

Ösophagus:

Gastro-ösophageale Refluxkrankheit (GERD)

u^b

**UNIVERSITÄT
BERN**

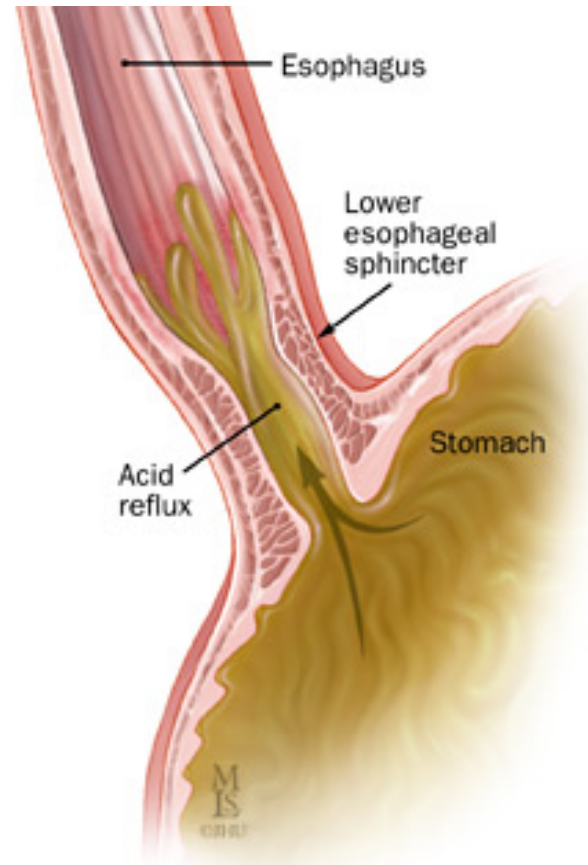
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Inselspital Bern
radu.tutuian@insel.ch

Themen

- Definition
- Mechanismen
- Klinische Manifestationen
 - Symptome
- Diagnostik
- Therapie
 - Medizinische
 - Chirurgische

Gastro-ösophageale Refluxkrankheit



GERD: Montreal Definition

- Gastroösophageale Refluxkrankheit (GERD) ist eine Erkrankung die entsteht wenn der Rückfluss von Mageninhalt (in den Ösophagus) störende Beschwerden und/oder Komplikationen verursacht

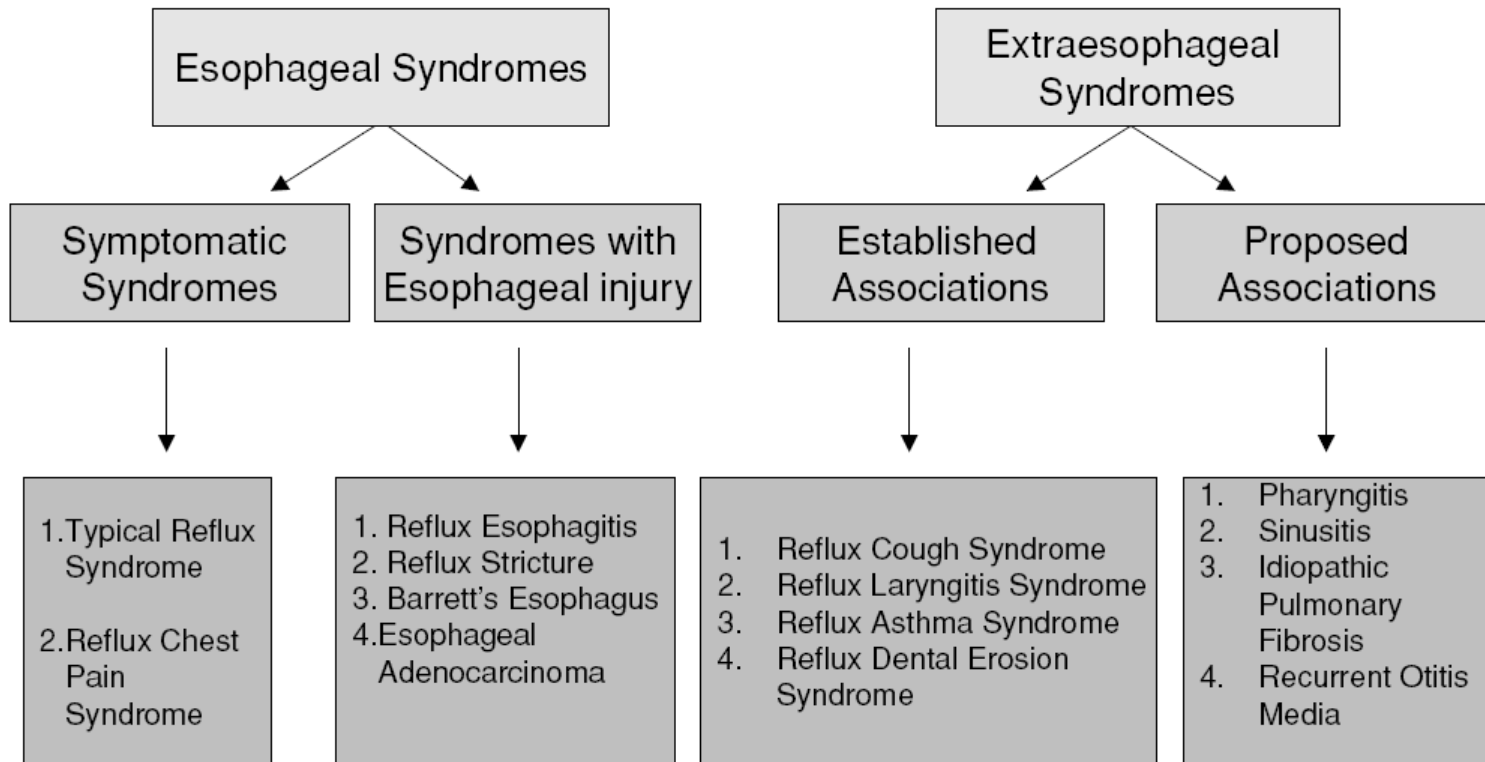
Vakil et al. Am J Gastroenterol 2006;101:1900–20

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Vakil et al. Am J Gastroenterol 2006;101:1900–20

GERD: Montreal Klassifikation

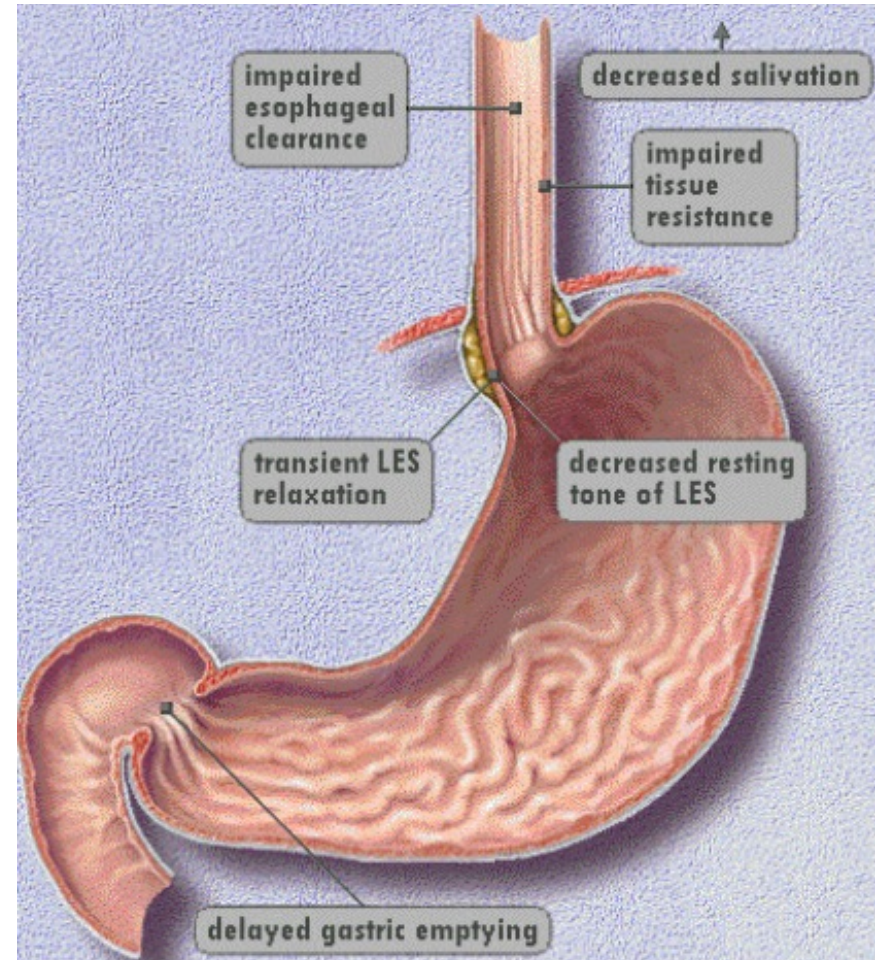


Vakil et al. Am J Gastroenterol 2006;101:1900–20

Gastroösophageale Refluxkrankheit

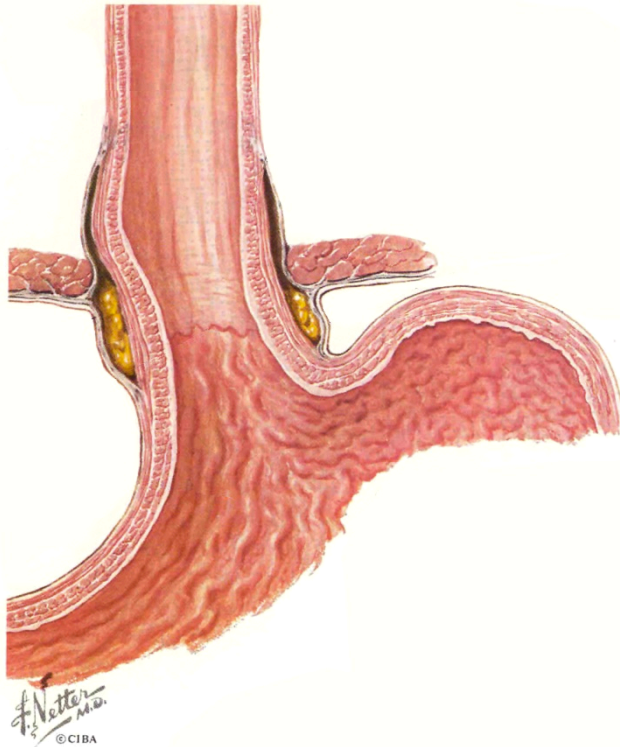
Pathophysiologie

- Hiatus hernie (Zwerchfellbruch)
- Insuffizienz des unteren Ösophagussphinters
 - Ruhedruck des UÖS < 10 mmHg
- Transiente Relaxationen des unteren Ösophagussphinkter (tLESR)



