

## Sample Answer

The genetic theory for obesity suggests that it runs in families and people inherit a predisposition to become obese. One idea is based on candidate genes, like the 'thrifty gene' (**Neel, 1962**) which has been linked to individuals with obesity. In ancestral times, genes that enabled individuals to quickly store fat during times of plenty (to survive subsequent shortages) offered a survival advantage. However, this is not a requirement in modern day as food is abundant, and these 'thrifty' genes lead to excessive fat deposition and metabolic disorders. In addition, there is much variation seen within families as not all members are obese, limiting this genetic argument. Another explanation is based on the neural explanation of obesity which suggests that the hypothalamus is malfunctioned, particularly the ventromedial hypothalamus (VMH). This serves as a primary satiety centre, regulating appetite by suppressing food intake and preventing hunger. If this is damaged or faulty, people may overeat leading to an increased risk of obesity. However, this explanation is reductionist and fails to consider free will in the decision-making process of overeating. Other neural evidence suggests low levels of serotonin have also been linked with cravings for energy-rich foods, which are high in fats and sugars, which subsequently cause weight gain (**Wurtman, 1995**). Serotonin normally signals to the VMH in the brain that a person has eaten to satiety. This may also explain why some people are more predisposed to obesity. However, these biological explanations fail to account for individual differences in eating behaviour as well as other psychological factors like stress or anxiety.

