

[Click here to print](#)

# MailOnline

## health

# Why big decisions are best made on a full stomach

By Fiona Macrae

Last updated at 2:22 AM on 06th June 2008

Big decisions are best made on a full stomach, research suggests.

Skipping meals lowers levels of a brain chemical key in keeping careless and impulsive behaviour in check.

As a result, our hearts may overrule our heads - leading to bad decisions being made.

Cambridge University scientists made the link between the chemical serotonin and decision making after looking at how a group of men and women reacted to being treated unfairly.

The 20 volunteers took part in a game in which one offers the other a share of some money.



**Business lunch:** Scientists say a full stomach minimises hasty decisions and prevents impulsive actions

If the offer is accepted, both players are paid their split. If rejected, neither player gets anything.

Normally, a sense of resentment at being treated unfairly leads to players rejecting up to a third of low offers - despite it meaning they will leave empty-handed.

It seems the heady feeling produced by denying the unfair player any cash more than makes up for the loss of payment.

But when serotonin levels were low - something that occurs when we haven't eaten - the number of low offers turned down rose to more than 80 per cent, the journal *Science* reports.

In other words, lack of serotonin increased the likelihood of the player making an unfair offer effectively being told where he could put his money.

Researcher Molly Crockett, a PhD student, said: 'Our results suggest that serotonin plays a critical role in social decision making by normally keeping aggressive social responses in check.'

'Changes in diet and stress cause our serotonin levels to fluctuate naturally, so it's important to understand how this might affect our everyday decision making.'

The main building block of serotonin is the amino acid tryptophan, which is found in a variety of foods.

Good sources include red meat, dairy products, nuts, seeds, bananas, tuna, shellfish, and soya products. Tryptophan supplements are also available.

While scientists had long-suspected that serotonin affects impulsive behaviour, this study has provided the proof.

Often called the 'happy hormone', the chemical is best known for its effects on mood.

Too little leads to depression, while too much can produce feelings of 'loved up' euphoria - as happens when people get high on drug ecstasy.

Common antidepressants such as Prozac work by maintaining higher levels of serotonin in the brain.

However, other research has shown that snap decisions are best, with those who ponder a subject too deeply tending to make the wrong choices.

The study found that when choosing an expensive car those who put the least thought into the decision were happiest with their selection.

It is thought our brains are better equipped to evaluate complex information when we are asleep or distracted, than when put on the spot.

Thinking too much about things may also hamper the filtering out of the most important information.

Find this story at [www.dailymail.co.uk/health/article-1024535/Why-big-decisions-best-stomach.html](http://www.dailymail.co.uk/health/article-1024535/Why-big-decisions-best-stomach.html)

[Daily Mail](#) | [Mail on Sunday](#) | [Travel Mail](#) | [This is Network](#) | [This is London](#) | [This is Money](#)

[Metro](#) | [Loot](#) | [Jobsite](#) | [Loopy Love](#) | [Find a property](#) | [Motors](#) | [Prime location](#) | [Lasting Tribute](#)

---

**Associated Northcliffe Digital**

Part of the Daily Mail, The Mail on Sunday, Evening Standard & Metro Media Group

© 2008 Associated Newspapers Ltd

[Contact us](#) [Terms](#) [Privacy policy](#) [Advertise with us](#)