

RSPH Level 4 Certificate in Nutrition for Physical Activity and Sport

Unit Nut 4.3 Nutrition for Physical Activity and Sport (Reference No L/504/4246)

Marking Guide

GREAT NORTH RUN

It is January and you have been approached as a coach with an interest in nutrition by a group who wish to do the great North Run. This is held in September, near Newcastle and covers 13 miles. The pace is varied with some people running and others walking or doing a mixture. The group has already secured places and have started training by walking. They all live in Bedfordshire some distance away from the run.

For the week prior the run they have booked a cottage near Newcastle and want you to advise them on what to eat then and during training. They are all keen to complete the run as they are raising money for a local hospice where close family members have been cared for.

The group consists of 6 people. All of the group are working in administrative positions.

- Fred who is 65 years old and used to run regularly he has competed in Marathons many times. He remains very fit.**
- Ellen his wife who was extremely obese but has now reduced her weight from a BMI of over 40 to one of 35. She is 63 years old**
- Priti who is Ellen's friend she is quite fit and is a strict Muslim. She is 58years old.**
- Amrit and Shan who are Pritis twin sons who are 20 years old and fit and slim they are also strict Muslims.**
- Anne who is Fred and Ellen's daughter and lives with them she is 26 years old slim and fit and has competed with her father in the past.**

- 1. Outline, with reasons and reference to dietary reference values, the likely nutritional requirements for these individuals. You should highlight any differences between them and include reference to their energy and hydration needs.**

Nutrient requirements should include carbohydrates, fats and protein. DRVs should relate to age, sex of group members and activity levels. Key micronutrients should also be covered to include key minerals and vitamins.

Energy and hydration needs should relate to required calorie levels for individuals of their age who are physically active. Mention should also be made of need to build up energy stores

2. Outline the methods which could be used to estimate the energy requirements of the group

Should cover determination of BMI and use of tables

3. Due to some contacts you have you are given the opportunity to take the group to an exercise laboratory at the local university. How could you use this opportunity to determine the energy requirements of the group more accurately?

Accurate measurement of energy expenditure, eg by spirometry, use of treadmills etc, estimation of percentage body fat

4. Develop a dietary regime for the group to follow within their own home. The regime must cover all their nutritional and energy requirements while allowing them flexibility of choice. It should also provide guidance on preparation methods.

During the Summer months before the event Ramadan will occur and this needs to be considered and the diet adapted.

Should be able to cross-reference foods in diet to nutrient requirements in terms of protein, carbohydrates, fats, minerals and vitamins. Energy requirements should relate to calorific intake and maintenance / development of energy stores, glycaemic index of foods in diet and how quickly nutrients can be converted into energy. Reference should be made to requirements of Muslims. Preparation methods should minimise loss of nutrients and not increase levels of salt or saturated fats.

NB MUCH OF THE RESEARCH ON SPORTS NUTRITION RECOMMENDS A HIGH CARBOHYDRATE DIET AND NO LONGER USES CARBOHYDRATE LOADING

5. Explain how your dietary regime and preparation methods fulfil the nutritional and energy requirements of the group.

See above

6. Some of the group who are worried about their fitness are considering the use of performance enhancing products. Produce a fact-sheet to give to the group that covers the pros and cons of these products and recommendations for their use.

Should cover pros and cons of different products and the need for and usage of these products for the different ages and ability levels of the group.

7. For the period when they are staying in the cottage devise three complete day's menus, one for the first full day in the cottage, one for the day prior to the event and one for the day following the event.

As the families want to keep things simple devise menus that everyone can eat to save extra cooking

You should explain how your menus meet the different requirements relating to training, competition (the run) and recovery and indicate how the menus can be adapted for individual requirements.

Menus should be appropriate for age and ability levels of participants. Explanation of different requirements for training, competition and recovery and how the suggested menus meet this requirement. Individual group requirements should refer to Muslims. Importance of recovery phase for replenishing energy stores should be highlighted.

When carrying out this assignment, candidates should ensure they refer to the learning outcomes, assessment criteria and content contained in the qualification specification.