

food and mood

The quarterly
newsletter of
the Food &
Mood Project

Issue no. 2
Winter 2000/01

Food and the Brain

By Amanda Geary

Neurotransmitters are the brain chemicals that influence how we think, feel and behave. The growing list of 'informational substances' which can function as neurotransmitters includes amino acids (the building blocks of protein), peptides (chains of amino acids), hormones and gaseous neurotransmitters such as nitric oxide.

Maintaining the correct level of neurotransmitters prevents the brain from becoming over- or under-stimulated and the brain has a number of 'homeostatic mechanisms' for keeping the brain in balance. However for reasons that are likely to be a combination of a genetic predisposition working together with environmental influences, certain people can suffer with abnormal levels of certain neurotransmitters. With depression, for example, there appears to be an associated reduction in available serotonin (5-hydroxytryptamine) where low moods are relieved when serotonin levels are raised.

Serotonin and depression

Low levels of mood-enhancing serotonin can be redressed with prescribed medication that includes the tricyclics (such as Amitriptyline) and SSRIs or selective serotonin reuptake inhibitors (such as Prozac/fluoxetine). Herbal remedies such as St John's Wort (*hypericum perforatum*) also appear to owe their demonstrated effectiveness for the treatment of depression to an ability to enhance low serotonin levels.

Food also has an important part to play in emotional and mental health, as what you eat can affect levels of serotonin as well as other neurotransmitters. It seems likely that food cravings in some people are a subconscious drive to increase low serotonin levels and improve mood.

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Serotonin is a neurotransmitter that is associated with various moods and behaviours including reducing appetite and curbing impulses, enhancing mood and promoting sleep. Serotonin is made in the brain from tryptophan, an amino acid, or protein fragment, found in protein-containing foods. Therefore, eating tryptophan-containing foods is one way of potentially boosting brain serotonin levels.

However, the absorption of tryptophan across the blood-brain

FROM THE EDITOR

This, the second edition of the newsletter, provides you with more food for thought as we take a look at how food can affect the levels of neurotransmitters



in the brain. Tryptophan, an essential amino acid found in protein foods, is under the spotlight in our main article, as tryptophan is converted in the brain to mood-enhancing serotonin.

A recent survey by Mind reported that 76% of people with mental health problems found that certain times of the year had a negative influence on how they felt. The winter months were the worst for many people, with Christmas and New Year proving to be particularly difficult times. As food plays such a huge part in the festivities, Christmas is probably not a time to be on a 'special' diet. But if you do want to experiment with changing what you eat at Christmas there is certainly no need to go without treats. There are now more alternative products available to enjoy, and the Food Cupboard has ideas for festive foods that could improve your mood.

The scientific research available on the food-mood connection is scant. So, one of the aims of the Food & Mood Project is to collect 'anecdotal' evidence from individuals who have made changes to their diet and benefited as a result. If you are interested in how you could take part, do read 'Symptom Scoring' for ideas.

Finally, you may have seen on television the devastation caused by the recent flooding in Sussex – Lewes in particular. Regrettably, a week of mail sent to the Food & Mood Project PO Box was lost as the main sorting office disappeared under 10 feet of sewage- and diesel-contaminated flood water. If you (or anyone you know) is waiting for a reply to a letter, Workbook order or Newsletter subscription and it was posted around the time of the flooding (Friday 13th October), please write again!

Keep on sharing the food mood message.

Amanda Geary
Food & Mood Project Founder

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