

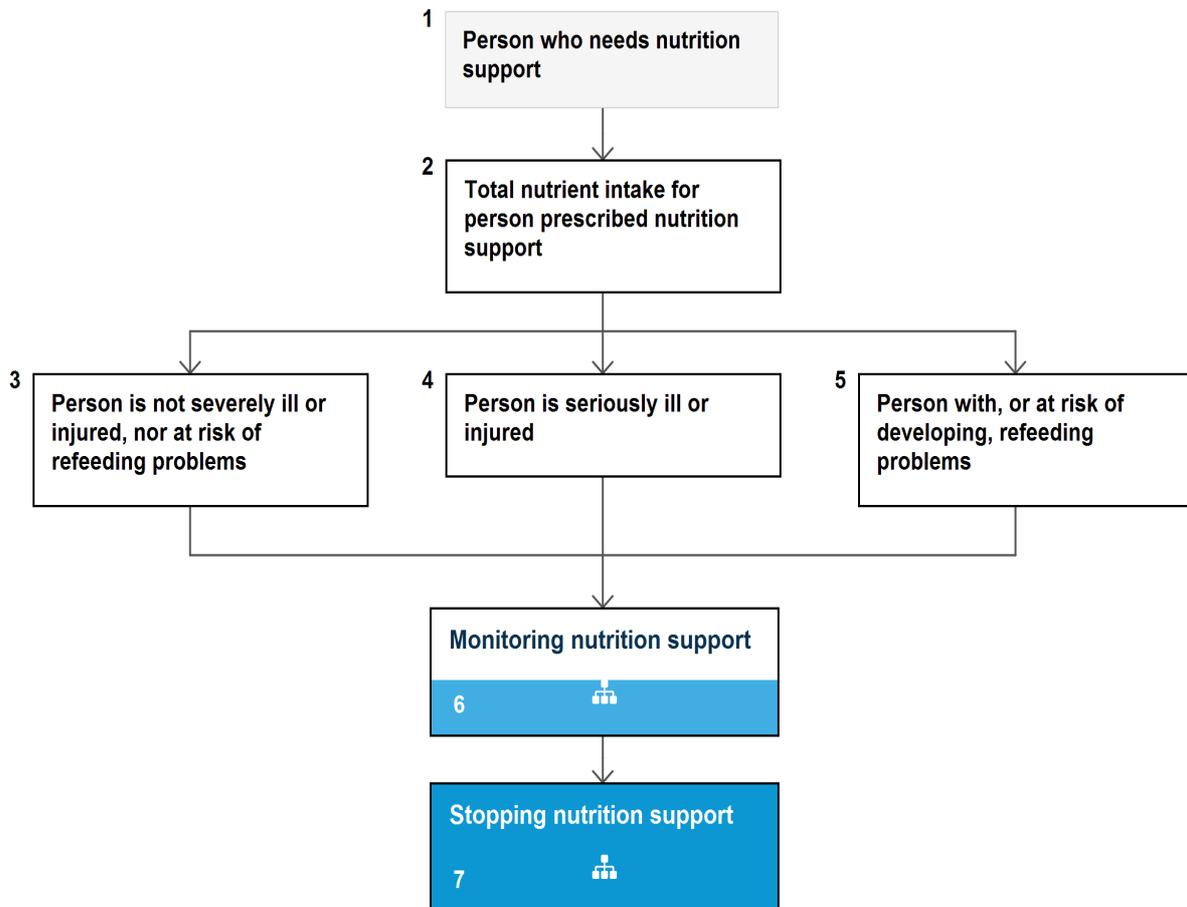
What to give people who need nutrition support

A NICE pathway brings together all NICE guidance, quality standards and materials to support implementation on a specific topic area. The pathways are interactive and designed to be used online. This pdf version gives you a single pathway diagram and uses numbering to link the boxes in the diagram to the associated recommendations.

To view the online version of this pathway visit:

<http://pathways.nice.org.uk/pathways/nutrition-support-in-adults>

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1 Person who needs nutrition support

No additional information

2 Total nutrient intake for person prescribed nutrition support

Healthcare professionals who are skilled and trained in nutritional requirements and methods of nutrition support should ensure total intake of prescribed nutrition support accounts for:

- energy, protein, fluid, electrolyte, mineral, micronutrients and fibre needs
- activity levels and the underlying clinical condition – for example, catabolism, pyrexia
- gastrointestinal tolerance, potential metabolic instability and risk of refeeding problems
- the likely duration of nutrition support.

