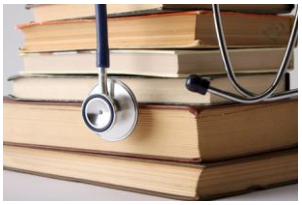


Bibliografía alimentaria

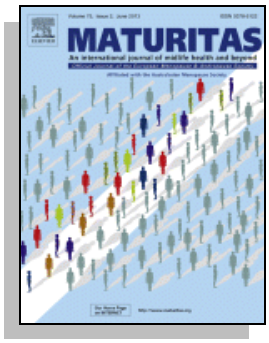
y sobre otros productos de consumo

Nº 19 (2013)

Temas:

Artículos de revista

Alimentos funcionales y *nutraceuticals*



● **Antonio González-Sarrías**, **Mar Larrosa**, **María Teresa García-Conesa**, **Francisco A. Tomás-Barberán** y **Juan Carlos Espín**, "Nutraceuticals for older people: Facts, fictions and gaps in knowledge". *Maturitas* (2013) article/S0378-5122(13)00154-0.

Novedad

Publicado como avance *on line* el 28 de mayo de 2013

Abstract

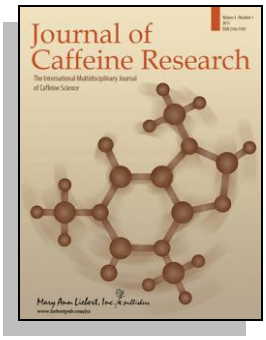
In the last decades nutraceuticals have entered the health market as an easy and attractive means of preventing diseases. These products are of interest for an increasingly health-concerned society and may be especially relevant for preventing or delaying a number of age-related diseases, i.e. arthritis, cancer, metabolic and cardiovascular diseases, osteoporosis, cataracts, brain disorders, etc. Nutraceuticals are marketed in a variety of forms, composition and potential applications which have made their definition ambiguous and their use uncontrolled and poorly funded. Although epidemiological, animal and in vitro studies have given evidence of the potential benefits of some of these nutraceuticals or of their components, definitive proof of their effects in appropriate human clinical trials is still lacking in most cases, more critically among people above 65 years of age. We cover the well-established nutraceuticals (polyvitamins, omega-3 fatty acids, etc.) and will focus on many other 'novel' commercial nutraceuticals where the scientific evidence is more limited (food extracts, polyphenols, carotenoids, etc.). Solid scientific evidence has been reported only for a few nutraceuticals, which have some health claims approved by the European Food Safety Authority (EFSA).

Further well-designed trials are needed to improve the current knowledge on the health benefits of nutraceuticals in the elderly. Overall, there are some facts, a lot of fiction and many gaps in the knowledge of nutraceutical benefits.

Keywords: elderly, nutraceuticals, clinical trials, age-related diseases, health claims

Para más información, consultar:
http://www.maturitas.org/article/S0378-5122(13)00154-0/abstract

Bebidas energéticas



● **David Gray Lassiter**, **Lynne Kammer**, **James Burns**, **Zhenping Ding**, **Heontae Kim**, **Joowon Lee** y **John L. Ivy**, "Effect of an Energy Drink on Physical and Cognitive Performance in Trained Cyclists". *Journal of Caffeine Research*, Vol. 2 nº 4 (2012) 167-175.

Abstract

Background: Caffeine and carbohydrates are used by consumers to increase exercise and certain aspects of cognitive performance. This study investigated the effectiveness of an energy drink (ED) containing caffeine to enhance cycling time-trial performance and cognitive performance at rest, during strenuous exercise, and after exercise.

Methods: The experimental protocol was a double-blind, placebo-controlled, randomized, crossover design. The treatments were ED containing caffeine (160 mg), carbohydrate (54 g), taurine, and Panax ginseng, and a caffeine-free noncaloric placebo beverage (PLA). After a 12-hour calorie and caffeine abstention, exercise performance was measured by time to finish a simulated 35-km cycling time-trial course. Cognitive performance was measured by a Stroop Test, a tapping task, a reaction time task, and an executive function task consisting of both tapping and reaction time. Participants (n=15, seven women, eight men) were grouped as low-baseline (LO) or high-baseline (HI) since 5 of 15 participants (3 women, 2 men) had elevated baseline blood caffeine concentrations at both experimental trials.

