

Re: Slightly OT – BP measuring equipment ... ?

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Anyone on here had any experience of repairs to blood pressure measuring equipment, to the point of understanding properly the principles involved ?

Not the kind of thing one should repair, unless its a personal project. Even then, I think it's a bad idea.

OK, here's the story then. Not a repair as such, hence the "slightly OT" in the subject.

The unit is actually mine. It's a fully automatic job, made by Nissei, who are quite respected in the field, I believe. It has a wrist-sized velcro secured air cuff, connected to the main unit by a single small bore air hose. No electrical connections between the two. When you hit the "start" button, the cuff inflates to a preset (selectable for four values) pressure, which is shown on the LCD as a genuinely 'measured' – i.e. not just a figure put there by the CPU – mmhg value. The machine then starts a controlled deflation of the cuff, picking up pulse soon after this starts. It appears to be assessing blood stopped / blood flowing by measuring the minute changes in air pressure in the connecting tube, caused by the vein pulsing under the cuff.

Now, I've recently been sucked into the 'high blood pressure' thing by

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my doctor's surgery, and they are determined to treat me for it. Fair enough. However, my 'clinical care expert' – actually a feisty practice nurse with the disposition of a bear with a thorn in its paw – will not accept that a blood pressure monitor that does its measuring from the wrist, has any validity at all. I would like to be able to monitor my own pressure on a compatible basis with her, because I feel that I am a rather good example of elevated pressure due to white coat syndrome. This is a factor that she seems to ignore as being a contributory element to any readings. I don't dispute that my blood pressure is higher than ideal, I just don't think that it is as high (on average) as she insists it is, and I don't want to be over-medicated for the condition.

So, onto the real question. My monitor is just about identical to the one she is using in the surgery. Same measurement sequence, same sound from the compressor, similar sized unit, similar length of time to inflate and deflate etc. The only difference is that mine has a plug-in wrist cuff, and hers has a plug-in arm cuff. She actually changed to a larger sized cuff to fit my arm when I was in there a couple of weeks ago, which is what led me to my next thought. Arm cuffs, on their own, are available from a pharmacy chain store down the road. They're not cheap, but nothing like as expensive as a whole new machine. Given that it seems to work by measuring the pressure pumped into the cuff to reach a primary inflation point to work down from, and then apparently does the 'business' measurements by looking at the pressure variations caused by the vein inside the cuff pulsing, can anyone see why my monitor should not work just the same with an arm cuff plugged in, instead of a wrist cuff ? I don't really want to just shell out on an arm cuff in the fond hope that it *will* work, and then find out that it doesn't, but then neither do I want to spend even more money on a replacement unit, if I don't have to.

Any opinions / insights / genuine knowledge anyone ? :-)

Arfa

Good Morning Arfa,

I've had exactly the same issues with my Doctor and practice nurse which resulted in me buying one on the advice of my Doctor. I bought the one recommended at £10 from Lloyds Pharmacy.

The advice given was that everyone has high blood pressure at some time. However elevated blood pressure for an extended period (more than a few days) should be investigated.

For years I have had a lower blood pressure than normal ! All the fuss came about because the practice nurse decided that my blood pressure was abnormally high and insisted that I see the Doctor.

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I rather got the impression that the Doctor didn't want to get into a conflict with the nurse and actually disagree with her !

As to whether arm or wrist cuffs are better, mine is an arm cuff and is actually the same instrument that the practice nurse uses.

HTH

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Best Reagrds:

Baron.

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