

# H. pylori?

**Lactobacillus reuteri DSM17648 binds directly to H. pylori to reduce the bacterial load of H. pylori in the stomach.**



**Figure 1:** The surface structures of *L. reuteri* DSM17648 contain adhesion molecules (shaped like hooks, shown in green) that recognise and adhere to surface structures of *H. pylori* (shown in red). *L. reuteri* DSM17648 coaggregates (binds) directly with *H. pylori*. Once the bond is made, *H. pylori* is excreted from the body via the digestive tract alongside the *L. reuteri* DSM17648.

The coaggregation is dependant only on the

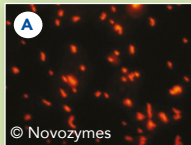
mechanical binding of these structures.

*L. reuteri* DSM17648 can withstand the acidic pH of the stomach because it employs a mechanism that does not depend on survival in the gastric environment.

Unlike other strains of *Lactobacillus reuteri*, *L. reuteri* DSM17648 is not intended for gut colonisation. Instead, *L. reuteri* DSM17648 simply binds to *Helicobacter pylori* and passes out via natural bowel movements.

**Coaggregation of *L. reuteri* DSM17648 with *H. pylori* is macroscopically visible.**

**A:** *Helicobacter pylori* (Red); **B:** *L. reuteri* DSM17648 (Green);  
**C:** *L. reuteri* DSM17648 coaggregates with *Helicobacter pylori*



Formation of coaggregate with DSM17648 and bacterium. Microscopic analysis (1,000 x magnification) of coaggregation of *L. reuteri* DSM17648 with bacterium in artificial stomach acid.

## Clinical Research

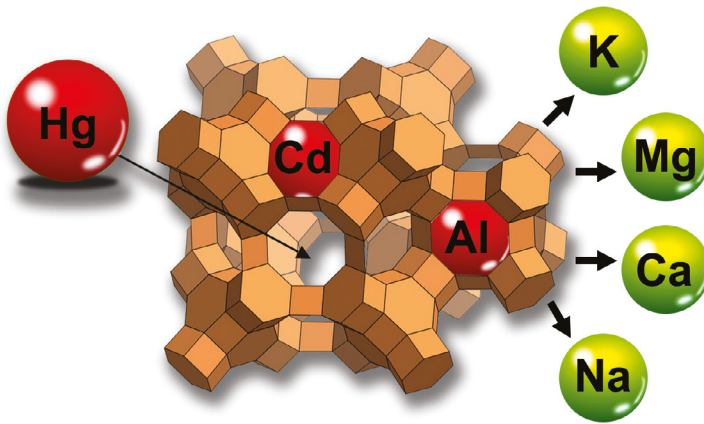
- Gastric microbiota and probiotics opportunities in *Helicobacter pylori* eradication in children – Kornienko et al 2020
- *Lactobacillus reuteri* – An alternative in the first-line of *Helicobacter pylori* eradication – Mihai et al 2019
- The effect of *Lactobacillus reuteri* supplementation in *Helicobacter pylori* infection: a placebo-controlled, single-blind study – Buckley et al 2018
- Significant Reduction in *Helicobacter pylori* Load in Humans with Non-viable *Lactobacillus reuteri* DSM17648: A Pilot Study – Holz et al 2014
- Non-Viable *Lactobacillus reuteri* DSM17648 as a New Approach to *Helicobacter pylori* Control in Humans – Mehling et al 2013

# H. pylori?

MANC® particles are the **safest** and most **effective** form of clinoptilolite zeolite which have the ability to bind and eliminate the protective shield of ammonium that H. pylori creates to survive in the stomach. Over 5 days, the ammonium shield can be slowly broken down using MANC® particles, leaving the H. pylori bacteria exposed to the acidic stomach conditions. Gastric acid is then able to kill off the infestation and eliminate H.pylori.

## What role do MANC® particles play in the elimination of Helicobacter pylori?

H. pylori also engages in the production of histamine which causes the associated digestive symptoms such as inflammation of the intestinal wall. MANC® particles bind to histamine in the wall of the small intestine to reduce the inflammation. MANC® particles also stop histamine being absorbed by the body, where it would otherwise be free to circulate and cause histamine modulated symptoms in areas where histamine receptors are present e.g. lungs, heart, brain, skin.



\*MANC® is proven to **selectively** bind to toxins and **not** essential minerals and micronutrients in the body

### Carry out the following procedure each morning for 5 days:

**8:00am:** Stir 3 Medi PLUS Sachets into 200ml of water and drink slowly over the next hour, on an empty stomach

**9:00am:** Eat several small bites from a bread roll (or vegan substitute) to stimulate acid production in the stomach

**10:00am:** Stir 3 more Medi PLUS Sachets into 200ml of water and drink slowly over the next hour

**11:00am:** Again, eat several small bites from a bread roll (or vegan substitute) to stimulate acid production in the stomach

Do not eat anything until **12:00pm** (mid-day)

Do not eat or drink anything extra from **8:00am to 12:00pm** (mid-day)

Over the **5 days**, it is very important to eat light meals, preferably without meat, and avoid tea, coffee and alcohol. This is due to protein degradation from meat producing ammonia and, consequently, ammonium, which may contribute towards neutralising gastric acid.

**In addition, 400mg L. reuteri DSM17648 can be used between 8am and 10am to reduce the bacterial load of H. pylori.**