Research Paper CHEMISTRY

Role of Nutrition in Coping with Stress (Review)

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ABSTRACT

Stress, refers to the after effects of a person failing to respond properly to an event that has occurred in their life. If in a person emotions are bottled up inside without releasing, this behaviour brings stress upon the body and gets worse with time.

Stress is shown to happen in three stages. The first is an initial state of alarm which produces a rush of adrenaline in the persons' body. The second stage is a short term 'resistance' mechanism that body sets up to cope with the problem. The final stage is a state of exhaustion in the body.

The persons who suffer from stress may have symptoms such as; Muscle tension, loss of focus/concentration, headaches, increased heart rate, having a short temper, loss of appetite. Chronic Stress can cause long term illnesses to the body for examples; Diabetes, Depression, Mental health problems, Heart/Cardiovascular problems, Bowel/Digestive Problems.

A balanced diet is one of the best ways to combat the effects of stress because when under stress, the body uses essential nutrients and these can be replenished by taking balanced diet. With the healthy balanced diet we can reduce the impact that stress has on body and effectively repair any damage that has been done prior to this.

KEYWORDS | Stress, Nutrition, Balanced diet,

Stress makes the body crave foods that are high in fats and sugars. This inflicts a greater stress on the body, which has adverse effects on physical and mental health. Stress causes unhealthy eating habits such as junk/Fast food intake, skipping meals, increased Coffee (caffeine) intake, consumption of fats, constantly picking at foods. These unhealthy foods may damage body by hormonal unbalance, Weight gain, Poor Immune System, surge in the Blood Sugar.

People are irritable when hungry, and calm and sleepy when full (Gibson, 2006). Certain qualities of a food, such as the pleasantness of a sweet product, may affect emotional responses (Steiner, 1974).

The consumption of food may also alleviate Stress. Consumption of 40 g dark chocolate per day for two weeks decreased urinary cortisol (Martin et al.,2009)

Unhealthy eating behaviours, negative mood and chronic stress can lead to anxiety, depression, diabetes, and cardiovascular disease (Dickerson & Kemeny, 20040). The selection of food is derived by hunger and emotional influences .Once consumed these foods can affect our mood (King & Meiselman, 2010).

With the healthy balanced diet we can reduce the impact that stress has on your body and effectively repair any damage that has been done prior to this. We must have Good nutrition, Good diet plan, Avoid certain foods, consumption of nutrients which increase immunity of body.

A wide variety of foods should be consumed. This is because there is not one food available that contains all the necessary nutrients. Nutrients needed are minerals, vitamins, proteins, good fatty acids.

When the body is under stress, it uses up its reserves. Main nutrients that the body will use is vitamins (A, B&C), Proteins, Magnesium (Needed for a variety of tasks such as muscle relaxation).

Vitamin B is essential for coping with stress as they are used in building up your metabolism. Substances like alcohol and caffeine drains these resources and affects the functionality of brain. Caffeine is also responsible for making people hyperactive, nervous and sleeping pattern is affected significantly. So the consumption of alcohol and caffeine must be restricted.

When under stress, it is important to consume all important nutrients in order to cope with it effectively. These nutrients are available in a wide variety of foods such as;

Vitamin A (Cheese, eggs, fish with oil, milk etc.)

Vitamins B (can be found in foods such as seaweed and raw foods).

Vitamins C (Fruits (apple, banana, orange etc.)

Proteins and Iron (Meats, eggs, seeds, nuts etc).

Magnesium: Green leaved vegetables (e.g. cabbage), fish, meat and dairy products

For chronic stress, it is recommended to take plenty of foods that are a good source of calcium (milk and cheese).Consumption of direct sugar should be avoided. Sugar gives a large burst of energy for a short period of time only but afterwards the person will suffer a giant comedown from this and suffer a lengthy 'low' energy period. Junk Foods, sweetened drinks and trans fat inflicts stress on the body.

CONCLUSION; stress makes us tired. Chronic stress can lead to certain diseases such as diabetes, depression, mental health problems, heart/cardiovascular problems, bowel/digestive Problems. We need to focus on taking care of ourselves physically and give our own body some much-needed nourishment. There are certain foods that can help to relieve stress.

Asparagus: high in folic acid, which helps stabilize moods.

Cheese and Fruit: high in protein and calcium.

Choose fruits high in Vitamin C like oranges; because it's an antioxidant that fights free radicals that get released when body is stressed.

Nuts: (especially almonds and walnut): great source of Vitamin B2 and E, magnesium and zinc. Vitamin E fights the free radicals associated with stress, and in particular, those associated with heart disease.

Blueberries: very rich in antioxidants, blueberries offer a high-fiber, low-calorie fruit option that is also rich in stress-fighting vitamin C.

Tuna: high in stress-fighting vitamins B6 and B12 and a good low-fat protein source.

Stress causes unhealthy eating habits such as junk/Fast food intake, Skipping meals, increased Coffee (caffeine) intake, consumption of fats, constantly picking at foods. These unhealthy foods may damage body by hormonal unbalance, Weight gain, Poor Immune System, surge in the Blood Sugar.

A balanced diet is one of the best ways to combat the effects of stress.

REFERENCES

Dickerson, S. S., & Kemeny, M. E. (2004). Acute stressors and cortisol responses: A theoretical integration and synthesis of laboratory research. Psychological Bulletin, 130(3), 355–391. http://dx.doi.org/10.1037/0033-2909.130.3.355. King, S. C., Meiselman, H. L., & Carr, B. T. (2010). Measuring emotions associated with foods in consumer testing. Food Quality and Preference, 21(8), 1114–1116.http://dx.doi.org/10.1016/j.foodqual.2010.08.004. Gibson, E. L. (2006). Emotional influences on food choice: Sensory, physiological and psychological pathways. Physiology & Behavior, 89(1), 53–61. http://dx.doi.org/10.1016/j.physbeh.2006.01.024. Steiner, J. E. (1974). Discussion paper: Innate, discriminative human facial expressions to taste and smell stimulation. Annals of the New York Academy of Sciences, 237, 229–33. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/4529591. Martin, F. J., Rezzi, S., Pere, E., Kamlage, B., Collino, S., Leibold, E., et al. (2009).Metabolic effects of dark chocolate consumption on energy, gut microbiota, and stress-related metabolism in free-living subjects. Journal of Proteome Research,8, 5568–5579.