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strong language

THE BEST RESPONSE TO PAINFUL EVENTS?

vitamins and exercise

A DISCUSSION

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STRONG LANGUAGE MAY BE THE BEST RESPONSE TO PAINFUL EVENTS, ACCORDING TO A NEW STUDY AT KEELE UNIVERSITY

Research involving 64 undergraduates found they could keep their hands submerged in ice for longer if they used swear words rather than polite language. Researchers postulate that swearing may help trigger natural responses to danger - raising the heart rate and demonstrating aggression.

Dr Richard Stephens said: "Swearing has been around for centuries and is an almost universal human linguistic phenomenon. It taps into emotional brain centres and appears to arise in the right brain, whereas most language production occurs in the left cerebral hemisphere of the brain. Our research shows one potential reason why swearing developed and why it persists."



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could vitamins undo exercise effects?

VITAMIN SUPPLEMENTS CAN UNDO THE BENEFICIAL EFFECTS OF TAKING EXERCISE, NEWSPAPER REPORTS HAVE SUGGESTED.

Exercise usually leads to an increase in insulin sensitivity. This is thought to happen through a process mediated by reactive oxygen species (ROS), a type of free radical. These particles have been linked to cell damage and ageing and it has been suggested that vitamins may react with them to reduce their effects. Vitamins may be undoing the health benefits of exercise by blocking exercise-induced increases in insulin sensitivity, researchers suggested.

of insulin sensitivity were assessed at baseline and seven days after the final training session. Exercise increased insulin sensitivity on these measures, but only in those who had not taken vitamins. This applied whether participants had previously trained or not.

What do the researchers say?

Lead researcher, Dr Michael Ristow from the University of Jena, Germany, said the findings provided support for 'an essential role for exercise-induced ROS formation in promoting insulin sensitivity'. 'Importantly, these changes in gene expression and the increase in insulin sensitivity following physical exercise are almost completely abrogated by daily ingestion of the commonly used antioxidants vitamin C and E,' he said.

What is the research?

Findings are based on a study of 20 physically trained and 19 untrained young men. Half of each group were randomly assigned vitamin C and E supplementation. All participants then undertook four weeks of intensive training. Measures



comment on the study

THIS RESEARCH WAS CONDUCTED BY DR MICHAEL RISTOW AND COLLEAGUES FROM THE UNIVERSITY OF JENA IN GERMANY, THE GERMAN INSTITUTE OF HUMAN NUTRITION, THE UNIVERSITY OF LEIPZIG AND HARVARD MEDICAL SCHOOL. THE RESEARCH WAS PUBLISHED IN THE PEER-REVIEWED MEDICAL JOURNAL PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES.



The study includes a small sample group of men only and uses higher 'mega doses' of antioxidants. The outcome of this study is inconclusive and contradictory to the research base in this field. Further larger trials will be required to validate the effect of antioxidants on glucose metabolism.

Taking too much of a 'good thing' may be detrimental

Although diets rich in antioxidant nutrients such as selenium, beta-carotene and vitamins C and E have been shown to reduce the risk of cancer, research into the use of supplements to recreate this 'effect' have thus far shown either no benefit or an adverse effect. Most of this research has included the use of vitamin doses far in excess of the amounts consumed naturally in a well balanced diet.

A published 2007 Cochrane meta-analysis led by Goran Bjelakovic at the University of Copenhagen Hospital included 68 trials on the subject and nearly ¼ million subjects. The outcome of this analysis showed a 4% increase in death rate for those taking vitamin E alone, 7% increase for those taking beta-carotene, and 16% increase for those taking vitamin A. The researchers found that vitamin C did not have an effect one way or the other.

A recent publication added concern over higher dose multivitamin consumption and the increased risk of advanced prostate cancer.

Karla Lawson, Ph.D of the National Cancer Institute in Bethesda, looked at the relationship between multivitamin use and the five year risk of prostate cancer in over 295 000 men. This research showed that men taking multivitamins more than 7 times a week may double their risk of developing advanced prostate cancer than those not taking multivitamins. This relationship was strongest on men with a family history of prostate cancer who took selenium, zinc and beta-carotene supplements. No association between multivitamin use and the development of localised prostate cancer was found.

It is hypothesized that supplementation with high dose antioxidants may displace the body's natural antioxidants and interfere with the normal cancer clearing mechanisms of the body. If a precancerous or abnormal cell forms, certain signals are released to tell the immune system to destroy this cell. The antioxidants formed naturally by the body play a vital role in this process. Antioxidants introduced artificially may hinder this process and allow cancers to progress?

dementia studies outline healthy habits

BRAIN EXERCISES CAN HOLD BACK MEMORY LOSS IN LATER DEMENTIA, A NEW STUDY SHOWS

Activities that exercise the brain such as reading, writing, and playing card games, are linked to a slower decline in memory, say researchers at the Albert Einstein College of Medicine in New York.

They recruited 488 people aged 75 to 85 years, who did not have dementia at the start of the study. They were asked how often they read, wrote, did crossword puzzles, played board or card games, had group discussions, and playing music. Over the next five years, 101 individuals developed dementia.

The researchers report that for

every activity a person participated in, the onset of rapid memory loss was delayed by 0.18 years. "These activities might help maintain brain vitality," the team believes.

A second study, published in the Journal of Neurology, Neurosurgery and Psychiatry, has found that smoking, having high blood pressure and having diabetes in middle age may increase the risk of dementia.

Cardiovascular risk factors have previously been linked to dementia, so Dr Alvaro Alonso of the University of Minnesota, USA, and his team

analysed figures from more than 11,000 people aged 46 to 70 years.

Current smokers were 70% more likely than those who had never smoked to develop dementia, people with high blood pressure were 60% more likely than those without high blood pressure, and people with diabetes were more than twice as likely than those without diabetes to develop it, they concluded.

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