

INGLÊS

Combining alcohol and “energy drinks” reduces the ‘perception’ of impairment

The combined use of alcohol and “energy drinks” has become increasingly popular among youth and young adults in recent years. Users often report reduced sleepiness and increased sensations of pleasure. In the April issue of *Alcoholism: Clinical & Experimental*

Research, Brazilian researchers conduct the first controlled scientific study on the effects of combining alcohol with those drinks. Results show a considerable disconnect between subjects’ perceptions and objective measures of their abilities: **although** combined use reduces the sensation of tiredness and sleepiness, actual capabilities are **significantly impaired**.

“In Brazil, as in other countries, young people believe that energy drinks avoid the sleepiness caused by alcoholic beverages and increase their capacity to dance all night,” explained Maria Lucia O. Souza-Formigoni, associate professor in the department of psychobiology at the Federal University of São Paulo in Brazil and corresponding author for the study. “In fact, many night clubs offer this mix among their cocktails.”

In a previous study on the use of energy drinks among Brazilians, Souza-Formigoni said that users reported greater happiness (38%), euphoria (30%), uninhibited behavior (27%), and increased physical vigor (24%). It is unclear; however, if this indicates the ability of energy drinks to reduce the depressant effects, increase the excitatory effects of alcohol, or both.

“This study appears to show us that the use of energy drinks might predispose people to abuse alcohol when its depressant effects – or at least the perception of such effects – are masked by them,” said Roseli Boerngen de Lacerda, associate professor in the department of pharmacology at the Universidade Federal do Parana, Brazil.

Compared to the **ingestion** of alcohol alone, the combined ingestion of alcohol and energy drinks significantly reduced the subjects’ perception of headache, weakness, dry mouth and impairment of motor coordination. The researched energy drinks did not, however, significantly reduce deficits caused by alcohol on objective measures of motor coordination and visual reaction time.

“There are two key points,” said Souza-Formigoni. “Although combined ingestion decreases the sensation of tiredness and sleepiness, objective measures of motor coordination showed that it cannot reduce the **harmful** effects of alcohol on motor coordination. In other words, the person is drunk but does not feel as drunk as he really is. The second important point is that many users reported using energy drinks to reduce a not-so-pleasant taste of alcoholic beverages, which could dangerously increase the amount (as well as the speed of ingestion) of alcoholic beverages.”

“The implications of these findings,” added Boerngen, “are that this association of alcohol and energy drinks is harmful rather than beneficial, as believed by consumers.

Especially because those individuals who combine alcohol and energy drinks, believing **they** are less impaired than reality would indicate, are **actually** at an increased risk for problems **such as** automobile accidents.”

“Alcohol affects **not only** the motor coordination **but also** the capacity of decision, **because** it affects one important area of the brain - the prefrontal cortex,” explained Souza-Formigoni. “Drunk drivers are dangerous not only because their reactions are delayed and motor coordination affected, but mainly because their capacity to evaluate the risks to which they will be exposed is also affected. People need to understand that the ‘sensation’ of well-being does not necessarily mean that they are unaffected by alcohol. **Despite** how good they may feel, they shouldn’t drink and drive. Never.”

Adapted from

<http://alcoholism.about.com/od/dui/a/blacer060416.htm>

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1 - In this study the authors’ main purpose is to:

- (A) teach youngsters how to reduce sleepiness while driving.
- (B) complain against the selling of illegal drinks to teenagers.
- (C) advertise a new brand of energy drink in the Brazilian market.
- (D) warn people about the dangerous mix of alcohol and energy drinks.
- (E) criticize Brazilian laws that allow youngsters to drive while intoxicated.

2 - According to the text, “energy drinks”:

- (A) should be banished from night clubs.
- (B) must be sold following a doctor’s guidance.
- (C) are the main cause of automobile accidents.
- (D) maximize the depressant effects of alcoholic beverages.
- (E) reduce individuals’ awareness of intoxication by alcohol.

3 - The intention of paragraphs 5 and 6 is to:

- (A) report on the important findings of this research.
- (B) describe in details how this study was conducted.
- (C) explain why alcoholic drinks have an unpleasant taste.
- (D) comment on the dangerous effects of alcohol abuse by youngsters.
- (E) show what happens when people lose control of motor coordination.

4 - According to the text, the combined use of alcohol and energy drinks cause all the symptoms below, **EXCEPT**:

- (A) greater happiness.
- (B) uninhibited behavior.
- (C) tiredness and sleepiness.
- (D) increased physical vigor.
- (E) increased capacity to dance all night.

5 - According to Dr. Souza-Formigoni, drunk drivers:

- (A) are capable of driving safely.
- (B) seldom have delayed reactions.
- (C) often feel as drunk as they really are.
- (D) are frequently unaffected by alcohol.
- (E) have a reduced capacity to evaluate risks.

