

Reference	Study design	Subjects	Findings related to symptom control
Studies investigating precursors of the low FODMAP diet			
Ledochowski et al., 2000; Austria [49]	Consecutive patients educated to restrict fructose and sorbitol for 4-weeks	Patients with gastrointestinal complaints and fructose malabsorption (n=53)	27% reduction in meteorism (p<0.0001)
Bohmer et al., 2001; The Netherlands [88]	Consecutive patients educated to restrict lactose for 6-weeks	Patients with IBS and lactose malabsorption (n=17)	17% reduction in cumulative symptom score (p<0.001)
Shepherd et al., 2006; Australia [57]	Retrospective telephone questionnaire after restriction of fructose and fructan	Patients with IBS previously educated in a fructose and fructan restricted diet (n=62)	74% of all patients responded positively in all abdominal symptoms
Shepherd et al., 2008; Australia [58]	Randomised, placebo-controlled re-challenge of fructose and fructans	Patients with IBS and fructose malabsorption who previously responded to diet that restricted fructose and fructans (n=25)	70% of patients receiving fructose, 77% receiving fructans, and 79% receiving a mixture reported symptoms were not adequately controlled, compared with 14% receiving glucose (p<0.002)
Studies utilising the complete low FODMAP diet			
Barrett et al., 2010; Australia [72]	Randomized, cross-over, single-blinded intervention study – low vs high FODMAP	Ileostomates without evidence of small intestinal disease (n=12)	Water content of daily output decreased by 20% on the low FODMAP diet and patients felt effluent consistency was thicker (p=0.006)
Ong et al., 2010; Australia [69]	Single-blind, crossover intervention, feeding trial – low vs high FODMAP	Healthy subjects (n=15) and patients with IBS (n=15)	Gastrointestinal symptoms and lethargy were significantly induced by the high FODMAP diet in patients with IBS (p=0.002)
Staudacher et al., 2011; United Kingdom [70]	Non-randomised comparative study – low FODMAP vs standard (NICEa) diet	IBS patients who received standard (n = 39) or low FODMAP dietary advice (n = 43)	76% of patients in the low FODMAP group reported satisfaction compared to the standard group (p=0.038)
Staudacher et al., 2012; United Kingdom [82]	Randomized, controlled trial – low FODMAP vs habitual diet	Patients with IBS randomised to low FODMAP diet (n=19) or habitual diet (n=22)	More patients in the intervention group reported adequate control of symptoms (13/19, 68%) compared with controls (5/22, 23%; p=0.005)
De Roest et al., 2013; New Zealand [86]	Prospective symptom questionnaire following low FODMAP diet education	Patients with IBS patients taught the low FODMAP diet (n=90)	72% were satisfied with symptom response
Halmos et al., 2014; Australia [71]	Randomized, controlled, single-blind, cross-over, feeding trial – low FODMAP vs typical Australian diet	Patients with IBS (n=30) and healthy subjects (n=8) – all low FODMAP diet-naïve	Subjects with IBS had significantly lower overall symptoms on the low FODMAP diet compared to the Australian diet (p<0.001). Improvements were also seen in bloating, pain and flatulence
Pedersen et al., 2014; Denmark [89]	Randomised, unblinded controlled trial – low FODMAP diet vs probiotic vs normal diet	Patients with IBS randomised to low FODMAP diet (n=42), probiotics (n=41) and normal diet (n=40)	Significant reduction in symptom score with low FODMAP diet and probiotic groups compared to the normal diet (p<0.01)
Bohn et al., 2015; Sweden [90]	Multi-centre, randomised, parallel, single-blind study – low FODMAP vs traditional (NICE) advice	IBS patients received low FODMAP diet (n=33) vs traditional advice (n=34) for 4-weeks	IBS symptom severity was reduced in both groups during the intervention (p<.0001), with no difference between the groups (p=0.62)
Chumpitazi et al., 2015; USA [83]	Double-blind, crossover trial – low FODMAP vs typical American diet	2-day interventions in children (aged 7-17 years) with IBS (n=33)	Less abdominal pain occurred with the low FODMAP diet (p<0.05)
Wingham et al., 2015; United Kingdom [85]	Non-randomised comparative study – group vs one-to-one FODMAP education	Patients with IBS received either group education (n=263) or one-to-one education (n=101) on the low FODMAP diet	Group education was as clinically effective as one-to-one education. In addition, group education was found to be more cost-effective
