The ELSA study: EarLy Surveillance for Auto-immune diabetes

Young Adults (Age 16-17) Information Leaflet

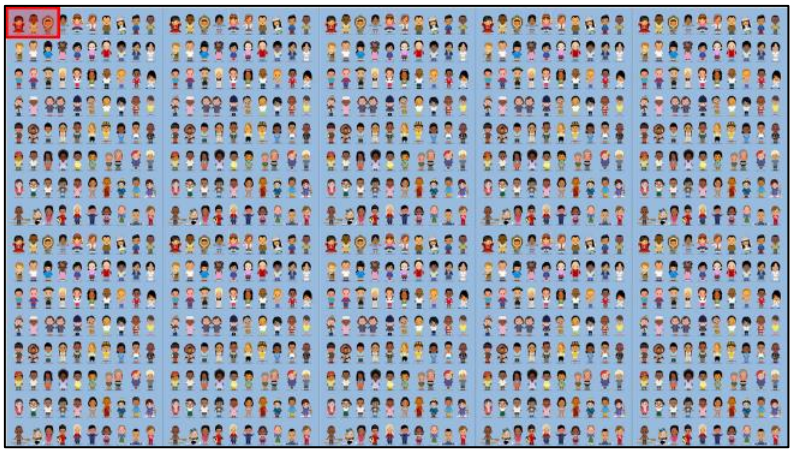
Invitation:

You are being invited to take part in a screening programme for type 1 diabetes.

This leaflet will give you more information about the ELSA study. You can also visit our study website for an online version of this information sheet: www.elsadiabetes.nhs.uk.

Part 1 - ELSA Summary:

The ELSA study is testing children and young adults (ages 2-17) using a finger stick blood test, to find markers in the blood (autoantibodies) that tell us your risk of getting type 1 diabetes in the future.

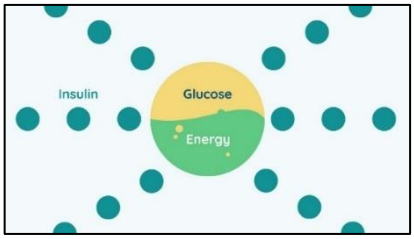


3 out of 1000 children and young adults will test positive for these antibodies, but we have no way of knowing which 3 this will be.

ELSA is the largest antibody screening programme for type 1 diabetes in the UK. Everybody that takes part in our study is helping us to understand more about type 1 diabetes for children at risk.

Part 2 – More about the ELSA study:

What is type 1 diabetes?



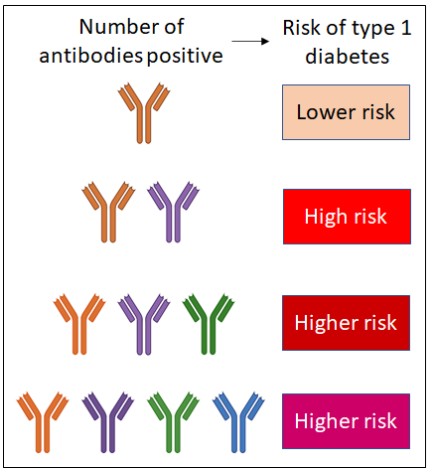
- Type 1 diabetes is a serious condition where the blood glucose (sugar) level is too high because the body cannot make a hormone called insulin.
- This happens when the body's immune system attacks the cells in the pancreas that make the insulin, meaning no insulin can be made.
- Antibodies contribute to this process.

- We all need insulin to live. It does an essential job. It allows the glucose in our blood to enter our cells and fuel our bodies.

Around the world, research studies are screening children and young adults for type 1 diabetes, so that we can find those at risk before they become unwell.

What does the ELSA study involve?

The ELSA study is testing children and young adults for antibodies, to find those at high risk of developing type 1 diabetes in the future. The ELSA study is testing for 4 different antibodies called IAA, IA2, ZnT8 and GAD. As the number of antibodies a person has rises, this increases their risk of developing type 1 diabetes in the future.



The ELSA study wants to find those with antibodies so that we can help sooner by:

- Stopping high risk children and young adults from becoming too unwell, by starting treatment sooner.
- Offer further research studies that monitor children's and young adults risk over time.
- Trial new treatments which aim to delay the start of type 1 diabetes.

The ELSA study is the largest antibody screening programme for type 1 diabetes in the UK. Every family that takes part in our study is helping us to understand more about type 1 diabetes for those at risk.

