



FORTISIP[®] COMPACT PROTEIN IMPROVING CANCER PATIENT OUTCOMES

EVIDENCE BOOKLET 2026

This information is intended for healthcare professionals only.

INTRODUCTION

Cancer leaves affected patients at very high risk of malnutrition and nutrient deficiencies, as the result of their disease and the treatments they undergo, yet the risk is often missed or insufficiently addressed by clinicians and patients.¹

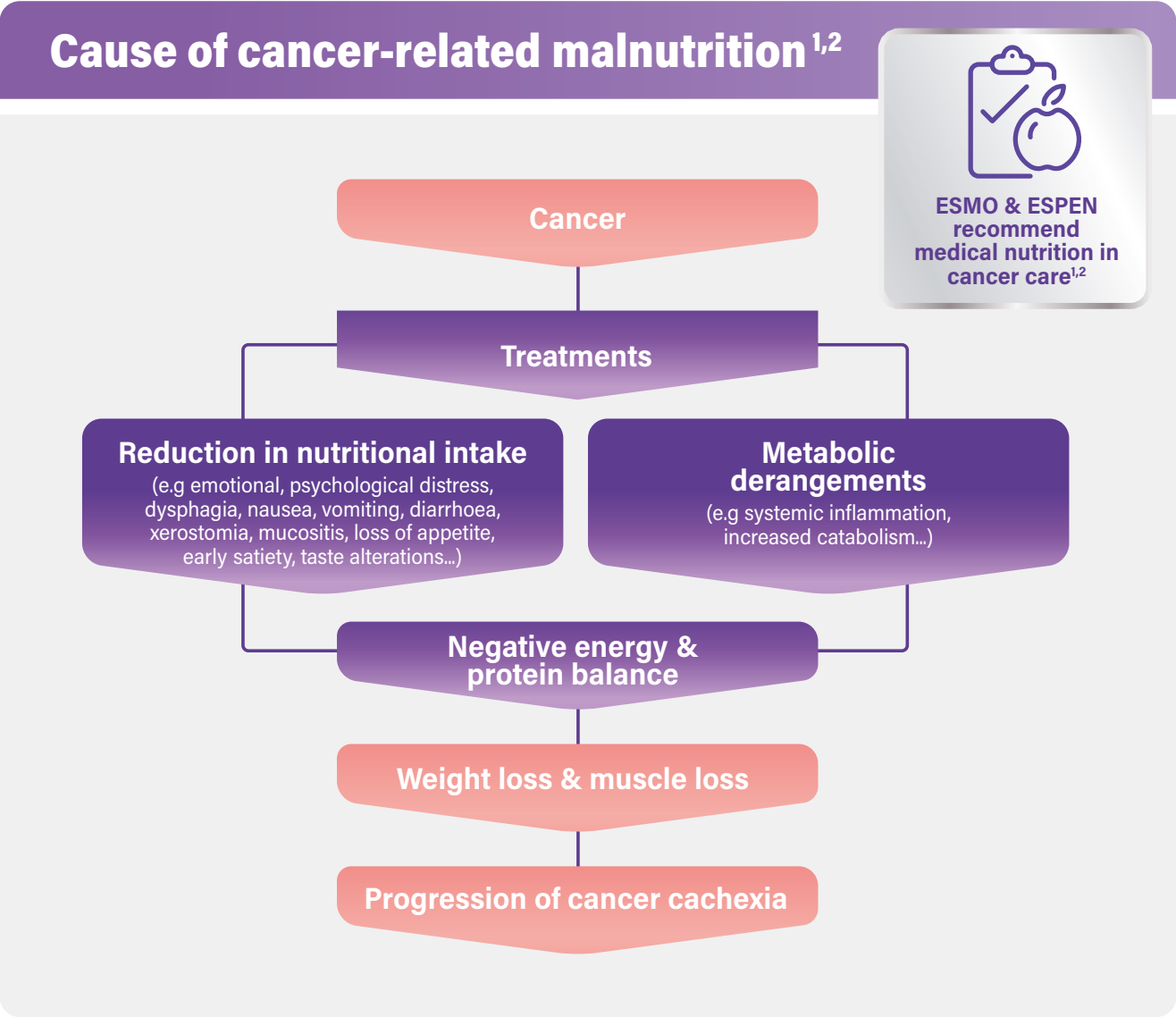
Cancer and its treatment often make it difficult for patients to meet nutritional needs and maintain adequate status. Reduced food intake and metabolic changes can lead to negative energy and protein balance, requiring higher energy and protein intake.^{1,2}

ESPEN and ESMO recommend increased energy and protein for patients with or at risk of cancer-related malnutrition and cachexia.^{1,2}

Energy intakes of
25-30kcal/kg/day

Protein intakes of
1-1.5g/kg/day

When normal diet is insufficient, oral nutritional supplements (ONS), combined with dietary counseling, can help improve intake.^{1,2}