Gastro-ösophagealer Übergang

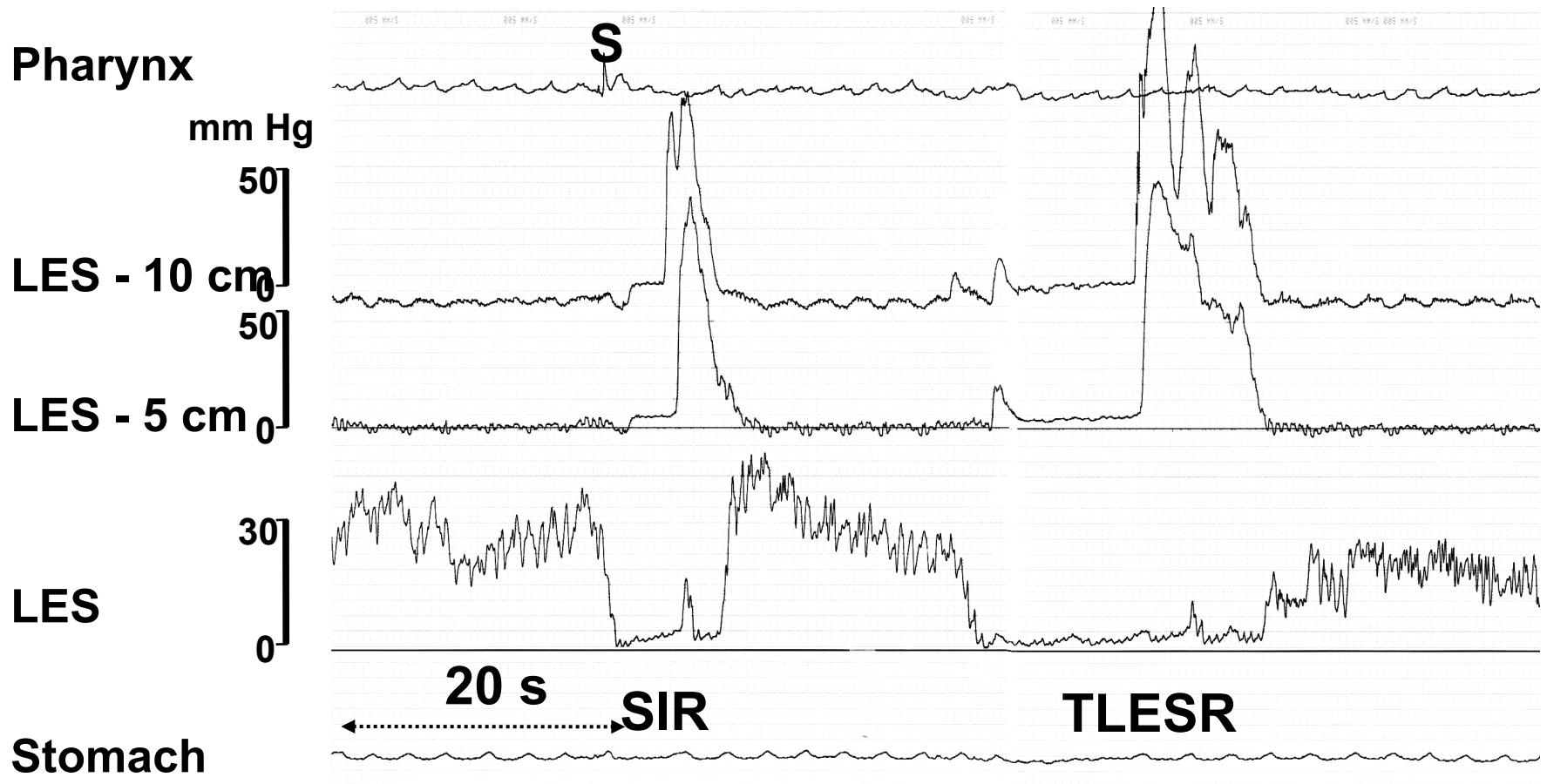
Normal



Hiatus Hernie



Swallow-Induced Relaxation (SIR) and Transient Lower Esophageal Sphincter Relaxation (TLESR)



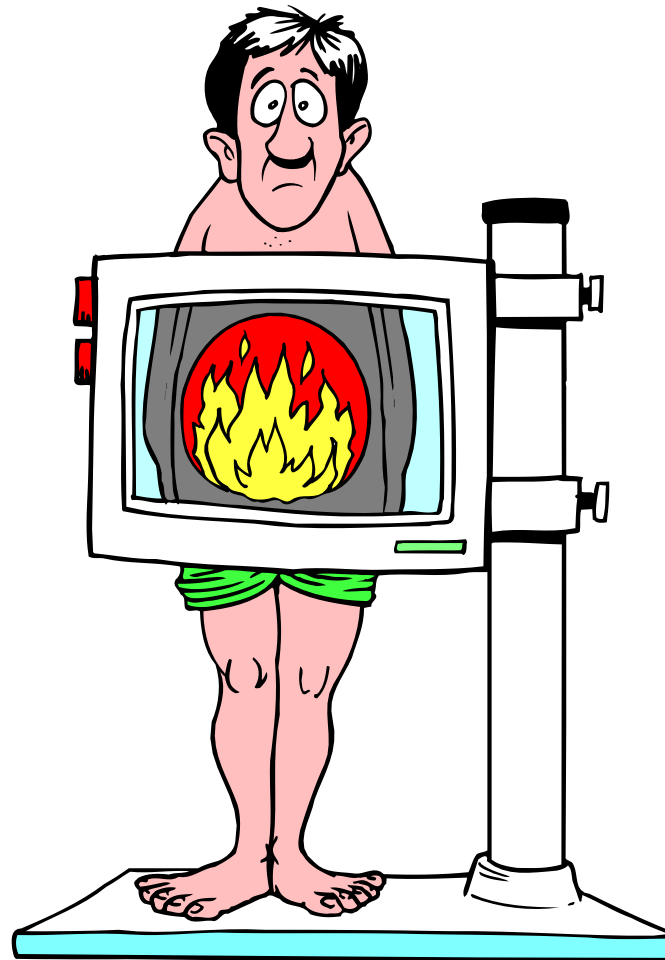
Gastroösophageale Refluxkrankheit Pathophysiologie

**Hiatus hernie
(Zwerchfellbruch)**

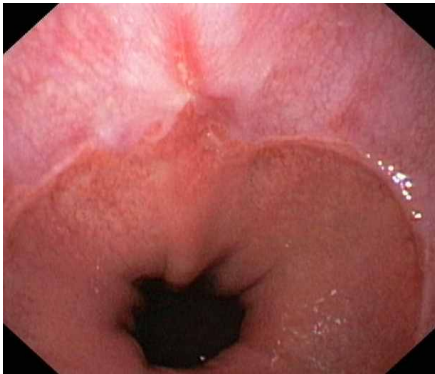
**Hypotensiver untere
Ösophagussphinter**

**Transiente Relaxationen
des unteren Ösophagus-
sphinkter (tLESR)**

Diagnose Verfahren GERD



Refluxösophagitis: Los Angeles Klassifikation

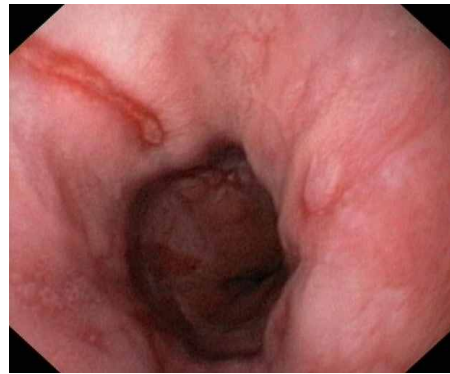


Grad A

Erosion(en)