What will happen if I agree to take part in the screening programme?

If you decide to enrol in the ELSA study, we will first check you are eligible for the study, and then you will need to complete a consent form. After this, you will need to fill out some study forms to provide your details and your demographic details, including your age, sex at birth, ethnicity and relevant medical history.

Step 1 – Finger stick blood test:

- The finger stick blood test can be done from home, at school, college or at the GP surgery. This is the first screen to see if you have type 1 diabetes antibodies.
- **Antibody negative test:** If you test negative, this means you do not have antibodies and are currently at low risk of developing type 1 diabetes. You will not need any further tests in the ELSA study (99 in 100 children and young adults will screen negative). Those with a family history of type 1 diabetes are at increased risk of developing type 1 diabetes in the future. Therefore, regardless of the outcome of the autoantibody results from the ELSA study, we encourage you and your family to look out for the symptoms of type 1 diabetes, including excess thirst, passing urine more frequently, weight loss and excessive fatigue.
- **Antibody positive test:** If you test positive, this means you have antibodies on this first screen and will need a venous blood test at the hospital to confirm this. The list of follow-up testing sites can be found on our website: https://www.elsadiabetes.nhs.uk/study-sites. We would expect families to travel no more than 30-50 miles for further testing, however in some small cases you may be asked to travel further (up to 100 miles). We can cover your travel costs, if you are able to provide evidence of your travel, such as receipts.

Step 2 – Venous blood test:

- 1 in 100 children and young adults in our study will need the venous blood test. We will take up to 1 tablespoon of blood (up 15ml) depending on your age. This is to test for the antibodies which are specific for type 1 diabetes. We will also test your HbA1c, which is the average blood sugar level from the last 3 months.
- **Antibody negative test:** If you test negative on the venous blood test, we will not need to do any more tests in the ELSA screening programme (step 4-6).
- **1 antibody positive test:** If you test positive for 1 antibody, this means you are at some risk of developing type 1 diabetes in the future. You and your family will be invited to an education session to explain what this means (step 4-6).
- **2 or more antibody positive test:** If you test positive for 2 or more of the antibodies, this means you will almost certainly develop type 1 diabetes. Your will therefore need some more blood tests (step 3-6).
- **HbA1c -** We will let you and your GP know the result and if you would benefit from any further testing.

Step 3 – Oral glucose tolerance test (more venous blood tests)

- If you have **2 or more antibodies**, you will need to have some more blood tests to see if insulin needs to be started straight away. The amount of blood will depend on your age but may be 2-4 tablespoons or 30-60ml.
- You will need to fast overnight and then will be cannulated so that blood can be taken at six time points over 3 hours. You will also be given a glucose drink for this test.
- This test will be done at the hospital, and we can cover your travel expenses and can offer accommodation for you and your parent / legal guardian. The study team will refer you into the diabetes service if clinically necessary.

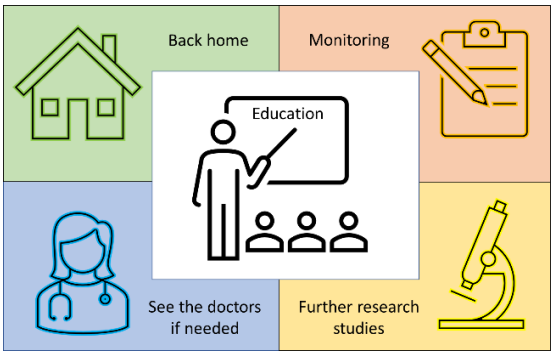
Step 4 – Screening results and Study questionnaire

- It can take up to 6 weeks to process your ELSA study results. The study team will inform you of your screening test results as soon as they are available. If you are negative, you will receive a text message and an email/letter, depending on your contact preferences. You will also receive some information about what this negative result means. We will also send a letter addressed to your parent / legal guardian (c/o yourself) that you can share if you wish.
- If you are positive, the study team will call you and send an email/letter to explain what the next steps are. We will also send a letter addressed to your parent / legal guardian (c/o yourself) that you can share if you wish.
- With your consent, we will inform your GP of the antibody result by letter, so that your risk status can be included in NHS clinical systems to help in the future.
- Once you have received your result, we will ask you to fill in a study questionnaire to understand any worries you may have.

