INFIBER SUMMARY OF SUPPORTING EVIDENCE

HyFIBER contains a unique blend of polydextrose (PDX) and fructo-oligosaccharides (FOS). Evidence for the effects of these ingredients on bowel transit is summarised below.

Author and year	Study design	Intervention and duration	Participants	Key findings in relation to bowel transit
				PDX
1. Ibarra et al., 2019	Randomised, double blind, parallel design, placebo-controlled trial	4, 8 or 12g PDX per day 14 days	192 healthy adults with self-reported constipation	 Stool frequency increased significantly after 12g PDX compared to control (P=0.017) Degree of straining was significantly decreased, and proportion of complete bowel movements significantly increased, after 8 and 12g PDX compared to baseline (P<0.05), but not control No significant differences were seen in colonic transit time
2. Shimada et al., 2015	Randomised, triple blind, parallel design, placebo-controlled trial	10g PDX per day 28 days	29 haemodialysis patients with constipation	 Stool frequency increased significantly in the PDX group to 8.5 times per week (compared to 3.0 at baseline, and 5.0 in the control group) (P<0.05) No significant changes were seen in stool score (stools were normal consistency at baseline)
3. Timm et al., 2013	Randomised, double blind, crossover design, placebo-controlled trial	20g PDX or 20g soluble corn fibre per day 10 days	36 healthy adults	 5-day faecal wet weight, daily stool wet weight and stool frequency increased significantly after PDX compared to control (P<0.05) Stools were significantly softer after PDX compared to control (P<0.05) No significant changes were seen in mean weight per stool or whole gut transit time
4. Boler et al., 2011	Randomised, double blind, crossover design, placebo-controlled trial	21g PDX or 21g soluble maize fibre per day 21 days	21 healthy adult men	 Faecal dry weight tended to be greater after PDX compared to control (P=0.07) PDX led to a 4.3g increase in faecal mass, and 1.4g increase in faecal dry mass, per g supplemental fibre intake No significant changes were seen in ease of stool passage, stool consistency or number of defecations
5. Hengst et al., 2009	Randomised, parallel design, placebo-controlled trial	8g PDX per day 21 days	45 healthy adults	 Oro-faecal transit time decreased significantly in the PDX group compared to baseline (P<0.05) No significant differences were seen in overall stool weight or stool consistency, however a subset of subjects suffering from constipation reported an improved ease of defecation by one unit on the Bristol stool form scale
6. Jie et al., 2000	Randomised, double blind, parallel design, placebo-controlled trial	4, 8 or 12g PDX per day 28 days	120 healthy adults	 Frequency and ease of defecation improved significantly in all groups of PDX, in a dose dependent manner, compared to baseline and control (P<0.01) Faecal weight (wet and dry) increased significantly after 12g PDX, compared to baseline and control (P<0.01)

PDX and FOS							
7. Toporovski et al., 2021	Prospective, noncomparative, interventional study	4.17g PDX and 0.45g FOS per day 45 days	77 children (4-8 years) with symptoms related to constipation for > 1 month	 At the end of the intervention there was a significant (P<0.001) reduction in the proportion of children with: <3 bowel movements per week (from 59.7 to 11.7%) Bristol type 1 and 2 dry stools (from 68.8 to 7.8%) Pain on defecation (from 79.2 to 10.4%) Fear of defecation (from 68.8 to 3.9%) Abdominal pain (from 84.2 to 2.6%) There was a significant increase in weekly frequency of bowel movements from 3.4 to 5.2 (P<0.001) 			
FOS							
8. De Vries et al., 2019	Systematic review and meta-analysis	1.26-30g β-fructans per day 1-105 days	47 studies	 Stool frequency (P<0.001), stool consistency (P=0.006) and stool wet weight (P=0.016) were significantly increased after short chain β-fructans. No effect was observed on stool dry weight Not enough studies reported data on intestinal transit to perform a meta-analysis 			
9. Closa- Monasterolo et al., 2017	Randomised, double blind, parallel design, placebo-controlled pilot study	4g fructan blend (70:30 oligo-fructose (OF) and inulin) per day 6 weeks	17 children (2-5 years) with constipation	 Stools were significantly softer during the intervention period in children receiving the fructans compared to control (P=0.003) Stool frequency increased by 1.3 stools per week in the fructan group but was not statistically significant 			
10. Buddington et al., 2017	Randomised, double blind, parallel design, placebo-controlled trial	5 – 15g OF per day 12 weeks	97 healthy adults with ≤3 stools per week and low fibre intake	 Stool frequency increased as the dose of OF increased, and was significant at 15g per day (P=0.023) No significant changes were seen in stool consistency 			
11. Meksawan et al., 2016	Randomised, double blind, crossover design, placebo-controlled trial	20g FOS per day 30 days	9 elderly peritoneal dialysis patients with chronic constipation	 Frequency of defecation was significantly increased after FOS, compared to baseline and control (P<0.005) The stool appearance changed from type 1 to type 4 after FOS Colonic transit was significantly faster after FOS, compared to baseline and control (P<0.05) 			

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