

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA FINAL ASSESSMENT

SEMESTER 3, SESSION 2020/2021

CENTRE FOR LANGUAGES AND PRE-UNIVERSITY ACADEMIC DEVELOPMENT

Programme : ALL Level of Study: ALL

Time : 2.30 - 5.30 pm Date : 15 SEPTEMBER 2021

Duration : 3 hours Section(s) : ALL

Course Code : LEED 1301 Course Title : English for Academic Writing

INSTRUCTIONS TO CANDIDATES:

DO NOT OPEN UNTIL YOU ARE TOLD TO DO SO

1. Answer **ALL** questions in the ANSWER BOOKLET.

- 2. Read the instructions carefully before you attempt the questions.
- 3. This paper is **NOT** to be saved in the drive or shared with anyone.
- 4. This booklet consists of **9** pages.

Question	Total Marks	Marks Obtained
1	2	
2	4	
3	4	
4	10	
5	20	
Total	40	

Any form of cheating or attempt to cheat is a serious offence which may lead to dismissal.

APPROVED BY:

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You should spend at least 30 minutes to read the following passages. Answer all the following questions in the ANSWER BOOKLET.

ARTICLE 1:

1

Author(s) : Clara Clarks, Evan Landon and Jane Zimmer

Year : 2018 Page(s) : 30 - 31

Title : The pros and cons of the ketogenic diet

The keto diet lowers blood sugar levels, essentially shifting your metabolism from carbs to fat. The theory behind keto and the reason many people use it for fat loss is that by restricting carbohydrates, the body will eventually reach a state of ketosis – a metabolic state whereby it burns fat for energy. Ketosis can only occur when carbohydrates are kept at extremely low levels (usually below 30/40g per day). Many versions of ketogenic diets exist, but all ban carb-rich foods. There is a tonne of hype surrounding the ketogenic diet. Some researchers swear that it is the best diet for most people to be on, while others think it is just another trend. To some degree, both sides of the spectrum are right. There is not one perfect diet for everyone or every condition, regardless of how many people believe in it. The ketogenic diet is no exception to this rule.

This diet also has plenty of solid research backing up its benefits. Research, anecdote, and proponents of the diet have boasted that going keto can help lose body fat. When the body's main source of energy (carbohydrates) is stripped, it is forced to adapt by using body fat for fuel. Gifu University of Japan found that a ketogenic diet does show a marked impact on the amount of body fat that one can burn off and metabolise for energy. In addition, eating higher-fat foods throughout the day can help minimise cravings and increase feelings of satiety, ultimately helping to stay on track and within the recommended daily calorie count.

Ketogenic diets also benefit sedentary lifestyles which are all too common especially with desk jobs and long work hours. Even working out for 30 minutes a day and not moving much the rest of the time, helps keep the carbs low since one does not need the muscle glycogen. Additionally, the carbs in the body only work more efficiently when taken timely around pre and post workout schedules thereby achieving rapid weight loss results. The low-carb intake via the ketogenic diet may also help boost sensitivity to insulin, ensuring that one can safely reintroduce carbohydrates at a later stage at no cost to physique or performance.

Unfortunately, there are some risk factors and side effects of the keto diet. The ability to focus is essential not only for hitting the gym but also for work and personal life. A person who has tried a very low-carb diet, may have experienced the "keto flu." Flu-like symptoms like sluggishness may occur especially in the first few weeks. The reason for this is the brain derives energy from blood glucose which in its most simple sense is sugar. Carbohydrates are needed for glucose to enter the bloodstream. In the absence of this sugar, one's cognitive function could suffer. An athlete or someone who leads a very active lifestyle might want to avoid 'going keto'. A 1996 study conducted by Copenhagen University found that a low-carb, high-fat diet resulted in poorer training adaptations in terms of performance and results when compared to a high-carb approach. The researchers found that both power output and performance in endurance competition were negatively impacted by the ketogenic diet. The

International Olympic Committee (IOC)'s published guidelines have since urged athletes to avoid low-carb diets. So, a person should heed this advice especially if he or she wants to train and perform at elite levels.

The ketogenic diet, however, is typically recommended in a medical setting in order to improve the health of those who suffer from conditions such as type 1 and type 2 diabetes, epilepsy, Parkinson's and metabolic syndrome. For these people, lowering blood sugars through the removal of carbohydrates, particularly processed ones, may prove necessary in preventing serious health problems and so in that sense, keto works for them.