ESPEN: European Society for Clinical Nutrition and Metabolism; ESMO: European Society for Medical Oncology.
1. Arends J, et al. Clin Nutr. 2017;36(5):1187-1196. 2. Arends J, et al. ESMO open. 2021;6(3):100092.
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WHY NUTRITION MATTERS

One of the most prevalent nutrition problems experienced by cancer patients is muscle wasting, which occurs commonly regardless of the patients' cancer stage.¹

Low muscle mass occurs in more than half of newly diagnosed cancer patients and is associated with unfavourable clinical outcomes including reduced quality of life and shorter survival times.^{1,2}

Early and continuous high protein intervention is essential for both malnourished and non-malnourished patients to help maintain nutritional status and prevent post-surgical complications.³

Without specific nutritional support, patients with cancer often fail to meet the minimal protein intakes advised by the ESPEN guidelines.⁴

Up to 65% of patients experience weight loss at their first oncology visit.⁵

During cancer treatment, muscle decline can be up to 24 times faster than in healthy adults.⁶

Malnutrition from cancer and its treatments can lead to poorer treatment tolerance, lower quality of life and worse survival⁷⁻⁹

Early Intervention Improves Outcomes

High-Protein ONS Improves Muscle Mass

Nutrition Improves Patient Outcomes

1. Prado C M, et al. J Cachexia Sarcopenia Muscle. 2020;11(2):366-380. 2. Bargetzi L, et al. Ann Oncol. 2021;32(8):1025-1033. 3. Kabata P, et al. Support Cancer Care. 2015;23(2):365-70 4. Dingemans AM, et al. Nutrients. 2023;15(24):5030. 5. Muscaritoli et al. Oncotarget. 2017;8(45) 6. Bozzetti et al. Ann Oncol. 2017;28(9):2107-2118. 7. Tobberup et al. Clin Nutr ESPEN. 2019;34:94-100. 8. Capitaio et al. Support Care Cancer. 2022;30(4):3007-301 9. Stobaues et al. Nutr Cancer. 2015;67(5):818-24. (9).
Note: for complete list of citations, please see the reference section at the end of the document.
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Impact of perioperative high-protein nutritional support on postoperative outcomes in the treatment of primary lung cancer: a multicentre comparative low-intervention study (Abstract only) Obukhova et al 2023³¹		Surgery	Post-operative complications Length of stay Nutritional status Physical status Quality of life	12
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 Colorectal Cancer

 Lung Cancer

 Mixed Cancer

 Gastric Cancer

 Esophageal Cancer

 Breast Cancer

Note: for complete list of citations, please see the reference section at the end of the document.
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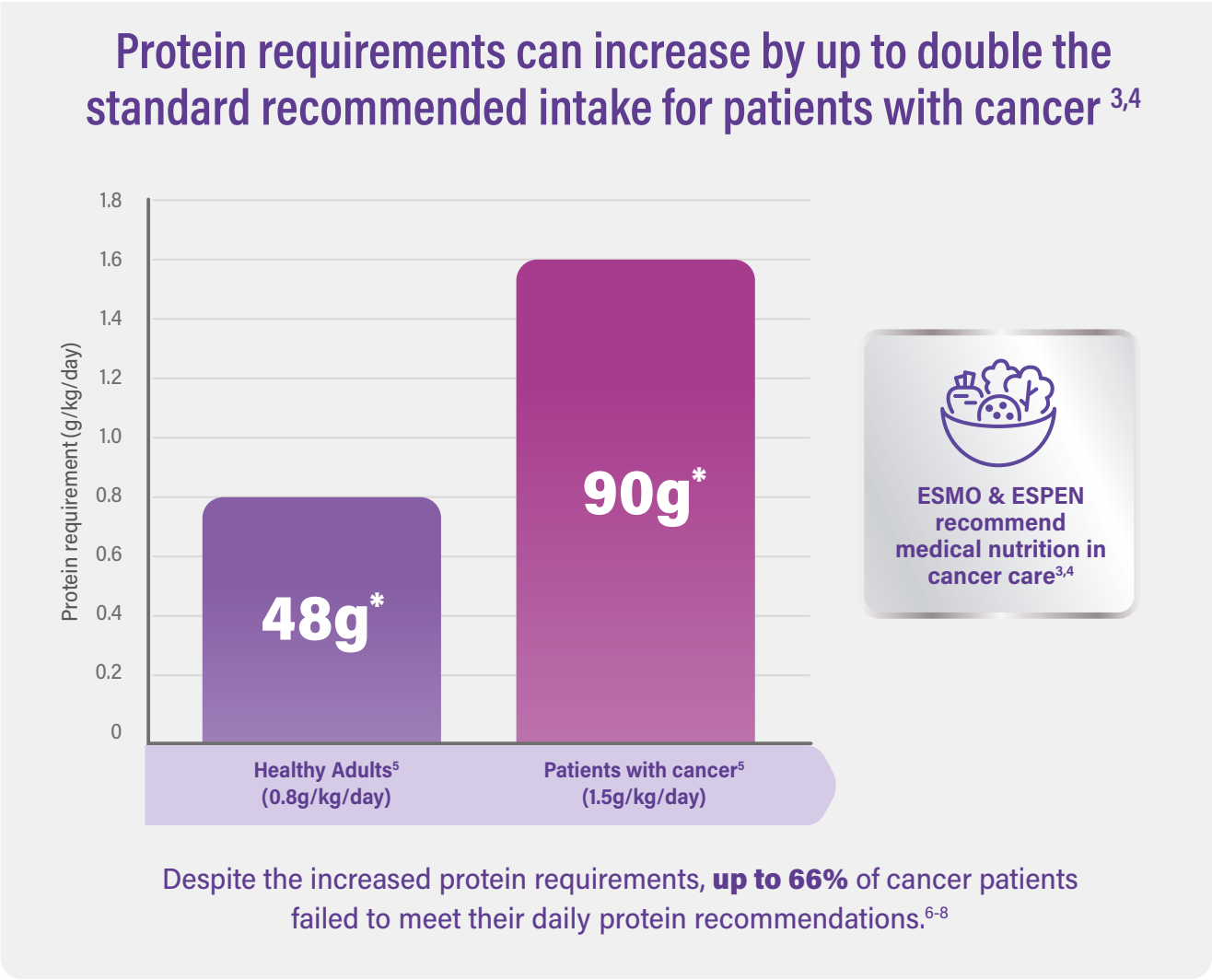
IMPORTANCE OF PROTEIN IN PATIENTS WITH CANCER

