

# Cøliaki

Cøliakikurs for  
barn og voksne  
med cøliaki og  
foresatte

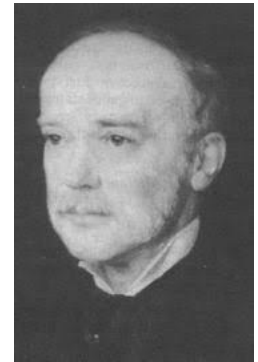
Anders Lindgren, overlege  
Barnegastroenterologi  
Barne og ungdomsavdelingen





# Historie

- Korn fra ca 9500år BC
- *Coeliacus* fra *koiliakós* (Gr)
  - «Vedrørende bukhalen»
- Aretaeus av Cappadocia
  - Malabsorbsjontilstand med kronisk diaré som forsvaket hele kroppen
- Samuel Gee 1888
  - «On the Coeliac Affection»
- Willem Dicke 1950



# Historie, mer..

Sidney Haas  
1920

«Banana  
Babies»



THE SALT

## Doctors Once Thought Bananas Cured Celiac Disease. They Saved Kids' Lives – At A Cost

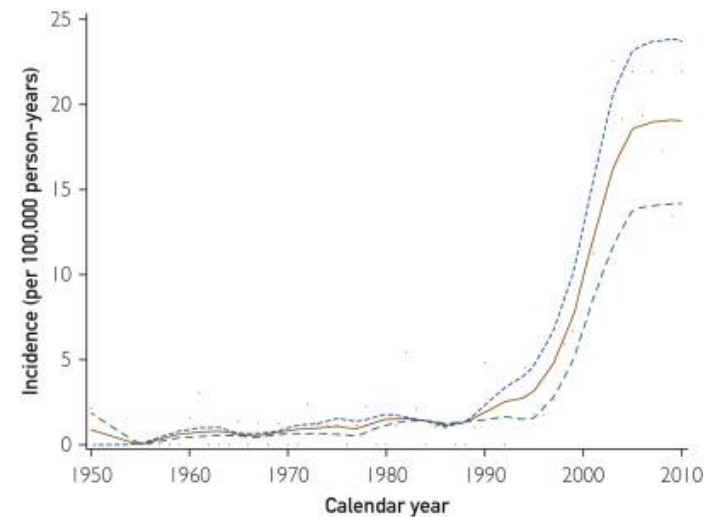
In the early 20th century, kids with the disease faced severe malnutrition, even death. The banana-based diet doctors came up with seemed to cure them — but led kids back to foods that made them sick.