6 - Check the **only** correct statement, as seen in the text.

- (A) "Impaired" could be substituted by "damaged".
- (B) "Ingestion" is the opposite of "consumption".
- (C) "Significantly" and "considerably" are antonyms.
- (D) "Harmful" and "beneficial" have the same meaning.
- (E) "Actually" and "in fact" have different meanings.

7 - Mark the **only** item where the prefix "**un-**" **CANNOT** be added to form a word with the opposite idea.

- (A) Clear.
- (B) Increased.
- (C) Impaired.
- (D) Affected.
- (E) Masked.

8 - In "This study appears to show us that the use of energy drinks **might** predispose people to abuse alcohol...", "might" can be correctly substituted by:

- (A) must.
- (B) shall.
- (C) had to.
- (D) could.
- (E) ought to.

9 - The pronoun "they" (line 58) refers to:

- (A) implications
- (B) findings
- (C) individuals
- (D) drinks
- (E) problems

DESAFIO MIL

AFA-94) Read the text and answer the questions from 1 through 4.

There are four main forces which act on an airplane in flight: lift, weight, thrust and drag. The weight force is, of course, due to gravity and, therefore, acts vertically downwards. So if the airplane is to remain in level flight, the weight has to be opposed by an equal force which we call lift. Thrust is the force provided by the engine in order to move the airplane through the air, and drag is the result of the air resisting such movement. In level flight at a constant airspeed, the drag and thrust forces must be equal and opposed to each other and will, be acting horizontally. Lift and drag are known as aerodynamic forces.

1 (The engine supplies a force called)

- a) lift b) thrust c) gravity d) equal force

2) The weight force acts due to the gravity.

- a) vertically upwards
- b) horizontally upwards
- c) vertically downwards
- d) horizontally downwards

3) O texto trata:

- a) da sustentação do avião no ar.
- b) das quatro forças aerodinâmicas.
- c) das funções do motor de um avião moderno.
- d) das forças que atuam sobre um avião em vôo. .

4) A resistência é provocada:

- a) pelo ar vertical. b) pela força oposta.
- c) pela força vertical. d) pelo ar circundante.

(CEFET 2005)

TEXTO REFERENTE ÀS QUESTÕES DE 5 A 9:

The Quest for Affordable Energy

By John P. Holdren

In his book, *Power to the People*, Vijay Vaitheeswaran deals with hard questions at the core of society's energy dilemmas with style, balance and insight. The style is entertaining and accessible.

Among the critically important points the book convincingly conveys that civilization is in no immediate danger of running out of energy or even just out of oil. But we are running out of environment and our dependence on oil in particular involves not only environmental but also economical and political debts.

Choices that countries make about energy supply commit them to those choices for decades, because power plants and other energy facilities typically last for 40 years or more and are too costly to replace before they wear out.

Energy technologies that exist or are under development could greatly increase energy efficiency in residences and businesses, reduce dependence on oil, accelerate the provision of energy services to the world's poor and shrink the impacts of energy supply on climate and other environmental values. The most promising of these options include renewable sources of a variety of types, advanced fuel technologies, and hydrogen-powered fuel cells for vehicle propulsion and dispersed electricity generation. There are a few small technical slips in the elaboration of all this, but not many. Written for the intelligent layperson, this book is by far the most helpful, entertaining, up-to-date and accessible treatment of the energy-economy-environment problematique available.

(*SCIENTIFIC AMERICAN*, Dec. 2003, p.91/92)

5. **Running out of** in '...running out of energy...' means:

- A) expiring.
- B) finishing.
- C) attacking.
- D) chasing.
- E) going along.

6. **Them** in '*...commit them to those choices...*' (paragraph 3) refers to:

- A) choices.
- B) facilities.
- C) power plants.
- D) countries.
- E) decades.

7. **Could** in '*...could greatly increase energy efficiency...*' indicates:

- A) possibility.
- B) suggestion.
- C) conclusion.
- D) obligation.
- E) advice.

8. John Holdren thinks the book _____.

- A) does not deal with difficult questions
- B) was written for experts
- C) has technical problems
- D) is boring
- E) is about society and their dilemmas

9. According to the text:

- I) one important point is that civilization is in no immediate danger of running out of energy or oil.
 - II) energy facilities cannot be replaced because they last a lot.
 - III) energy technologies that exist or are under development will reduce dependence on oil.
 - IV) the most promising option includes renewable sources.
- A) T – T – F – T
 - B) T – F – T – F
 - C) F – T – T – F
 - D) F – T – F – F
 - E) T – F – F – T