Results: Race performance improved by an average of 3% in both LO and HI groups when participants consumed ED compared with PLA. Although VO2 and heart rate were greater throughout the race for ED compared with PLA, there was no difference in perceived exertion between treatments. ED also increased taps per second in the tapping task before and after exercise.

Conclusions: The results suggest that ED is an effective pre-exercise supplement that can improve cycling time-trial performance and possibly simple aspects of cognitive function even under elevated basal blood caffeine levels.

Biotecnología

● **Klaus Ammann**, “Genomic Misconception: a fresh look at the biosafety of transgenic and conventional crops. A plea for a process agnostic regulation”. *New Biotechnology* (2013) doi.org/10.1016/j.nbt.2013.04.008.

Novedad

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Abstract

The regulation of genetically engineered crops, in Europe and within the legislation of the Cartagena biosafety protocol is built on false premises: The claim was (and unfortunately still is) that there is a basic difference between conventional and transgenic crops, this despite the fact that this has been rejected on scientifically solid grounds since many years. This contribution collects some major arguments for a fresh look at regulation of transgenic crops, they are in their molecular processes of creation not basically different from conventional crops, which are based in their breeding methods on natural, sometimes enhanced mutation. But the fascination and euphoria of the discoveries in molecular biology and the new perspectives in plant breeding in the sixties and seventies led to the wrong focus on transgenic plants alone. In a collective framing process the initial biosafety debates focused on the novelty of the process of transgenesis. When early debates on the risk assessment merged into legislative decisions, this wrong focus on transgenesis alone seemed uncontested. The process-focused view was also fostered by a conglomerate of concerned scientists and biotechnology companies, both with a vested interest to at least tolerate the rise of the safety threshold to secure research money and to discourage competitors of all kinds. Policy minded people and opponent activists without deeper insight in the molecular science agreed to those efforts without much resistance. It is interesting to realize, that the focus on processes was uncontested by a majority of regulators, this despite of serious early warnings from important authorities in science, mainly of US origin. It is time to change the regulation of genetically modified (GM) crops toward a more science based process — agnostic legislation. Although this article concentrates on the critique of the process-oriented regulation, including some details about the history behind, there should be no misunderstanding that there are other important factors responsible for the failure of this kind of process-oriented regulation, most importantly: the predominance of politics in the decision making processes combined with the lack of serious scientific debates on regulatory matters within the European Union and also in the Cartagena system, the obscure and much too complex decision making structures within the EU, and the active, professional, negative and intimidating role of fundamental opposition against GM crops on all levels dealing with flawed science, often declared as better parallel science published by ‘independent’ scientists.

Highlights

• GMO regulation is built on false premises in the EU and the Cartagena biosafety protocols.
• Molecular processes of transgenesis and natural mutation are similar.
• It is time to change GMO regulation toward a science based product oriented legislation.
• Some legislations like the one from Canada rely on Novel crops, conventional or GMOs.

Para más información, consultar:
http://www.sciencedirect.com/science/article/pii/S1871678413000605

Complementos alimenticios

● **A. Shenkin**, "Micronutrient supplements: Who needs them? A personal view". *Nutrition Bulletin*, Vol. 38 nº 2 (2013) 191–200.

