

Draft outline of the Energy Requirements Working Group report

Membership of the Scientific Advisory Committee on Nutrition: Energy requirements working group

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1. Introduction

- 1.1 Background
- 1.2 Terms of reference
- 1.3 Dietary reference values
 - Definition
 - Energy dietary reference values
- 1.4 Food energy
 - Energy yields from substrates
- 1.5 Energy balance and storage
- 1.6 Obesity
- 1.7 Components of energy requirements
 - Basal and resting metabolism
 - Dietary-induced thermogenesis
 - Physical activity
 - Growth
 - Pregnancy and lactation
- 1.8 Methodologies for estimating energy requirements
 - Measurement of energy intake
 - Measurement of energy expenditure
- 1.9 Calculation of energy requirements
 - Methodologies used to determine the Dietary Reference Values for energy
- 1.10 Factors affected energy expenditure
 - Body composition and size
 - Physical activity
 - Gender
 - Age
 - Genetics
 - Ethnicity
 - Endocrine state
 - Pharmacological agents
 - Environment
- 1.11 References

2. Energy requirements for infants, children and adolescents - need to determine the age ranges to be considered separately

- 2.1 Introduction
- 2.2 Energy expenditure

- 2.3 Observed dietary intake
- 2.4 Energy needs for growth
- 2.5 Physical activity level - descriptive and prescriptive
- 2.6 Basis of estimation of requirements
- 2.7 Estimated average requirements - based on descriptive and prescriptive PALs
- 2.8 Comparison to previous energy requirement

3. Energy requirements for adults - separate consideration for over 60/65 year olds?

- 3.1 Introduction
- 3.2 Basal metabolic rate
- 3.3 Physical activity level - descriptive and prescriptive
- 3.4 Estimated average requirements - based on descriptive and prescriptive PALs
- 3.5 Comparison to previous energy requirement

4. Energy requirements for pregnancy

- 4.1 Determinants of energy cost of pregnancy
- 4.2 Calculation of energy requirement for pregnancy
- 4.3 Comparison to previous energy requirement

5. Energy requirements for lactation

- 5.1 Determinants of energy cost of lactation
- 5.2 Calculation of energy requirement for pregnancy
- 5.3 Comparison to previous energy requirement

6. Energy requirements for illness

- 6.1 Introduction
- 6.2 Determinants of energy cost for illness
- 6.3 Calculation of energy requirement for illness

7. Influence of different macronutrients/foods on energy intakes

- 7.1 Introduction
- 7.2 Dietary lipids
- 7.3 Dietary carbohydrates
- 7.4 Dietary Proteins
- 7.5 Consideration of specific foods/eating patterns?

8. Physical activity

- 8.1 Physical activity and disease risk
- 8.2 Proportion of UK population achieving physical activity recommendations

- Adults
- Children and adolescents
- 8.3 UK population PAL values
 - Adults
 - Children and adolescents
- 8.4 Temporal trends in physical activity in the UK
- 8.5 Physical activity and body fatness
 - Prospective studies of self-reported physical activity and weight gain
 - Prospective studies of objectively measured physical activity and weight gain
 - Trials to prevent weight gain
- 8.6 Physical activity and energy intake
- 8.7 Relationship of physical activity intensity to PAL and TEE
- 8.8 Defining the amount of physical activity required to maintain energy balance
- 8.9 References

9. Research recommendations**10. Conclusions****11. References****12. Annexes**