Eswaran et al., 2016; United States of America [91]	Randomised controlled trial – low FODMAP diet vs modified traditional (NICE) advice	Patients with IBS-D randomised to either low FODMAP diet (n=45) or modified NICE diet (n=39) for 4-weeks	Adequate relief reported in 52% on low FODMAP diet vs 41% on the modified NICE diet (p=0.31). Higher proportion had improved abdominal pain with low FODMAP diet (p=0.008)
Peters et al., 2016; Australia [92]	Randomised clinical trial – low FODMAP diet vs gut-directed hypnotherapy vs combined treatment	Patients with IBS randomised to either low FODMAP diet (n=24), hypnotherapy (n=25) or combination therapy (n=25) for 6-weeks	Improvements in overall symptoms were observed from baseline to week 6 for hypnotherapy (72%), diet (71%), and combination therapy (72%) with no difference across groups (p=0.67)
Maagaard et al., 2016; Denmark [93]	Retrospective, cross-sectional study following low FODMAP diet education	Questionnaire sent to IBS (n=131) and IBD (n=49) patients previously educated on a low FODMAP diet	Eighty-six percent reported either partial (54%) or full (32%) efficacy with greatest improvement of bloating (82%) and abdominal pain (71%)
McIntosh et al., 2016; Canada [94]	Prospective, randomised, single blind parallel study – low vs high FODMAP	IBS FODMAP diet-naïve patients (n=40) who received dietary advice on either low or high FODMAP diet	72% had reduced symptoms on the low FODMAP diet compared to 21% on the high FODMAP diet (p=0.01)
O’Keeffe et al., 2018; UK [110]	Prospective, uncontrolled, unblinded intervention study that measured short and long term symptom response to dietitian delivered education re FODMAP restriction and reintroduction.	Patients with IBS (n=103) who all completed 2 education sessions with a specialised gastroenterology dietitian about 1) FODMAP restriction and 2) FODMAP reintroduction	Satisfactory relief of IBS symptoms reported by 12% at baseline, 61% following FODMAP restriction (6-weeks post baseline) and 57% following FODMAP reintroduction (6-18 months post baseline). 82% followed an ‘adapted FODMAP diet’ at 6-18 months post baseline[M., 2018 #1966].
Schumann, D., et al; Germany [108]	Single blinded RCT that compared a 12 week yoga intervention to dietitian delivered education about a low FODMAP diet	Patients with IBS (n=59) randomised to yoga (2 sessions per week for 12 weeks) or low FODMAP diet education (3 sessions over 12 weeks)	No difference in symptom severity between yoga and low FODMAP diet interventions. At 12 weeks, 82% of patients reported adequate relief of their IBS symptoms.
Schumann, D., et al; Germany [109]	Meta-analysis and review that looked at the efficacy of a low FODMAP diet	Nine RCTs that included 596 subjects and compared a low FODMAP diet to another dietary intervention.	A low FODMAP diet led to significant improvements in gastrointestinal symptoms, abdominal pain, and QOL compared to other diets. A low FODMAP diet also reduced luminal bifidobacteria in 3 studies. No adverse events were reported.
Zahedi, et. al; 2018; Iran [117]	Randomised controlled trial. Patients educated by GI dietitian to follow a 6 week low FODMAP diet vs 'general dietary advice (GDA). GDA was consistent with British Dietetic Association guidelines to limit caffeine, alcohol, spicy food, fatty food, carbonated drinks; chewing gum and polyol sweeteners.	Patients with IBS-D (n=110)	Both diets improved over IBS symptoms, but this improvement was greater in the LFD group.
Staudacher, et. al; 2017; UK [96]	Randomised controlled trial. Subjects counselled to follow a sham or low FODMAP diet, along with a placebo or multistrain probiotic (4 group study).	Subjects with IBS (n=104)	Adequate symptom relief experienced by more patients following the low FODMAP diet than the sham diet.
Paduano, et. al; 2019; Italy [118]	Non-randomised intervention study. Participants educated by a dietitian to follow 3 different diets in succession and each for 4 weeks: low FODMAP diet, gluten free diet and balanced Mediterranean diet.	Subjects with IBS (n=42)	All the diets reduced symptom severity, bloating and QOL, but patients expressed a strong preference for the balanced diet.
Marsh, et. al; 2015; Australia [84]	Systematic review and meta-analysis	Six RCTs and 16 non-randomized interventions in people with IBS or IBD	LFD reduced IBS symptom severity, improved IBS QOL and improved abdominal pain, bloating and overall symptoms

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