East Kent Hospitals University NHS Foundation Trust

Prenatal array CGH (comparative genomic hybridisation)

Information for patients from Women's Health

This leaflet has been produced with grateful acknowledgement to NHS Humber Health Partnership.

We are sorry you have had three or more miscarriages. We understand this can be a very distressing time for you. You may want to try and find the cause of your miscarriages. If so, we can offer you a test to look for some common causes for recurrent miscarriages. This test is called prenatal array CGH.

This leaflet will provide the following general information about the prenatal array CGH test.

- What a prenatal array CGH is.
- Why we have offered you the test.
- What the advantages and disadvantages are to having the test.
- What happens next, and when you will get your results.

We hope this leaflet answers some of the questions you may have. If you have any further questions or concerns, please speak to a member of your healthcare team.

What is prenatal array CGH?

Prenatal array CGH is an extra test used to find changes in some chromosomes. If changes are found, this test can tell whether the changes are the cause of your miscarriages. These changes are too small to be seen by the usual tests available in pregnancy.

What are chromosomes?

- Chromosomes are structures which carry genes. Genes tell the body how to develop and function.
- Each body has 46 chromosomes in 23 pairs. We inherit one chromosome pair from each parent. Girls have two X chromosomes (XX) and boys have an X and a Y chromosome (XY). The other chromosome pairs are numbered 1 to 22.

- Having too much or too little chromosomal material can cause significant problems for your baby. For example, three copies of chromosome number 21 causes Down syndrome.

Why have I been offered an array CGH test?

You have been offered this test for one of the following reasons.

- You have had three or more miscarriages; or
- We have found a fetal abnormality on your ultrasound scan.

We use a prenatal array CGH to see if your baby has a chromosome change. This change may explain your recurrent miscarriages.

What are the advantages of array CGH?

The main advantage of array CGH is that it can see very small chromosome changes. These changes cannot be seen by the normal chromosome test. These changes can be:

- small deletions (tiny pieces of missing chromosome); and / or
- duplications (tiny pieces of extra chromosome).

A change in your baby's chromosomes may explain the reason for your miscarriages. It can also allow more precise information to be given about what this means for you.

What are the disadvantages and limitations of array CGH?

Array CGH does not detect all genetic changes. A normal result does not exclude a genetic condition in your baby. Sometimes results can be difficult to interpret. If this happens, it can be helpful to test blood from the parents. This will help us to:

- see if the genetic change we have found in the pregnancy is inherited; and
- may help us decide if the genetic change is the cause of your miscarriage.

Some chromosome results have unclear meaning for the health of your baby. These include:

- Changes where not enough information is available to tell the health professionals if it will cause a problem for your miscarriages.
- Changes that give an increased chance of medical and / or learning problems, but the exact risks are uncertain.

Due to this uncertainty, it has been agreed by national experts that some of these changes will not be reported.

What happens next?

The first part of the test looks at chromosomes 13, 18 and 21. These are the most common chromosomes linked with miscarriage. If this test is normal, we will carry out the array CGH test.

To complete this test, we will send some or all your pregnancy tissue to Guy's and St Thomas' Hospital, where the test is carried out. **This tissue will not be returned following the test.**

The team looking after you will tell you when the result will be available. Your health professional will contact you when it is available.

Occasionally for technical reasons the array CGH is not possible.

Where will I have the test?

This test is completed by the early pregnancy specialist nurses at either:

- Queen Elizabeth the Queen Mother (QEQM) Hospital, Margate; or
- William Harvey Hospital, Ashford.

Further information

- Antenatal Results and Choices (ARC) (https://www.arc-uk.org)
  Offers information and support to parents before, during and after antenatal screening.
  Telephone: 0207 713 7486
  Email (info@ARC-UK.ORG)
- Guy's and St Thomas' NHS Foundation Trust: our services (https://www.guysandstthomas.nhs.uk/our-services)
  Leaflets on conditions, procedures, treatments, and services offered by the Trust.
- Miscarriage Association (https://www.miscarriageassociation.org.uk/)
  Offers information and support to parents suffering pregnancy loss.
  Telephone: 01924 200 799
  Email (info@miscarriageassociation.org.uk)
- NHS England and Office for Health Improvement and Disparities. Screening tests for you and your baby. Last updated 15 April 2025. (https://www.gov.uk/government/publications/screening-tests-for-you-and-your-baby)
  Further information on screening and diagnostics tests and conditions.
- Unique (https://rarechromo.org/)
  Offers support and information for parents of babies diagnosed with rare chromosomal disorders.
  Telephone: 01883 723356
  Email (help@rarechromo.org)

Contact details

If you have questions about the test, please contact your Early Pregnancy Assessment Unit.

If you have a significant medical problem out of hours, contact your GP first. If it is an emergency, call 999 for an ambulance.

What do you think of this leaflet?

We welcome feedback, whether positive or negative, as it helps us to improve our care and services.

If you would like to give us feedback about this leaflet, please fill in our short online survey. Either scan the QR code below, or use the web link. We do not record your personal information, unless you provide contact details and would like to talk to us some more.

Giving feedback about this leaflet

https://www.smartsurvey.co.uk/s/MDOBU4/

If you would rather talk to someone instead of filling in a survey, please call the Patient Voice Team.

- **Patient Voice Team**
  Telephone: 01227 868605
  Email (ekhuft.patientvoice@nhs.net)

This leaflet has been produced with and for patients.

Please let us know:

- If you have any accessibility needs; this includes needing a hearing loop or wanting someone to come with you to your appointment.
- If you need an interpreter.
- If you need this information in another format (such as Braille, audio, large print or Easy Read).

You can let us know this by:

- Visiting the Trust web site (https://www.ekhuft.nhs.uk/ais).
- Calling the number at the top of your appointment letter.
- Adding this information to the Patient Portal (https://pp.ekhuft.nhs.uk/login).
- Telling a member of staff at your next appointment.

Any complaints, comments, concerns or compliments, please speak to a member of your healthcare team. Or contact the Patient Advice and Liaison Service on 01227 783145 or email (ekh-tr.pals@nhs.net).

Patients should not bring large sums of money or valuables into hospital. Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property has been handed into Trust staff for safe-keeping.

Further patient information leaflets are available via the East Kent Hospitals' web site (https://www.ekhuft.nhs.uk/patient-information).

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