≤ 5 mm

eine Mukosafalte

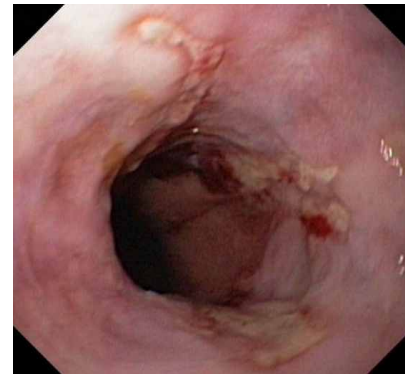


Grad B

Erosionen

> 5 mm

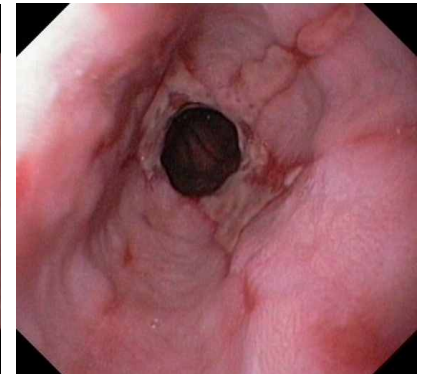
eine Mukosafalte



Grad C

Erosionen über
mehrere
Mukosafalten

$\leq 75\%$
Zirkumferenz



Grad D

Erosionen über
mehrere
Mukosafalten

$> 75\%$
Zirkumferenz

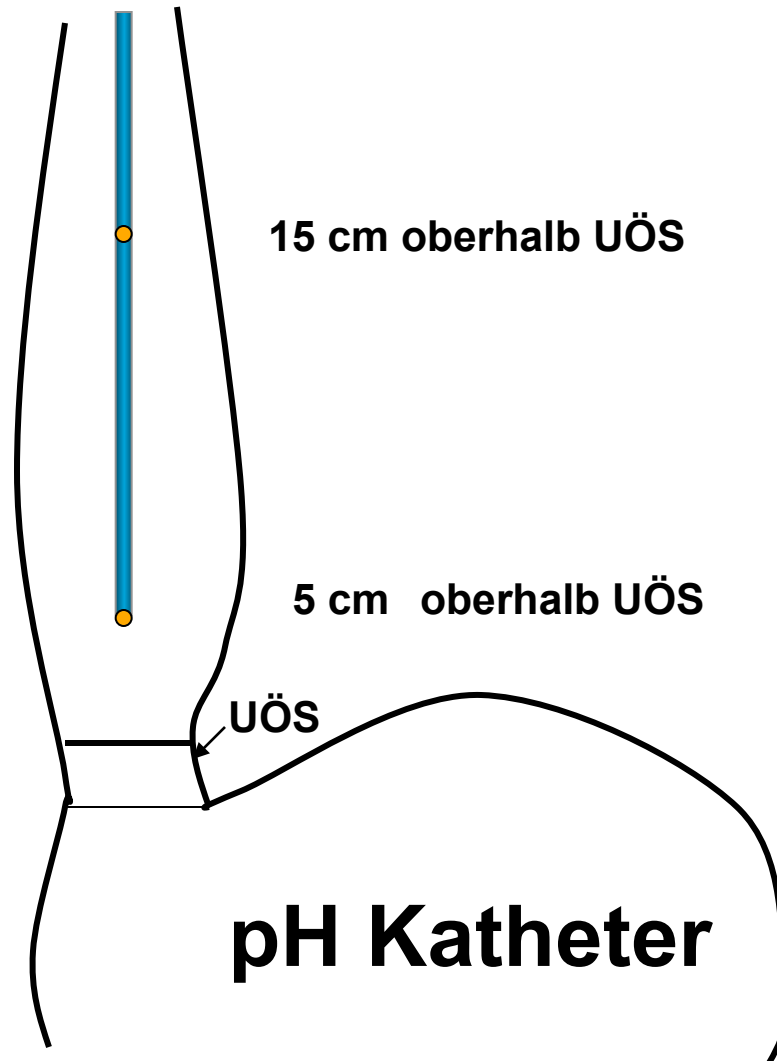
Armstrong. Gastroenterol 1996;111:85-92

Nicht erosive Refluxkrankheit (bis zu 70%)

