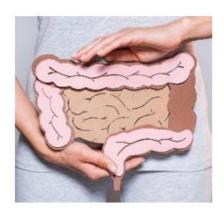
PRESSRELEASE

UNDER EMBARGO UNTIL JULY 15, 2025, 17h MID-EUROPEAN SUMMER TIME

PRESS RELEASE. Emmeloord, July 15, 2025







Groundbreaking research:

WholeFiber™ improves insulin sensitivity and reduces fat storage in prediabetes

WholeFiber™ dried chicory root, of Dutch origin, improves insulin sensitivity, lowers blood fat levels, reduces the number of large fat cells and improves composition of the gut microbiome, in people with pre-diabetes. This was shown in research done by Maastricht UMC+ and Wageningen University. Twelve weeks of daily WholeFiber™ led to measurable health improvements. The findings were published July 15 in *Cell Reports Medicine*.

'It is groundbreaking, that study participants showed both improvements in insulin sensitivity and blood values, and in fat cell size, after daily consumption of a prebiotic vegetable,' said Emeritus Professor Willem M. de Vos, scientific advisor to WholeFiber. 'The positive effects of the prebiotic fibers in WholeFiber™ on the gut microbiome and blood sugar stability, were already known and are validated by this recent study. New findings are the improvement of insulin sensitivity, reduced levels of blood triglycerides, and reduction in fat cell size. The results offer new leads for the prevention of diabetes and cardiovascular disease.'

High butyrate content

What is special about the prebiotic fibers in dried chicory root is that – unlike isolated, processed fibers – they are "intrinsic". They are still incapsulated within the structure of intact plant cells which significantly slows their release in the colon. This enables them to reach the last part of the colon, while fermentation by beneficial gut bacteria produces extra amounts of the beneficial substance butyrate – essential for the health improvements achieved.

Comprehensive measurements

The study, conducted by researchers from Maastricht UMC+ and Wageningen University, and led by Professor Ellen Blaak, followed forty-two overweight and pre-diabetic people. One half received dried chicory root daily, while the other half received a placebo. Neither participants nor researchers knew who received which. The researchers took extensive measurements of the participants' gut microbiome, blood values, fat cells (via biopsies) and liver fat (via MRI). Insulin sensitivity was measured using the gold standard: the *2-step hyperinsulinemic*

hypereuglycemic clamp. This involves participants receiving a low followed by a high dose of insulin. This method determines the insulin sensitivity of different tissues.

Results

Twelve weeks of WholeFiber™ led to:

- 15% better insulin sensitivity. This contributes to a lower and more stable level of blood sugar.
- 15% less triglycerides in the blood. Excessive levels of triglycerides increase the risk of cardiovascular disease.
- 20% reduction (in numbers) in large fat cells. Large fat cells produce hormones, increase inflammation and lower insulin sensitivity. Smaller fat cells are more beneficial to health.
- Less fat in the liver. Excess liver fat creates additional risk of liver inflammation / liver disease.
- Improved composition of the gut microbiome. A balanced gut microbiome is fundamental to good health: amongst its many functions it supports metabolism and hormone balance, regulates the immune system and aids digestion. In the study, consumption of dried chicory root increased the number of beneficial gut bacteria, such as *Bifidobacterium* and *Anaerostipes hadrus*.
- Increased production of butyrate and propionate. Beneficial to intestinal health.

Prediabetes

According to an earlier <u>Maastricht UMC+ November 2024 study</u>, approximately 1.4 million Dutch people have prediabetes, most without being aware of it. Half of people with prediabetes eventually develop type 2 diabetes. However, prediabetes can be reversed through lifestyle changes such as increased exercise and healthy eating with adequate fiber. 'This intervention study (RCT) with WholeFiberTM re-confirms that minimally processed dried chicory root is a safe and easy in use solution for people with pre-diabetes, obesity and cardiovascular disease to prevent the onset into type 2 diabetes,' said F.S.Kaper, CEO of WholeFiber.

About WholeFiber BV

Strengthening everyone's health, at a fundamental level, every day. This is the mission of the WholeFiber venture, founded by F.S. Kaper in 2012. The company, initially based in NJ/USA where it developed IP protected processes for intrinsic plant-based products, currently cultivates and minimally processes chicory roots in Flevoland, The Netherlands. The pure and natural dried chicory root branded as WholeFiber™ is distributed in The Netherlands and Belgium, with the United Kingdom and Germany coming on board shortly. WholeFiber™ is naturally rich in multiple prebiotic fibers, polyphenols and minerals, which are present as in the original structure of the plant cell – with proven positive effects on the gut microbiota and subsequently on many aspects of health.

Want to know more?

Visit our website <u>www.WholeFiber.nl</u>. Read the scientific paper in <u>Cell Reports Medicine</u> or review <u>previous studies</u> on <u>dried chicory root</u>. For more info, email: <u>info@WholeFiber.nl</u>

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NOTE TO THE PRESS:

For questions regarding this press release or additional images, please contact info@wholefiber.nl