In patients with cancer, protein needs are increased because of abnormalities in protein metabolism, whereby protein breakdown is increased, and protein synthesis rates are reduced, leading to muscle loss.¹

Low muscle mass can happen at any stage of cancer and is associated with severe effects of cancer treatment, poorer surgical outcomes and shorter survival time.²

Preserving adequate nutritional status and muscle can support outcomes during cancer treatment. Therefore, prompt nutritional support to address energy and protein needs is recommended along the oncology journey.^{3,4}

ESPEN and ESMO recommend protein intakes of at least 1g/kg/day and up to 1.5g/kg/day in all patients with cancer ^{3,4}



*per day, example for a 60kg adult.
ESPEN: European Society for Clinical Nutrition and Metabolism; ESMO: European Society for Medical Oncology.
1. Baracos et al. Nat Rev Dis Primers 2018; 18(4):17105 2. Daly et al. Proc Nutr Soc 2018; 77(2):135-151 3. Arends J, et al. Clin Nutr. 2017;36(5):1187-1196 4. Arends J, et al. ESMO open. 2021;6(3):100092. 5. Muscaritoli M, et al. Clin Nutr. 2021;40:2898-2913. 6. Stobaus N, et al. Nutr Cancer. 2015; 67(5):818-24. 7. Hasegawa Y, et al. Clin Nutr. 2021; 40(7):4792-4798. 8. Prado CMM, et al. Can J Diet Pract Res. 2012;73(4):e298-303.
Fortisip® Compact Protein is a food for special medical purposes for the dietary management of patients with disease-related malnutrition. Only to be used under healthcare professional supervision.
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IMPORTANCE OF PROTEIN IN PATIENTS WITH CANCER: MUSCLE MASS

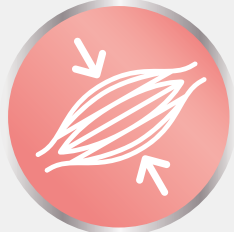
Protein is important for numerous structural and functional purposes. It is essential for growth and repair of the body and plays an important role in immune functioning.^{1,2}

Up to 90% of patients with cancer have low muscle mass¹

Low muscle mass and muscle strength is common in cancer patients and are associated with adverse outcomes.¹⁻³



Cancer and its treatments can accelerate muscle loss and physical decline.^{2,3}



Low muscle mass can happen at any stage of cancer and is associated with severe side effects of cancer treatment, poorer surgical outcomes and shorter survival time.⁴



During anti-cancer treatment, muscle decline can be up to 24x faster than in healthy adults.⁵



Even after uncomplicated elective surgery, patients can lose over 2kg of muscle mass in the first six weeks.⁶