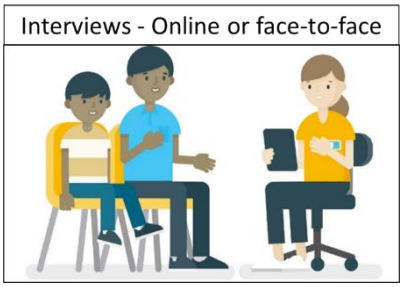
Step 5– Education

All families who take part in the study will have access to educational material from our study website. If you test positive for antibodies, you and your family will also be invited to an education session to help you understand what this means for your future. The education sessions will be held online and/or in-person. The education session will tell you about:

- The signs and symptoms of type 1 diabetes to look out for.
- Research studies you may be eligible for, testing new treatments that could delay the start of type 1 diabetes (with your consent).
- Families who attend the education session will be asked to complete a final study questionnaire afterwards



Step 6 – Interviews



- You can then take part in an interview study, to tell us how you found the screening programme and suggest areas for improvement.
- We want to hear from you and those parents of young children who have received positive or negative screening results.
- We will ask for your views on current and future treatments relating to type 1 diabetes. As these treatments are not being offered to you as part of the ELSA study this information will help us to understand how you feel about these treatments should they become available.
- The interview(s) will be audio-recorded. **You can choose if they want to take part in these or not.** You can consent for the interview study at the end of the screening programme. Audio recordings will be transcribed by a third-party transcription company, AD Transcription. We will remove all of your personal details so you cannot be identified. We will have a data sharing agreement in place between The University of Birmingham and AD transcription services.
- The interview can be held at a convenient time for you on Zoom, by telephone call or in-person. You can stop the interview or take a break anytime.
- The study team will let you know if you have been selected to come for interview. We are sampling to ensure we have diverse representation.

Optional - Genetic testing to understand causes, prognosis and mechanism of diabetes and related disorders.
If you consent to donating blood samples from the blood spot, you can also choose to consent to a sample being collected to extract and examine the genetic material (Deoxy-Ribonucleic Acid (DNA)). This DNA study will be used to understand what and how genes can contribute to diabetes and will not provide any specific information relevant to you. Therefore, whilst these results will not be fed back to you or your family, they can help understand diabetes genetics at a population level.

We will only study genes related to diabetes and not any other genes in the DNA. These will be analysed anonymously at the end of the study to help us understand the contribution of genetic information to predicating type 1 diabetes risk

The testing of these samples will be undertaken at the University of Birmingham and/or the University of Exeter. You will also be asked to consent if you are happy for your samples be stored and used for ethically approved research studies in the future. Any remaining samples at the end of the study will either by destroyed or transferred to an ethically approved NIHR biorepository.

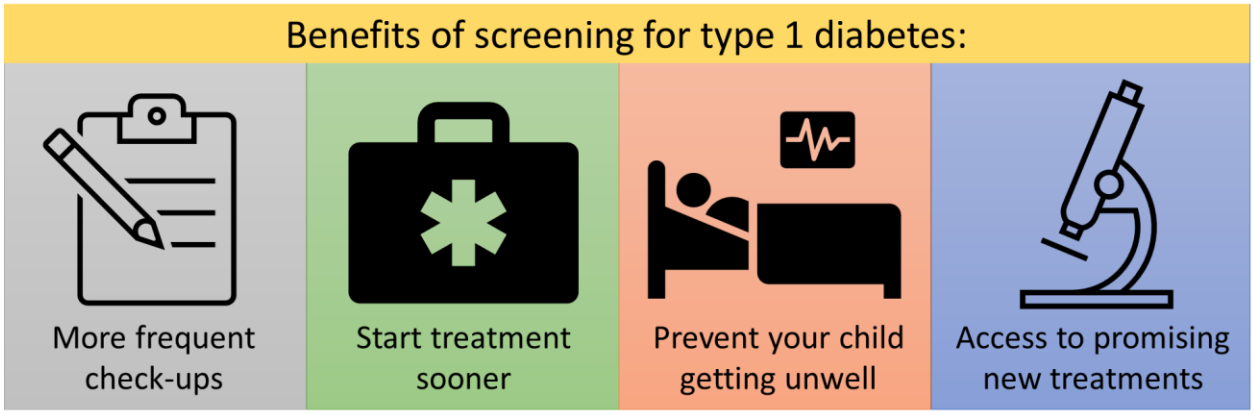
If you decide to withdraw from the study, you can request that my samples and clinical data are retained, or that your samples are destroyed if not already processed. Clinical data up to the point of collection may still be used however following withdrawal from The ELSA Study; no new information about yourself will be added to the research database, and you will not be contacted again.
All HbA1c and venous samples once processed at local sites will be disposed of in line with Human Tissue Act 2004.

