

Edentulism



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This blog looks at edentulism, the condition of having no teeth. It will cover what edentulism is, the long term impacts of being edentulous in the context of intestinal health and what this means for a patient that is edentulous, using The Insides™ System, a therapeutic chyme reinfusion solution for intestinal failure.

Complete edentulism is the absence of all teeth in the mouth.¹ Partial edentulism is the absence of functional teeth or dentition, such as molars, which play a large role in the initial mechanical breakdown of food.¹ There is a direct correlation of malnutrition and edentulism due to the decreased intake of vital nutrients.¹ It is hypothesized that lack of dentition removes the patient's ability to masticate and swallow food which leads to a narrow range of nutritious food that a patient can consume.¹ An edentulous patient is between 1.4 to 3.2 times more likely to suffer from malnutrition than a patient with at least eight natural teeth or dentures.¹ An edentulous patient is between 2.9 and 3.3 times more likely to become obese.¹ Obesity is a risk factor, linked to many gastro-intestinal disorders, such as cancer and inflammatory bowel disease.¹

The Insides™ System enables chyme reinfusion which is a therapy that returns chyme to the intestinal tract from a high output enterostomy or enterocutaneous fistula. Chyme reinfusion increases the length of bowel available for nutrient absorption. A well-established fact is that the consumption of nutritious food enables all bodily systems to function efficiently from the microscopic level of the gut microbiome to the macroscopic level of intestinal anatomy. Therefore, the food that is consumed by the patient needs to be highly nutritious to restore the patient's nutritional reserves in preparation for reversal. As shown above, an edentulous patient has reduced capacity to consume nutritious food which may compromise their use of The Insides™ System.

The Insides™ System comprises three components, The Insides™ Driver, The Insides™ Tube, and The Insides™ Pump. The Insides™ Pump has an impellor, that when activated by The Insides™ Driver, draws chyme into it and propels it up The Insides™ Tube into the distal gut.

If food is not broken down sufficiently, via chemical and mechanical digestion, the Insides Pump will struggle to handle the larger particles of undigested food. This will be a limiting factor for an edentulous patient when considering The Insides™ System in their care pathway.

Please talk to the clinical team at The Insides™ Company to discuss possible solutions.

References

1. Felton, A. 2015. Complete edentulism and comorbid diseases: an update. *Journal of Prosthodontics*, 25(1), 5-20. <https://doi-org.ezproxy.auckland.ac.nz/10.1111/jopr.12350>