

Body composition and chemotherapy toxicities in breast cancer: A systematic review of the literature

Lori Lewis¹, Belinda Thompson¹, Rhiannon Stellmaker¹, Louise Koelmeyer¹

¹ Australian Lymphoedema Education, Research & Treatment (ALERT) Program, Department of Health Sciences, Faculty of Medicine, Health and Human Sciences, Macquarie University, Sydney, NSW, Australia

Supplementary file 2: Articles excluded after full-text review

Author(s)	Title	Grounds for Exclusion
Abdollahi, et al. 2019	The Effect of Dietary Intervention Along with Nutritional Education on Reducing the Gastrointestinal Side Effects Caused by Chemotherapy Among Women with Breast Cancer Nutrition and cancer, 71(6), 922-930	Unable to isolate the effect of body composition
Adams, et al. 2016	Impact of resistance and aerobic exercise on sarcopenia and dynapenia in breast cancer patients receiving adjuvant chemotherapy: a multicenter randomized controlled trial. Breast Cancer Research and Treatment, 158(3), 497-507	Unable to isolate the effect of body composition and not assessing chemotherapy toxicities
Aleixo, et al. 2020	Association of body composition with function in women with early breast cancer. Breast Cancer Res Treat, 181(2), 411-421	Chemotherapy toxicities are not discussed only physical function and quality of life from PRO's
Courneya, et al. 2013	Effects of exercise dose and type during breast cancer chemotherapy: multicenter randomized J Natl Cancer Inst, 105(23), 1821-1832	Body composition parameters and on-treatment chemotherapy toxicities are not clear. More focussed on physical function and long-term toxicities such as peripheral neuropathy
Courneya, et al. 2014	Subgroup effects in a randomised trial of different types and doses of exercise during breast cancer chemotherapy. Br J Cancer, 111(9), 1718-1725	Body composition is used as an outcome measure, not chemotherapy toxicities
De Souza, et al. 2021	Nutritional Intervention Contributes to the Improvement of Symptoms Related to Quality of Life in Breast Cancer Patients Undergoing Neoadjuvant Chemotherapy: a Randomized Clinical Trial. Nutrients, 13(2), 589-589	Body composition not analyzed
Delrieu, et al. 2021	Sarcopenia and serum biomarkers of oxidative stress after a 6-month physical activity intervention in women with metastatic breast cancer: results from the ABLE feasibility trial. Breast Cancer Res Treat, 188(3), 601-613	Exercise is the intervention

Author(s)	Title	Grounds for Exclusion
Durkin, et al. 2022	Body composition and chemotherapy toxicity in women with early breast cancer (CANDO-3): protocol for an observational cohort study. <i>BMJ open</i> , 12(2)	Protocol only for an observational study
Ghoreishi, et al 2016	Association of age and body mass index with paclitaxel-induced peripheral neuropathy in patients with breast cancer [Journal: Conference Abstract]. <i>Annals of Oncology</i> , 27	Abstract Only
Grupińska, et al 2021	Beneficial Effects of Oral Nutritional Supplements on Body Composition and Biochemical Parameters in Women with Breast Cancer Undergoing Postoperative Chemotherapy: A Propensity Score Matching Analysis. <i>Nutrients</i> , 13(10)	The comparison was nutritional supplements and outcome measures were body composition and biochemical parameters, not chemotherapy toxicities
Hertz, et al 2022	Muscle mass affects paclitaxel systemic exposure and may inform personalized paclitaxel dosing. <i>Br J Clin Pharmacol</i> , 88(7), 3222-3229	systemic paclitaxel concentrations, or pharmacokinetics (PK), and infusion duration are used for comparison
Lee, et al 2019	Sarcopenia as a predicting factor for chemotherapy in advanced breast cancer patients. <i>European Journal of Surgical Oncology</i> , 45(2)	Abstract only
Mazzuca, et al 2018	Effect of nutritional support with highly purified, whey proteins for malnutrition and sarcopenia in patients affected with stage IIIII colorectal or breast cancer: A blind, placebo controlled, randomized clinical trial [Conference Abstract]. <i>Journal of Clinical Oncology. Conference</i> , 36(15 Supplement 1)	The primary objective is the nutritional status between two arms, PROLYOTIN and placebo, abstract only
Porciúncula, et al 2013	The influence of body composition on quality of life of patients with breast cancer. <i>Nutr Hosp</i> , 28(5), 1475-1482	QoL used as outcome measure not chemotherapy toxicities
Sabel, et al 2012	Sarcopenia to predict tolerance of adjuvant breast cancer chemotherapy [Conference Abstract]. <i>Journal of Clinical Oncology. Conference</i> , 30(27 SUPPL. 1)	Abstract only