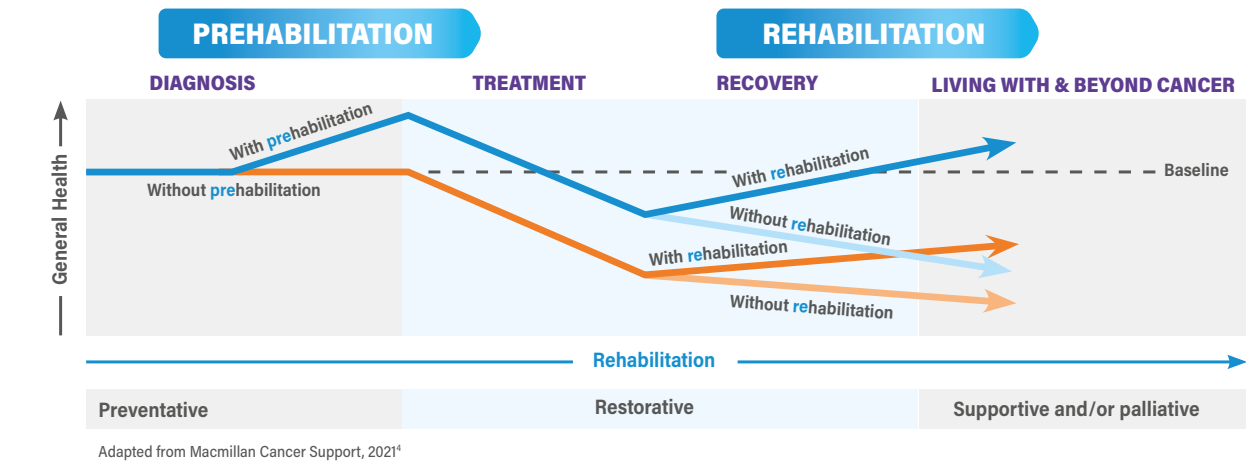
Preserving adequate nutritional status and muscle can support outcomes during anti-cancer treatment. Therefore, prompt nutritional support to address energy and protein needs is recommended along the oncology journey.^{5,6}

1. Daly LE, et al. Proc Nutr Soc. 2018;77(2):135-151. 2. Muhandiramgel, et al. Cancers (Basel). 2022;16(6):1368. 3. Stout NL, et al. J Cancer Rehabil. 2021;4:283-286. 4. Cespedes F, et al. JAMA Oncology. 2017;3(12):e172319. 5. Bozzetti F, et al. Ann Oncol. 2017;28(9):2107-2118. 6. Phillips SM, et al. J Cachexia Sarcopenia Muscle. 2015;6:197-207
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IMPORTANCE OF PROTEIN IN PATIENTS WITH CANCER: PREHABILITATION

Optimising cancer treatment outcomes along the journey

Prehabilitation and recovery care focus on enhancing the patient's physical wellbeing at every stage of their cancer treatment journey to improve outcomes.¹⁻³



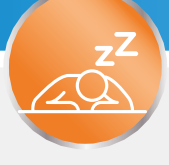
Adapted from Macmillan Cancer Support, 2021⁴

Multimodal prehabilitation has shown to improve cancer outcomes⁵⁻⁸

In patients with cancer compared to standard of care, multimodal prehabilitation interventions led to:



Functional capacity
Improvements in functional walking capacity and pulmonary function in lung cancer patients⁵



Post-operative complications
Fewer severe complications and medical complications in non-metastatic colorectal cancer¹⁶



Length of hospital stay
Decreased length of hospital stay by **↓2.2 days** in colorectal cancer patients, with or without an additional exercise intervention¹⁷



Tolerance to anti-cancer treatment
Improved rate of chemotherapy completion vs standard of care in esophageal and gastroesophageal cancer⁸

*Data from a systematic review of multimodal prehabilitation vs standard hospital care.
†Data from a 4-week study comparing standard of care to multimodal prehabilitation.
‡Data from a systematic review and meta-analysis of nutritional prehabilitation alone or combined with exercise.
*Data from a 12-week multimodal prehabilitation study in patients with esophageal and gastroesophageal junction cancer (n=92); the intervention was associated with an improved rate of chemotherapy completion vs standard of care (93.6% vs 77.7%, p=0.029).
1. Silver JK, et al. Seminars in Oncology Nursing. 2015;31(1):13-30. 2. Macmillan Cancer Support. Royal College of Anaesthetists and the National Institute for Health Research Nutrition and Cancer3. Santa Mina D, et al. Frontiers in Oncology. 2021;10:598425. 4. Principles and guidance for prehabilitation within the management and support of people with cancer: Macmillan Cancer Support. November 2021. Available from: <https://www.macmillan.org.uk/healthcare-professionals/news-and-resources/guides/principles-and-guidance-for-prehabilitation>. [Accessed December 2025] 5. Ferreira V, et al. Support Care Cancer. 2021;29(1):5597-5610. 6. Molenaar CIL, et al. JAMA Surgery. 2023;158(6):572-581. 7. Gillis C, et al. Gastroenterology. 2018;155(2):391-410. 8. ChristodoulidisG, et al. Curr Oncol. 2023;30:1538-1545
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High protein oral nutritional supplements enable the majority of cancer patients to meet protein intake recommendations during systemic anti-cancer treatment: A Randomised Controlled Parallel-Group Study