LATEST FROM NPR NEWS

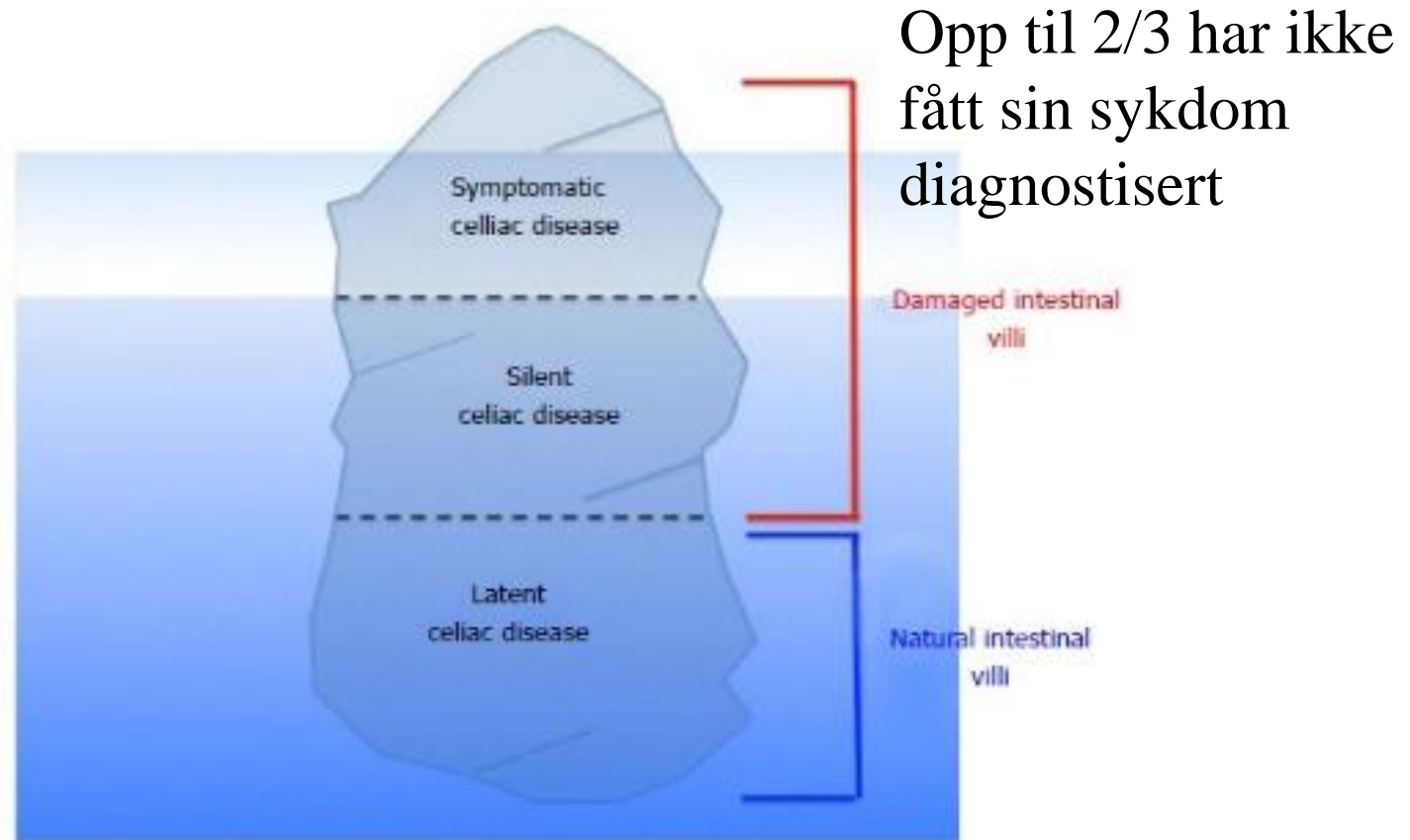
LATEST NEWSCAST

# Epidemiologi

- 1-2% i Norge
  - Opp til 3%
- Varierer i verden
  - Totalt ca 1%
  - Genetikk/kosthold
  - Andre miljøfaktorer
- Mange har ikke fått diagnosen



