

# Smart-gel for non-surgical bariatric treatment

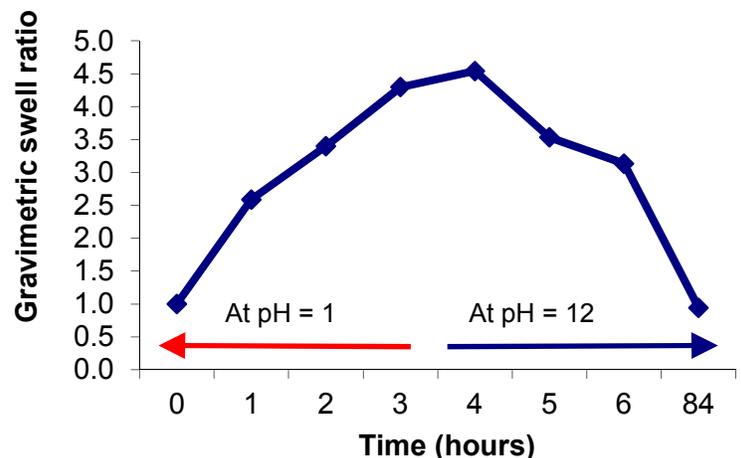
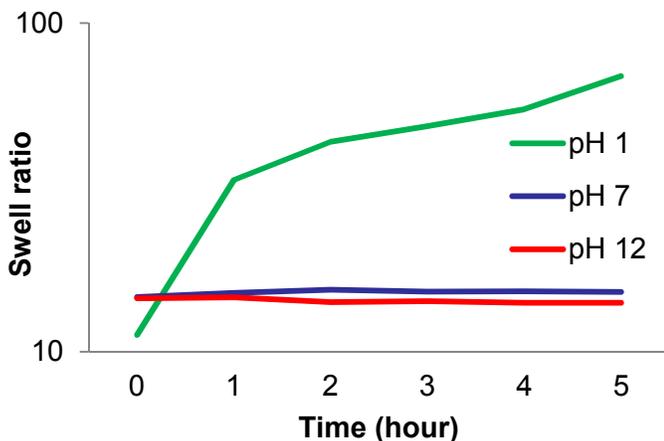
## Summary

Obesity is a serious problem in modern society. Bariatric surgery has achieved positive patient outcomes more consistently than traditional non-surgical treatments. However, the incidence of serious complications can be almost 4%. Post-operative mortality has been estimated at 0.3%. An alternative, non-surgical approach is to induce a sensation of satiety in the patient, thus curbing appetite. Cambridge Polymer Group has developed a unique orally administered ingestible hydrogel for use in induced satiety treatment that utilizes both a chemical and mechanical solution to the problem.

## Description

The induced satiety treatment (IST) hydrogel developed by Cambridge Polymer Group uses acid-swelling hydrogel confined within a novel engineered structure to provide a reversible temporary feeling of satiety. The key features of the gel are:

- Covalently crosslinked hydrogel
- Non-toxic composition
- pH dependent swelling (up to 600% at pH 1)
- Good safety profile
  - readily passed through high pH intestine
- Residence time of IST gel controllable
  - ability to "trigger" complete collapse if required



## Applications

- Bariatric surgery
- Gastric drug release



**Cambridge  
Polymer Group**

Cambridge Polymer Group, Inc.  
56 Roland Street, Suite 310  
Boston, MA 02129

Ph: 1 (617) 629 4400  
Fax: 1 (617) 629 9100

info@campoly.com  
www.campoly.com  
ISO 9001:2008 Certified

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Cambridge Polymer Group, Inc. is a contract research laboratory specializing in materials. We partner with our clients to solve problems utilizing our multi-disciplinary research team and full service laboratory.

We work with clients throughout the product life cycle to:

- **Develop new materials**
- **Design prototypes for proof-of-concept studies**
- **Create and execute experimental design**
- **Validate and verify manufacturing processes**
- **Perform root-cause analysis in product failures**

Cambridge Polymer Group, Inc. was founded in 1996 to provide a cost-effective resource for testing, research and development to clients who need periodic access to Ph.D.-level scientists and their support structure. We have developed a host of testing methods and materials for our clients, which number more than 300.



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