

USING TECHNOLOGY  
TO SUPPORT MATERNITY CARE

# Home Blood Pressure and Urine Monitoring

PATIENT INFORMATION



High blood pressure (hypertension) is a common health issue which affects around 1 in every 10 pregnancies. For some women, this starts before pregnancy (known as chronic hypertension) and for others it develops during pregnancy (known as gestational or pregnancy-induced hypertension).

### Why should my blood pressure and urine be monitored during pregnancy?

If you have both high blood pressure and protein in your urine, it can mean you have developed a condition called pre-eclampsia. This can be a serious condition which can affect your liver and kidneys. It can lead to a seizure or stroke in severe cases. Some pregnant women have a higher chance of developing pre-eclampsia.

It is important for your health and for baby's health to monitor your blood pressure and urine in pregnancy. It helps your obstetrician or midwife know if you need treatment and make sure you get it quickly.

### Is it safe for my baby and I to monitor at home?

It is safe for you to self-monitor your blood pressure and urine at home, even if you have a higher chance of developing pre-eclampsia. Your obstetrician or midwife will give you equipment to use at home, show you how to do the tests safely and explain what to do if you have any questions. You and your baby are never completely on your own.

### When should I monitor my blood pressure and urine?

Your obstetrician or midwife will tell you how often to monitor your blood pressure and urine. Some NHS Boards use text messaging systems, such as Florence, to send you a reminder when it's time to do your tests. This will usually be just before your pregnancy care appointments,

which may be at a clinic or hospital, over the phone or by video appointment (using a system called 'NHS Near Me'). If you have a higher chance of developing pre-eclampsia, you may be asked to monitor more often.

### What should I do with my results?

Your obstetrician or midwife will show you how to read your results from your home monitors. How you are asked to record your results will depend on where you live. You may be asked to write them in a paper diary and report them by phone or at your next appointment. You may be asked report them using a text messaging service, such as Florence, or an App, such as BadgerNet. Your obstetrician or midwife will help you get any systems you may need and show you how to use them to record your results.

#### HOW DO I COLLECT MY URINE SAMPLE?

- You will need to pass urine straight into a clean container.
- Start to pass urine into the toilet then put your open container into the stream and collect some urine. Once the container is nearly full, take it away and finish passing urine into the toilet. This is called a 'midstream specimen' of urine.

▲ It is important that you do not test your first urine of the day.

#### HOW DO I TEST MY OWN URINE SAMPLE?

- 1 Take a testing strip from the box, taking care not to touch the 'testing zone'.



- 2 Dip the strip 'testing zone' into your urine sample



- 4 Hold the strip horizontally (sideways)



- 3 Take the strip out of your sample and tap off any drips on the side of the container



- 5 Wait 60 seconds and read your results using the colour matching chart.



## HOW DO I READ MY URINE SAMPLE RESULT?

- Match the colour squares on your testing strip with the results squares on the side of the box. The results squares look like this:
- You need one result for protein (PRO) and one result for glucose (GLU) in your urine.

<b>PRO</b>	<b>PROTEIN</b> 60 seconds	<b>NEGATIVE</b>	<b>TRACE</b>	<b>mg / dL</b>	<b>+</b>	<b>++</b>	<b>+++</b>	<b>++++</b>
								
<b>GLU</b>	<b>GLUCOSE</b> 30 seconds	<b>NEGATIVE</b>	<b>g/dL (%)</b> <b>mg / dL</b>	<b>TRACE</b>	<b>+</b>	<b>++</b>	<b>+++</b>	<b>++++</b>
								

## HOW DO I MEASURE MY OWN BLOOD PRESSURE?

- 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 or take your arm out of your clothing. You need to be able to fit the cuff onto your bare arm.
- 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.



You are now ready to take a reading:

- 1** Press the start button on the front of the machine to take a reading.
- 2** Relax, do not move your arm muscles and do not talk until the measurement is completed.
- 3** Measure your blood pressure twice, at least one minute apart.

British Heart Foundation has a good video which shows how to measure your blood pressure on YouTube.

