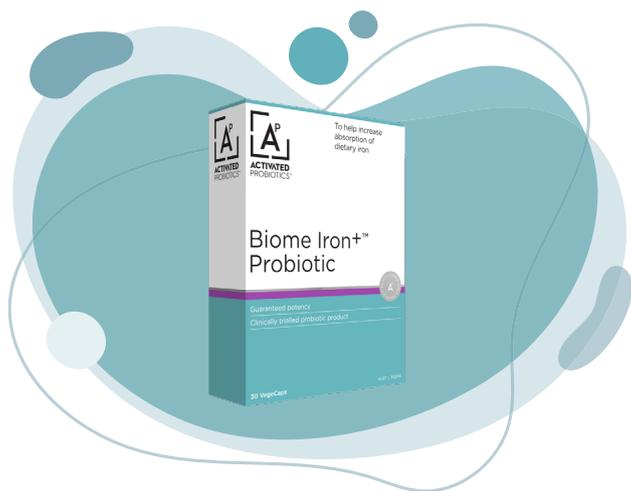




# Biome Iron™ Probiotic

## Condition Management Guide To increase iron absorption



### INTRODUCTION

Many population groups struggle to maintain normal iron levels, including menstruating women (particularly those with heavy periods), pregnant women, vegetarians and vegans, and people with chronic bowel diseases, such as Coeliac disease.

Biome Iron+™ Probiotic contains *Lactobacillus plantarum* 299v, a probiotic strain clinically proven to increase the absorption of dietary iron (1). We recommend prescribing Biome Iron+™ Probiotic as a stand-alone product, or alongside low-dose iron supplements (which contain <24mg elemental iron) to help maintain normal iron levels in the body. Biome Iron+™ Probiotic is safe for use in pregnancy, and can be used alongside prenatal vitamin and mineral supplements.

#### CONSIDER AS AN ADJUNCT TO:

Oral Iron Supplements



#### CONSIDER AS A COMPLEMENT TO:

Low Dose Oral Iron Supplements



### REFERENCES

1. Hoppe M, Önning G, Hulthén L. Freeze-dried *Lactobacillus plantarum* 299v increases iron absorption in young females—Double isotope sequential single-blind studies in menstruating women. van Wouwe JP, editor. *PLoS one*. 2017 Dec 13;12(12):e0189141.



# Biome Iron<sup>+</sup><sup>™</sup> Probiotic

Supporting clinical  
research



PLoS One. 2017 Dec 13;12(12):e0189141. doi: 10.1371/journal.pone.0189141. eCollection 2017.

## **FREEZE-DRIED LACTOBACILLUS PLANTARUM 299V INCREASES IRON ABSORPTION IN YOUNG FEMALES - DOUBLE ISOTOPE SEQUENTIAL SINGLE-BLIND STUDIES IN MENSTRUATING WOMEN.**

Hoppe M, Önning G, Hulthén L.

### **BACKGROUND**

The probiotic strain *Lactobacillus plantarum* 299v has earlier been shown to increase iron absorption when added to foods. However, it is not known if the same probiotic strain in a freeze-dried format included in a capsule increases the iron absorption.

### **OBJECTIVE**

The aim of this study was to test the hypotheses that non-heme iron absorption from a light meal is promoted by a simultaneous intake of freeze-dried *Lactobacillus plantarum* 299v (Lp299v, DSM 9843).

### **RESULTS**

In study 1, the absorption of iron from a meal without Lp299v was found to be  $17.4 \pm 13.4\%$ , and from an identical meal with Lp299v was found to be  $22.4 \pm 17.3\%$  (mean  $\pm$  SD). This difference was statistically significant ( $p = 0.040$ ,  $n = 14$ ). In study 2, the absorption of iron from a meal without Lp299v was found to be  $20.9 \pm 13.1\%$ , and from an identical meal with Lp299v found to be  $24.5 \pm 12.0\%$  (mean  $\pm$  SD,  $n = 28$ ), which again was statistically significant ( $p = 0.003$ ).

### **STUDY DESIGN**

With a single blinded placebo controlled sequential design, iron absorption from a light breakfast meal administered with or without capsules containing  $10^{10}$  cfu freeze-dried Lp299v was studied in healthy female volunteers of fertile age. The methodology used was a double isotope technique ( $^{59}\text{Fe}$  and  $^{55}\text{Fe}$ ). Two studies were performed using the same protocol.

### **CONCLUSION**

**Freeze-dried Lp299v enhances the absorption of iron when administered together with a meal with a high iron bioavailability.**