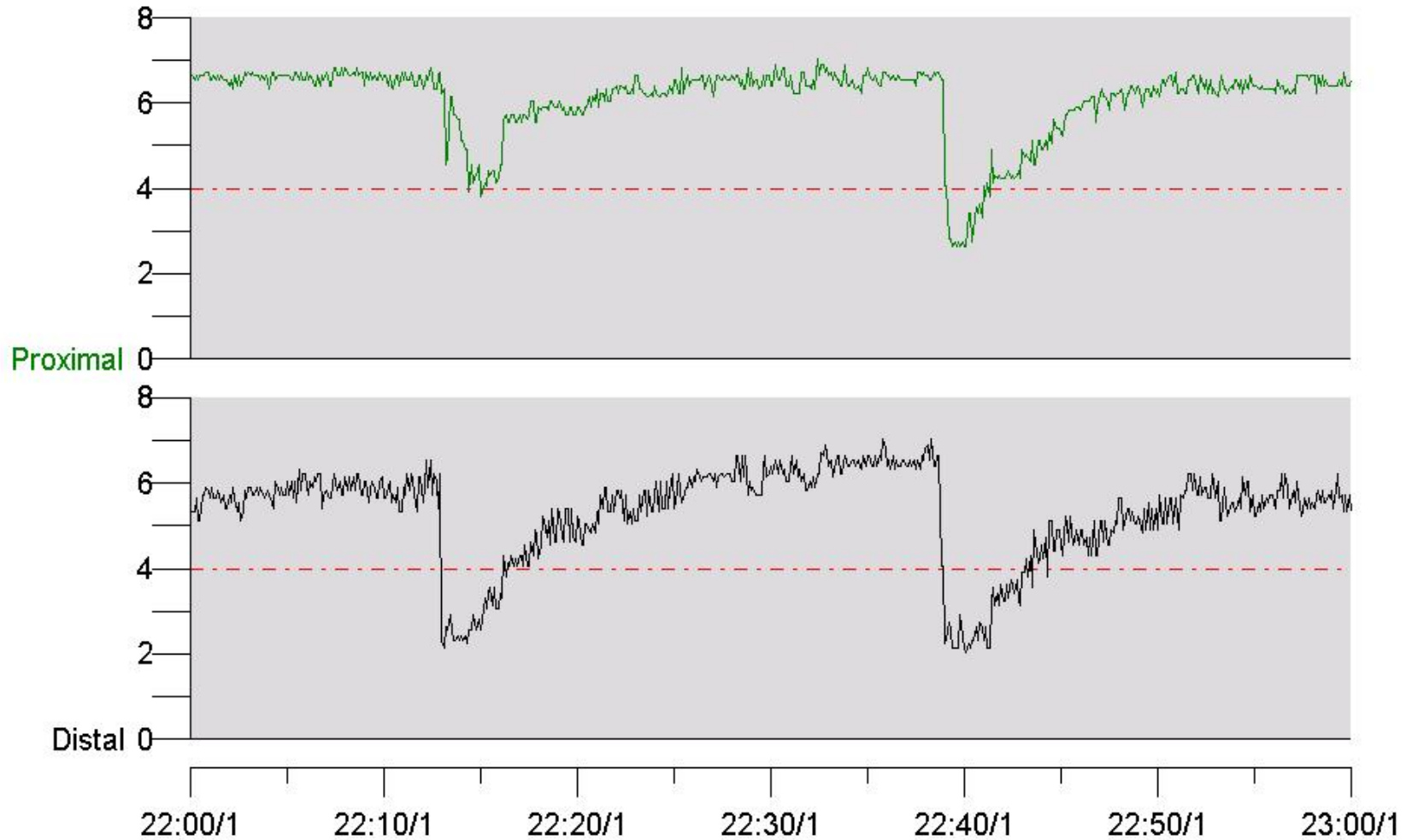


Normal

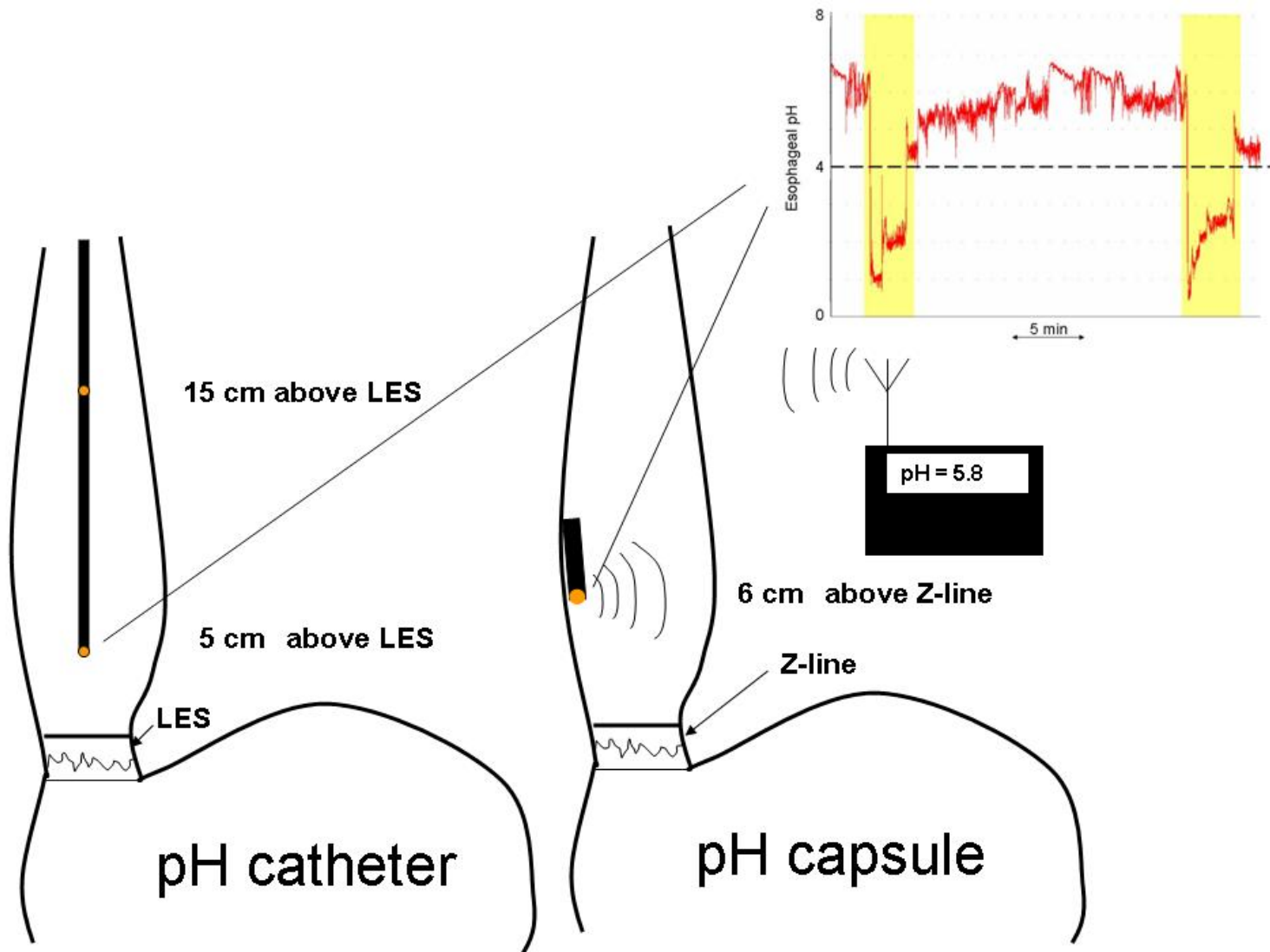
Ösophageale pH-Metrie



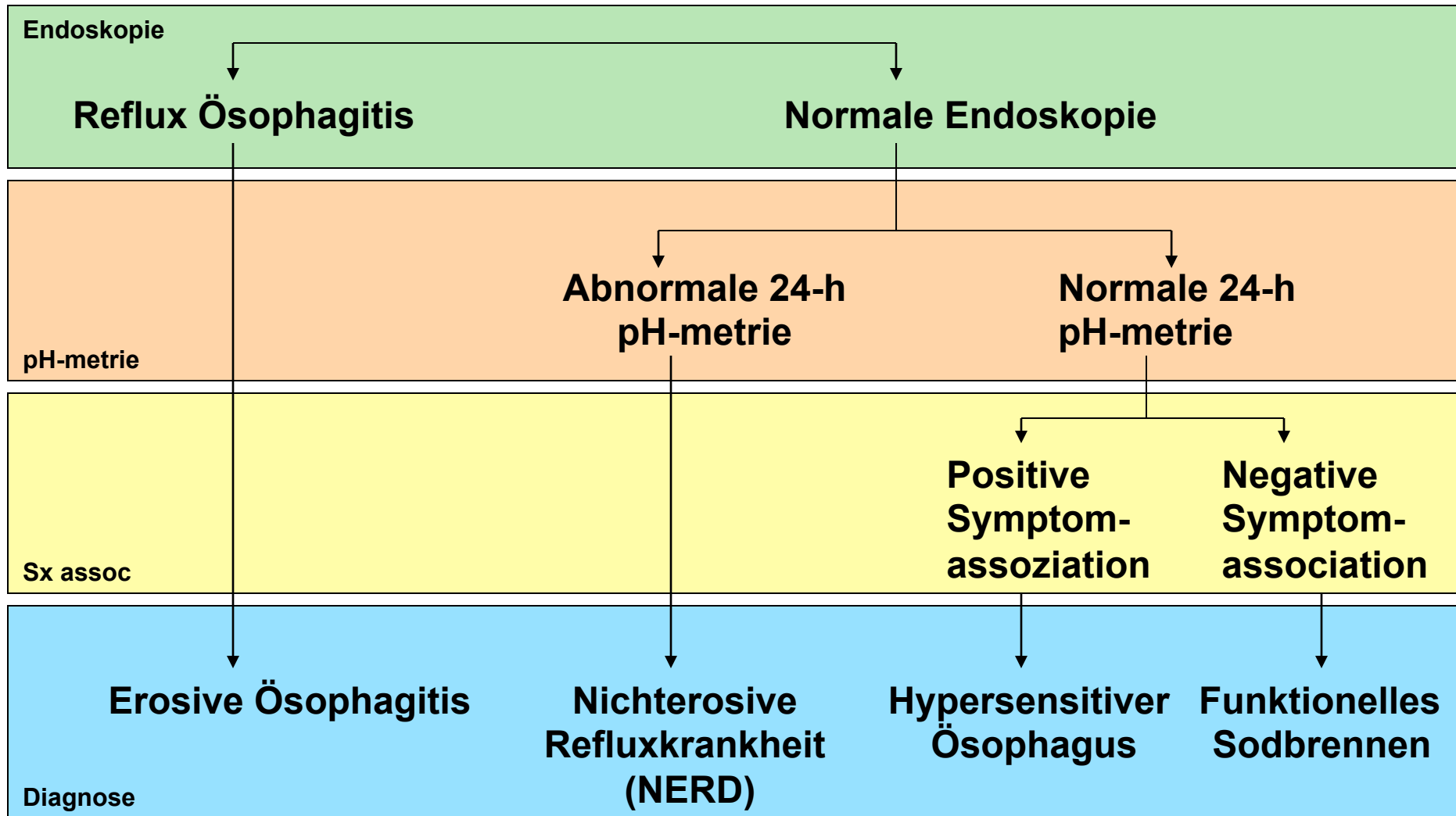
24-h ösophageale pH-Metrie



Ösophageale pH-Metrie





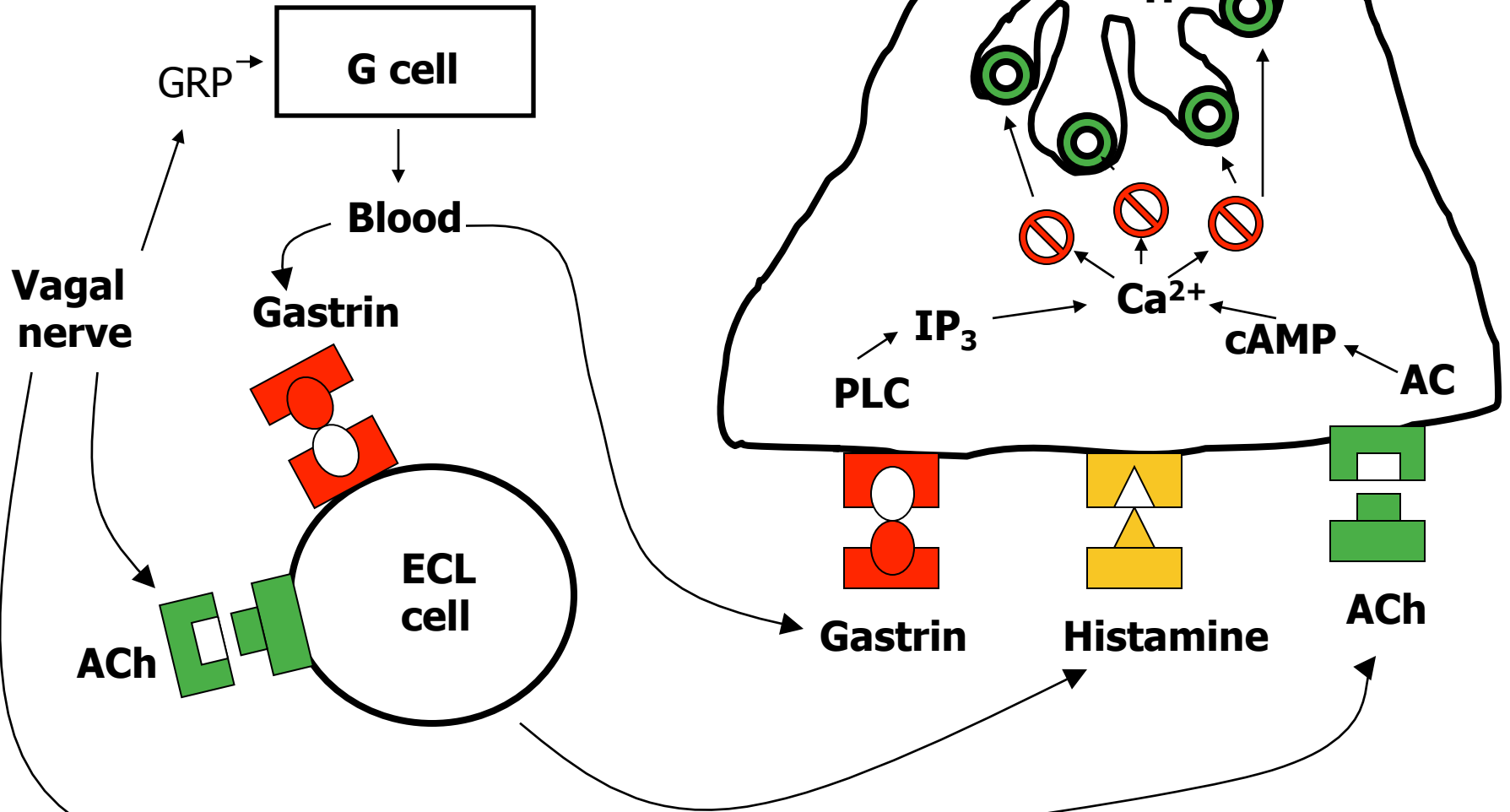
GERD Spektrum



