Malnutrition and eating difficulties

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Eating difficulties, which affect the ability to bite, chew or swallow food, can lead to dehydration and malnutrition**.** Helen Crawley looks at symptoms, complications and treatment. Helen Crawley, RD, RPHNutr, is a lecturer, School of Life Sciences, University of Kingston, Kingston, Surrey:

Achieving adequate calorie, nutrient and fluid intake in people with swallowing problems can be a challenge but preventing malnutrition and dehydration are essential in reducing morbidity and mortality among those with eating difficulties.

What are eating difficulties?

These are disorders which affect the ability to bite, chew or swallow food.

Dysphagia

This disorder in swallowing may be due to a delayed or absent swallow reflex and difficulties with lip seal, tongue and jaw movements, which lead to impairment of both the oral and pharangeal phases of swallowing. It is commonly seen after stroke, where 30% of patients have dysphagia and in dementia, particularly in the later stages. Swallowing difficulties are also associated with:

- Carcinomas of the mouth and oesophagus;
- Surgery on the jaw;
- Neurological diseases such as Parkinson's disease and Huntington's disease, cerebral palsy and multiple sclerosis.

Chewing difficulty and mouth pain

These are commonly caused by dental disease, poor dentition, mouth ulcers or infections such as thrush in the mouth. Sore, painful mouths and tongues are also related to nutrient deficiencies, particularly of vitamin B12, iron or vitamin C.

Complications of dysphagia and eating difficulties

- Aspiration of food and fluid into the airways can lead to chest infections and pneumonia;
- Increased length of stay in hospital, morbidity and mortality are associated with dysphagia;
- Malnutrition and dehydration are common wherever food and fluid intake are affected

Why do eating difficulties lead to malnutrition and dehydration?

- **Dehydration**. This commonly occurs as fluid intake becomes more difficult with dysphagia.
- **Coughing and choking** are common problems if drinks are not thickened.
- **Change in types of foods eaten**. This may reduce the intake of total food consumed and the intake of some important nutrients. Poor dentition and mouth pain often lead to reduced intakes of fruits, vegetables, meat and more fibrous cereal

foods. This can lead to lower intakes of vitamin C, vitamin A, folates, iron and zinc, nutrients that are particularly important for maintaining the immune system.

- **Change in texture of food**. Patients with eating or swallowing difficulties may need altered textured diets and fluids, and this is likely to lead to lower energy density in meals which have been diluted. Patients on texture modified diets may only meet 45% of their energy requirements and require more frequent energy dense meals and snacks to obtain sufficient energy.
- **Loss of independence in eating.** This is associated with reduced energy intake and occurs for a number of reasons:
  – Eating may be much slower;
  – Use of cutlery may be limited;
  – The patient may be embarrassed about eating;
  – Anxiety or a fear of choking can make both patients and carers nervous and unhappy about mealtimes.
- **Reduced appeal of food** in terms of taste, temperature, variety and appearance can affect appetite.

Encouraging people with eating difficulties to eat an adequate diet

- **Refer to a speech and language therapist** who can assess and monitor patients with eating difficulties. They can also advise on how to prevent aspiration and the most appropriate texture of foods and drinks. Box 1 lists information on texture-modified diets.
- **Dental care** is essential, including the treatment of mouth ulcers and thrush, investigation of mouth and tooth pain and proper fitting of dentures where appropriate.
- **Personal preferences** should always be respected. It is essential to find out as much as you can about the person's likes and dislikes.
- **Allowing people enough time to eat** has been shown to be an important factor in increasing energy intake. Eating where there are swallowing difficulties can be tiring and flexibility in the timing of meals and snacks has been shown to be essential for these patients.
- **Portion sizes of meals** should be appropriate: small, frequent meals are often more acceptable and less daunting to patients.
- **Temperature of foods** can affect the management of swallowing disorders. If patients have decreased oral sensation then chilled or cold foods, or hot foods, may stimulate the swallow reflex more easily than warmed or tepid food.
- **Sitting in a good position** preferably upright with feet flat on the ground, the body well supported and the head tipped slightly forward will help eating.
- **Ensuring foods are energy and nutrient dense** is important where total food intake is likely to be reduced. Encourage foods which provide important nutrients to the diet such as meat, fish, fruits, vegetables, dairy products and cereals. If more energy dense meals are needed then adding extra cheese, butter or cream will increase the number of calories.
- **Use supplements with care**. Commercial supplement drinks, puddings and soups can be useful as a short-term addition to the diet when there are particular concerns about a person’s calorie intake. Fortifying real food with additional nutrients is often more acceptable to patients and encourages a return to more normal eating patterns and improved nutrition in the long term.
- **Help people to maintain their independence in eating** wherever possible. Encourage the use of finger foods where the use of cutlery is difficult or consult with occupational therapists on modified utensils. If patients need assistance with eating

try to think of it as 'helping someone to eat' rather than 'feeding'. The care and commitment of staff to this relationship is essential.

- **Prompt and encourage people to eat throughout the meal**. This may be particularly important where people have dementia and may need to be gently reminded to chew and swallow food.

Box 1 - Altering the texture of food and drink

The texture modification of foods and fluids have been described with National descriptors for five categories of fluid and six categories of solid textures (BDA/RCSLT, 2002). The aim of changing texture is to provide a steady flow of food or fluid between the tongue and the palate to aid control. Speech and language therapists and dietitians can advise on the appropriate consistency.

Fluids. These often need to be thickened, but it is important that staff know how to prepare thickened fluids correctly as different brands of thickeners will alter texture differently. New research shows that bubbles in carbonated drinks may also be helpful in stimulating the swallow reflex and the use of frozen fluids such as ice lollies can offer an alternative, manageable fluid source for some patients.

Foods and meals of a soft or pureed consistency should be made as attractive as possible. Foods should be pureed separately, preferably without water, to ensure each food is still recognisable and nutrient content is not diluted. Soaking solutions can be used to improve the visual appearance of modified foods and moulds and piping can make pureed foods into recognisable shapes which increase acceptability.

References and resources

British Dietitic Association, Royal College of Speech and Language Therapists (2002) *National Descriptors for Texture Modification in Adults* - http://www.slodrinks.com/images/National%20Descriptors.pdf

Crawley, H. (2002) *Food, Drink And Dementia: How to Help People With Dementia Eat and Drink Well*. Stirling: University Stirling Dementia Services Development Centre.

Dysphagia Resource Center - http://www.dysphagia.com/

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