Office Nutrition

by **Antria Christofi**

Office Nutrition – how foods interact with our brain and productivity.

According to the International Labour Office, poor diet on the job is costing countries around the world up to 20% in lost productivity, either due to malnutrition that plagues some one billion people in developing countries or the excess weight and obesity afflicting an equal number mostly in industrialized economies. The UCLA Health System reports that poor diet habits can lead to increased fatigue and irritability, higher levels of stress and depression, decreased mental effectiveness, energy levels and ability to think clearly. Taking all these into account it is really important to realise that nutrition plays an important role not only in shaping our body but also in our brain's functioning and our ability to perform our job effectively.

One of the most fascinating aspects of nutrition is how the various ingredients reach the brain through the circulatory system and depending on which one fuels the brain then either we are full of energy and focus or we are overwhelmed with weariness**.**

Glucose

The majority of the food we consume will breakup to one ingredient - glucose. Glucose is the main fuel of the brain and keeps us alert. The important thing is how glucose is released to the circulation and consequently to the brain. Certain foods lead to rapid release of glucose, while others do so more slowly and steadily.

Research has shown that the human brain works optimally with 25 grams of glucose in the circulation. This amount is equal to a cup of oats or to a donut. Both will have the same impact in brain activity in the short term but their difference becomes more obvious over an eight-hour period. After consuming a donut, glucose levels are increased abruptly and you will have a 20-minute period of alertness but after this period, glucose is decreased sharply leaving you weary and less focused. It's like stepping on the gas and running out of fuel quickly. On the contrary, oats will result in a more controlled release of glucose in the circulation, leaving you more focused.

The parameter compared between the donut and oats is the glycaemic index; generally, foods with low glycaemic index release glucose slowly in the circulation, reduce the rapid transitions of sugar in the circulation and thus

improve the brain's function and our focus and attention. Foods that contain carbohydrates with low glycaemic index are whole grain cereals, raw vegetables, fruits but also milk and yoghurt.

Fatty acids

Fatty acids and in particular the essential omega 3 and omega 6 fatty acids that we cannot produce by ourselves, but can be found in various foods, strengthen the synapses in the brain's center of memory. Food rich in omega 3 fatty acids is fatty fish and food rich in omega 3 and omega 6 are nuts and seeds.

Amino acids

Amino acids are the end product of protein degradation, required for the connection of neurotransmitters which are essential for our mental clarity. Examples of neurotransmitters are dopamine for the smooth functioning of the immune and nervous system, nor-epinephrine for concentration and alertness, serotonin for mood and sleep quality and acetylcholine storage and memory recall. Fish, eggs and dairy products are good sources of protein and it is of great importance to include one of these in each meal.

Antioxidants

It has been shown that antioxidants block the free radicals which cause oxidative stress and damage brain cells. We can find antioxidants in a variety of foods such as fruits and vegetables, tea, cocoa and wine.

These foods will give your brain the most power. With the right combination of nutrients your brain should be in prime condition and ready to work for you through many productive years to come.

Biography:

Antria Christofi is a clinical dietitian working at her own practice in Nicosia. She graduated from Harokopeio University's Dietetics and Nutrition department continuing her studies and earning a master's degree in Public Health nutrition in the University of Glasgow. Antria worked as a research associate in Cyprus International Institute for Environmental and Public health in joint research programmes of the institute with the Harvard School of Public Health examining the nutrition habits of children and teenagers. She gives talks in schools for the importance of the mediterranean nutrition as well as to the public for the importance of a healthy diet. Antria is a registered member of the Cyprus Dietetic Association and one of the authors of a book designed for children issued by the association.