GERD Therapie



-  Inactive proton pump
-  Active proton pump

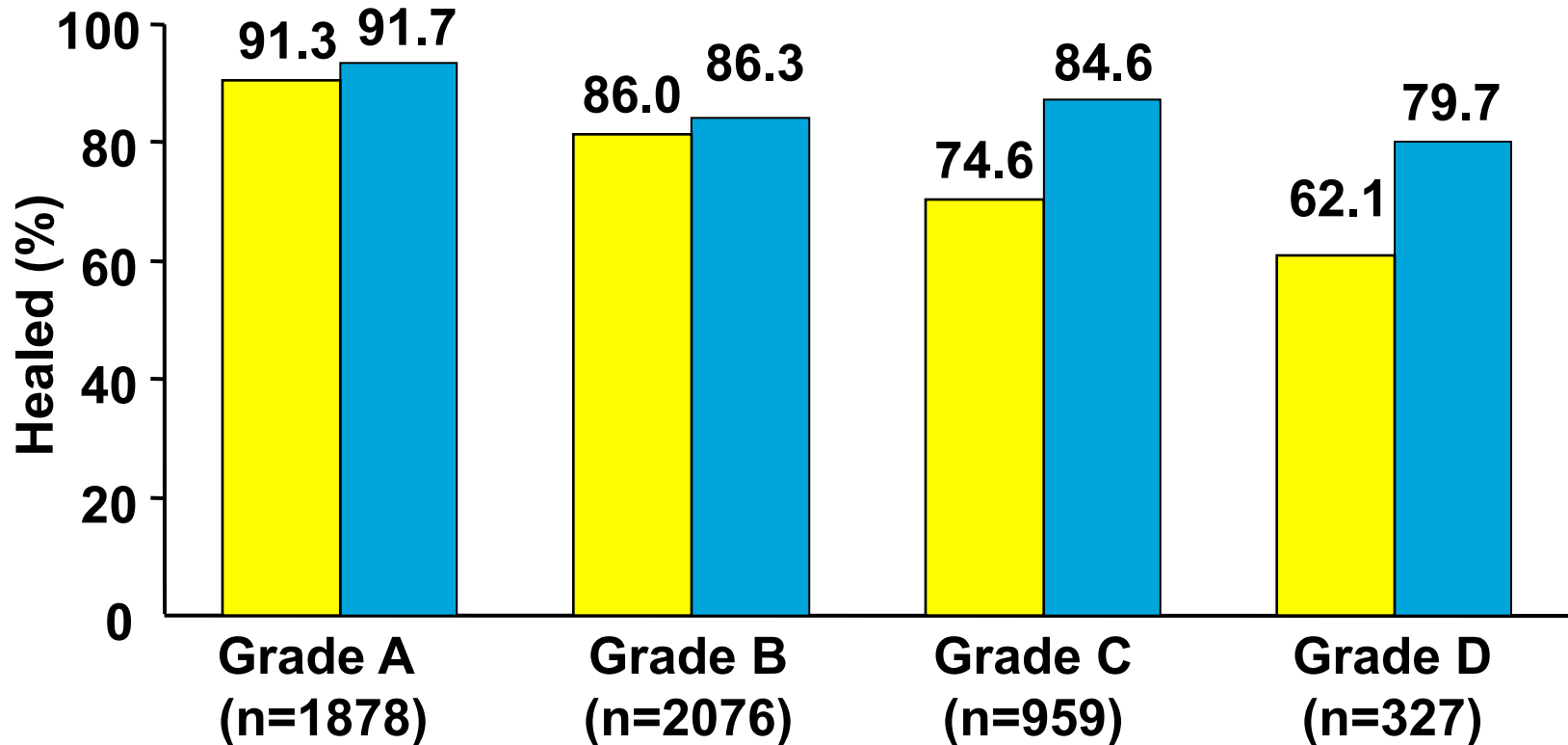


Heilung erosiver Oesophagitis

Esomeprazol vs lansoprazol nach 8 Wochen

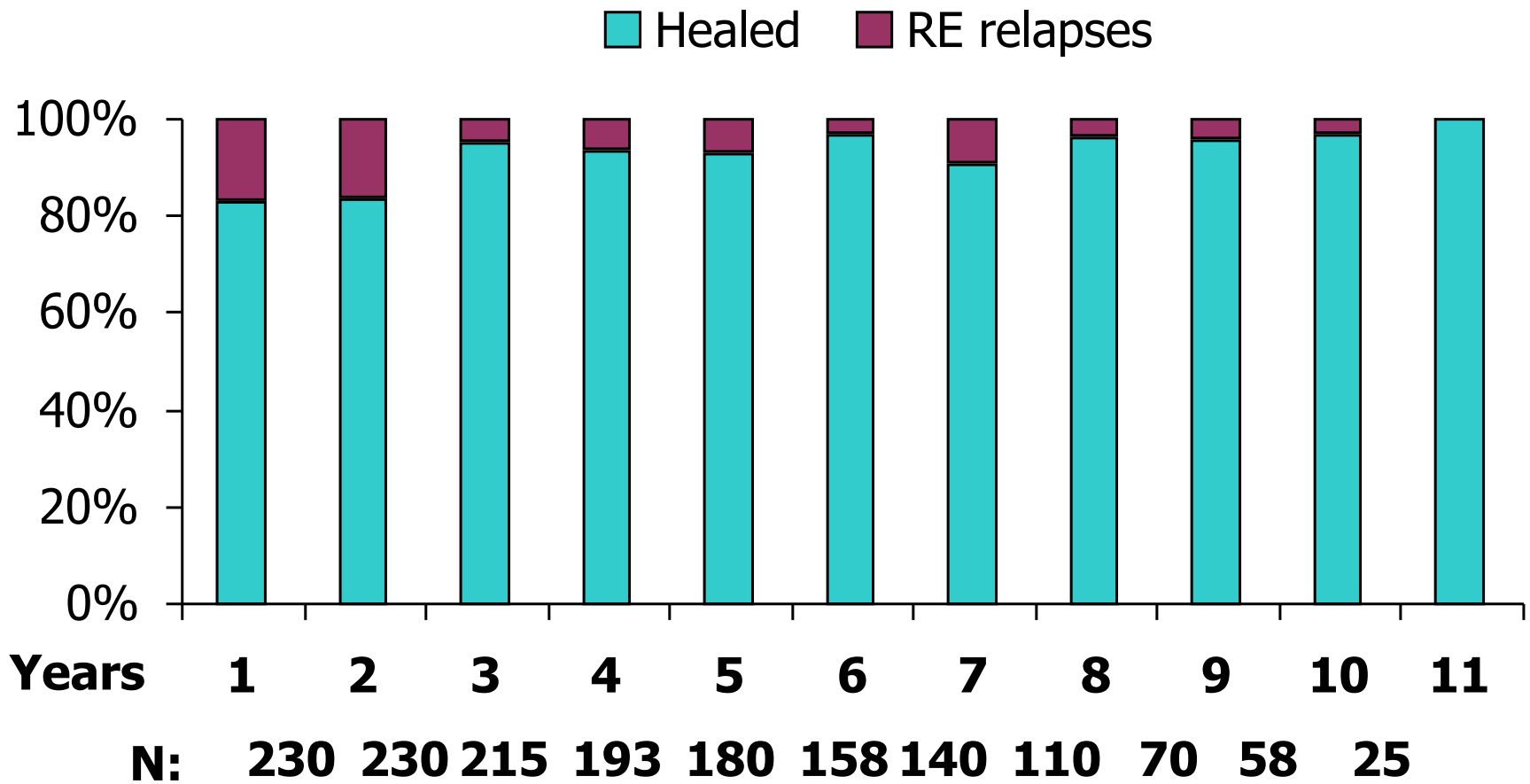
■ Lansoprazole 30 mg ■ Esomeprazole 40 mg

