

## Does Enteral Nutrition Cause Diarrhoea and Loose Stools?

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There is a common misconception that whenever patients receiving enteral nutrition end up with diarrhoea or loose stools, the blame is most often attributed to the enteral feeds and most times, this is stopped, leaving the patient without any nutrients or feed. The **aim** of this paper is to identify all the common causes of diarrhoea and loose stools, that form part of a patient’s daily treatment in hospital and hence to highlight the importance of a good assessment of the patient’s needs and treatment before enteral feeding is stopped following a patient having a bout of diarrhoea or loose stools.

Many healthcare professionals think that enteral feeds, whichever is used, automatically cause diarrhoea and loose stools. The aim of this paper is to show what the reality in this respect is. Statistics show that 25% of patients on enteral nutrition experience diarrhoea<sup>1</sup>. Stroud *et al.* (2003)<sup>2</sup> mention a 30% incidence in enterally fed patients in medical and surgical wards and more than 60% in patients on intensive care units. This demonstrates that the percentage of diarrhoea does not depend solely on the feed. Although the feeds were the same, in different units, the incidence of diarrhoea varied. This means that the cause of diarrhoea was something other than the enteral feeds.

The rate, mode and site of delivery of enteral feeds is one factor. Also, if a patient is feeding through his jejunum, where absorption is slower than in the stomach, here a slower rate is required to prevent malabsorption and consequent diarrhoea. Certain drugs, such as laxatives, antibiotics, NSAIDs, antiarrhythmics, antihypertensives, protein-pump inhibitors, anti-cholinergic drugs, thyroxine and drugs containing magnesium or sorbitol fillers, cause drug reactions<sup>3</sup>. Deficiencies, such as lactase deficiency, where most feeds contain lactose, would cause malabsorption due to the body’s inability to absorb lactose. The same goes for other constituents of the feed where a patient might be allergic to one or more constituent of the feed, experiencing diarrhoea, among other adverse reactions. Fat malabsorption also causes diarrhoea and loose stools<sup>3</sup>.

Fibre-less feeds cause diarrhoea due to the absence of bulk-forming fibre in the diet. Finally, contaminated feeds or feeding equipment cause bowel bacterial overgrowth. Also 20-50% of patients with antibiotics suffer from diarrhoea caused by *Clostridium difficile*. This is why diarrhoea is more common in intensive care units, as suggested by Stroud *et al.* (2003). These last two factors (contamination and antibiotics) disrupt the patients’ intestinal flora and precipitate diarrhoea.

So how we deliver enteral nutrition to our patients and how we treat or prevent diarrhoea in our hospitals is of crucial importance. One must keep in mind that most times, the enteral feed is the only source of nutrients for certain patients, so feeding should not be stopped unless absolutely inevitable. A thorough assessment of the patient’s treatment, rate and delivery of enteral nutrition are crucial and important to safeguard the patient’s health and provide him with as many calories as possible, to promote his wellbeing and a speedy recovery.

<sup>1</sup> Whelan, K., Gibson, G.R., Judd, P. & Taylor, M.A. (2001). The role of prebiotics in the management of diarrhoea associated with enteral tube feeding. *Journal of Human Nutrition and Dietetics*, **1**(6) December 2001: pp. 423-433.

<sup>2</sup> Stroud, M., Duncan, H. & Nightingale, J. (2003). Guidelines for enteral feeding in adult hospital patients. *Gut*, **52** (Supplement VII): pp. vii1-vii12.

<sup>3</sup> Asian Intensive Care (2009). *Diarrhoea. Aetiology*. Available at: <http://www.aic.cuhk.edu.hk/web8/diarrhoea.htm> [accessed on 22nd August 2009].