Abstract

Supplements of vitamins and trace elements are consumed widely in the UK, yet there is little evidence that their ingestion is beneficial to health or wellbeing. This review summarises the evidence for health benefits or harm in the situations where supplements are taken.
In only a few cases does the Department of Health recommend supplements in the otherwise healthy population – folic acid before and in the early stages of pregnancy, as requirements are higher, and vitamin D in infants under 5 for example, as their diet is inadequate and they are unlikely to get enough from exposure to sunlight.
Deficiency of individual micronutrients leading to signs of clinical deficiency is fairly common in clinical practice (e.g. anaemia due to iron deficiency, or folate or vitamin B12 deficiency) and it is clear that the relevant nutrient must be provided to correct the deficiency state. Subclinical deficiency is more common, where the deficit in a nutrient is not sufficiently severe to cause clinical signs, but there may be metabolic or non-specific clinical effects. Benefits of supplements on immune function or cognition in these situations have been difficult to prove. In particular, concern about the adequacy of the antioxidant defences has led to several studies of high-dose antioxidants in an attempt to reduce mortality from cardiovascular disease or cancer. These have been found to lead to an increase, rather than a decrease, in mortality.
There is good evidence that benefit is obtained from ingestion of micronutrients as part of a varied, balanced diet, including at least five portions of fruits and vegetables per day. Purified supplements may be of value in certain at-risk groups who are known to have a poor or inadequate diet. In such cases, supplements should be limited to provision of no more than the Reference Nutrient Intake to minimise the risk of excess.

Keywords: deficiency, dietary recommendations, harmful effects, health benefits, micronutrient supplements

Fraudes alimentarios

● **P.J. O'Mahony**, “Finding horse meat in beef products—a global problem”. *QJM*, Vol. 106 nº 6 (2013) 595-597.

Consultar: http://qjmed.oxfordjournals.org/content/106/6/595.full.pdf+html

● **Clara Vidreras Pérez**, “Del hipódromo a la hamburguesa”. *BoViAlCo*, n° 1 (2013) 23-32.

● **Peter Lees** y **Pierre-Louis Toutain**, “Pharmacokinetics, pharmacodynamics, metabolism, toxicology and residues of phenylbutazone in humans and horses”. *The Veterinary Journal* (2013) doi.org/10.1016/j.tvjl.2013.04.019.

Novedad

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Abstract

The presence of horse meat in food products destined for human consumption and labelled as beef has raised several concerns of public interest. This review deals solely with one aspect of these concerns; samples of equine tissue from horses destined for the human food chain have tested positive for the non-steroidal anti-inflammatory drug, phenylbutazone. The safety of some or all such foods for human consumers is a major concern, because it was shown many years ago that phenylbutazone therapy in humans can be associated with life threatening blood dyscrasias.

As an initial basis for assessing the potential toxicity of foods containing phenylbutazone and its metabolites, this article reviews (1) the pharmacokinetic,

pharmacodynamic, metabolic and toxicological profiles of phenylbutazone, with particular reference to horses and humans; (2) toxicity data in laboratory animals; (3) phenylbutazone residues in food producing species, and (4) as a preliminary assessment, the potential hazard associated with the consumption of horse meat containing phenylbutazone and its metabolites.

Since phenylbutazone cannot be classified as a carcinogenic substance in humans, and noting that blood dyscrasias in humans are likely to be dose and treatment duration-dependent, the illegal and erratic presence of trace amount residues of phenylbutazone in horse meat is not a public health issue.

Keywords: equine, human, phenylbutazone, oxyphenbutazone, pharmacology, toxicology, residues

Para más información, consultar:
http://www.sciencedirect.com/science/article/pii/S1090023313001901

Micología

● **U. Peintner** y otros, “Mycophilic or Mycophobic? Legislation and Guidelines on Wild Mushroom Commerce Reveal Different Consumption Behaviour in European Countries. *PLoS ONE*, 8/5 (2013) e63926 - doi:10.1371/journal.pone.0063926.

Novedad

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Consultar:
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063926

Nutrición y lucha contra la obesidad

● **Juliet Pealinga** y otros, “Parental food involvement predicts parent and child intakes of fruits and vegetables”. *Appetite* (2013) doi.org/10.1016/j.appet.2013.05.003.

Novedad

Publicado como avance *on line* el 15 de mayo de 2013

Para más información, consultar:
http://www.sciencedirect.com/science/article/pii/S0195666313001943

Importante

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