P<0.01 (CMH)*



Castell et al. Am J Gastroenterol 2002; 97:575

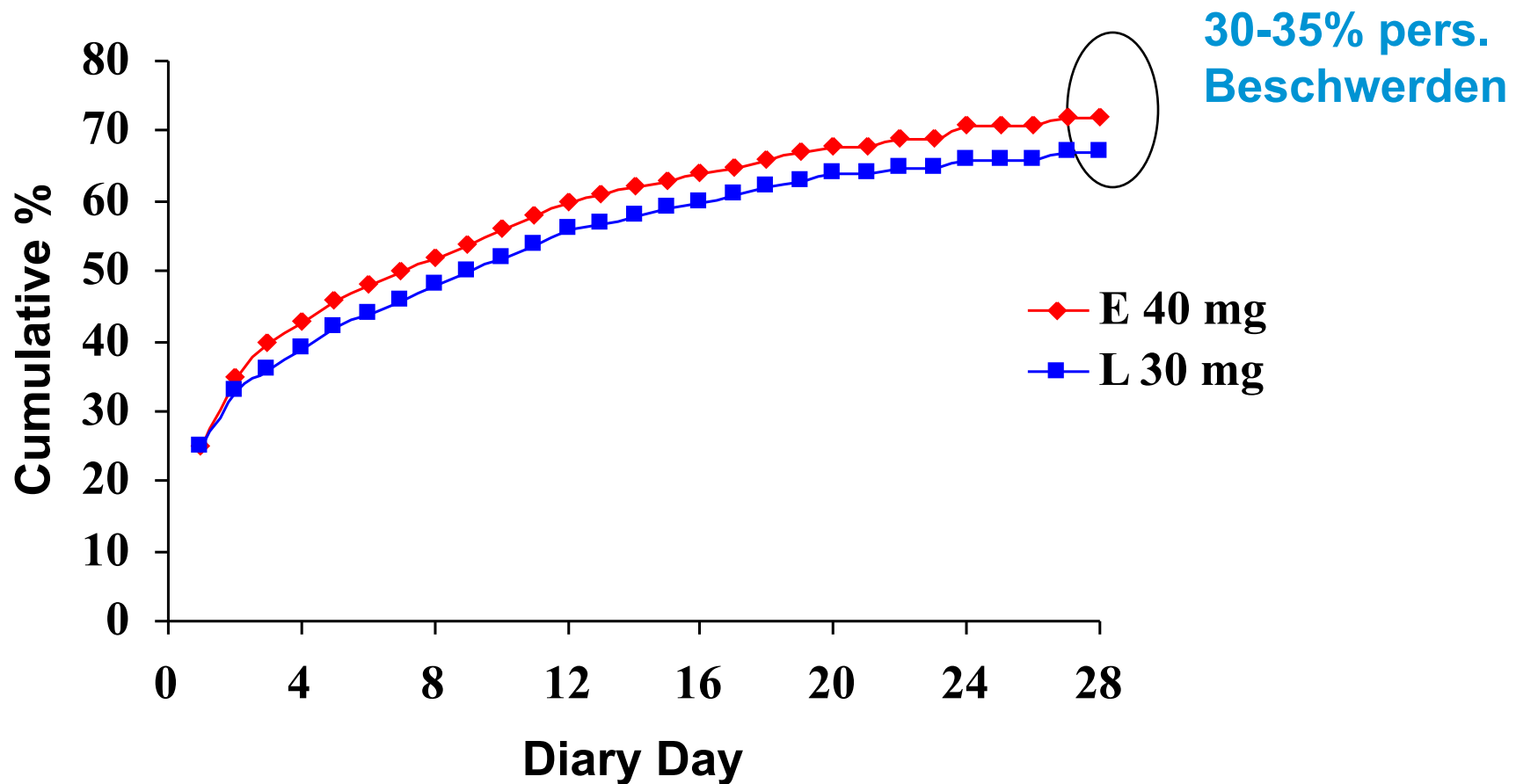
Dauertherapie mit PPI



Klinkenberg-Knol et al:Gastroenterology 2000; 118:661

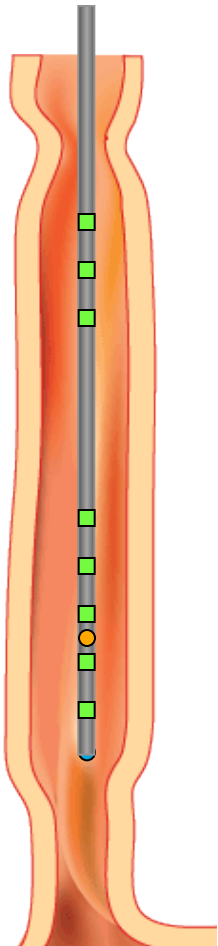
Kontrolle der Refluxsymptome

5241 Patienten mit Refluxösophagitis

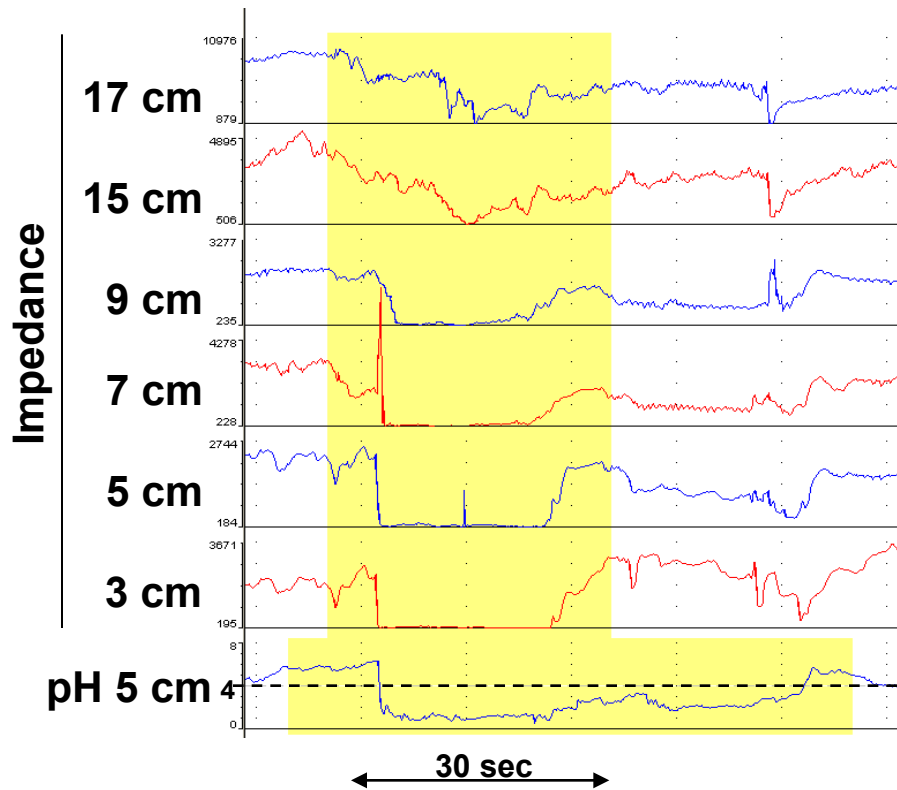


Castell et al: Am J Gastroenterol 2002; 97: 575

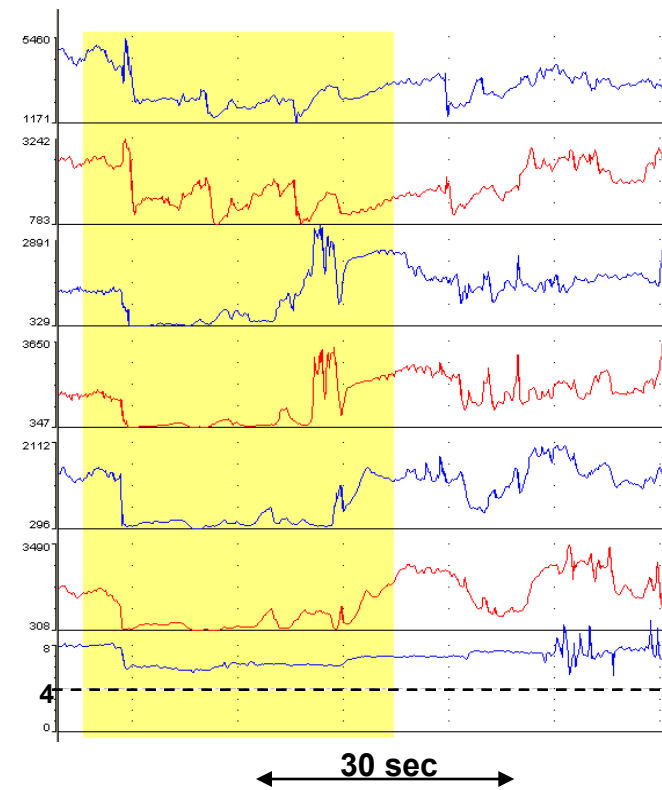
Impedanz-pH metrie



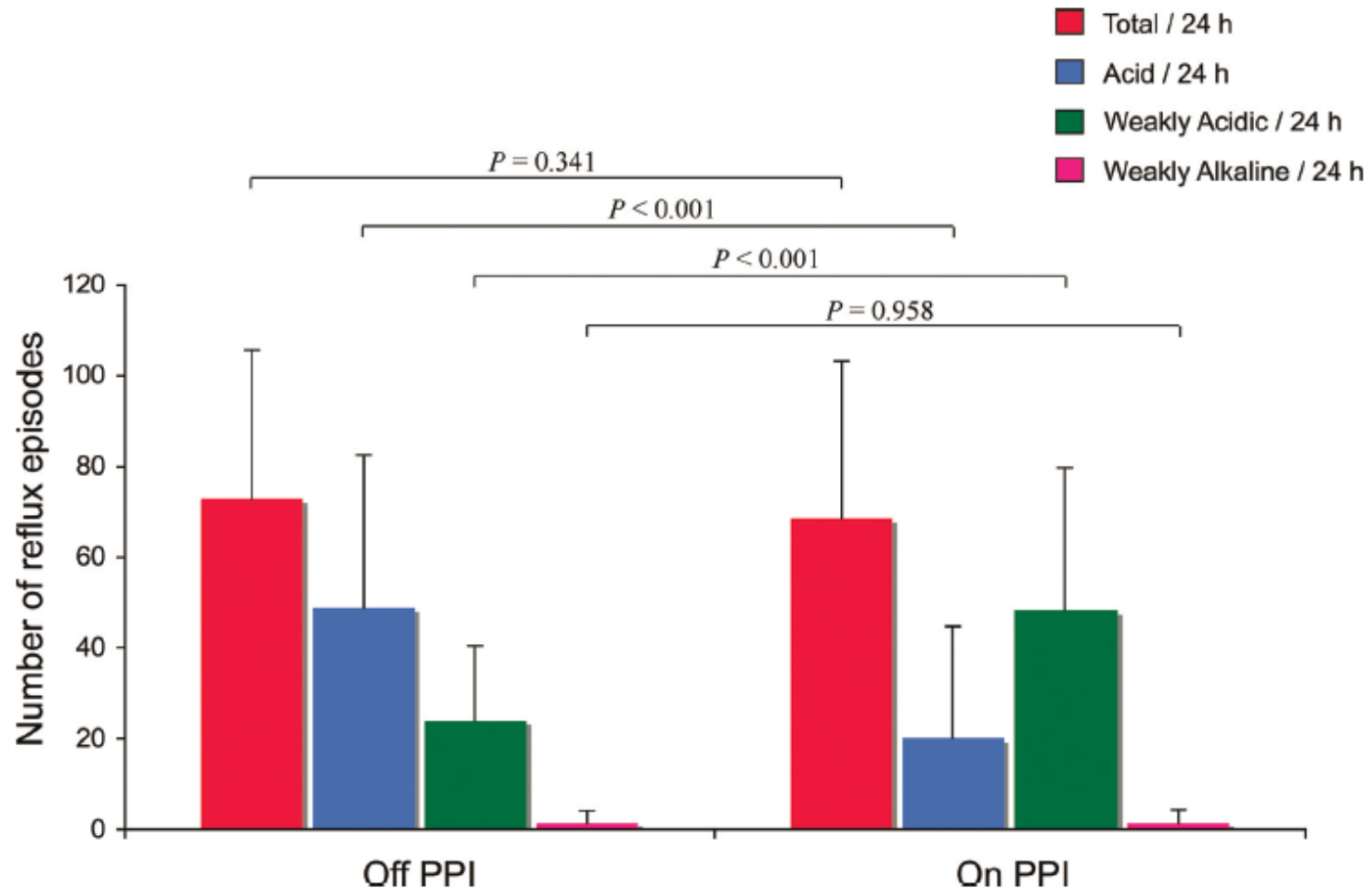
Saurer Reflux



Nicht-saurer Reflux

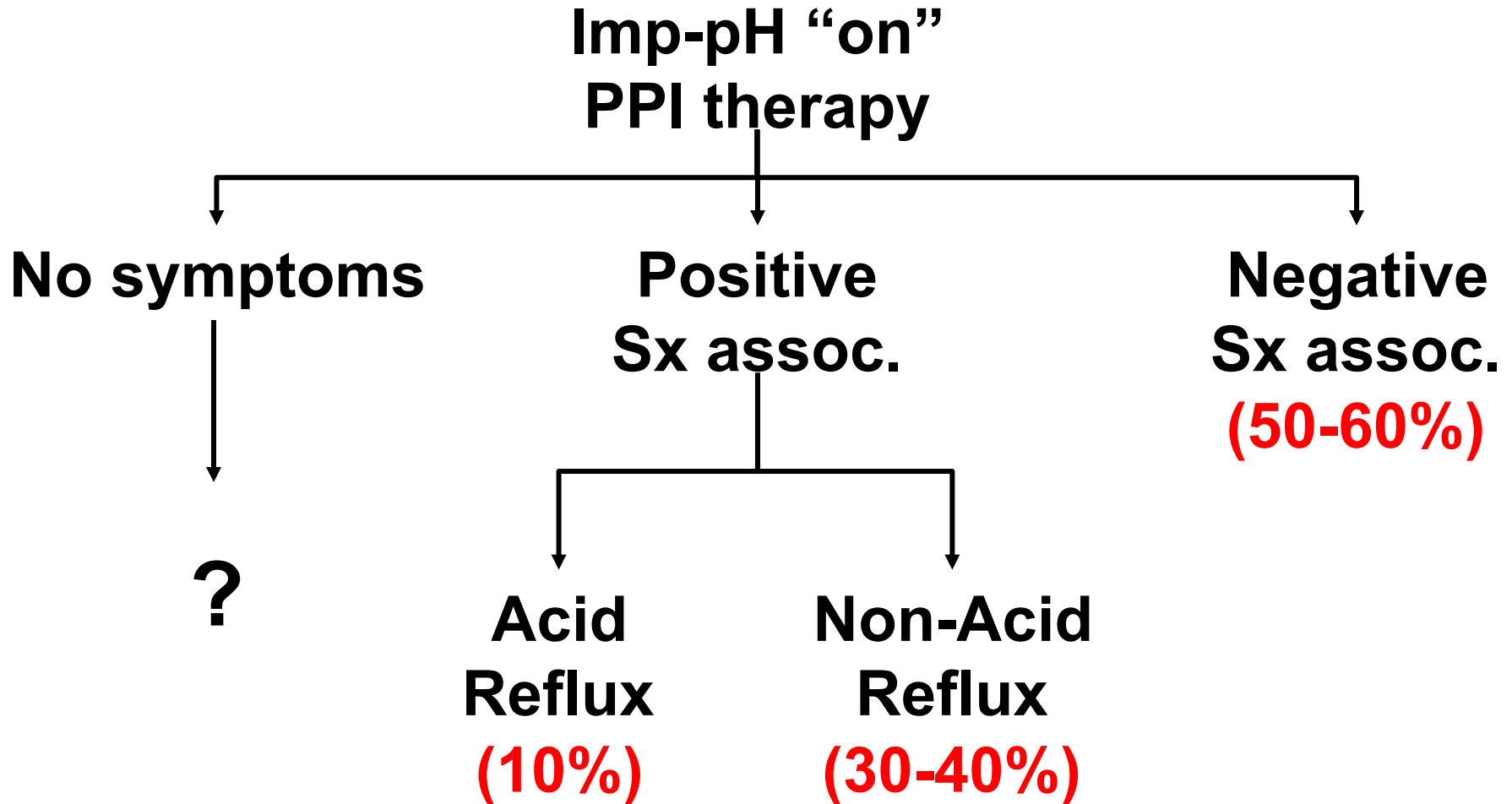