Dingemans A, et al. Nutrients 2023, 15, 5030



Cancer type

Colorectal
Lung

Treatment type

Chemotherapy
Radiotherapy
Immunotherapy

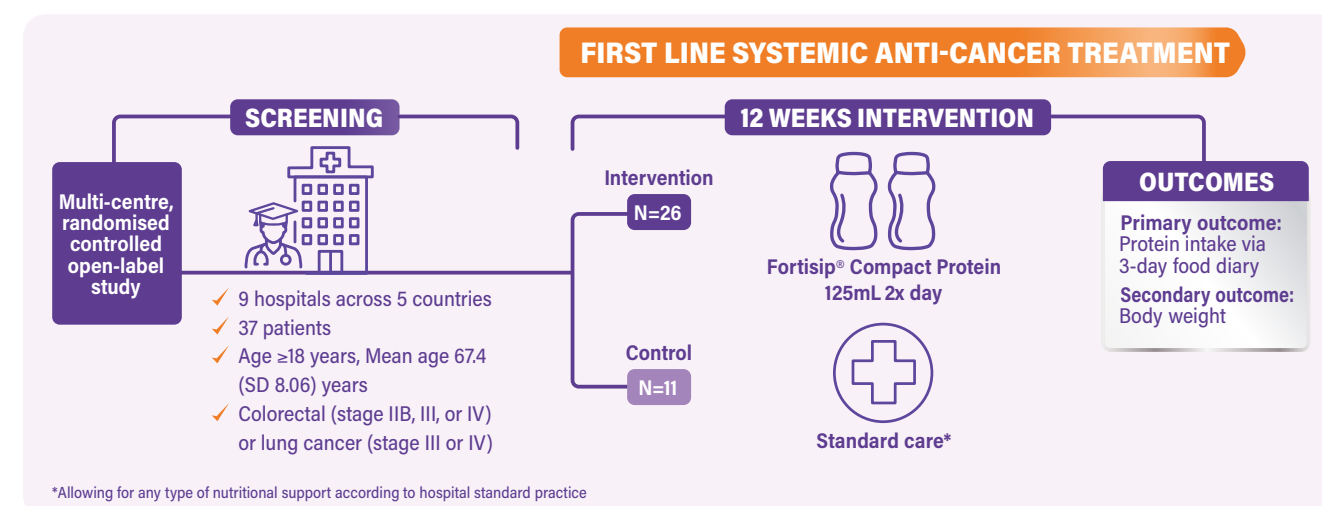
Outcomes

Compliance
Nutrition status

INTRODUCTION

ESPEN guidelines recommend a minimum intake of 1.0 g/kg body weight of protein daily to maintain or restore lean body mass in cancer patients. Achieving this during anti-cancer treatment is challenging. This multi-centre, randomised controlled, open-label parallel-group study evaluated whether a high-protein, low-volume oral nutritional supplement (ONS) helps meet these recommendations.

STUDY DESIGN



PATIENT CHARACTERISTICS

- Mean (SD) age of the subjects was 66.1 (+ 7.8) years in the Intervention Group (IG) and 70.1 (+ 8.2) years in the Control Group (CG)
- 41% Colorectal cancer (CRC) stage IIB, III, or IV and 59% Non-small cell lung cancer (NSCLC)
- Undergoing treatment with chemo-, radio- or immunotherapy
- At baseline, only 65% and 45% of subjects in the IG and CG, respectively, met ESPEN minimum protein intake recommendations

SD: Standard deviation

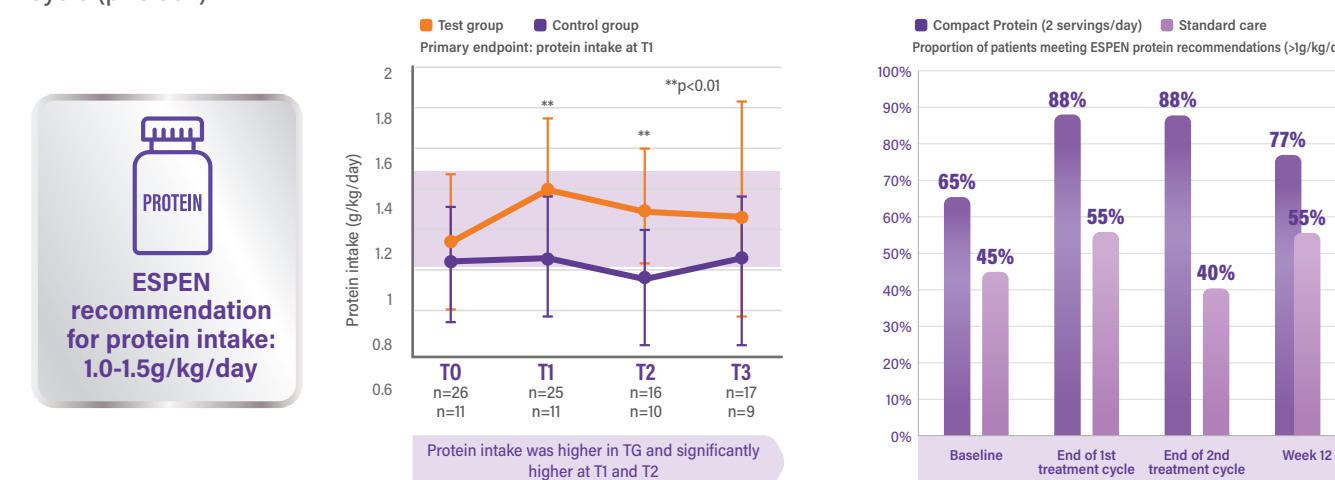
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STUDY RESULTS

