

Re-Feeding Syndrome Guidance

The purpose of this guidance is to give you information on who may be at risk of re-feeding syndrome and where to find the full guidelines.

Re-feeding syndrome is defined as severe fluid and electrolyte shifts and related metabolic complications in malnourished patients undergoing re-feeding. It takes place because of a dramatic increase in insulin secretion as glucose becomes the patient's main energy source.

At risk:

- Those who have had very little or no food intake for > 5 days
 - Especially if already undernourished
 - (BMI < 20kg/m² and/or unintentional weight loss > 5% within the last 3-6 months)

At high risk:

Patients with **any** of the following:

- BMI < 16 kg/m²
- Unintentional weight loss > 15% within the last 3-6 months
- Little or no nutritional intake for more than 10 days
- Low levels of potassium or phosphate or magnesium prior to feeding

Patients with **2 or more** of the following:

- BMI < 18.5 kg/m²
- Unintentional weight loss > 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.

Examples of patients at high risk of re-feeding syndrome

- Patients with anorexia nervosa
- Patients with chronic alcoholism
- Oncology patients
- Postoperative patients
- Elderly patients (co-morbidities, decreased physiological reserve)
- Patients with uncontrolled diabetes mellitus (electrolyte depletion, diuresis)
- Long term users of antacids (magnesium and aluminium salts bind phosphate)
- Long term users of diuretics (loss of electrolytes)
- Patients with chronic malnutrition:
 - -Marasmus
 - -Prolonged fasting or low energy diet
 - -Morbid obesity with profound weight loss
 - - High stress patient unfed for >7 days
 - -Malabsorptive syndrome (such as inflammatory bowel disease, chronic pancreatitis, cystic fibrosis, short bowel syndrome)

Patients with normal pre-feeding levels of potassium, magnesium and phosphate can still be at risk of re-feeding syndrome. Re-feeding syndrome can occur in patients fed orally, enterally or parenterally. It is less likely to occur in those fed orally since starvation is usually accompanied by a reduction in appetite.

Foods to be avoided include anything with a high sugar content per portion and sugar as the main ingredient, such as sweets, fizzy drinks.

Foods to include if possible are milk based products (as they are high in phosphate) such as custard and yogurt and milky drinks.

For notes on re-feeding syndrome please go to: Policy on the Prevention and Management of Re-feeding: <http://intranet.nhsh.scot.nhs.uk/PoliciesLibrary/Documents/Policy%20for%20Prevention%20and%20Management%20of%20Refeeding%20Syndrome%20in%20Adults.pdf#search=refeeding%20syndrome>