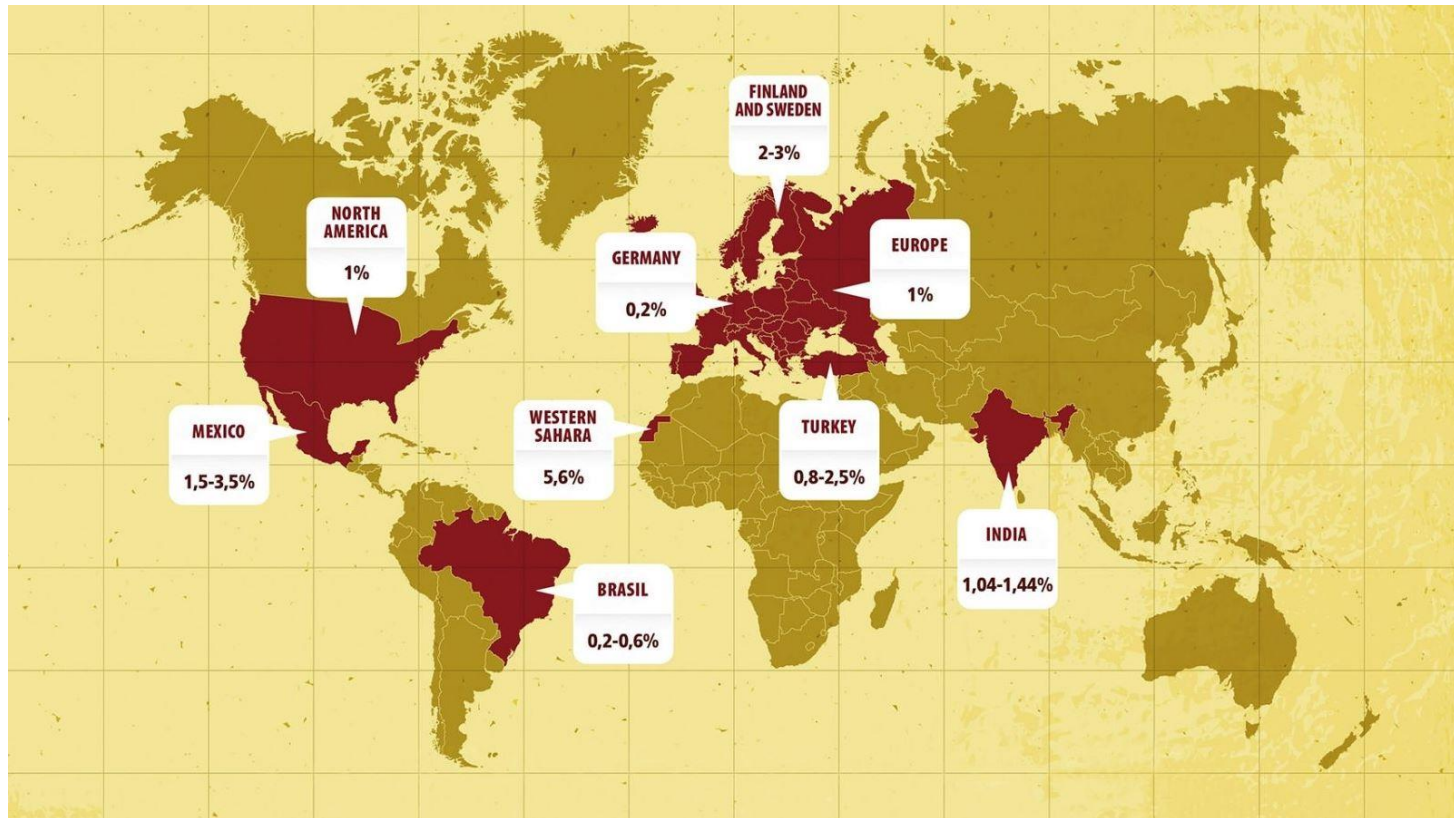
# Det cøliakiske isberget



# Arvelighet

- Overrepresentert i noen familier
  - 2-15% hos førstegradsslektinger
- Koblet til vevstypen HLA- klasse II- genene DQ2 og DQ8
  - >95% av personer med cøliaki Nordeuropa
  - 30% av normalbefolkningen
- 70% konkordanse hos eneggstvillinger

# Epidemiologi



# Årsak og mekanismer

- Multifaktoriell årsak
  - Genetikk
  - miljøfaktorer
    - Kost
    - Infeksjoner
- Autoimmun sykdom; T-celle mediert
- Glutenproteiner: Prolaminer
  - Hvete, bygg, rug



# Tarmskaden

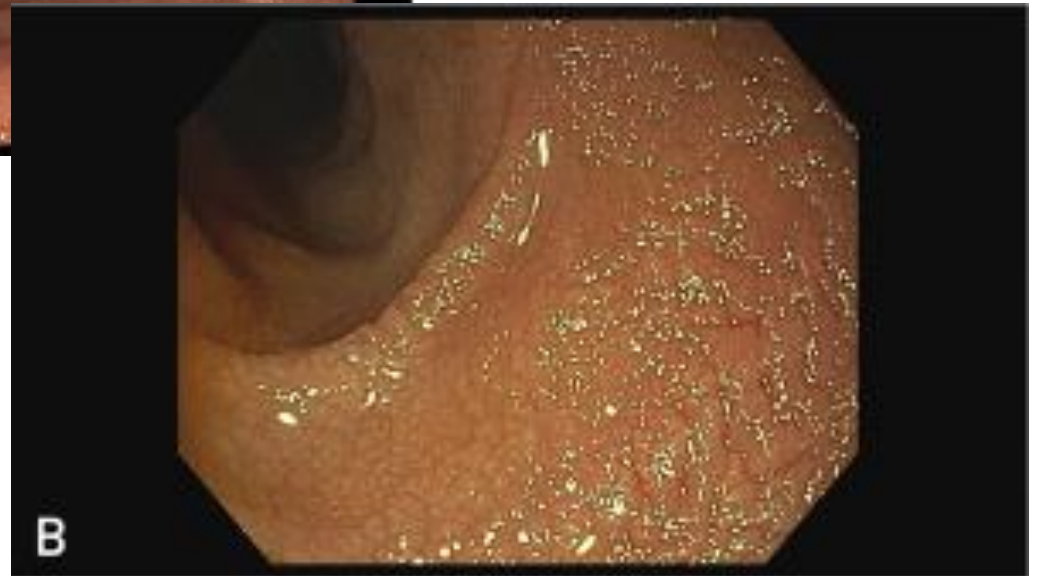
- Tolvfingertarmen
  1. Totteatrofi
  2. Krypthyperplasi
  3. Økt antall lymfocytter intraepiteliaalt
- Gradering:
  - Marsh type 1- 3c



