DTB CME/CPD Answers



What evidence for the benefits of '5-a-day', a Mediterranean diet and sodium restriction on health?

Question 1

Mr and Mrs SB are trying to cut down on the amount of processed food their family eats. Mr SB has been researching public-health dietary advice in a bid to introduce healthier options into their weekly meal plans. Which one of the following is not part of the guidance on adult diets from the National Institute for Health and Care Excellence (NICE)?

- Increase consumption of fibre-rich foods and eat at least five portions of fruit and vegetables daily
- b. Eat at least five portions of fruit and vegetables daily and less than 3g salt daily
- c. Eat two portions of fish per week and no less than 400g of fruit and vegetables daily
- d. Eat one portion of oily fish per week and no more than 6g salt daily
- Reduce saturated fat and increase consumption of lentils and whole grains

Answer: b. UK dietary advice for adults includes recommendations to eat at least five portions of fruit and vegetables daily (400g in total), reduce consumption of saturated fat, limit salt intake to no more than 6g daily for adults, eat two portions of fish a week (one of which should be oily) and increase consumption of fibre-rich foods such as lentils, whole grains and nuts.

Question 2

A *Cochrane* review that investigated the effect of attempts to increase fruit and vegetable consumption on primary prevention of cardiovascular disease (CVD) found 10 trials with 1,730 participants. The studies included adult men and women at varying levels of CVD risk. Six trials studied provision of fruit and vegetables and four studied provision of advice. Which one of the following is correct?

- a. Provision of dietary advice compared with no dietary advice resulted in a statistically significant reduction in low-density lipoprotein cholesterol
- b. Dietary advice compared with no dietary advice resulted in a statistically significant reduction in total cholesterol
- Dietary advice compared with no dietary advice resulted in a statistically significant increase in high-density lipoprotein

- d. Dietary advice resulted in a statistically significant reduction in systolic blood pressure
- e. Dietary advice did not have a statistically significant effect on diastolic blood pressure

Answer: d. Dietary advice compared with no dietary advice lowered systolic blood pressure by 3mmHg (95% CI 4.9 to 1.1). No effect was found on total cholesterol and effects on diastolic blood pressure and low-density lipoprotein cholesterol were not statistically significant.

Question 3

In one systematic review of higher versus lower consumption of fruit and vegetables in prospective cohort studies (20 studies including 760,629 participants from the USA, Europe and Asia), the authors investigated the optimal number of daily portions of fruit and vegetables. What did they suggest was the relative risk reduction for stroke for every 200mg incremental increase in fruit consumption?

- a. 5%
- b. 17%
- c. 24%
- d. 32%
- e. 51%

Answer: d. The authors investigated the optimal number of daily portions of fruit and vegetables and suggested that there was a relative risk reduction for stroke of 32% for every 200g incremental increase in fruit consumption.

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Question 4

A systematic review compared the effects of dietary sodium intake of <120mmol with a sodium intake of >150mmol. In Caucasians with hypertension what was the approximate reduction in systolic blood pressure?

- a. 0.5mmHg
- b. 2.5mmHq
- c. 3.0mmHg
- d. 5.5mmHg
- e. 7.0mmHg

Answer: d. In Caucasians with hypertension (74 studies) it led to a decrease of 5.48mmHg in systolic blood pressure (95% CI –6.53 to –4.43; p<0.00001).

Question 5

A major problem in the study of the Mediterranean diet pattern is inconsistency of measurement of the diet. Which one of the following is not frequently cited in studies as a marker for the Mediterranean diet?

- a. Low consumption of milk
- b. Moderate consumption of fish
- c. Low consumption of poultry
- d. Moderate consumption of wine
- e. High consumption of olive oil in preference to saturated fat

Answer: a. Components frequently cited in studies as markers for the diet include high consumption of olive oil in preference to saturated fat, legumes, whole-grain cereal, fruit and vegetables, and moderate consumption of wine. Some studies also include the moderate consumption of fish and dairy products and low consumption of poultry, meat, processed food, refined grains and sugar.