It is important to remember that ketosis is not the usual body's metabolic state as the body tends to prefer carbohydrates as a source of energy (especially the brain), and ketosis is reserved as a response to starvation or other extreme circumstances. Therefore, there is some concern that the diet may have some long-term adverse effects. Moreover, this diet does not focus on high protein intake (like many other low-carb diets), but rather suggests that fats provide up to 80% of daily energy (calories) to the body. This may restrict a person's diet to the point where nutrient deficiencies become likely. When undertaking the keto diet, it is important to also seek medical supervision to ensure one does not suffer from any adverse side-effects.

ARTICLE 2:

1

Author(s) : Will Little Year : 2016 Page(s) : 1 - 2

Title : Health benefits of ketogenic dieting

Ketogenic dieting is a diet plan that is low-carb (carbohydrates) enough to switch a body into a state of producing and burning a significant amount of ketones. Ketones are used by the brain and other tissues for energy, and facilitate a number of health benefits.

Ketogenic diets were notably first used at the Mayo Clinic in the 1920s to treat children with epilepsy (the nervous system disorder that can cause people to suddenly become unconscious and to have violent, uncontrolled movements of the body). While the exact mechanism of seizure prevention on a ketogenic diet is still a mystery, researchers believe it has something to do with the increased stability of brain neurons and production of brain enzymes. The ketogenic diet is one of the medically accepted treatments for chronic seizures in epilepsy and other epileptic disorders, including Lennox-Gastaut syndrome and Dravet syndrome. It has been extensively studied and research has shown that it helps reduce the frequency of seizures in children. About half the children whose seizures do not respond to any medications almost immediately stop seizure activity once they are in ketosis.

3 Apart from its use in the treatment of epileptic seizures in children, ketosis has been shown to be effective against Alzheimer's disease as well. In 2015, scientists from Johns Hopkins University School of Medicine, Maryland have discovered increased cognition and enhanced memory in adults with impairments in these areas, and a growing body of research shows improvement at all stages of dementia. Alzheimer's disease (AD) often manifests itself as the inability of certain regions of the brain to use sugar as fuel. Thus, researchers are investigating whether uncontrolled type 2-diabetes, where too much sugar remains in the blood, could damage the brain and contribute to the development of AD. There is evidence that changing the body's energy fuel from mainly sugar towards ketones may have a significant role in brain health and perhaps even Alzheimer's treatment. Ketones, which the brain can use for over half of its fuel requirements, essentially boost the energy levels of brain cells by increasing the number of energy powerhouses (mitochondria) in these cells once carbohydrate intake is lowered. A higher number of mitochondria in brain cells is thought to help improve learning and memory abilities, leading to a better quality of life for people with AD.

In addition, there is evidence that a ketogenic diet could potentially help in combating Parkinson's disease. In a very small, uncontrolled study, Parkinson's disease patients experienced a mean of 43% reduction in Parkinson's disease symptoms after following a ketogenic diet for 28 days. However, because the study involved only seven participants, the researchers could not rule out the fact that the improvement may have been a placebo effect. Other research studies have suggested that ketones produced on a ketogenic diet may have beneficial effects on the brain which could reduce the symptoms of the condition. For a broader audience of dieters, the often-reported side effects of increased mental clarity and focus and less frequent and less intense migraines are likely related to the more stable blood sugar and altered brain chemistry that improves memory and cognition.

- Besides helping with diseases like AD and Parkinson's, the ketogenic diet has recently been investigated a great deal for how it may help prevent or even treat certain cancers. Allen and Bhatia (2014) found that the ketogenic diet may be a suitable complementary treatment to chemotherapy and radiation in people with cancers. This is due to the fact that it would cause more oxidative stress in cancer cells than in normal cells. Other theories suggest that because this diet reduces high blood sugar, it could also reduce insulin complications, which may be associated with some cancers.
- An article published in *Nature Medicine* last year found a likely mechanism behind what people have known for decades: ketogenic dieting is profoundly anti-inflammatory and helps with a host of related health problems. Thus, the implications on arthritis, acne, psoriasis, eczema, irritable bowel syndrome, and other diseases involving inflammation and pain are significant enough that it is prompting more research attention. By day four or five on a ketogenic diet, most people report an increase in general energy levels and a lack of cravings for carbohydrates. The mechanism here involves both a stabilisation of insulin levels and a readily available source of energy for the brain and body tissues.
- Therefore, it is not surprising that being on a ketogenic diet improves symptoms and actually confronts the root problems of health issues.