Significantly increased protein intake

Protein intake in IG vs CG (1.40 vs 1.07 g/kg/day) after the 1st cycle (p=0.008) and 1.32 vs 0.94 g/kg/day after the 2nd cycle (p=0.002)



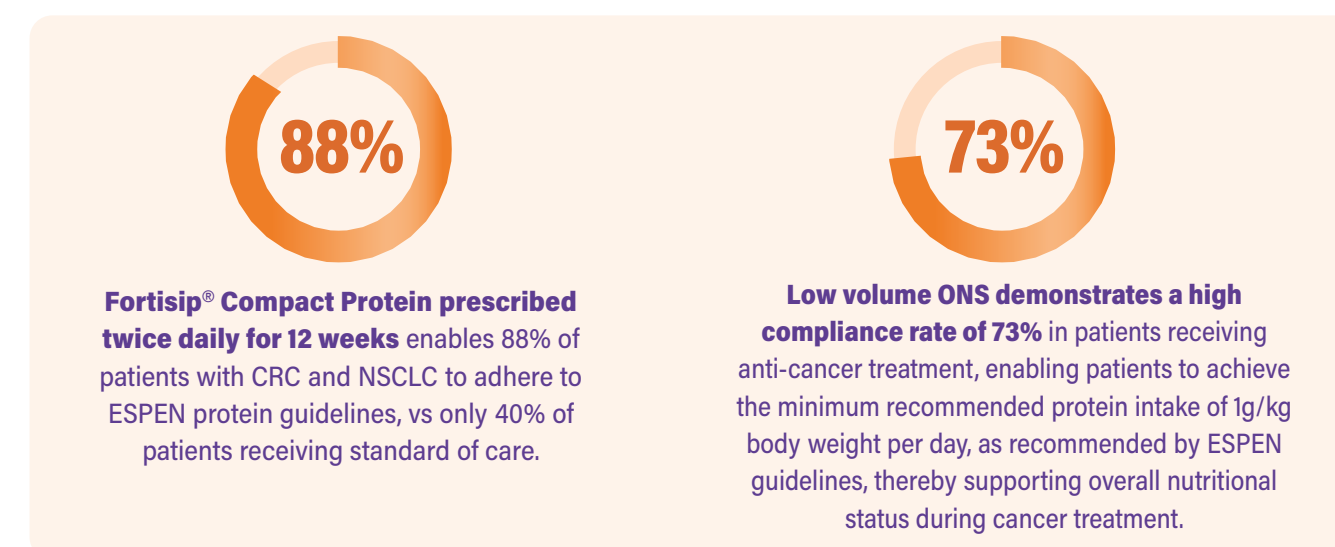
Maintained body weight

Body weight for intervention vs control was +0.74kg vs -0.46kg from T0 to T2 (p=0.234)

Highly accepted

ONS compliance was 73.4%, equating to 1.5 servings of ONS daily, during systemic treatment >50% of participants in intervention group had ≥80% consumption compliance during the study

CONCLUSION



KEY MESSAGE

Adequate protein intake is important to prevent nutritional deterioration, to support muscle mass/function and improve outcomes during treatment.

In view of the challenges of cancer patients to consume sufficient protein, high protein ONS should be considered early in the patient journey to enable patients to meet their recommended intakes.

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CHEMOTHERAPY-RELATED TOXICITY, NUTRITIONAL STATUS AND QUALITY OF LIFE IN PRECACHECTIC ONCOLOGIC PATIENTS WITH, OR WITHOUT, HIGH PROTEIN NUTRITIONAL SUPPORT. A PROSPECTIVE, RANDOMIZED STUDY