A

A. Frisk

Tolvfingertarmen  
(Duodenum)



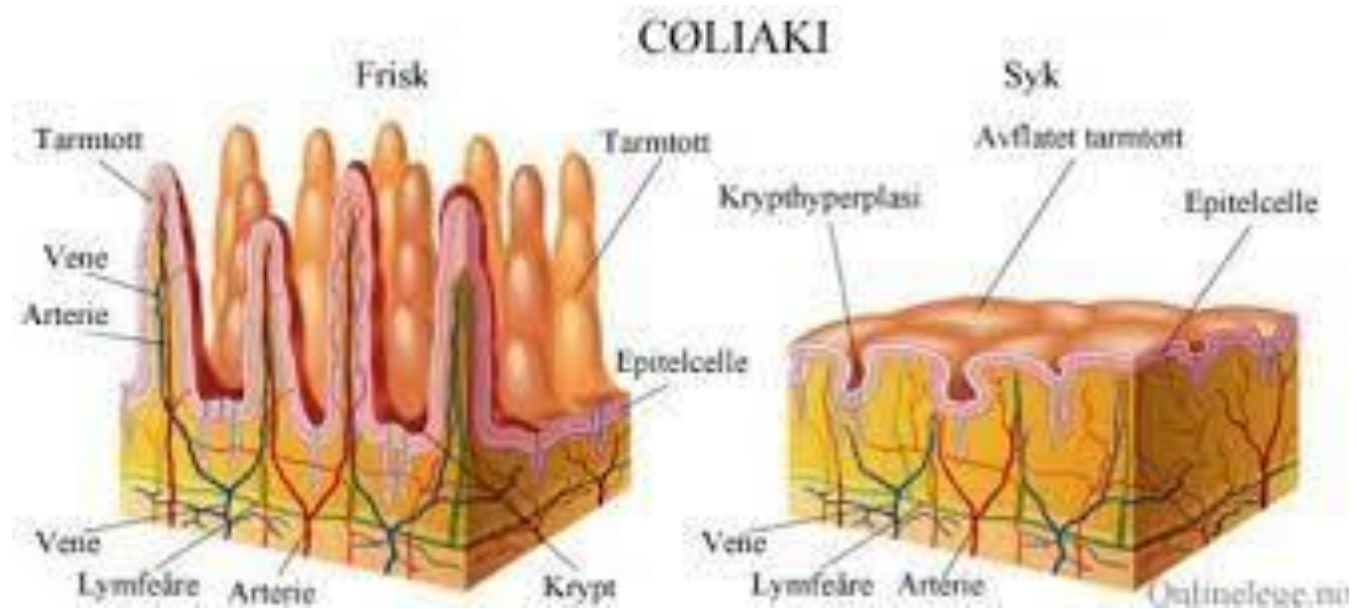
B

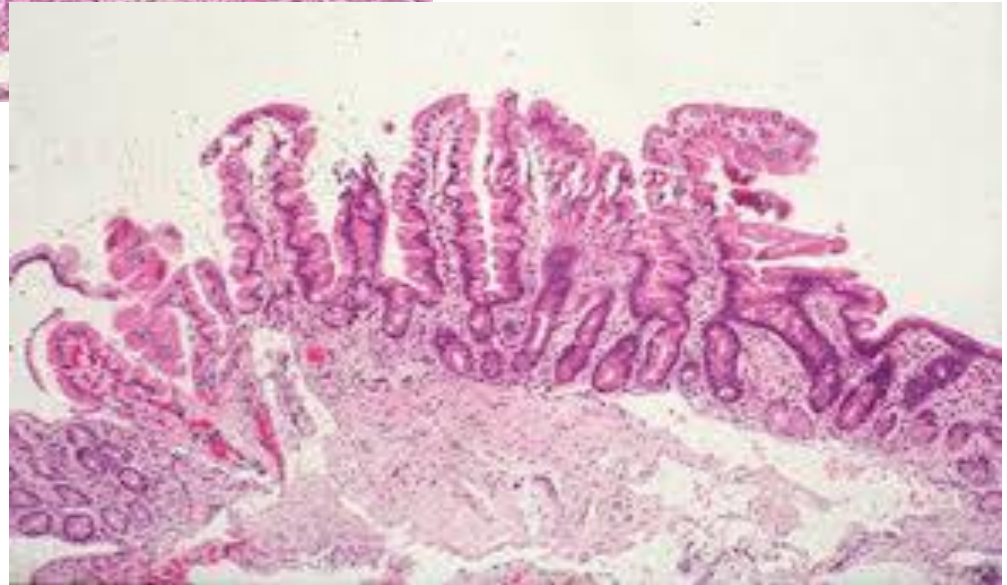
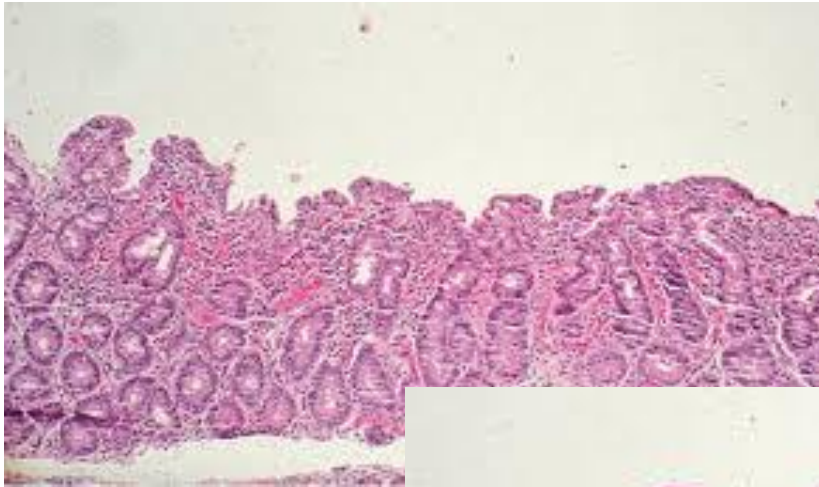
B. Cøliaki



**ST. OLAVS HOSPITAL**  
UNIVERSITETSSYKEHUSET I TRONDHEIM

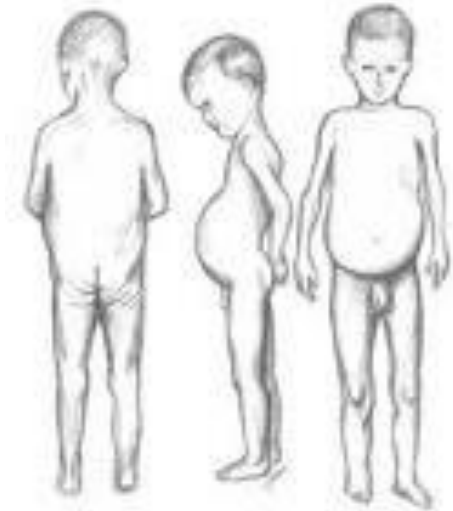
# Tarmskaden





# Symptomer; typiske

- Diaré
- Magesmerter
- Fatigue, slitenhet
- Økt luft i magen; prompting, oppblåsthet, utspilt mage
- Dårlig vekst
- Dårlig vektoppgang / Vekttap
- Irritabilitet
- Oppkast
- Illeluktende avføring
- Økt appetitt
- Forsinket / manglende pubertet



# Symptomer; atypiske

- Muskelatrofi
- Blekhet
- Muskelsvakhet, nedsatt muskelspenning (hypotoni)
- Forstoppelse
- Rektalprolaps, analprolaps
- Metabolsk bensykdom
- Økt infeksjonsfølsomhet
- Søvnforstyrrelse
- Ødemer

# Funn



- Jernmangelanemi
- Vekttap, vekstsvikt, forsinket pubertet
- Muskelatrofi, utspilt mage
- Lav albumin (proteiner)
- Lave vitaminer (vit D, Folsyre, B12)
- Forhøyede leverprøver
- Lave sporstoffer (sink, kalsium)

# Antistoffer

## Mange forskjellige antistoffer

- IgA antistoffer mot deamidert gliadinpeptid (DGP)
- IgA a.s mot Endomysium (EMA)
- IgA a.s mot vevstransglutaminase (TGA)
  - Høy sensitivitet 95%
  - Høy spesifisitet 95%
- IgG antistoffer



