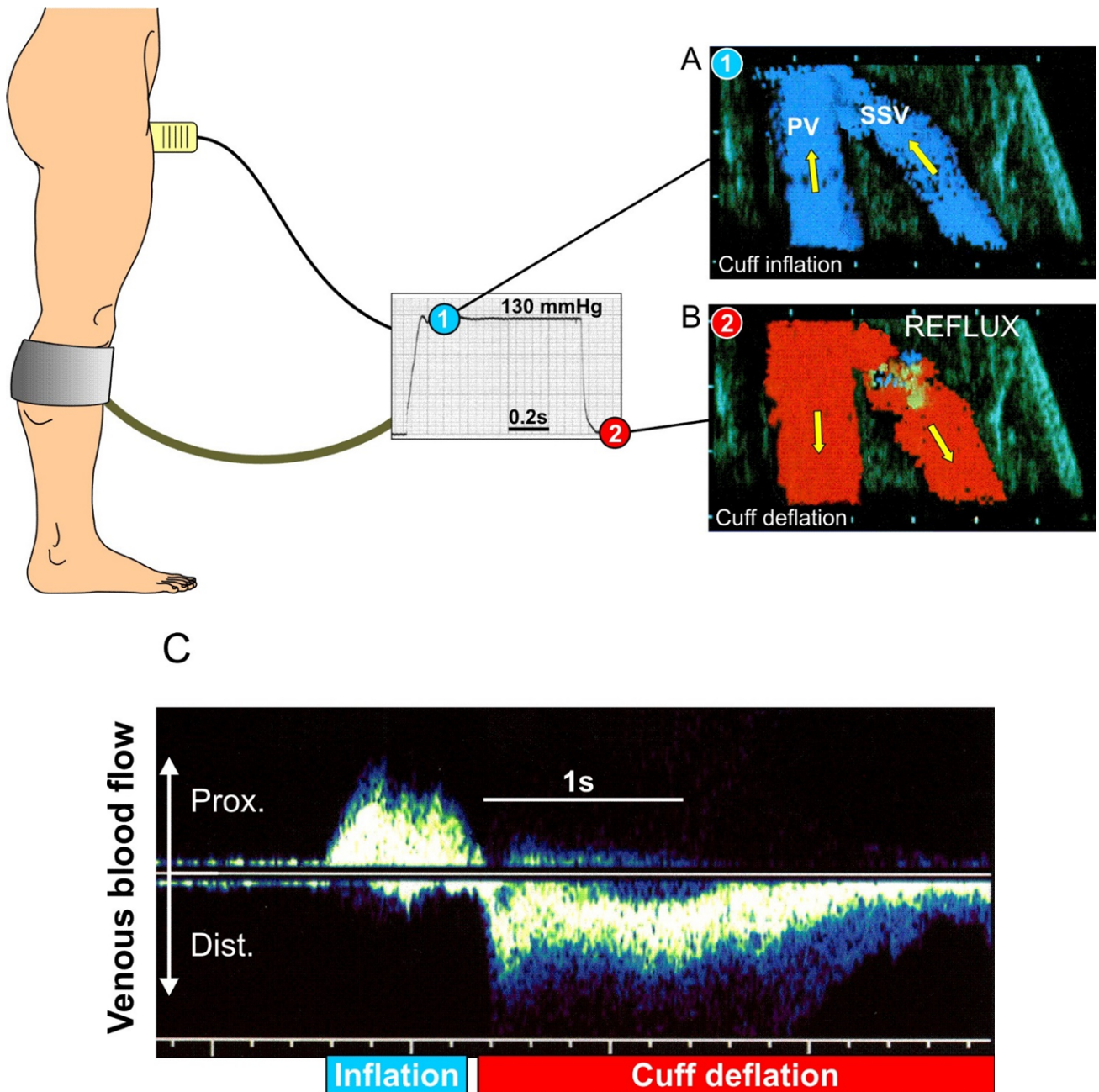


Fig. 1. Investigation procedure with the VenoPulse unit.

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