Ziętarska M, et al. Nutrients 2017; 9(10):1108



Cancer type

Colorectal

Treatment type

Chemotherapy

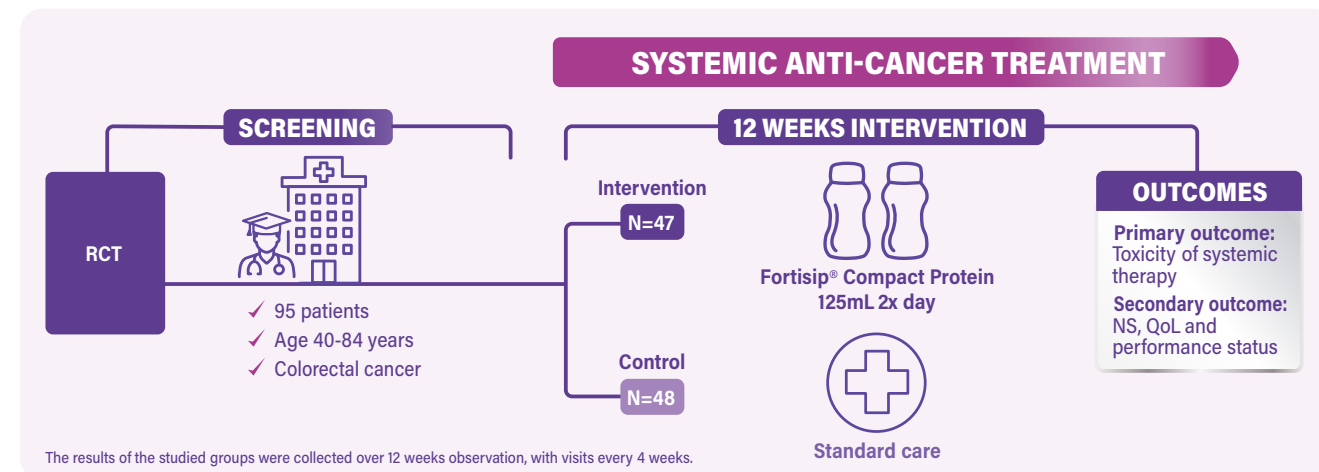
Outcomes

Appetite
Nutrition status
Compliance

INTRODUCTION

In a randomised controlled trial of 95 people with colorectal cancer at risk of malnutrition (NRS-2002 indicated 76% of the study group were at risk), this study evaluated the influence of ONS on the toxicity of systemic therapy (primary outcome) and whether high protein ONS influences the NS, QoL and performance status (secondary).

STUDY DESIGN



POPULATION CHARACTERISTICS

- 76% at risk of malnutrition (NRS-2002)
- TNM classification : 15.8% stage II, 52.7% stage III, 31.6% stage VI. Metastases to lymph nodes in 28 patients.
- Previous 6 months:
 - ✓ **Unintentional weight loss:** mean= 6.7 kg (range 1.1 kg - 15.0 kg)
 - ✓ **Decreased appetite:** 37% moderate decrease and 6% poor appetite

TNM Classification of Malignant Tumours

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STUDY RESULTS



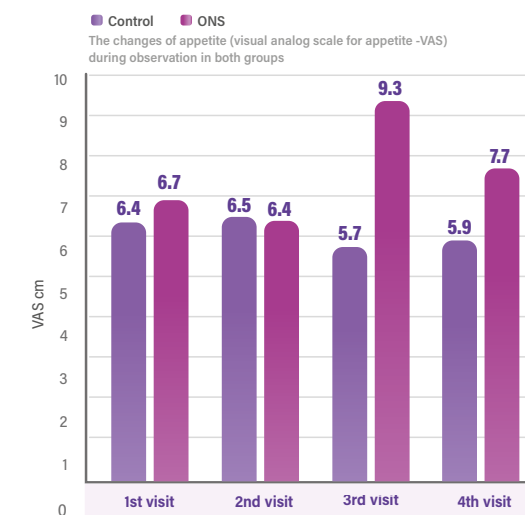
Improved nutritional status

- Increased appetite from 8 weeks and sustained to 12 weeks**
8 weeks: VAS score 9.3 vs 5.7cm; p=0.05
12 weeks: VAS score 7.7 vs 5.9cm; p=0.001
- Increased points in SGA at 4 weeks**
SGA 6.8 vs 5.1 points; p=0.004
- Increased levels of albumin and prealbumin**
Albumin higher from 3rd visit:
39.9 vs 35.5; p=0.01
Prealbumin higher from 4th visit:
35.0 vs 29.1; p=0.001



High Compliance

- 80% of patients consumed >75% of ONS prescription



CONCLUSION

- Fortisip® Compact Protein twice daily for 12 weeks increased appetite and improved nutritional status in patients with colorectal cancer undergoing chemotherapy.
- Oral nutrition support did not influence toxicity of systemic therapy in pre-cachectic oncology patients.
- Nutritional support rich in protein boosted nutritional status for appetite, albumin and prealbumin levels

KEY MESSAGE

High protein dietary support improves nutritional status in colorectal cancer patients with precachexia. Implementation of a high-protein ONS at an early stage of metabolic disorders and nutritional status (i.e. precachexia) helps reduce the risk of deepening malnutrition.

Fortisip® Compact Protein is a food for special medical purposes for the dietary management of patients with disease-related malnutrition. Only to be used under healthcare professional supervision.

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IMPACT OF PERIOPERATIVE HIGH-PROTEIN NUTRITIONAL SUPPORT ON THE QUALITY OF LIFE OF PATIENTS WITH PRIMARY LUNG CANCER: A PROSPECTIVE MULTICENTER COMPARATIVE STUDY (NUTRILUNC-STUDY).

Obukhova O, et al. Clin Nutr ESPEN. 2023;58:461 [Abstract only].



