

Stress & Health Study
Seventh Medical Examination (Phase 12)
Information Leaflet
For Clinic Visits



Contact details

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Thank you for your continued participation, it is greatly valued.

We are inviting you to attend the seventh medical examination, Phase 12, of the Stress & Health Study.

Please take time to read the information contained in this leaflet as it describes the tests and procedures that will be carried out when you attend the clinic and also what will happen to the information we collect.

What is the purpose of the study?

The Stress & Health study, also known as the Whitehall II study, was established to investigate the importance of social class for health. Looking towards the future, the study seeks to answer questions about how previous and current circumstances affect health and quality of life in an ageing cohort. Older people form the largest - and growing - age group in the UK, and the more we can find out from you and other study participants, the better health policy, prevention and provision can be informed.

As usual, you will receive results for some of the measures, and if there are any abnormal results you might want to discuss them with your GP. At this phase we will ask for your consent to post a copy of your results to your GP. Should you consent to this please ensure your GP details are correct and up to date. Your GP can interpret the results in the light of your medical history. Should you not consent for us to post a copy of your results to your GP, we will send you the copy of the results letter for you to take to your GP.

How will information about me be kept confidential?

All data collected from questionnaires, clinical samples and electronic health related records are held securely and confidentially in accordance with the provisions of the Data Protection Act (1998) and the NHS Information Governance requirements.

Your personal data are only used to contact you and send you your clinical results, and are stored under secure conditions to which only the Stress and Health administrative staff has access.

By the time they reach the hands of our researchers, your data have been anonymised by the data management team and therefore cannot be linked to you as a named individual. This information is used exclusively for health-related research purposes.

The blood samples you provide will be stored and used in accordance with

1. The UK Human Tissue Act 2004 and
2. The Codes of Practice laid down by the Human Tissue Authority (HTA), who regulate amongst other things, the storage and use of human tissues or cells for research.

No individual can be identified in the reports published from our studies.

What do I need to do **BEFORE** the appointment?

1. Read through this information leaflet to familiarise yourself with all the tests and procedures we will be asking you to complete on the day of your appointment.
2. Please complete the Health Survey Questionnaire that has been included with this leaflet and bring it along with you to your appointment. If at any point you feel that you are unable to complete some or all of the questions, somebody else, such as a relative or a carer could help you.
3. Please check and complete the **Update of details form** included in the pack to ensure that we have your correct details. These details enable us to maintain contact with you. Please also complete the consent form on the reverse of the form.
4. Please read through the **FASTING instructions**. These instructions are related to the time of your appointment so please check them carefully and follow them accordingly. They are important to ensure we obtain accurate blood results.
5. Remember to read the **pre-examination instruction leaflet** at least 2 days before your appointment.

What happens DURING the clinic screening?

Your appointment will last between 3½ - 4 hours. Please remember to bring your reading glasses to the appointment.

Where indicated by an *, you will be asked to change into a gown for part of the screening. This allows us to obtain the ECG and accurate measurements of your weight, hip and waist.

The following tests and procedures will be performed on the day of your clinic appointment:

1. **Consent:**

You will be asked to sign a consent form consenting to take part in this phase of the Stress & Health Study. You will be given the opportunity to ask questions, relating to any of these tests and procedures, before signing the consent form. By signing the consent form, you will confirm your willingness to take part. Therefore please read the explanation of the tests below that will be performed on you on the day.

Please note that your participation is voluntary and that you can stop or decline any part of the examinations or measures at any time during the clinic screening.

2. **Blood Pressure Measurement:**

You will be seated with your right arm resting on a table, palm facing upward with legs uncrossed. A blood pressure cuff will be wrapped around your upper arm and you will be asked to relax alone for 5 minutes. A total of 3 blood pressure measurements will then be recorded, with a minute between each reading. Blood pressure is a useful indicator of risk of future cardiovascular disease.

3. **Blood Test:**

You will be asked to roll up both sleeves to expose your arms. The phlebotomist will decide which arm is to be used and will then rest that arm on a support and apply a tourniquet. The skin surface will be cleaned and a sample of blood will be taken for analysis. The blood taken will be used for measuring blood sugar, cholesterol levels and kidney function (estimated glomerular filtration rate/eGFR), for which you will get the results within 12 weeks of your appointment date. The remaining blood sample will be added to our freezer store. We store these samples of your blood and use the blood results from the laboratory to look at changes over time, studying the causes of heart and circulatory disease and possible ways of preventing it.

4. **Refreshments:** You will be invited to help yourself to refreshments.

5. **General Knowledge Questionnaire:**

You will be asked to put on headphones and follow instructions from a tape recording. This measurement will take approximately 30 minutes. This assesses memory, numerical and verbal skills.

6. **CIS-R:**

The CIS-R is a computer based questionnaire designed to detect current and past mental well-being problems. It will take between 10 and 30 minutes to complete. This measure is carried out to assess mental health and well-being at group level for research purposes only, and we are not able to provide you with any diagnoses.

7. * **Height/Weight/Hip/Waist Measurements and Body Mass Index (BMI):**

You will be asked to remove your gown and the above accurate measurements will be taken. These may indicate early signs of heart disease and diabetes.

8. * Electrocardiogram (ECG):

You will be asked to remove the top part of your gown and relax on an examination couch. Identification details will be taken and electrodes placed on your limbs and chest. It is important you keep as still as possible and do not talk whilst the ECG recording is being taken (the procedure is entirely painless and takes about 5 seconds). An ECG measures how your heart is functioning and may indicate early signs of heart disease. The ECGs are reviewed by a senior cardiologist and you will receive the result of the ECG within 12 weeks of your appointment date.

