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## 150 babies a year could be born to three-parent families: Children with DNA from two eggs and one sperm could be saved from potentially lethal genetic diseases

Thousands of women risk passing on lethal mitochondrial DNA diseases  
New technique would replace their mitochondria with some from a donor  
Government preparing to change the law to allow such genetic engineering  
But critics say the law is a 'slippery slope' to producing designer babies

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At least 150 babies a year could benefit from a new technique which would sanction the creation of three-parent children, it emerged last night.

Thousands of women are currently at risk of passing on potentially lethal mitochondrial DNA diseases to their children.

These defects cause serious illness in one in 6,500 babies and are responsible for 50 genetic diseases, many of which kill in infancy.

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**Brave New World: At least 150 babies a year could benefit from a new technique which would sanction the creation of three-parent children in order to avoid the transmission of lethal genetic diseases**

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But scientists at Newcastle University have developed a way of swapping the mother-to-be's diseased mitochondria – the microscopic 'batteries' that provide cells with energy – with healthy ones from an egg donated by another woman.

Any child then born would have DNA from two eggs and one sperm – and so effectively have two mothers and one father – although the genetic contribution from the donated egg would be very small.

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Now, researchers at the Wellcome Trust Centre for Mitochondrial Research at Newcastle University have calculated that 2,473 women in the UK and 12,423 women in the US aged between 15 and 44 years have these disease-causing mutations, and so could benefit from this groundbreaking procedure.

This equates to an average of 152 births per year in the UK and 778 in the US.



**Progress: Scientists at Newcastle University have developed a way of swapping the mother-to-be's diseased mitochondria – the 'batteries' that give cells energy – with healthy ones from another woman's egg**

The numbers, published in the New England Journal of Medicine, are close to the Department of Health's claim that more than 100 babies a year could eventually be born after genetic modification.

In light of this new technique, the Government is currently preparing for the law to be changed to allow families blighted by incurable disease to have healthy babies.

The legislation would mean Britain would become the first country in the world to sanction the creation of babies that effectively have three parents.

However, critics, including campaigners Human Genetics Alert, believe the law is a 'slippery slope' to producing designer babies.

The proposals will have to be debated and voted on in both Houses of Parliament – but could be passed before the General Election.

### New law for three-parent 'designer' babies is criticised



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