

UK UNDERGRADUATE CURRICULUM IN NUTRITION

ICGN Undergraduate Nutrition Education Implementation Group

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INTRODUCTION

All newly qualified doctors should be able to:

- Understand how nutrition, diet and physical activity influence health and disease
- Understand how disease and its management can compromise nutritional health
- Recognise nutritional risk and assess nutritional state
- Be safe and competent to advise on and, under supervision, manage nutrition, hydration and physical activity in health and disease
 - In primary, secondary and tertiary care
 - In clinical and public health settings
 - In practical and ethical dimensions
 - At all stages of life
 - For both over and under nutrition.

A. NUTRITION IN NORMAL HEALTH

1. Describe the biological basis for the demands for energy and nutrients through the life course, and how these may be met by the diet

- Describe the determinants of the demand for energy and nutrients and how they vary within and between people and throughout the life course
- Describe how different diets may meet these demands.

2. Describe the normal regulation of energy balance and nutrient metabolism at the level of the whole body and tissues, and factors that influence them, including control of appetite

- Describe the main components of energy expenditure and the main factors that influence them
- Describe how appetite is regulated
- Describe how the body ensures a constant supply of energy and nutrients to cells and tissues in the face of intermittent consumption of food
- Describe how nutrient absorption, utilisation and excretion are regulated.

3. Describe normal intestinal structure & function, digestion, absorption and colonic fermentation

- Describe the anatomical and physiological basis for digestion & absorption of water/electrolytes, macro- & micro-nutrients
- Discuss the interactions of nutrients with other nutrients and other food components, including alcohol.

B. NUTRITION AND PUBLIC HEALTH

1. Describe the common nutrition-related causes of morbidity and mortality

- Describe the epidemiological evidence linking diet, nutrition and physical activity, and disease.

2. Describe the factors that determine the nutritional wellbeing of people

- Discuss the social, cultural, environmental (including regulatory) and psychological drivers of people's eating, drinking and activity behaviours.

3. Describe the variety of people's diets and activity patterns, their nutritional implications and how to address them

- Describe healthy eating in terms of the major food groups, and their contribution to intake of key nutrients and dietary fibre
- Recognise risk of nutritional excess or inadequacy in individuals and populations, and identify relevant interventions
- Advise on healthy eating and know where and when to refer for expert advice
- Understand and explain the components and significance of food labelling
- Discuss the role of medical practitioners in identifying and addressing modifiable adverse nutritional factors for individuals; and their wider roles and those of other professions and agencies in promoting public health.

C. IMPACT OF NUTRITION ON DISEASE

1. Be aware that cumulative experience from conception across the life course can influence later susceptibility to disease

- Explain why good nutrition is important for people's current and future health and that of their offspring.

2. Explain how nutrition, physical activity and fitness affect health and risk factors for disease

- Describe the nutritional & activity related risk factors and metabolic mechanisms contributing to conditions such as cardiovascular disease, cancers, osteoporosis and diabetes
- Describe the role of diet and exercise in their management.

3. Describe the impact of under-nutrition on mental, physical, biochemical and immune function

- Describe the manifestations and appropriate management of acute and chronic under-nutrition of different degrees of severity.

D. IMPACT OF DISEASE ON NUTRITION

1. Explain how disease can affect nutritional status and nutrient handling, including:

(a) Effects of inflammation, trauma, and sepsis

- Understand how inflammation, trauma and sepsis influence energy, macronutrient and micronutrient homeostasis
- Describe the implications for assessment, investigation and management

(b) Disorders of swallowing and gastrointestinal function, including intestinal failure, constipation & diarrhoea

- Describe the nutritional consequences of common gastrointestinal disorders
- Describe the implications for assessment, investigation and management.

2. Recognise that psychiatric conditions and psychological disorders can influence nutritional state

- Describe the nutritional considerations in the consequences and management of eating disorders and other psychological problems.

3. Recognise the genetic causes of increased susceptibility to nutritional problems

- Describe the common or important inherited conditions that influence energy and nutrient metabolism, and the role of nutrition in their management.

4. Recognise the nutritional manifestations and consequences of systemic non-gastrointestinal disease

- Explain how systemic disorders can compromise nutritional state and the implications for management.

5. Describe the nutritional consequences of common drug treatments

E. ASSESSMENT

1. Take a dietary, alcohol and physical activity history, to include information on patterns of consumption and activity behaviour, appetite, weight change, including unintentional weight loss or gain

- Take a history to identify nutritional and activity risk and underlying causes, and develop a management plan
- Describe the patterns of diet and activity behaviour likely to be associated with poor health
- Assess nutritional state and risk for malnutrition, using physical examination, body mass index (BMI) and waist circumference; perform valid measurements of height, weight and waist circumference, calculate BMI and interpret the results
- Use validated nutrition screening tools, calculate a risk score for malnutrition, interpret the results and make a management plan
- Plot measurements on a growth chart and detect abnormal patterns, including wasting, stunting, growth faltering and excess weight
- List laboratory tests used in the assessment of nutritional status, and when to measure and how to interpret them, in health and disease.

F. TREATMENT

1. Recognise that all patients require appropriate nutritional care and how to ensure that care standards relating to nutrition and hydration are met

- Describe existing local and national standards for nutritional care
- Discuss the roles of different professionals in the detection and management of nutritional problems and understand how and when to access them
- Describe the range of options available for management of nutrition and hydration, their appropriate uses and their risks
- Describe the indications for nutrition support
- Describe the advantages and disadvantages of different forms of nutrition support
- Understand the role of and when to refer to a multi-professional nutrition support team
- Describe how to monitor and evaluate the delivery of nutritional care.

2. Discuss the ethical and legal issues involved in providing, withholding or withdrawing nutrition support and hydration

- Describe the ethical principles surrounding nutrition support and hydration, including autonomy, beneficence, non-maleficence and justice
- Describe the legal framework relating to artificial nutrition and hydration (ANH), its interpretation by the General Medical Council (GMC), and how to apply it in principle.