

WHY DO I HAVE A PROBLEM WITH MY WEIGHT?



A message from Professor Farooqi

Lots of people struggle with their weight.

This can be down to eating a bit more food than we need or being a bit less active than we should be. However, we know things are not quite that simple for some people who find losing weight very difficult.

Sometimes weight problems (obesity) run in families. Severe obesity that runs in families can be caused by a genetic problem.

Since 1997, we have been undertaking research to find out why some people have a weight problem. This research is part of the GOOS study.

Why have you contacted me and my family?

Our team is led by Professor Farooqi and includes doctors, nurses, scientists and research staff working together to understand why some people put on weight more easily than others.

"We want to learn about the genetic causes of weight problems so we can find ways to prevent and treat these conditions."



You may remember that when you/your child were seen by a Consultant at your local hospital, he or she took a blood sample. This was sent to us in Cambridge to look for genes that may be a cause of the weight problem in your family. It is quite difficult to check if a gene is not working properly and sometimes people may not hear from us for a long time. But when you do hear from us, it is because we have found a problem with one of your genes.

Often the news that a possible cause for your/your child's weight problem has been found will come from your Consultant. You may have been asked to go to your local hospital to discuss the results or the Consultant may ask if Professor Farooqi can contact you directly. When Professor Farooqi telephones with the news it may come as a bit of a shock. Professor Farooqi will ask some questions about the family and often ask whether it is possible to test them to see if they have the same gene problem. This information helps to provide a clearer picture of whether this gene may be the cause of your family's weight problem.

How do genes cause weight problems?



You may have heard people say "it's in your genes". We have many thousands of genes which control lots of things such as hair and eye colour, how tall we are, our body shape and weight.

You can think of a gene as a very long word made up of thousands of letters. Just like a word needs to be spelled correctly, the letters in a gene have to be in the right order for the gene to work.

"Only by doing research can scientists and doctors identify new genes, learn more about particular conditions and help to find treatments."



Sometimes it only takes one wrong letter for a gene not to work properly. This can happen out of the blue. Sometimes the faulty gene is passed down in the family and then we say it has been "inherited." If a gene is faulty it can cause a problem with hormones. Many of the genes work on the brain's system for controlling appetite and how we burn calories.

To find out more, look at our [website](#)

What does this gene problem mean for me?

If we think that the faulty gene may be the cause of the weight problem, we often invite you to come to Cambridge so we can explain things in detail and do some further tests.

We have a specialist unit at Addenbrooke's Hospital where you can stay in comfort away from the main hospital wards. We can run tests that will help us to learn about the gene and the various

hormones in your blood. By seeing people with a particular gene problem, we are able to build up a picture of how the gene works, or indeed doesn't work properly in the body.

If you come to see us, we will try our best to make you feel as comfortable as possible. We want you to have a good experience and hopefully be happy to come back again if necessary.

Is there a treatment for this gene problem?

For many of the gene problems that we have identified, there is not an obvious treatment straightaway. Recently Semaglutide (Wegovy) has been approved for the treatment of obesity in adults and young people over the age of 12. This treatment is known to be effective in people with genetic causes of obesity. Further drugs are currently in clinical trials and we will keep our website updated when these become available.

What genes have you found?



The first gene we found was the leptin gene, way back in 1997. Children with a problem in the leptin gene put on weight very quickly and at a very early age. They are always hungry, never feel full and will seek out and ask for food even after they have just eaten. We discovered that the reason for this drive to eat is because the children are lacking the hormone leptin which in most people sends messages to the brain to tell us to stop eating because we are full. For these children, who lack leptin, it has been possible to treat them with daily injections. The children are now normal weight and are doing very well. However, leptin deficiency is very rare. We have now identified 20 other genes that can cause severe weight gain and we expect to find more with the new technologies available to us.

What does it mean to have a faulty gene?

It may take you a bit of time to come to terms with the fact that you/your child may have a genetic cause for their weight problem. For some people, it comes as no surprise at all and confirms what they had been thinking all along, that they were different and there had to be a reason for this. We hope that you will feel relieved and reassured after talking to us. Having a diagnosis may go some way towards dealing with the stigma, guilt and even self-blame that some families and individuals with weight problems may feel. We hope that it may be motivating and informative for you and for the health professionals that take care of you.

Keep in touch !



To contact us, write to;

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