ARTICLE 3:

1

3

4

Author(s) : Laura Thomas

Year : 2019 Page(s) : 7 - 8

Title : High on fat, low on evidence: The problem with the keto diet

This time last year, Google searches for the keto diet outranked other diets for the first time. Twelve months on, keto recipe books are flying high in the publishing charts. There are emerging variations (vegan-keto and vegetable-heavy ketotarian) and a new industry of high-fat snacks is also booming. A ketogenic diet (or keto) is predominantly made up of high-fat foods including butter, oils, meat, fish, eggs, cheese and very low-carb vegetables such as cauliflower and leafy greens. This forces the body to burn fat for fuel, rather than glucose. In order to maintain that state, known as ketosis, followers typically restrict their carbohydrate intake to less than 50g a day. Protein which can also be broken down into glucose needs to be restricted – adherents even have to limit their fruit intake.

Jan Vyjidak, a management consultant who has contributed research into energy metabolism and carbohydrate restriction to Public Health Collaboration, a charity that promotes healthy lifestyles, has been on the keto diet for nearly a decade to manage his health and improve his athletic performance. "It transformed my life," he says. "It wiped out my constant hunger, and I was able to stop all medication for my asthma and psoriasis within six months." Being low in fibre, high in saturated fat and red meat, and extremely restrictive, the keto diet does not really align with nutritional guidelines issued by government experts. The diet's critics say it is, at best, a passing trend and, at worst, a socially acceptable form of disordered eating. Its followers, however, swear by it for weight loss and health, sometimes with a fanatical passion. Claims about the keto diet have been blown way out of proportion, driven by anecdote, hyperbole and its celebrity following, among them Halle Berry and Vanessa Hudgens. Is it possible that such a restrictive diet, so high in fat, could be healthy or sustainable?

Helen West, a registered dietitian and co-founder of the Rooted Project, an organisation dedicated to making evidence-based nutritional advice more accessible, says, "Our job as clinicians is to explain the risks and the benefits of a particular dietary intervention, based on the scientific literature and our experience, to help people make an informed choice." The fear, of course, is that many people do not seek out information and support from regulated healthcare professionals before making major changes to their diet. Most newcomers are drawn to keto for its potential weight loss benefits, and while it remains a topic of debate among nutritional scientists, its proponents typically gloss over or disregard the unknowns. Keto advocates claim it gives them an edge for athletic performance by turning them into fat-burning machines. The theory put forward is that, in ketosis the body adapts to use stored fat for energy more efficiently but this is not proven by research. "If you eat more fat, you will use more fat for energy," says Alan Flanagan, a nutritional scientist. Published research to date has not shown any meaningful benefit to following a keto diet for athletic performance. In fact, it may impede the ability to exercise at higher intensity.

According to the World Health Organization (WHO; 2018), keto is not a free pass to go hard on butter and beef, as too much of these may increase the risk of colorectal cancer. Some studies of Low Carbohydrate High Fat (LCHF) diets have shown improvements in

blood lipid profiles, which measure the levels of cholesterol and some fats, but that is typically an outcome of weight loss. WHO also found that, after three weeks of following a LCHF diet, young and healthy adult participants recorded a 44% increase, compared with controls in low-density lipoprotein cholesterol – the "bad" kind, ultimately increasing the risk of cardiovascular disease.

- A person on a keto diet has to be disciplined, vigilant and hyper focused on every food choice: simply knocking back an apple may push one out of ketosis. This diet involves not only willpower but also means, energy, resources and time. In reality, there is little evidence to show that keto is more effective in the long run than any other diet or indeed that any diet has succeeded in keeping off weight.
- Although the keto diet may seem attractive to some people, it is recommended that before one starts the diet, he or she should consult a physician and dietitian to monitor changes that take place.

Answer ALL questions. Write your answers after each question.

1. The following question is based on **Article 1**.

(2 marks)

State TWO (2) reasons why athletes should avoid a low-carb diet.

