



Screening for diabetes when you have cystic fibrosis (adults and children)

Cystic Fibrosis Service

Information for Patients

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What is cystic fibrosis related diabetes (CFRD)?

Cystic fibrosis related diabetes (CFRD) is common in people who have cystic fibrosis. CFRD is similar to other types of diabetes, but how it is caused and managed is different. Around 1 in 5 teenagers and 1 in 3 adults have CFRD.

Cystic fibrosis causes a build-up of thick fluid (secretions) in the pancreas. These secretions damage the cells that produce insulin. This results in the body not having enough insulin. If you do not have enough insulin, your body will not be able to process the sugar (glucose) in your food. As a result, blood sugar levels rise above typical levels. Continued high blood sugar levels can lead to

- peeing more especially at night,
- weight loss,
- tiredness,
- more breathless (reduced lung function),
- more chest infections (exacerbations).

If you have any of the above symptoms, please contact the cystic fibrosis nurses.

What does the screening for CFRD involve?

Screening within the CF service begins at age 10. We do a blood test called HbA1C. This measures the average amount of sugar in your red blood cells in your body over the last 2 to 3 months. This blood test is done every year as part of your annual review blood tests.

Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk



Oral glucose tolerance test (OGTT)

This is done as part of the annual review for patients 10 and over.

- 1. You have a blood sample taken.
- 2. You drink a sugary drink.
- 3. After 2 hours we take another blood sample.

Flash glucose monitoring

This is done every year in patients over the age of 10. It is done in addition to the OGTT.

- A small sensor is fixed to the back of your arm.
- Attaching the sensor can be a bit uncomfortable for some. It is not painful to wear or use.
- The sensor measures the sugar in the fluid under your skin called interstitial fluid.
- The sensor is read either by a using a reader or by using an app on your mobile phone. There is no finger pricking involved.
- We ask you to scan the sensor at least 8 times a day for 7 to 10 days (you will be shown how to do this). The system works out a chart that shows patterns in your glucose levels.
- You are able to shower, bathe, exercise and carry out normal day to day activities whilst wearing the sensor.
- You can take off the sensor yourself when the monitoring ends and put it in the sharps bin. Results will be reviewed by the specialist diabetes nurse and consultant.

Flash monitoring in the children's service

- If you are a patient in our children's service it is a good idea to keep a food diary whilst the flash monitor is in place.
- Record all food and drink with as much detail as possible. Include the brand and number of grams or a description of portion size.
- Or you can fill out a food diary on the flash monitor app. This will help when we look at the results.
- After 1 week the Dietitian may make contact to discuss if any dietary changes are needed.
- We will also use the food diary to check that you are getting all you need from your food. We will also check the amount of fat in the diet compared to the dose of enzymes.

What if I have diabetes?

If your results show you have diabetes or at risk of developing diabetes you will be reviewed. This is by

- the specialist diabetes nurse,
- a consultant that specialises in diabetes and
- the cystic fibrosis specialist dietician.

They will review your results and discuss your treatment choices with you.

Depending on your results this could involve changing your lifestyle such as your diet and exercise or it could involve starting treatment such as insulin. You will be thoroughly involved in your treatment options.

Contact details

Adult Cystic Fibrosis Team: 0116 250 2699

Paediatric Cystic Fibrosis Team 0116 258 6694

Further information

Cystic Fibrosis Trust:

https://www.cysticfibrosis.org.uk/

DiabetesUK:

www.diabetes.org.uk/diabetes-the-basics/other-types-of-diabetes/cystic-fibrosis-diabetes

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