Ambulatory (24hr) Blood Pressure recording:

Ambulatory Blood Pressure monitoring is used to measure your blood pressure (BP) intermittently for 24 hours during daily life including sleep. The blood pressure measured in a doctor’s office is a small sample of what BP is doing during a 24 hour cycle during which when BP goes up and down with every heartbeat of which there are approximately 80,000 daily. We try to measure BP every 15 minutes during the day and every 30 minutes at night. If all the readings are successful we have 72 measurements in 24 hours from which we calculate 24hr, day-time and night-time average readings.

Why is it done?

- **Diagnosis of “White Coat Hypertension”** - blood pressure is normal when measured at home but high when taken by a nurse or doctor.

- **Detecting abnormal BP patterns** - normally BP falls or ‘dips’ when you are asleep. If the BP does not fall or actually rises during sleep, hypertension is more likely to be associated with other heart and non-cardiac conditions, such as heart failure, kidney failure or autonomic neuropathy - common in diabetes for example. This pattern is commoner in patients who have a reversible cause of high blood pressure.

- **Monitoring effects of treatment** - the variation in blood pressure during daily life makes measuring the effect of lifestyle changes or drug treatment very difficult. The ABP is the most reliable way of measuring this and allows more accurate comparisons of BP over time.

How is it done?

A standard arm cuff of an appropriate size is put on your arm by one of our Technicians. This is usually put on your non-dominant arm - the opposite to the one used in writing - and attached to a small battery powered pump and recorder (Spacelabs ABP). The pump inflates the pressure to above your maximum (systolic) blood pressure and gradually releases the pressure to below the minimum (diastolic) blood pressure in time with the pulse.

The device gives a warning sound (‘beep’) when it is about to make a measurement. It is very important that your arm is kept still during this measurement. If the machine is unable to measure the blood pressure properly it will attempt to do so again and again. When the cuff is at maximum pressure, the blood supply to the arm below the cuff is cut off for a few moments which is normal and should not cause concern.

Space Labs ABP recorder
If your blood pressure is very high the recorder will have to pump the cuff up to a higher pressure and this may be quite uncomfortable. Depending on how easily you bruise, some bruising may occur which if mild and tolerable will allow the recording to be completed. However, if pain or any other worrying symptoms occur, it is best to remove the device and turn it off.

**What clothing and other preparations do I need?**

There is no need to fast and you should continue all other activities. It is very important that we know what medications are being taken at the time we do the test. An easy way is to bring all your medications with you to the first appointment.

The cuff, connecting tubing and pump are usually hidden under normal clothing but sleeves need to relatively loose. The appointment time takes about 20 to 30 minutes at the first visit.

You cannot bathe or shower during the test as the device is not waterproof. You should take part in all other life activities. If driving a car or doing any other activity when cuff inflation could be distracting it may be preferable to turn off the device temporarily.

Normally the recorder is removed in our office but it can be removed, switched off and brought to the office by someone else for you if that is more convenient. However, we do need to know what time you went to sleep and what time you woke up during the during the ABP recording. We may well ask you about times of the day when blood pressure spikes or is unusually low and if so what you were doing at the time such as watching TV or having a nap for example.