3 Person is not severely ill or injured, nor at risk of refeeding problems

For people who are not severely ill or injured, nor at risk of refeeding problems, nutritional prescription should usually provide:

- 25–35 kcal/kg/day total energy (including that derived from protein). This level may need to be lower in people who are overweight (BMI more than 25). When using parenteral nutrition, it is often necessary to adjust total energy values listed on the manufacturer's information, which may not include protein energy values.
- 0.8–1.5 g protein (0.13–0.24 g nitrogen)/kg/day.
- 30–35 ml fluid/kg (with allowance for extra losses, for example, from drains and fistulae, and extra input from other sources, for example, intravenous drugs).
- Adequate electrolytes, minerals, micronutrients (allowing for any increased pre-existing deficits, excessive losses or increased demands) and fibre if appropriate.

Review the prescription according to progress.

Take care when:

- using food fortification which tends to supplement energy and/or protein without adequate micronutrients and minerals
- using feeds and supplements that may not provide adequate micronutrients and minerals when only used in a supplementary role

- using pre-mixed parenteral nutrition bags that have not had tailored additions from pharmacy.

4 Person is seriously ill or injured

Introduce enteral tube feeding or parenteral nutrition cautiously in seriously ill or injured people.

Start at no more than 50% of the estimated target energy and protein needs and build up to meet full needs over the first 24–48 hours according to metabolic and gastrointestinal tolerance. Provide full requirements of fluid, electrolytes, vitamins and minerals from the outset.

5 Person with, or at risk of developing, refeeding problems

Introducing nutrition in a person who has eaten little or nothing for more than 5 days

In people who have eaten little or nothing for more than 5 days, introduce nutrition support at no more than 50% of requirements for the first 2 days. Increase feeding rates to meet full needs if clinical and biochemical monitoring reveals no refeeding problems.

Factors associated with a high risk of refeeding problems

People are at high risk of developing refeeding problems if they have 1 or more of the following:

- BMI less than 16 kg/m²
- unintentional weight loss greater than 15% within the last 3–6 months
- little or no nutritional intake for more than 10 days
- low levels of potassium, phosphate or magnesium prior to feeding.

Or 2 or more of the following:

- BMI less than 18.5 kg/m²
- unintentional weight loss greater than 10% within the last 3–6 months
- little or no nutritional intake for more than 5 days
- a history of alcohol abuse or drugs including insulin, chemotherapy, antacids or diuretics.

Prescribing for a person at high risk of developing refeeding problems

People at high risk of developing refeeding problems should be cared for by healthcare professionals who have skills and training and expert knowledge of nutritional requirements and nutrition support.

For people at high risk of developing refeeding problems, consider:

- starting nutrition support at a maximum of 10 kcal/kg/day, increasing levels slowly to meet or exceed full needs by 4–7 days
- using only 5 kcal/kg/day in extreme cases (for example, BMI less than 14 kg/m² or negligible intake for more than 15 days), and monitoring cardiac rhythm continually in these people and any others who already have or develop any cardiac arrhythmia
- restoring circulatory volume and monitoring fluid balance and overall clinical status closely
- providing immediately before and during the first 10 days of feeding: oral thiamine 200–300 mg daily, vitamin B co strong 1 or 2 tablets 3 times daily (or full dose daily intravenous vitamin B preparation, if necessary), and a balanced multivitamin/trace element supplement once daily
- providing oral, enteral or intravenous supplements of potassium (likely requirement 2–4 mmol/kg/day), phosphate (likely requirement 0.3–0.6 mmol/kg/day) and magnesium (likely requirement 0.2 mmol/kg/day intravenous, 0.4 mmol/kg/day oral) unless pre-feeding plasma levels are high. Pre-feeding correction of low plasma levels is unnecessary.

6 Monitoring nutrition support

[See Nutrition support in adults / Monitoring nutrition support](#)

7 Stopping nutrition support

[See nutrition support in adults / nutrition support in adults overview / stopping nutrition support](#)

Glossary

Sources

Nutrition support in adults. NICE clinical guideline 32 (2006)

Your responsibility

The guidance in this pathway represents the view of NICE, which was arrived at after careful consideration of the evidence available. Those working in the NHS, local authorities, the wider public, voluntary and community sectors and the private sector should take it into account when carrying out their professional, managerial or voluntary duties. Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.

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