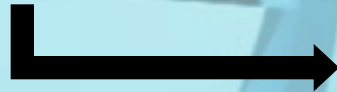


Genetics Related to Overweight

Genetics related to overweight/obesity is a relatively **new concept**.

The development of this notion began through the study of twins, which has revealed that our genetics can account for a **30-70% variation** in our body mass index.

In 2007 the first obesity gene was identified: the **Fat Mass and Obesity Associated (FTO) Gene**. Since 2007 many more genes have been discovered.



Advances in genetic research have provided a platform to discover a greater reasoning behind the global obesity epidemic. Further research could have the potential to develop a true obesity prevention scheme.

“Obesity Prevention is an International Goal”

The prevention of overweight/obesity should commence as early as possible, ideally **pre-conception** for an optimal outcome, due to weight gain at early infancy being associated with the early onset of many obesity-related conditions (cardiovascular disease, diabetes, musculoskeletal disorders, several cancers, depression, social anxiety etc.) which worsen into adulthood. The existing UK prevention schemes do not currently employ this method and, to date, are proving ineffective. In fact, current “prevention schemes” are more akin to treatment schemes that aim to tackle the problem once it is apparent. **Only by use of prediction, including parental genetic analysis alongside the assessment of the known lifestyle factors that promote overweight, would it be possible to influence risk of overweight/obesity so early on in an infant’s existence.**