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Title

Nutrition/Dietary assessment-Collecting and Interpreting information

Abstract

Nutritional assessment is the systematic process of collecting and interpreting information that enables dietitians to identify those who need nutritional intervention and to improve clinical decision making using a personalized or person centered approach. The process promotes consistent quality of practice; is user friendly; and allows effective monitoring of patients. A full assessment includes anthropometry, biochemical, clinical , environmental and dietary assessment. The three most common methods used to assess dietary intake are the following: Diet Record in which subjects record all food and beverages consumed over three consecutive days (two weekdays and one weekend day), 24-Hour Recall in which subjects are asked to report all foods and beverages consumed in the past 24 hours and Food Frequency Questionnaire (FFQ) where subjects report how frequently certain foods and beverages were consumed over a specific period of time. Novel technologies are integrated with traditional dietary assessment methods in an attempt to reduce the respondent's burden and recall bias and to improve accuracy. These technological advances include computer software, web-based applications and mobile phone applications that aim to standardize the process of an interviewer-administered or a self-administered dietary report and allowing an automatic calculation of energy and nutrient intakes. More advanced applications combine imaging with voice recording.

Diet represents an unusually complex exposure with strongly inter-correlated components. Moreover, our eating habits may not only affect the way our genetic disposition is expressed but also probably participate in interplay with other lifestyle factors, such as physical activity. Trying to record what people eat is not an easy task, and, even when the best possible method or combination of methods are selected, some measurement error is introduced and needs to be accounted for in the analysis and interpretation of results .

key references

1. Biro, G, Hulshof, KF, Ovesen, L et al. (2002) Selection of methodology to assess food intake. Eur J Clin Nutr **56**, S25–S32.
2. Ilner AK, Freisling H, Boeing H, et al. : Review and evaluation of innovative technologies for measuring diet in nutritional epidemiology. Int J Epidemiol. 2012;41(4):1187–203

key messages

1. Detailed nutritional/Dietary assessment is the basis for personalized nutrition.
2. Our eating habits may not only affect the way our genetic disposition is expressed but also probably participate in interplay with other lifestyle factors.
3. Novel technologies are integrated with traditional dietary assessment methods in an attempt to reduce the respondent's burden and recall bias and to improve accuracy.