Who can take part in the ELSA study screening programme?

- Children and young adults aged 2-17 years can take part in the ELSA Study screening programme.
- Children and young adults with a diagnosis of type 1 diabetes are not eligible to take part in the ELSA Study.

What are the benefits of taking part in the ELSA study screening programme?

In this study, you can find out your risk of developing type 1 diabetes in the future. For those who are at high risk, finding out early gives us the chance to follow you up closely and start treatment sooner, before you become unwell. There is also the chance to enter research studies, testing promising treatments to delay the start of type 1 diabetes. This is not possible without screening.



The earlier we screen, the more opportunity we have to intervene.

What are the risks of taking part in the ELSA study screening programme and how will we reduce these risks?

Risks from taking part in the ELSA study	**How will we reduce these risks?**
Discomfort from the blood tests.	The finger stick blood test is quick and easy. We will only do the venous blood tests if we need to. We can use numbing creams and experienced professionals which will minimise the discomfort for you.
Finding out you are at high risk.	The ELSA Study team are available to support families with this information and will explain what the next steps are.
No screening test is 100% accurate.	The screening test used in the ELSA Study has been validated and undergone rigorous testing. Monitoring is important to look at these antibodies over time.

Why screen when there is no cure?	We are working towards preventative treatments and are looking to find those at high risk to help them and others in the future.
The questionnaire and interview may include sensitive topics.	The ELSA study team will support you with these and you can choose to stop the questionnaire or the interview or take a break from them at anytime. The ELSA study team can refer you to your GP if we felt this would be helpful to further support you and your family.

What if I do not want to take part in the ELSA study screening programme?

Taking part in the screening programme is entirely voluntary and if you choose not to take part in the screening programme, this will not affect your routine care in anyway. However, parents/guardians can still take part in the ELSA study interview, to tell us your thoughts and concerns about screening for type 1 diabetes. Your views will not be judged or challenged; we really want to hear a wide range of perspectives. You can let us know on the eligibility form if you would like to do the study interview only and then we will take consent for this and arrange the interview at a convenient time for you.

Who can take part in the ELSA study interviews?

- You, as a young adult age 16-17 can participate
- Your parents can participate if you agree; Up to two parents/guardians can take part in the interview.

How do I register to take part/how do I enrol on the ELSA study?

Taking part is a three-step process and you complete these 3 forms online:

- Step 1 – Eligibility form – tell us here if you want to do the screening programme,
- Step 2 – Consent Form.
- Step 3 – Personal and clinical details form.

The online consent process is via REDCap forms. There is no option to consent outside of REDCap. You can choose home testing or community testing (we will provide you with instructions and support for either option).

How will we use information about you?

We will need to use information you provide for this research project.

This information will include your

- Name, date of birth, ethnicity, gender and contact details (email, phone number and address).
- Family history of type 1 diabetes and if you have coeliac disease or thyroid disease.
- Your GP contact details – this is to inform your GP of your screening test result.
- Your NHS number (or Community Health Index (CHI) number in Scotland) – this is optional and will be used for longer term follow-up with your consent. This helps us to understand the impact of screening for type 1 diabetes.

People will use this information to do the research or to check your records to make sure that the research is being done properly. People who do not need to know who you are will not be able to see your name or contact details. Your data will have a code number instead.

We have a data sharing and confidentiality agreement with Firetext and DOCmail. We are using Firetext to send you text messages to inform you about the study processes and if you have a negative antibody result; this means, we will share your mobile phone number with Firetext with your consent. We are using DOCmail to send a letter with your results to your GP; this means we will share your postal address with DOCmail with your consent. The Firetext and DOCmail systems are GDPR compliant and subject to robust security processes. Data is held within an integrated platform and will never be shared with third parties within or outside of the UK.

Any audio transcripts from the study interviews, will be transcribed by an external provider (AD transcription services), with whom the University of Birmingham has a contractual and data processing agreement in place. Transcripts will be coded after checking the transcription for accuracy.

This study has been reviewed by the Wales REC 4 Research ethics committee. The University of Birmingham is the Sponsor of the study. The University of Birmingham are responsible for looking after your information.