# Diagnose

- Tynntarmsbiopsier (vevsprøver fra tolvfingertarmen)
  - Vanlig glutenholdig diett
  - Noen ganger biopsi 2 på GFD og tom glutenprovokasjon og biopsi nr 3
- Antistoffer alene (Barn opp til 18 års alder):
  - A-vevstransglutaminase IgA > 10x forhøyet (2 prøver)
  - Sterkt positiv a-Endomysium

# Assosierte sykdommer

- Dermatitis herpetiformis «hudcøliaki»
- Økt forekomst av cøliaki ved:
  - Down's syndrom
  - Turner syndrom
  - Andre autoimmune skd:
    - Diabetes mellitus type 1
    - Stoffskiftesykdom
    - Addisons sykdom
    - Leversykdommer, reumatiske sykdommer
- Selektiv IgA-mangel
  - Økt risiko for cøliaki, falsk negative prøver



# Prognose

- God!
- Risk for komplikasjoner ved dårlig eller ubehandlet cøliaki

# Behandling

Livslang glutenfri diett!



## A Randomized Trial of a Transglutaminase 2 Inhibitor for Celiac Disease

Schuppan D et al. DOI: 10.1056/NEJMoa2032441

### CLINICAL PROBLEM

In celiac disease, transglutaminase 2, an autoantigen, causes deamidation of certain glutamine residues in gluten peptides. This process triggers T cells to damage the mucosa in the small intestine. Current treatment is limited to following a strict gluten-free diet.

### CLINICAL TRIAL

**Design:** A phase 2, proof-of-concept, randomized, controlled trial to assess the efficacy and safety of ZED1227, a selective oral transglutaminase 2 inhibitor, during gluten challenge in patients with well-controlled celiac disease.

**Intervention:** 159 adults with confirmed celiac disease controlled by diet were assigned to one of three doses of ZED1227 (10, 50, or 100 mg) or placebo daily for 6 weeks. Participants ate a biscuit containing 3 g of gluten each morning and otherwise followed their regular gluten-free diet. The primary end point was attenuation of gluten-induced mucosal damage, as measured by the ratio of villus height to crypt depth in duodenal-biopsy samples.

### RESULTS

**Efficacy:** All three doses of ZED1227 led to significantly less gluten-induced mucosal damage at 6 weeks than placebo.

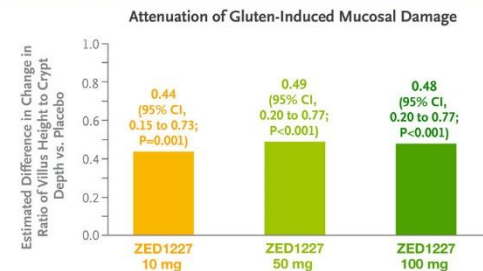
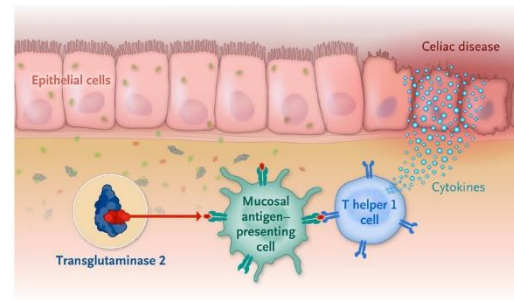
**Safety:** Most adverse events occurred at a similar incidence in the ZED1227 groups and the placebo group. Rash developed in 3 patients in the 100-mg ZED1227 group.

### LIMITATIONS AND REMAINING QUESTIONS

Further study is required to understand the following:

- Whether efficacy and safety would be similar in a larger group of patients over a longer time.
- Whether effectiveness will be seen with real-world consumption of small amounts of gluten.

Links: [Full article](#) | [NEJM Quick Take](#) | [Editorial](#)



### CONCLUSIONS

In this preliminary trial, the investigational transglutaminase 2 inhibitor ZED1227 attenuated gluten-induced duodenal mucosal damage, as compared with placebo, in patients with celiac disease.

# Behandling

## Gjennombrudd i behandlingen av cøliaki?

En kapsel som inneholder et stoff som hemmer enzymet transglutaminase 2 i tarmslimhinnen, har i en pilotstudie vist svært lovende resultater blant pasienter med cøliaki.



## A Randomized Trial of a Transglutaminase 2 Inhibitor for Celiac Disease

[July 1, 2021](#)

# Takk for oppmerksomheten