Answer:

- 1. The researchers found that both power output and performance in endurance competition were negatively impacted by the ketogenic diet.
- **2.** A 1996 study conducted by Copenhagen University found that a low-carb, high-fat diet resulted in poorer training adaptations in terms of performance and results when compared to a high-carb approach.
- 2. The following questions are based on Article 3, Paragraph 5.
 - a) What is the implied main idea?

(2 marks)

Answer:

It requires a strong determination for a person to maintain a keto diet especially in terms of food choices.

- b) State **TWO (2) major supporting details** to support the main idea. (2 marks) **Answer:**
 - 1. simply knocking back an apple may push one out of ketosis.
 - 2. This diet involves not only willpower but also means, energy, resources and time.
- 3. With reference to **Article 1**, **Paragraph 2**, paraphrase the following sentence. (4 marks)

In addition, eating higher-fat foods throughout the day can help minimise cravings and increase feelings of satiety, ultimately helping to stay on track and within the recommended daily calorie count.

Answer:

Higher-fat foods help in reducing appetite to stay healthy which still can maintain someone's calorie intake.

4. Based on **Article 3**, summarise **the disadvantages of going on a keto diet** in **ONE** paragraph of about **120 words**. The summary should begin with an **introductory phrase** with a **citation**. (10 marks)

Answer:

Based on the article "High on fat, low on evidence: The problem with the keto diet" by Thomas (2019), few disadvantages of going on a keto diet have been mentioned. Firstly, the idea of the keto diet itself does not liaise with the policy that has been set by the government experts. Next, the keto diet has been accepted by society while it can be affirmed that the keto diet is another version of an eating disorder. Apart from that, doing a keto diet might affect the capability of doing a tense exercise. Not to mention that cardiovascular diseases can happen rapidly due to the execution of the keto diet. Lastly, the food choices for people who practice the keto diet are restricted.

5. Write a 5-paragraph opinion-based essay on the topic given in about 400-500 words. This essay should include a thesis statement with 3 main points. Use all 3 articles and at least 3 of the APA citation techniques (short/long quotation, paraphrase, summary, synthesis).

(20 marks)

Ketogenic diet should be encouraged

Answer:

It is important for humans to have a healthy body that can be beneficial in the long run. To do so, a person must start with practicing a healthy lifestyle that can achieve the goal to stay fit. Many diets have been introduced but some people still cannot identify a suitable diet that matches their bodies. The ketogenic diet is one of the diets that can be practiced and beneficial to society. It is believed that a ketogenic diet should be encouraged as it can reduce body weight, be a cure for various health problems and improve working performance for working people.

To begin with, practicing a ketogenic diet should be encouraged as it can reduce body weight. Having an excessive body weight can cause long-term effects such as obesity, high levels of cholesterol, and many more due to various reasons such as uncontrollable calorie intake. Little do people know that a ketogenic diet can help in losing body weight by maintaining a person's calorie taking which can control someone's appetite. Clarks et al., (2018) and Thomas (2019) had stated that appetite can be minimized through a ketogenic diet by maintaining someone's calorie intake that can burn the fat to stay healthy.

Not only that, but a ketogenic diet can also become one of a cure for various health problems. Various studies had proven that the ketogenic diet had sparked a new way to treat many kinds of diseases as an alternative other than existing medical treatments. It can be summarized from the article "Health benefits of ketogenic dieting" that mentioned ketogenic dieting could be a cure to diseases that are related to brain and nervous systems disorders such as chronic seizures, Alzheimer's, and others. On top of that, it functions as a stabilizer for certain health problems that can cause inflammation such as eczema, acne, and many more due to the number of ketones produced through a ketogenic diet. (Little, 2016)

Lastly, the performance of working people also can be improved through the ketogenic diet. The ketogenic diet could be the best choice for working people especially for those who work in the office and do not require so much energy to move around as it can help them in doing their work efficiently without feeling hungry all the time. As mentioned by Clarks et al., (2018), the ketogenic diet could be an advantage for people who are used to working with less movement such as office work and other types of work that requires overtime.

To conclude, it can be affirmed that the ketogenic diet should be encouraged to reduce body weight, become a cure for various health problems, and improve working performance. A suggestion to improve the current studies is that future researchers can study how the ketogenic diet can be beneficial to other people such as athletes. It is to convince others that the ketogenic diet can be applied by other people as well.