What is Cystic Fibrosis (CF)?
CF is a genetic condition affecting around 1 in 2500 people. CF affects a number of organs in the body (especially the lungs and pancreas) by clogging them with thick, sticky mucus.

The symptoms of CF can include:
- Repeated chest infections and coughing
- Digestive problems
- Diarrhoea and abnormal stools
- Poor weight gain

What is a genetic condition?
A genetic condition is one that is caused by a change in our genes. Genes are the unique set of instructions inside our bodies which makes each of us an individual.

There are many thousands of different genes, each carrying a different instruction. If a gene is altered, it can cause a genetic condition or disease. This gene alteration is sometimes known as a mutation.

We have two copies of each gene. One copy is inherited from each of our parents. When we have children, we pass on only one copy of each of our genes.

CF is known as a recessive condition. This means that people with CF have a mutation in both copies of their gene. Individuals with only one altered copy are completely healthy and known as carriers.

Their normal copy of the gene keeps them healthy and compensates for the altered copy of the gene.

What chance is there that I am a carrier?
The table below gives risk figures for various healthy relations, assuming a partner without a family history of CF.

<table>
<thead>
<tr>
<th>Relation to person affected by CF</th>
<th>Risk</th>
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</thead>
<tbody>
<tr>
<td>Parents</td>
<td>1 (100%)</td>
</tr>
<tr>
<td>Brother or Sister</td>
<td>2 in 3</td>
</tr>
<tr>
<td>Aunt or Uncle</td>
<td>1 in 2</td>
</tr>
<tr>
<td>Grandparent</td>
<td>1 in 2</td>
</tr>
<tr>
<td>First Cousin</td>
<td>1 in 4</td>
</tr>
<tr>
<td>Second Cousin</td>
<td>1 in 8</td>
</tr>
</tbody>
</table>

Will my children have CF if I am a carrier?
If your partner is not a carrier you will not have a child with CF, but there will be a 1 in 2 (50%) chance that your child will be a healthy carrier.

If, however, your partner is also a carrier there will be a 1 in 4 (25%) chance that you will both pass on your altered copy of the gene and have a child with Cystic Fibrosis.
A carrier test is able to look for 90% of mutations. If you have an unusual mutation in your family the laboratory may not be able to find it. Therefore, if no mutation is found this does not mean that you are definitely not a carrier. It will, however, greatly reduce your chance of being a carrier.

Questions to consider:
• What would being a carrier mean to me?
• Who would I tell if I found out I was a carrier?
• Would I consider tests in a pregnancy?

For more information:
If you need more advice about any aspect of cystic fibrosis, you are welcome to contact:

**Genetic Medicine**
Sixth Floor, Saint Mary’s Hospital
Oxford Road, Manchester M13 9WL
Telephone: 0161 276 6506 (Reception)
Facsimile: 0161 276 6145
Department staffed
Monday – Friday 9.00am to 5.00pm

For support and advice, please contact:

**Cystic Fibrosis Trust**
11, London Road, Bromley BR1 1BY
Telephone: 0845 859 1000 CF Trust Helpline
Telephone: 020 8464 7200 CF Trust
Facsimile: 020 8313 0472
e-mail: enquiries@cftrust.org.uk
Web Site: http://www.cftrust.org.uk

We would like to acknowledge our Clinical Genetics colleagues at Guy’s and St Thomas’ Hospital NHS Trust who designed and wrote the original version of this leaflet.

Please let us know if you would like this leaflet in another format (e.g. large print, Braille, audio, British Sign Language video/DVD) or in another language.

**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**
Do you have difficulty speaking or understanding English?

<table>
<thead>
<tr>
<th>Language</th>
<th>Telephone</th>
<th>Web Site</th>
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<tbody>
<tr>
<td>Bengali</td>
<td>0161 276 6202/6342</td>
<td><a href="http://www.cysticfibrosis.org.uk">http://www.cysticfibrosis.org.uk</a></td>
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<tr>
<td>Hindi</td>
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