9. * Pulse Wave Velocity (PWV):

This measure will be performed in the same room as the ECG and some of the electrodes will be used again. We will measure your blood pressure while you are lying down and locate the pulses in your neck and groin area using an ultrasound device. Two readings in your neck and groin area will be taken. The process is entirely painless. This is a non-invasive measure that looks at the elasticity of your arteries.

10. Lung Function:

You will be shown how to blow into a small Spirometer. You will then be asked to follow the nurse's instructions a minimum of three times and a maximum of five times. This test measures your lung capacity.

11. Walking test:

You will be asked to walk, at your normal pace, along an 8 foot measured area. The nurse will show you how they want you to do this and will record the time it takes you to complete the measure. This test measures your lower limb mobility.

12. Chair rises:

You will be required to sit in a chair, with your arms folded across your chest. The nurse will then ask you to stand up straight and sit down again as quickly as possible, five times without stopping in between and without using your arms to push off. The nurse will time you and count how many you complete. This test measures your lower body strength.

13. Hair cortisol:

Those that have sufficient hair will be asked to provide a small sample from the back of the head. The nurse will cut the hair very carefully, with your consent, and place it in a container to be sent to the lab. Please note that your hair sample will NOT be used for the extraction of DNA. We measure cortisol levels from your hair.

14. Hand grip strength:

You will be asked to squeeze a machine for two or three seconds, as hard as you can. You will be asked to repeat this three times. The reading from the machine will be recorded. This test measures your upper body strength and is generally a good marker of muscle strength.

15. Finger tapping test:

You will be asked to tap your index finger as quickly as possible for ten seconds on a counting device, keeping your hand and arm stationary. You will need to do this three times. This test is a measure of psychomotor speed.

16. Short interview (MMSE):

If necessary, you will be asked clarify any missing information from your Health Survey Questionnaire. Following this, a short interview (MMSE) will be then conducted for approximately ten minutes to assess your mental well-being and alertness.

17. Trail making test:

You will be asked to 'connect-the-dots' using a pencil and paper. The 'dots' will consist of a series of numbers and letters that you need to connect up in consecutive order. This test provides us with information about cognitive skills such as visual attention and task switching.

DNA Testing

We will only be collecting a blood sample for DNA testing from you if we do not already have a sample in storage from a previous phase or the sample we have in storage is running low.

When you provide us with a DNA sample, it is stored and used for the study of genetic influences which may be relevant to diabetes, heart disease, stroke and cognitive function. We will continue to use any DNA samples provided previously for the study of genetic influences. Should you no longer wish us to do so, please inform us in writing and these samples will be destroyed.

Are there any risks involved?

Participation involves a minimal risk. It is possible that you may be slightly uncomfortable with some of the questions asked, or measurements made, during the screening. You can stop or decline any part of the examinations or measures at any time during the screening.

You may feel some discomfort when you have blood taken, although all our staff is specially trained to reduce this risk.

What happens AFTER the clinic screening?

Results:

Approximately twelve weeks after your health screening we will send you the results of your:

- Blood sugar levels
- Cholesterol
- Weight
- Body mass index (BMI)
- Waist measurement
- Blood pressure (BP)
- Electrocardiogram (ECG)
- Kidney functioning (eGFR)

At this phase we will ask for your consent to post a copy of your results and your ECG to your GP. Should you consent to this please ensure your GP details are correct and up to date. Your GP can interpret the results in the light of your medical history. Should you not consent for us to post a copy of your results and your ECG to your GP, we will send you the copy of the results letter and ECG, which you should take to your GP.

The remaining blood sample will be added to our freezer store. We store samples of your blood to look at changes over time, studying the causes of heart and circulatory disease and possible ways of preventing it.

All information gathered at the screening will be anonymised, so that you will not be identified, before being used in future research projects that have relevant scientific and ethics approval.

A crucial aspect of this study is the on-going identification of illness through the self-reported questionnaires. Supporting details from GP, hospital records and other central UK NHS bodies may need to be obtained to confirm the occurrence of any such illnesses and your health status. The linkage to health records is managed by the Health and Social Care Information Centre and performed in a highly secure manner.

What happens if I withdraw from the study?

As a volunteer you have the right to withdraw completely from the study at any stage. If you withdraw, we will not contact you to participate at any future phases. Information you supplied voluntarily at previous study phases will be retained in an anonymised form to enable us to continue our research into stress and health and about how previous and current circumstances affect health and quality of life in an ageing cohort. If you wish to withdraw from the study please contact us on the number or e-mail below.

General Information

Our measures and procedures have been approved by the London-Harrow Research Ethics Committee, REC Ref 85/0938, and we aim for the best possible clinical and professional practice.

This approval and our compliance with the NHS Information Governance allow us to obtain information held by the NHS and records maintained by the Health and Social Care Information Centre. They provide us with information about your health status, even after incapacity or death, in a highly secure manner.

An up to date list of our publications can be found on our website, <http://www.ucl.ac.uk/whitehall11>, or you can contact us on the Freephone number below.

If you have any concerns, complaints, questions or would like further information regarding any aspect of the Stress and Health Study, you are welcome to contact us on:

Freephone: 0800 068 1562

Email: whitehall2@public-health.ucl.ac.uk