PPI Therapie ändert lediglich das pH des Refluates



Hemmink et al. Am J Gastroenterol 2008; 103:2446-53

Results of impedance-pH monitoring



Therapie GERD

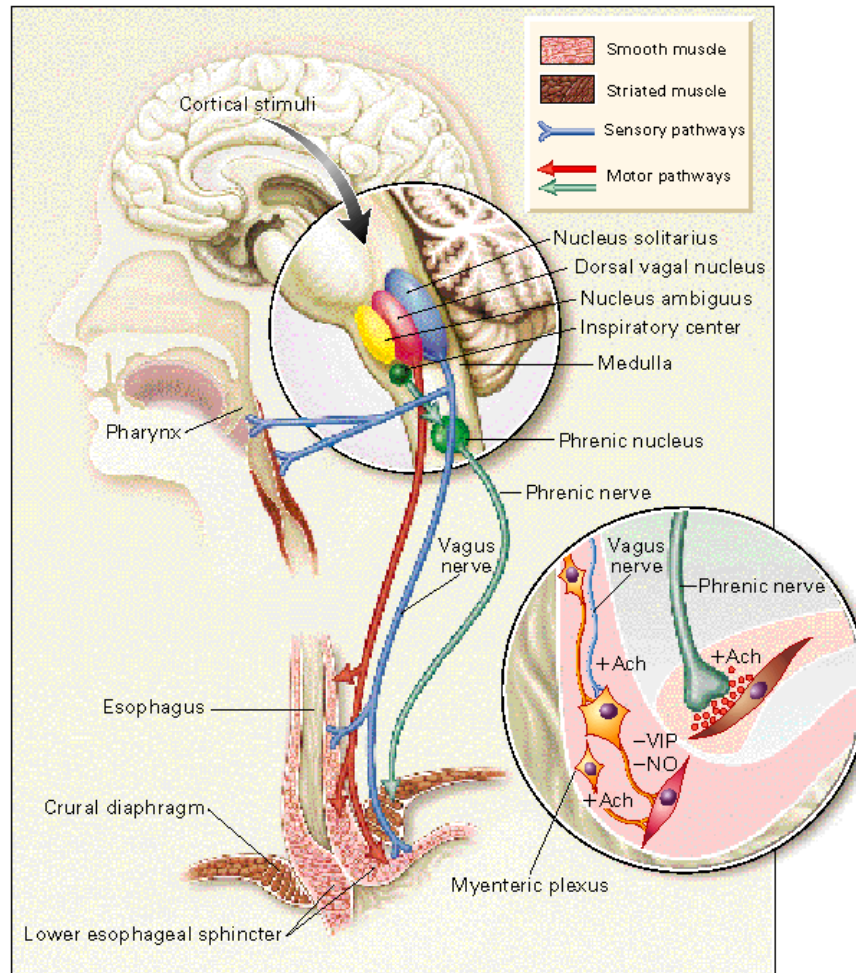


Pharmakotherapie



Antirefluxchirurgie

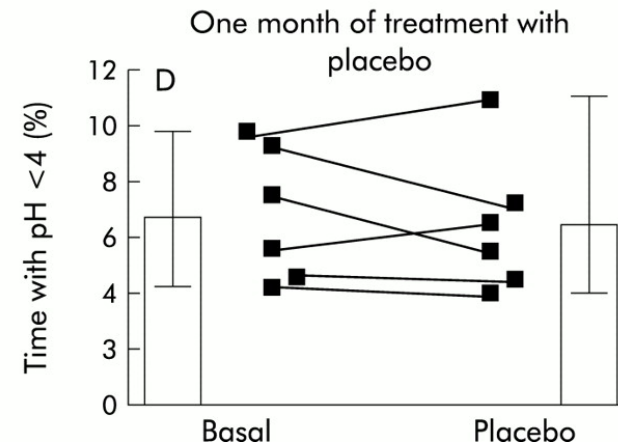
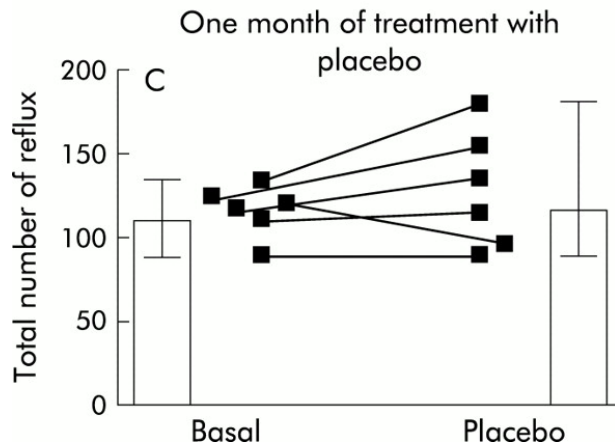
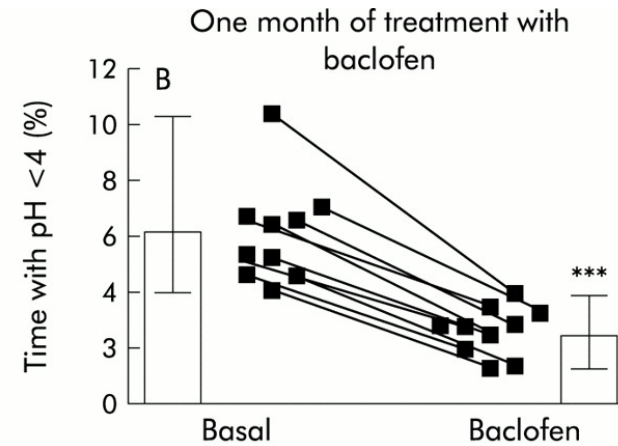
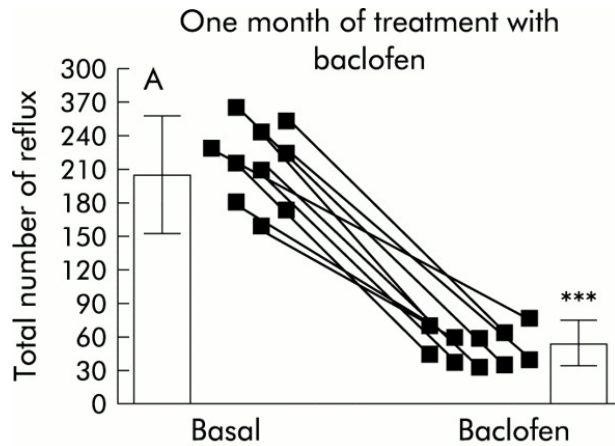
Modulating tLESR reflex in GERD patients



Mittal et al. NEJM 1997; 336: 924

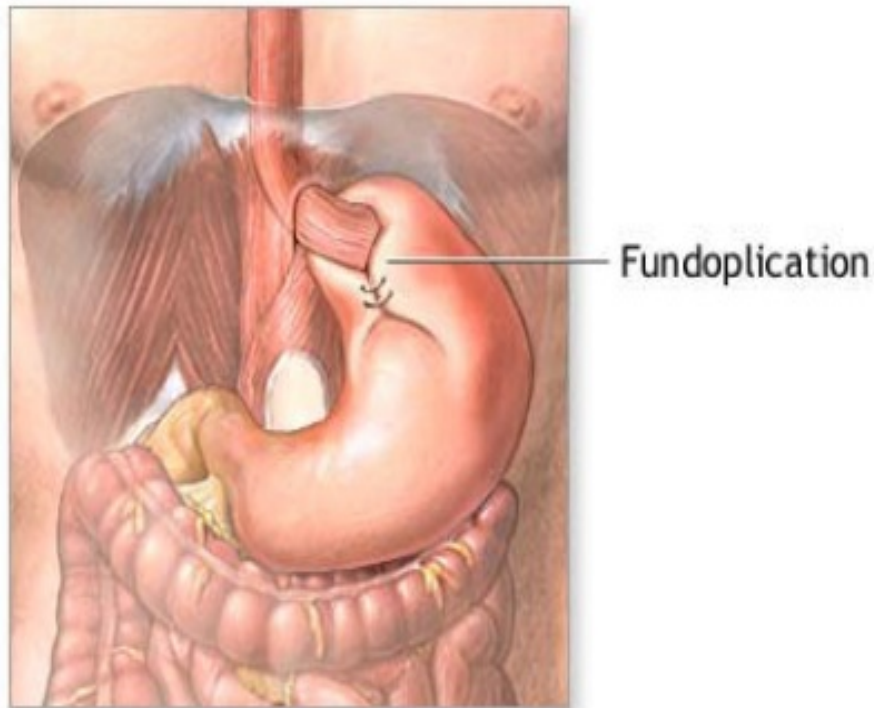
Baclofen vs. Placebo

(4 Wochen Therapie)

