



Figure S1 Example literature search per author instructions.

Table S1 Summary of primary articles

Author	Year	Country	Study Design	Sample Size (n)	Prehabilitation Intervention	Control	Findings Associated with Prehabilitation
Baillot <i>et al.</i>	2013	Canada	Pilot of RCT	12	12 weeks of endurance and strength program, twice a week. Partially supervised, personalized, in addition to lifestyle counseling and dietary education.	No control group	Significant decreases in preoperative weight, BMI, and fat mass. Significant improvement in preoperative 6 minute walk, strength, fear of embarrassment and injury on surveys.
Baillot <i>et al.</i>	2016	Canada	RCT	30	12 weeks of endurance and strength program, three times a week for 80 minutes. Partially supervised **	Lifestyle counseling, dietary education, physical activity counseling	Significant increase in preoperative 6 minute walk. No difference in BMI, weight, anthropomorphic measures, overall QoL.
Baillot <i>et al.</i>	2018	Canada	RCT	25	12 weeks of endurance and strength program, 3 times a week for 80 minutes. Partially supervised **	Lifestyle counseling, dietary education, physical activity counseling	Significant increases in postoperative light and moderate activity, energy expenditure, steps, BMI, and fat free mass. No difference in strength, heart rate, blood pressure or QoL.
Bond <i>et al.</i>	2015	USA	RCT	75	6 weekly meetings to discuss increasing physical activity, with goal of increasing walking duration by 10 minutes each session **	Standard preoperative care, encouragement of physical activity	Significant increase in preoperative moderate vigorous physical activity as measured by fitness tracker.
Bond <i>et al.</i>	2017	USA	RCT	36	6 weekly meetings to discuss increasing physical activity, with goal of increasing walking duration by 10 minutes each session **	Standard preoperative care, encouragement of physical activity	Significant increase in postoperative number of steps. No difference in postoperative moderate vigorous physical activity.
Funderburk and Callis	2010	USA	RCT	7	12 weeks of aquatic sessions, twice a week for one hour, with goal to increase strength, endurance, and balance **	Standard preoperative care	No statistically significant findings secondary to small sample size
García-Delgado <i>et al.</i>	2021	Spain	Pilot of RCT	15	8 weeks of endurance, strength, and respiratory training (incentive spirometry). Not supervised, not personalized, reported by fitness tracker and diary **	Structured educational and behavioral program with dietician, psychologist, and endocrinologist	No statistically significant findings secondary to small sample size
Gilbertson <i>et al.</i>	Aug 2020	USA	Prospective cohort	14	4 weeks of walking, 5 times a week for 30 minutes. Not supervised, not personalized, reported by fitness tracker and diary **	Dietary and lifestyle education, psychological clearance	Significant increase in preoperative insulin sensitivity and QoL. Significant decrease in preoperative inflammatory markers and length of stay. No difference in preoperative weight, body fat, blood glucose or triglyceride levels.

Table S1 (continued)

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Author	Year	Country	Study Design	Sample Size (n)	Prehabilitation Intervention	Control	Findings Associated with Prehabilitation
Gilbertson <i>et al.</i>	Oct 2020	USA	Prospective cohort	14	4 weeks of walking, 5 times a week for 30 minutes. Not supervised, not personalized, reported by fitness tracker and diary**	Dietary and lifestyle education, psychological clearance	Significant increase in preoperative metabolic flexibility. Significant decrease in preoperative adiponectin, operating time, and length of stay.
Gilbertson <i>et al.</i>	2021	USA	Prospective cohort	14	4 weeks of walking, 5 times a week for 30 minutes. Not supervised, not personalized, reported by fitness tracker and diary**	Dietary and lifestyle education, psychological clearance	Significant increase in postoperative adiponectin. Significant decrease in postoperative moderate vigorous physical activity. No difference in postoperative body weight, waist circumference, insulin or glucose levels, or QoL.
Hardy <i>et al.</i>	2022	Canada	RCT	54	12 weeks of endurance and strength training. Partially supervised and personalized**	Dietary education, physical activity counseling	Significant increase in 6-minute walk and QoL
Lucini <i>et al.</i>	2021	Italy	Pilot of prospective cohort*	39	4 weeks of moderate intensity exercise for 30 minutes per day, not supervised, in addition to dietary and psychological counseling.	No control group	Significant decrease in preoperative BMI
Marc-Hernandez <i>et al.</i>	2019	Spain	Prospective cohort	23	12 weeks of endurance (HIIT) and strength training, 2-4 times a week, supervised, not personalized**	Dietary education, psychological counseling, encouragement of physical activity	Significant decrease in preoperative weight, fat composition, A1C, and blood pressure. Significant improvement in QoL.
Picó-Sirvent <i>et al.</i>	2019	Spain	Pilot of prospective cohort	6	24 weeks of endurance (HIIT), strength, and flexibility training, 2-4 times a week. Supervised, not personalized**	Standard preoperative care	Significantly greater decrease in BMI and excess body weight. No difference in strength.
Picó-Sirvent <i>et al.</i>	2022	Spain	Prospective cohort	20	12 weeks of endurance, strength, and flexibility training, 2-4 times a week for 60-70 minutes. Supervised and personalized**	Standard preoperative care	Significant increase in maximum fat oxidation.
Türk <i>et al.</i>	2017	Netherlands	Pilot of prospective case-control	4	12 weeks of endurance (HIIT) 3 times a week for 40-60 minutes, supervised and not personalized, in addition to dietary and psychological counseling	Retrospectively obtained matched controls, received dietary and psychological counseling	Significant increase in asthma-related QoL.

*Published as Letter to the Editor. **Prehabilitation intervention was in addition to resources provided to control group. BMI, body mass index; HIIT, high intensity interval training; QoL, quality of life; RCT, randomized controlled trial; USA, United States of America.