Malnutrition
What nurses working with children and young people need to know and do

An RCN position statement
Acknowledgements

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What is malnutrition?

The term malnutrition refers to both over- and under-nutrition, and this position statement focuses on both circumstances. The British Association of Parenteral and Enteral Nutrition (BAPEN) defines the terms as follows:

✦ **under-nutrition** is the result of a deficiency of energy and/or nutrients

✦ **over-nutrition** is a result of an excess of nutrients, for example obesity (2005).

When a child or young person is malnourished the deficiency of energy, protein and other nutrients has consequences that might not be evident from single measurements of weight and height. They include:

✦ growth failure

✦ delayed puberty

✦ impaired neurological development

✦ altered behaviour, for example apathy or tiredness.

Good nourishment is fundamental to proper growth and development. It can prevent short-term problems such as dental caries and reduce the risk of chronic health problems such as obesity and heart disease.

Nutritional problems in children become nutritional problems in adults (BAPEN, 2005). The first five years of life are crucial as this is when dietary and food intake patterns are laid down.

Malnutrition can result from inadequate food or can be secondary to an underlying illness or disability. Nurses who work with children and young people have a key role in identifying those who are at risk.

What is adequate nutrition?

Children need more energy as they have a higher metabolic rate than adults. They also have reduced body fat stores compared to adults, making them less able to cope with concurrent illness, trauma, infection or metabolic stress.

Nutritional intake must be sufficient for children to:

✦ maintain body functions
engage in play and other activities
recover from trauma or illness
grow and develop.

Standards of good nursing practice

Several documents describe the nurse’s role in assessing nutrition:

- the NHS Modernisation Agency’s Essence of care (2003) advises undertaking a ‘nutritional trigger assessment’. This means for all children at initial contact and continuously reassessing thereafter.
- Standards for better health (DH, 2004b) expects patients’ individual nutritional, personal and clinical dietary requirements to be met, including help with feeding. In hospitals there should be access to food 24 hours a day.
- The National Service Frameworks for Children, Young People and Maternity Services (DH, 2004a) considers it good practice to undertake a nutritional assessment and to write, implement and evaluate a feeding plan.
- more detailed information on growth and nutrition is given in Chapter 8 of Health for all children (Hall and Elliman, 2003).

What every nurse should do

Screening, or undertaking a nutritional trigger assessment, can identify patients who are already malnourished or are at risk of becoming so. High-risk children need a comprehensive nutritional assessment, usually undertaken by a dietician.

There are no nationally agreed screening tools for general use with children, but some basic assessments will contribute significantly to identifying children at risk. Nurses should identify slow growth patterns by:

- weighing the child (at least weekly if in hospital) (see Box 1)
- measuring length or height in centimetres where there is concern about growth
- plotting the measurements on a centile chart. (Note: a sustained unintentional fall in weight over more than two centiles in six months in children under two years, or 12 months in children over two years, is indicative of malnutrition)
- measuring head circumference in under two year olds
- discussing the readings with the parents and child.
Remember that accurate and reliable weighing scales and stadiometers should be available to all hospital wards, outpatient clinics, GP surgeries and other health care settings. They must be calibrated and checked regularly, and a record must be kept.

Body Mass Index (BMI) is an important measure of nutrition, but should not be used in isolation. In infants, growth trajectory should be considered, and in older children current and previous heights should be taken into account.

Age-related centile charts are available from the Child Growth Foundation (see further information). The rate of weight loss is clinically more valuable than the BMI.

Box 1: Key points when weighing children and young people

- Under 3 years – naked.
- Over 3 years – minimal clothing.
- Choose scales suitable for age, size and condition.
- Place child centrally on the scales.
- Take reading when the child is still.
- Record weight in kilograms.
- Plot on chart and record in Personal Health Record where appropriate.
- Remember scales must be calibrated regularly.

How to identify dietary or feeding patterns that could lead to poor nutrition

It is important to be able to recognise major or minor health problems that might be related to poor nutrition, for example constipation, dental caries or reflux, and to take appropriate action.

Reflecting on your knowledge and skills of the following might help you identify problems:

- how to weigh and measure children, young people and, if necessary, their parents
- breastfeeding and problems that might result in poor sucking or low milk production
- how to select, prepare and handle age-appropriate infant feeds
- when to introduce solid foods and progress weaning
- suitable feeding patterns and optimal parent-child interactions at meal times
- the appropriate range of food and portion sizes for young children
- dietary patterns likely to contribute to malnutrition, such as low iron or poor vitamin intake
- cultural or ethnic dietary practices that could predispose to malnutrition, for example vegan diets or delayed weaning
how to recognise signs of malnutrition, which include short stature, thin arms and legs, skin and hair in poor condition, clearly visible vertebrae and rib cage, wasted buttocks, and, in extreme situations, oedema, wasted facial appearance or lethargy.

**Asking questions**

Basic screening of a child’s nutritional status should be a routine part of a nursing assessment. In fact, National Institute for Health and Clinical Excellence (NICE) guidance for patients tells them to expect to be examined for malnutrition when attending hospital (2006).

Important information can come from asking the child’s mother, carer and the child about their eating habits. To help you do this you should adhere to some key communication principles:

- be clear about why you need the information
- ask open questions, for example: “Tell me how often you eat a piece of fruit” or “Tell me about the food you eat at school”
- answer any questions they might have truthfully
- give guidance if needed or requested.

Some indicators or problems to look out for are given in box 2.

**Box 2: Some clues to a problem**

- Parents have anxieties about food.
- Parents are too focused on healthy eating for their children, so they become deprived of calories.
- Parents are overweight – children may be deliberately kept thin to avoid bullying.

**What to do next**

If your assessment flags up some areas of concern you should ensure these are discussed with the parents/carers and noted in the child’s care plan. You should also ensure the information is passed to an appropriate specialist for example:

- breastfeeding counsellor
- health visitor for normal feeding problems
- paediatrician for elimination of an underlying medical problem
- GP
- paediatric dietician for advice on nutritional support, for example nutritional drinks, dietary modification and feeding problems
- speech and language therapist for help with feeding difficulties such as chewing or swallowing.
Ensuring that children receive optimum nutrition is everybody’s business and nurses in contact with children are in a prime position to identify nutritional problems and take appropriate steps aimed at rectifying these.

References

British Association for Parenteral and Enteral Nutrition (BAPEN) (2005) Malnutrition Screening Tool (MUST), UK: BAPEN.


Department of Health (2004b) Standards for better health, London: DH.

Department of Health (2004c) Choosing a better diet: a food and health action plan, London: DH.


Websites for further information

British Association for Parenteral and Enteral Nutrition (BAPEN)
www.bapen.org.uk

Department of Health
www.dh.gov.uk

National Institute for Health and Clinical Excellence (NICE)
www.nice.org.uk

Health for all children
www.healthforallchildren.co.uk

Child Growth Foundation
www.childgrowthfoundation.org