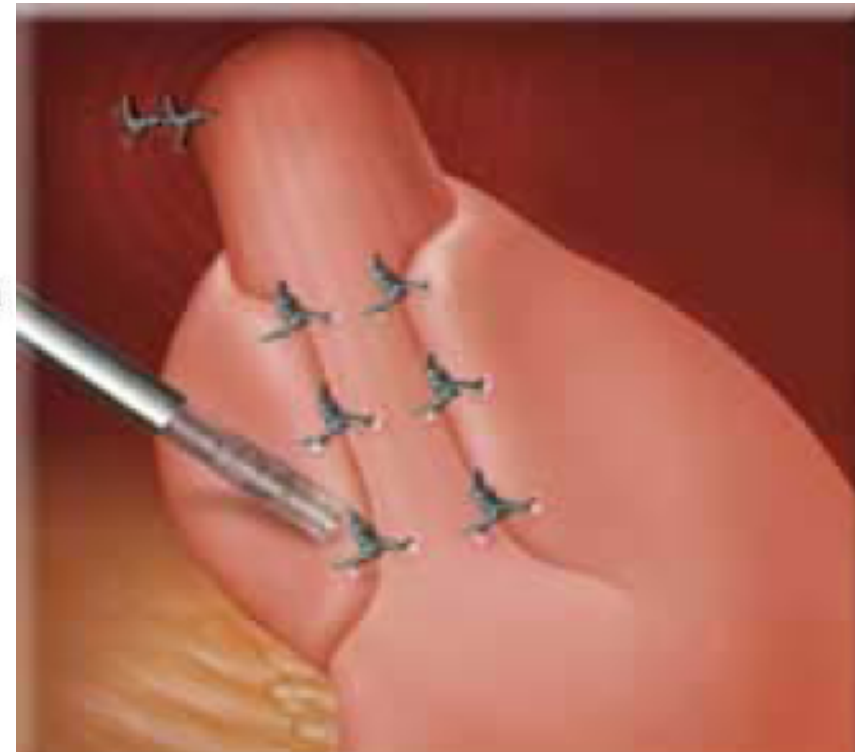


Ciccaglione et al. Gut 2003; 52: 464-70

Laparoskopische Fundoplicatio

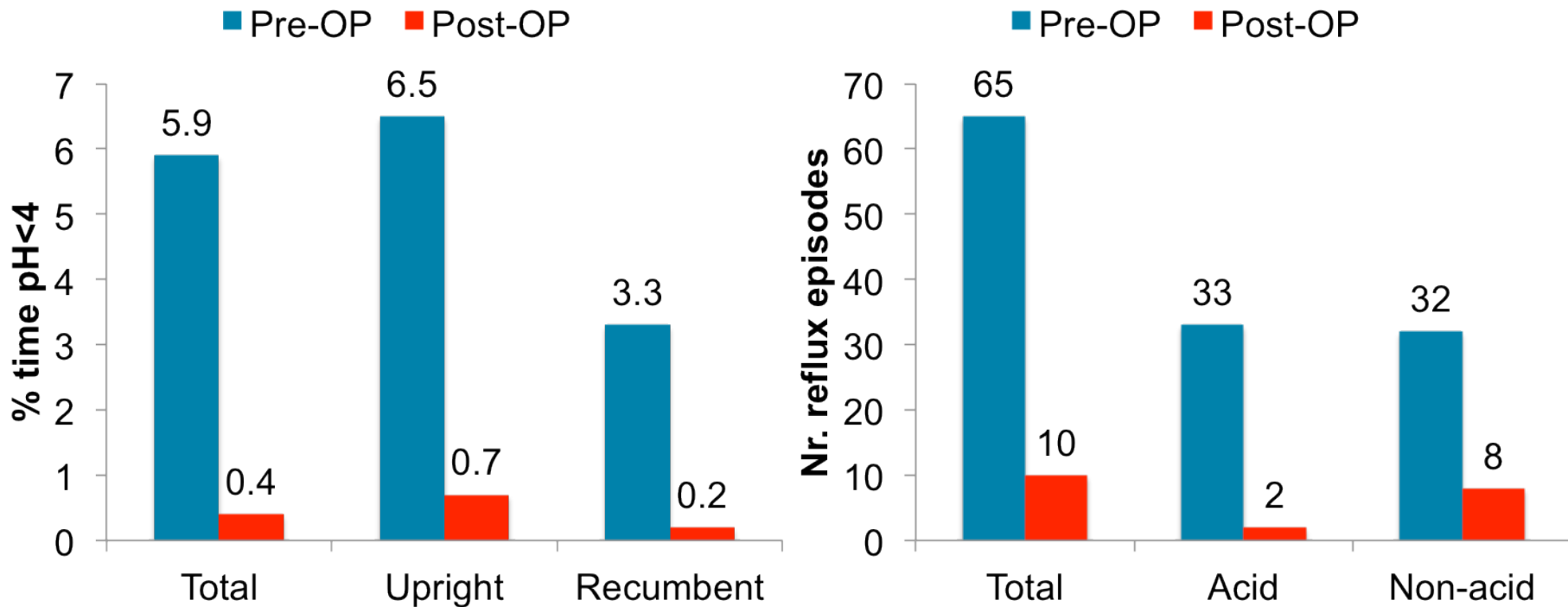


Nissen (360°)



Toupet (270°)

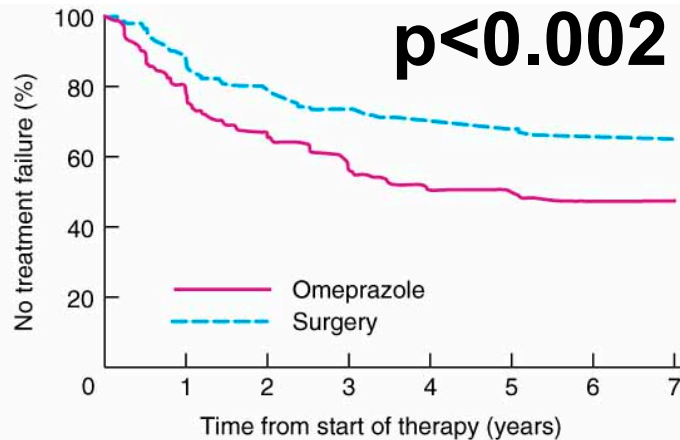
Gastroösophagealer Reflux vor und nach lap. Fundoplicatio



del Genio et al. Surg Endosc 2008; 22:2518-23

GERD Dauertherapie

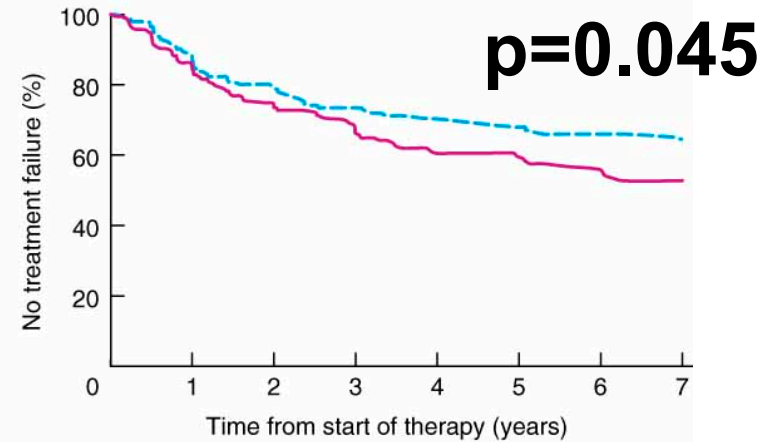
Vorteile der Chirurgie



No. at risk

Omeprazole	154	117	79	66	53
Surgery	144	122	98	81	60

a Surgery *versus* 20mg omeprazole



No. at risk

Omeprazole	154	127	93	80	59
Surgery	144	122	98	81	60

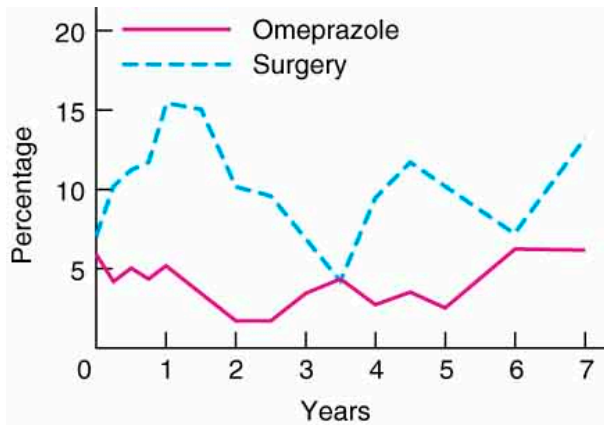
b Surgery *versus* 20, 40 or 60mg omeprazole

Lundell et al. Br J Surg, 2007; 94:198-203

GERD Dauertherapie

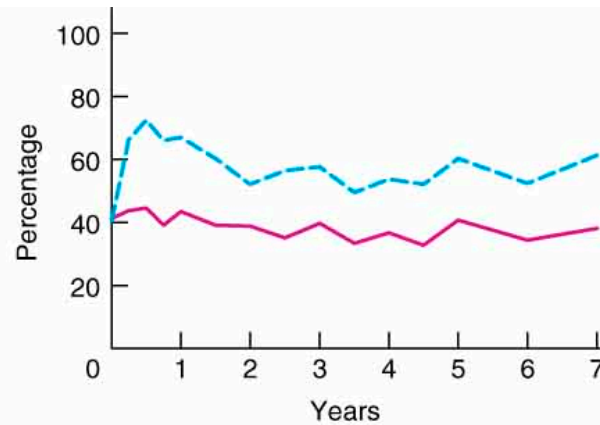
Preis der Chirurgie

p=0.006



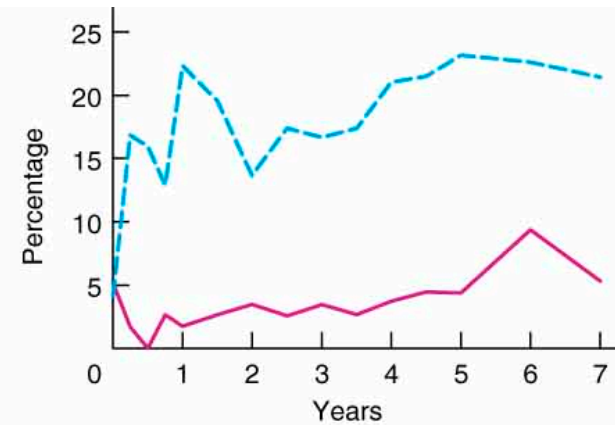
a Dysphagia

p=0.001



b Rectal flatulence

p=0.001



c Impaired ability to belch

Lundell et al. Br J Surg, 2007; 94:198-203

GERD - Fazit

- **Definition:** Rücklauf von Mageninhalt -> Symptome oder Läsionen
- **Risikofaktoren:** Hiatushernie, hypotensiver UÖS, tLESR
- **Diagnostik:** Endoskopie und 24-h (Impedanz-)pH metrie
- **Therapie:** PPI, H2-Blocker
antireflux Chirurgie (Nissen vs. Toupet)

Forschung: Symptomatischer Reflux unter PPI