Search for:

*British Heart Foundation - How to measure your own blood pressure*

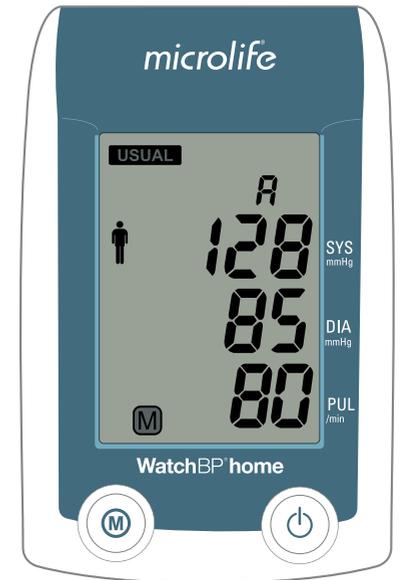
## WHAT MEASUREMENTS WILL BE DISPLAYED?

Each time you measure your blood pressure you need to record two readings:

- The top number is called SYS, short for systolic
- The middle number is called DIA, short for diastolic
- Record both numbers in your blood pressure monitoring diary or enter them if you are using an electronic system.

Some monitors, like this one, have a third number called 'PUL'. This is for pulse. You don't need to record the 'PUL' number.

The table on the following page will help you know what your results mean, and what to do.



If you have any worries about your pregnancy, phone your obstetrician, midwife or your local Maternity unit. The number is on the back page of this leaflet.

## UNDERSTANDING YOUR BLOOD PRESSURE TEST RESULTS

LEVEL	BLOOD PRESSURE /mmHg	ACTION
High	SYS 150 or more OR DIA 100 or more	Your blood pressure is high. Sit quietly for 5 minutes then measure it again and note the reading. 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 OR DIA 90-99	Your blood pressure is raised. Sit quietly for 5 minutes then measure it again and note the reading. 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 OR DIA 85-89	Your blood pressure is normal but moving towards the raised threshold. Sit quietly for 5 minutes then measure it again and note the reading. 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 AND DIA 69 or less	<b>If you are not taking blood pressure medication:</b> Your blood pressure is normal. If you are feeling well this blood pressure does not need any further action. <b>If you are taking blood pressure medication:</b> 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).

(Royal College of Obstetricians and Gynaecologists, 2020: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-03-30-self-monitoring-of-blood-pressure-in-pregnancy.pdf>)

### What will my obstetrician or midwife do with my results?

Record your blood pressure and urine test results in your self-monitoring paper diary or electronic system, in the way you've agreed with your obstetrician or midwife.

Your obstetrician or midwife will review the results you took at home and talk about them during your appointment. They'll advise if you need any medication or further tests to keep you and your baby safe. If you already take medication, they'll advise if any changes are needed or if you should go to a clinic or hospital.

### When should I report my results?

If you are using an electronic system, only report your results at the times your obstetrician or midwife has asked you to. This is because results won't be checked at other times.

However, if you ever feel worried about a result you've had at home, you can phone your obstetrician, midwife or your local Maternity unit. The number is on the back page of this leaflet.

### What will happen to my information?

Your information, including your results from home monitoring, will be

kept private in your own maternity records. It will only be shared with the staff involved in your care. Information is sometimes called 'data'. You may be asked to give permission for your data to be used for evaluation. This means your data could be used to check how home monitoring is working for women and families. Data which is identifiable to you will never be used without your consent.

### When should I contact the clinic or hospital urgently?

Contact the clinic or hospital straight away if you have:

- very swollen ankles, fingers, hands or face
- headaches (new or getting worse)
- blurred vision or see flashing lights and changes to your vision
- severe pain in your chest or just below your ribs
- If you find 1+ or more of protein when your urine was previously negative
- If you find 2+ or more of protein when your urine was previously 1+
- If you find 2+ or more of glucose in urine
- If you find 1+ of glucose more than once

If you need to go into hospital for maternity admissions or labour ward take your blood pressure monitor with you.

## LOCAL MATERNITY UNIT CONTACT INFORMATION:

*This is the number to call if you have any questions or concerns about your pregnancy or pregnancy care.*

At the end of your pregnancy, you'll be asked to return your Blood Pressure monitor. Your obstetrician or midwife will tell you how to do this.

For more information about pregnancy, birth and early parenthood please visit: [www.nhsinform.scot/ready-steady-baby](http://www.nhsinform.scot/ready-steady-baby)

For any non-emergency concerns you can also call  **NHS 111.**

**In an emergency, call 999.**



✉ [nss.perinatalnetwork@nhs.net](mailto:nss.perinatalnetwork@nhs.net)

🐦 [@scotperinatal](https://twitter.com/scotperinatal)

🌐 [perinatalnetwork.scot](http://perinatalnetwork.scot)