

# An evaluation of the Medtronic Gatekeeper system in the treatment of subjects with Gastroesophageal reflux disease (GERD).

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	-
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON29549

### Source

NTR

### Brief title

N/A

### Health condition

GERD

## Sponsors and support

**Primary sponsor:** Medtronic Gastroenterology/Urology  
4000 Lexington Avenue North  
Shreview, MN 55126-3755

## Intervention

## Outcome measures

### Primary outcome

Serious device- and procedure related adverse device effects (whether anticipated or unanticipated) at 6 months post procedure and the subject's associated symptoms of heartburn at 6 months post procedure.

## **Secondary outcome**

Improved esophageal pH defined as the total percent of time that pH is less than 4 at 6 months post Gatekeeper procedure as compared to baseline.

# **Study description**

## **Background summary**

The Gatekeeper procedure involves the placement of polyacrylonitrile-based hydrogel prostheses into the esophageal submucosal space of the lower esophageal sphincter to prevent reflux.

The Gatekeeper Reflux Repair System offers several advantages to using standard surgical repair or other current endoscopic procedures. These advantages include the ability of the clinician to easily place the prostheses, and placement of the prostheses is reversible.

The purpose of this investigation is to demonstrate the intended use of the Medtronic Gatekeeper Reflux Repair System to provide symptomatic relief in subjects diagnosed with GERD.

It is a prospective, randomized, sham-controlled, single-blinded, multicenter study with an approximate total of 144 implanted male and female subjects with gastroesophageal reflux disease showing symptomatic improvement on proton pump inhibitors who satisfy all entry criteria.

These subjects will be randomized to receive the Gatekeeper prostheses or to the sham control group with 96 subjects in the treatment arm and 48 subjects in the sham control arm.

All subjects in the sham control group will be given the option of crossing over to the active treatment group after a minimum period of 6 months has transpired following the initial sham procedure.

All subjects will be followed closely for up to 18 months (depending on their randomization group), and then once a year after that until the study closes.

Primary endpoints:

Serious device- and procedure-related adverse device effects (whether anticipated or unanticipated), at 6 months post-procedure and the subjects' associated symptoms of heartburn at 6-months post-Gatekeeper procedure.

Secondary endpoints:

Improved esophageal pH defined as the total percent of time that pH is less than 4 at 6 months post-Gatekeeper procedure as compared to baseline.

### **Study objective**

N/A

### **Study design**

N/A

### **Intervention**

The subjects will be randomized to receive the Endoscopy Gatekeeper prostheses or to the endoscopy sham control group with 96 subjects in the treatment arm and 48 subjects in the sham control arm. At 6 months following the initial implant/sham procedure, the blind will be broken for all subjects and those randomized to receive the sham procedure will have the opportunity to receive the Gatekeeper procedure. All subjects will complete Symptom Assessment and Quality of Life questionnaires in the screening procedure and at 6 weeks, 3, 6, 12 months and annually until study closure. Upper endoscopy will be performed in the screening procedure and at 3, 6 and 12 months. Esophageal manometry and 48 hours Bravo pH studies will be performed in the screening procedure and at 6 and 12 months. All subjects must discontinue any PPI therapy at least 7 days prior to study visits. 2 weeks after the procedure all subjects will be directed to discontinue their PPI therapy. After discontinuation of PPI's subjects who have persistent symptoms of heartburn or regurgitation may be given anti-reflux medication using the treatment regimen as described in the protocol.

## **Contacts**

### **Public**

Academic Medical Center (AMC), Motility Center, C2 room 311,  
P.O. Box 22660  
A. Lei

Meibergdreef 9  
Amsterdam 1100 DD  
The Netherlands  
+31 (0)20 5669111

**Scientific**

Academic Medical Center (AMC), Motility Center, C2 room 311,  
P.O. Box 22660  
A. Lei  
Meibergdreef 9  
Amsterdam 1100 DD  
The Netherlands  
+31 (0)20 5669111

## Eligibility criteria

### Inclusion criteria

1. Subjects must be at least 18 years of age;
2. Subjects with documented typical symptoms of GERD;
3. Female subjects of child bearing potential must have a negative pregnancy test within 1 week before treatment and must agree to use an effective means of birth control during participation in the study;
4. Subjects who show symptomatic improvement on PPI and want to discontinue their GERD medication;
5. Subjects who have demonstrated a baseline 24 hour  $\text{pH} > 4\%$  time with  $\text{pH} < 4.0$ ;
6. Subjects with a baseline GERD-HRQL heartburn score of  $< 11$  on PPI and  $> 20$  off PPI;
7. Subjects who have been informed of the nature of the study and have agreed to its provisions and provided ICF, approved by the Institutional Review Board or Medical Ethics Committee of the respective clinical site.

### Exclusion criteria

1. Classified in anesthesia risk group, ASA Class III-IV;
2. Extensive Barrett's esophagus ( $> 2\text{cm}$ );

3. Esophagitis (Grades III-IV);
4. Complaints of dysphagia;
5. Esophageal strictures;
6. Esophageal or gastric varices;
7. Previous history of gastroesophageal surgery, anti-reflux procedures, or gastroesophageal or gastric cancer;
8. Large hiatal hernia (> 3cm);
9. Ineffective esophageal motility, defined as amplitudes of < 30 mmHg> 50% of the time;
10. Diagnosed with morbid obesity (BMI >35);
11. Immunocompromised subjects (subjects diagnosed with HIV, on chronic steroid use or other immunosuppressants, such as Immuran);
12. History of bleeding diathesis or coagulopathy or who will refuse blood transfusions;
13. Inability to discontinue anticoagulation therapy;
14. Suffered a stroke or transient ischemic neurological attack (TIA) within the past 6 months;
15. Experienced a hematologically significant gastrointestinal bleed within the past 6 months;
16. Has other medical illness that may cause the subject to be non-compliant with or unable to meet the requirements of the protocol or is associated with limited life expectancy;
17. Simultaneously participating in another device or drug study, or who has participated in any clinical trial involving an experimental device within 6 months or experimental drug within 30 days of study entry;
18. Unable or unwilling to cooperate with study procedures.

## Study design

### Design

Study type:	Interventional
Intervention model:	Parallel

Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Placebo

## Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	13-01-2004
Enrollment:	144
Type:	Actual

## Ethics review

Positive opinion	
Date:	12-09-2005
Application type:	First submission

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

Register	ID
NTR-new	NL305
NTR-old	NTR343
Other	: N/A
ISRCTN	ISRCTN41367345

# Study results

## Summary results

N/A