We will keep all information about you safe and secure:

- Your personal details will be stored securely in the REDCap database.
- Your screening test samples will be transferred to the University of Birmingham Clinical Immunology Service, where these samples will be stored for the duration of the study and 10 years following this.
- Your screening result will be stored on NHS clinical systems (with your consent).

International Transfers

We may share or provide access to anonymised data / samples about you outside the UK for research related purposes for collaborative, ethically approved research. If this happens, we will only share the data that is needed. We will also make sure you can't be identified from the data that is shared where possible.

We will make sure your data is protected. Anyone who accesses your data outside the UK must do what we tell them so that your data has a similar level of protection as it does under UK law. We will make sure your data is safe outside the UK by doing the following:

- we need other organisations to have appropriate security measures to protect your data which are consistent with the data security and confidentiality obligations we have. This includes having appropriate measures to protect your data against accidental loss and unauthorised access, use, changes or sharing

How will we use information about you after the study ends?

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no one can work out that you took part in the study. The anonymised data will be published at international scientific meetings/journals, but this will all be anonymised.

If you agree to take part in this study, you will have the option to take part in future research using your data and samples saved from this study. We will ask you on the consent form if you agree to this.

We will keep your study data for a maximum of 10 of years. The study data will then be fully anonymised and securely archived or destroyed.

What are your choices about how your information is used?

You can choose to consent to the following parts of the ELSA study (these are optional and not required for you to take part in the ELSA study):

- Using your anonymised samples for further research studies, around the world for collaborative, ethically approved research.
- Contacting you and your parent / legal guardian about the qualitative interviews and inviting you to complete a feedback form at the end of the study.
- Contacting you about future research studies you could take part in, relevant to your screening test results.
- Providing us with your NHS number for long-term follow-up (10 years) of your medical records – this follow-up will not require any contact or appointments for you.
- You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have. This is because we need to manage your data in specific ways for the research to be reliable. This means that we won't be able to let you see or change the data we hold about you. If you agree to take part in this study, you will have the option to take part in future research using your data saved from this study.

Where can you find out more about how your information is used?

You can find out more about how we use your information, including the specific mechanism used by us when transferring your personal data out of the UK:

- On our website: www.elsadiabetes.nhs.uk.
- By asking one of the research team
- By sending an email to elsa@contacts.bham.ac.uk
- By ringing us on 0121 414 7814.
- By sending an email to the University of Birmingham's Data Protection Officer at dataprotection@contacts.bham.ac.uk.

What if there is a problem?

- If you have any concerns about the study, please contact the study team: elsa@contacts.bham.ac.uk.
- If you are unhappy with their response or wish to make a complaint, you can contact the sponsor's independent representative Rebecca Case at researchgovernance@contacts.bham.ac.uk.
- If you have any concerns about your data or wish to make a complaint about the way your data was handled, you can contact the University of Birmingham's Data Protection Officer at Dataprotection@contacts.bham.ac.uk

Frequently Asked Questions:

1. **Who is leading, insuring and funding the study?** The ELSA study is being led by the University of Birmingham, and funded by Diabetes UK and the Juvenile Diabetes Research Foundation.

   The University has in place Clinical Trials indemnity coverage for this trial, which provides cover for harm which comes about through the University's, or its staff's, negligence in relation to the design or management of the trial and may alternatively, and at the discretion of the University provide cover for non-negligent harm to participants.

The NHS has a duty of care to its patients, in the event of clinical negligence being proven, compensation will be available via the NHS indemnity.

2. **How have patients and the public been involved in this study?** We have worked with parents and young people to inform the design of our study.
3. **Who has reviewed this study?** This study is sponsored and insured by the University of Birmingham. The study has been reviewed and given a favourable opinion by an independent NHS research ethics committee, Wales REC 4.
4. **Are there any financial costs to me for taking part, and are there any rewards or payments for taking part in this study?** We will reimburse any reasonable travel expenses you incur for this study, once we have received evidence of your travel. If you prefer to receive and complete the physical paperwork, we will send you the forms and provide pre-paid envelopes for you to return them to us. There are no rewards for participation in this study, but we are very grateful to the families who take part in this study and give their time to support our research.

What happens next if you want to take part in the ELSA study?

1. Complete the 3-step online consent process, or contact us by email: elsa@contacts.bham.ac.uk or by phone: 0121 414 7814. Between 9-4pm
2. Visit our study website: www.elsadiabetes.nhs.uk for more information.

Thank you for your interest in the ELSA study.