

Testing your blood pressure at home; information for women from Action on Pre-Eclampsia

In the last few weeks many hospitals have started offering online/ virtual ante-natal care for pregnant women in order to reduce the risk of COVID-19 infection. Today the Royal College of Obstetricians and Gynaecologists (RCOG) released guidance on monitoring blood pressure (BP) at home to safely reduce the number of times women need to travel into hospital for consultations.

BP self-monitoring at home is already done safely by many women who have high blood pressure outside of pregnancy.

Why is blood pressure monitored in pregnancy?

Your blood pressure and urine should be checked at every antenatal appointment because changes in blood pressure and urine can be signs of pre-eclampsia.

What is pre-eclampsia?

Pre-eclampsia is a condition that you can only get in pregnancy. It is a problem that originates in the placenta and can cause problems for both mother and baby. Women with pre-eclampsia have raised blood pressure and protein in the urine.

1 in 30 women will develop pre-eclampsia during pregnancy, and this may be as high as 1 in 4 if a woman has significant risk factors. Pre-eclampsia is rare before 24 weeks.

Pre-eclampsia is a condition that can safely managed detected when appropriately detected. This can include the need for earlier delivery.

Measuring blood pressure remains a keyway to detect pre-eclampsia. All women should have this performed during pregnancy, along with urine assessment to detect protein.

Symptoms such as headache, epigastric pain (beneath the rib cage), visual disturbance or sickness and vomiting can be a sign of pre-eclampsia. Severe pre-eclampsia can still occur without these symptoms.

Do I need more frequent blood pressure monitoring during my pregnancy?

If you have had high blood pressure in a previous pregnancy or developed pre-eclampsia or gestational hypertension during your current pregnancy your doctor may recommend that you monitor your blood pressure more frequently until your baby is born.

If you have one of the following risk factors

- raised blood pressure during a previous pregnancy
- chronic kidney disease
- autoimmune disease (e.g. systemic lupus erythematosus or antiphospholipid syndrome)
- type 1 or type 2 diabetes

or two of these risk factors

- their first pregnancy
- age 40 years or older
- a pregnancy interval of more than 10 years
- body mass index (BMI) of 35 kg/m² or more family history of pre-eclampsia
- twins, triplets or more

You are at risk of developing high blood pressure in pregnancy and should monitor your blood pressure more frequently.

Which is the best blood pressure monitor to use in pregnancy?

Many hospitals are working to provide blood pressure machines for women to use at home. Not all blood pressure monitors give accurate blood pressure readings for pregnant women. The following devices are all known to give accurate blood pressure readings in pregnancy;

- Andon iHealth Track
- Microlife 3AS1-2 (Cradle VSA)
- Microlife WatchBP Home
- Microlife WatchBP Home A
- Microlife WatchBP Home A BT
- Microlife WatchBP Home S
- Omron MIT Elite
- Omron BP760N (HEM-7320-Z)
- Omron Evolv (HEM-7600T-E)
- Omron HEM-9210T
- Omron M3 Comfort (HEM-7134-E)
- Omron M6 Comfort (HEM-7321-E)
- Omron M7 Intelli IT (HEM-7322T-E)
- Microlife BP 3BTO-A
- Omron MIT
- Omron M7 (HEM-780-E)

Is there an APP I can use to track my blood pressure readings in pregnancy?

Your hospital may recommend an App to help monitor your blood pressure

How often should I check my blood pressure at home?

- You midwife or doctor should tell you how often they would like you to monitor your blood pressure.
- They will supply or recommend a blood pressure cuff that fits your upper arm correctly
- You will be asked to take it either
 - On the morning of your clinic appointment if you have normal blood pressure
 - Once a week if you are at higher risk of getting high blood pressure
 - One to three times a week if you have high blood pressure.

How do I take my blood pressure at home?

- Always measure your blood pressure using the same arm (normally the left arm).
- Wear loose clothing with sleeves that roll up easily and do not feel tight when rolled up (you will need to fit the cuff onto your bare arm) or take your arm out of the clothing.
- Sit on a chair with your back supported and both feet flat on the floor.
- Rest for 5 minutes before beginning to take blood pressure readings.
- Slip the cuff onto your arm so that the air tube points towards your wrist. The yellow line on the cuff should be over the inside of your elbow.
- Adjust the bottom edge of the cuff so that it is about 2cm above the inside of the elbow joint.
- Tighten the cuff around the arm and secure using the Velcro.
- Rest your arm on a table or across your lap with your hand slightly open and the palm facing upward.
- Once the machine is set up and you have the cuff in the correct position, and you are ready to start, press the start button on the front of the machine to take a reading.
- Relax, do not move your arm muscles and do not talk until the measurement is completed.

Understanding blood pressure readings

- Each time you measure your blood pressure you will get two readings:
 - The top number (usually called SYS, short for systolic),
 - The bottom number of your blood pressure, (usually called DIA, short for diastolic)
 - You may also get the pulse displayed, usually called PUL
- Measure your blood pressure twice, at least one minute apart.
- Write down the second blood pressure reading (on your phone, in your maternity notes), or send it by text or smartphone app if you are using one of these systems.

When do I need to contact my doctor or midwife?

- Once you have measured your blood pressure check your results against the table below
- If your blood pressure is in the High or Raised range then you should contact your midwife or the Labour ward at your hospital immediately.

If you experience symptoms such as

- headache,
- epigastric pain (beneath the rib cage),
- visual disturbance
- or sickness and vomiting or
- If you notice a decrease in your baby's normal movements

You should immediately contact your doctor or midwife and arrange to be assessed

BLOOD		
LEVEL	PRESSURE /mmHg	ACTION
HIGH	SYS 150 or more	Your blood pressure is high. Sit quietly for 5 minutes then measure it again and note the reading.
	OR DIA 100 or more	If your repeated reading is raised, please contact your maternity unit for review today (within 4 hours) and continue to monitor your BP daily. If your repeated SYS (systolic) reading is 160 or more, make sure that you make contact with a healthcare professional in this time.
RAISED	SYS 140-149	Your blood pressure is raised. Sit quietly for 5 minutes then measure it again and note the reading.
	OR DIA 90-99	If your repeated reading is raised, please contact your maternity unit within 24 hours and continue to monitor your BP daily.
HIGH NORMAL	SYS 135-139	Your blood pressure is normal but moving towards the raised threshold. Sit quietly for 5 minutes then measure it again and note the reading.
	OR DIA 85-89	If your repeat reading is still high end of normal, please monitor your blood pressure daily.
NORMAL	SYS 110-134 AND DIA 70-84	Your blood pressure is normal. Continue blood pressure monitoring and your current care.
LOW	SYS 109 or less	If you are not taking blood pressure medication: Your blood pressure is normal. If you are feeling well this blood pressure does not need any further action.
	AND DIA 69 or less	If you are taking blood pressure medication: Your blood pressure is low. Repeat once more in 5 minutes. If you repeat reading is still low, contact your maternity unit within 24 hours or within 4 hours if you feel unwell (e.g. dizzy or faint).