

Central Manchester University Hospitals

#### What can I do?

If a couple has a known family history of an X-linked condition it is recommended that they contact their GP or midwife who can refer them to their local genetics centre where they can discuss their situation and tests that are available.

If you have any questions or require more information you can contact:

#### Manchester Centre for Genomic Medicine

Genetic Medicine 6th Floor Saint Mary's Hospital Oxford Road Manchester M13 9WL Tel: (0161) 276 6285 Email: naz.khan@cmft.nhs.uk

Tel: (0161) 276 6506 8.30 am – 5.00 pm Monday to Friday Fax: (0161) 276 6145

### **No Smoking Policy**

The NHS has a responsibility for the nation's health.

Protect yourself, patients, visitors and staff by adhering to our no smoking policy. Smoking is not permitted within any of our hospital buildings or grounds.

The Manchester Stop Smoking Service can be contacted on Tel: (0161) 205 5998 (www. stopsmokingmanchester.co.uk).

#### **Translation and Interpretation Service**

It is our policy that family, relatives or friends cannot interpret for patients. Should you require an interpreter ask a member of staff to arrange it for you.

نص سياستنا على عدم السماح لافراد عائلة المرضى او افاربهم او اصدقائهم بالترجمة لهم. اذا احتجت الى مترجم فيرجى ان تطلب ذلك ن لحد العاملين ليرتب لك ذلك.

ہماری یہ پالیسی ہے کہ خاندان ، رشتہ دار اور دوست مریضوں کےلئے ترجمہ نہیں کر سکتے۔ اگر آپ کومترجم کی ضرورت ہےتو عملے کےکسی زکن سے کہیں کہ وہ آپ کےلئے اس کا بندوست کردے۔

ইহা আমাদের মীর্ডি যে, একজন রোগীর জন্য ডার শরিবারের সদস্য, আয়ীম বা কোন বন্ধু অনুবাদক হতে পারবেন না। আগনার একজন অনুবাদকের প্রযোজন হলে ডা একজন কর্মচারীকে জানান অনুবাদকের ব্যবস্থা করার জন্য।

Nasze zasady nie pozwalają na korzystanie z pomocy członków rodzin pacjentów, ich przyjaciół lub ich krewnych jako tłumaczy. Jeśli potrzebują Państwo tłumacza, prosimy o kontakt z członkiem personelu, który zorganizuje go dla Państwa.

Waa nidaamkeena in qoys, qaraaboamasaaxiiboaysanu tarjumikarinbukaanka. Haddiiaad u baahatotarjumaankacodsoxubinka mid ah shaqaalahainaykuusameeyaan.

我们的方针是,家属,亲戚和朋友不能为病人做口译。如果您需要口译员, 请叫员工给您安排。





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#### Saint Mary's Hospital Manchester Centre for Genomic Medicine

## Why do some conditions only affect boys in our family?

A leaflet explaining X-linked inheritance



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This leaflet has been designed to explain why some conditions affect boys more than girls in a family. If you have any questions or if you would like to discuss anything in more detail, please feel free to ask your genetics doctor or counsellor.

#### What are genes?

Genes are the 'instructions' telling our bodies how they should be made. Genes are inherited from our parents. Genes come in pairs and we inherit one copy from our mother and one from our father. Sometimes a change can occur in a gene which means it cannot work correctly, causing health problems.

# Are genes different in boys and girls?

Most genes are the same in boys and girls. Genes can be found on chromosomes, like beads on a necklace. Chromosomes come in pairs.

One pair of chromosomes is different in men and women. Women have two X chromosomes and men have one X and one Y.



### What is an X-linked condition?

As our genes come in pairs, if a woman has one changed copy of a gene on her X chromosome she is usually healthy.

The gene copy on her other X chromosome is normal and this works in its place. She is called a healthy carrier.

If a man has a changed copy of a gene on his X chromosome he does not have a second copy to work in its place and he will be affected.

# What happens if my wife is a carrier?

A female carrier is usually healthy. However, she has a 50% (1 in 2) of passing on her X chromosome with the changed gene in each pregnancy.

If she passes her X chromosome with the changed gene to a girl, that girl will also be a healthy carrier.

If she passes her X chromosome with the changed gene to a boy he will be affected.

#### What if my husband is a carrier?

Men only pass X chromosomes on to their girls. All daughters of affected men will be carriers.

Men pass their Y chromosome on to all their boys. All sons of affected men will be normal.

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