Cancer type

Lung

Treatment type

Surgery

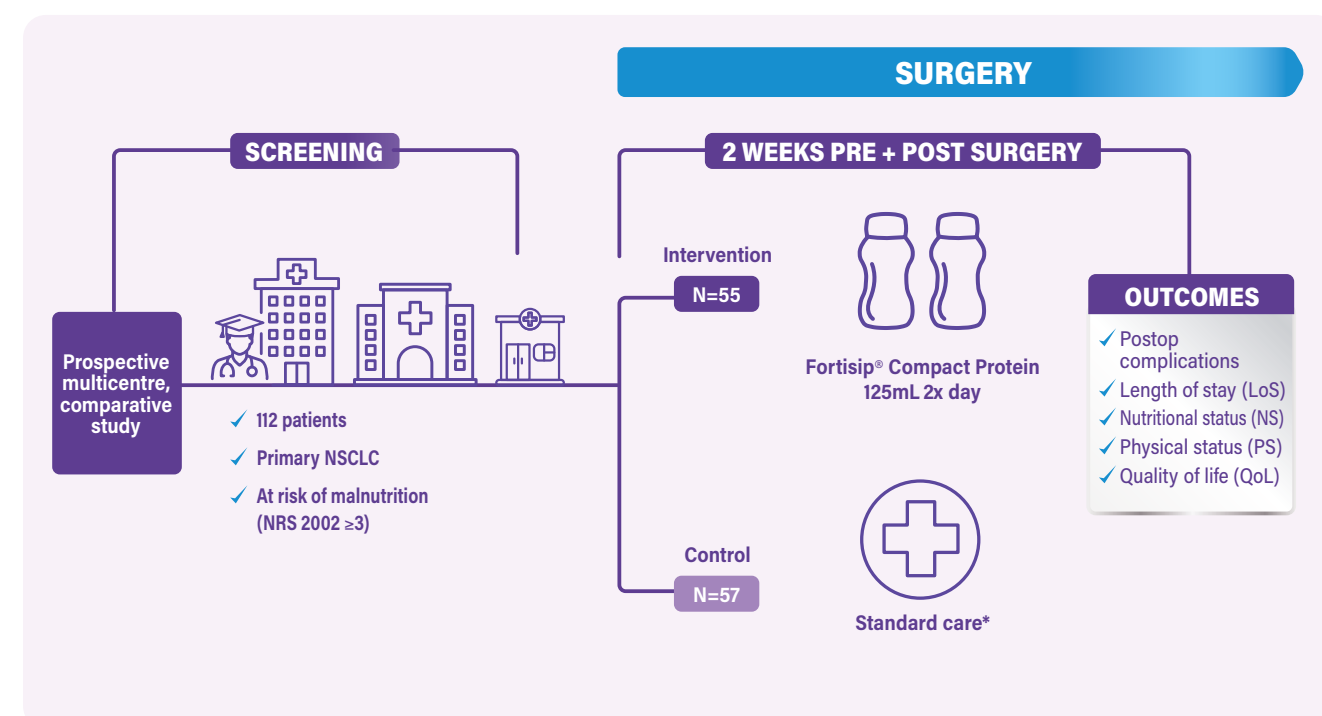
Outcomes

Post-operative complications
Length of stay
Nutritional status
Physical status
Quality of life

INTRODUCTION

Up to 60% of lung cancer pts experience weight loss. Prevalence of sarcopenia in patients with non-small cell lung cancer (NSCLC) is about 43% and is an independent predictor of worse overall survival. This prospective, multicentre comparative study evaluated the impact of perioperative nutritional support on postoperative complications, hospital length of stay (LoS), nutritional status (NS), physical status (PS) and quality of life (QoL).

STUDY DESIGN



STUDY RESULTS



Reduced infections and post-op complications

- 19% fewer lung infections ($p < 0.01$)
- 38% less bronchoscopies ($p = 0.0000$)



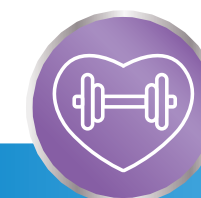
Faster hospital discharge

- Reduced length of stay by 1.4 days



Supports nutritional status

- Maintained weight ($p < 0.000$)



Improved physical function

- Improved 6-minute walk test ($p = 0.006$)
- Improved hand grip strength ($p < 0.0001$)

CONCLUSION

- In NSCLC patients at risk of malnutrition, perioperative Fortisip® Compact Protein twice daily for 28 days significantly maintained weight, significantly improved physical function, significantly reduced incidence of lung infections, and reduced LoS in hospital by 1.4 days compared to those without ONS.
- Perioperative nutritional support with high protein ONS has a positive effect on surgical treatment outcomes, NS, PS and QoL of patients with NSCLC.

KEY MESSAGE

High-protein perioperative oral nutrition supplements exert a positive impact on the quality of life of non-small cell lung cancer patients.

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A SYSTEMATIC REVIEW AND META-ANALYSIS OF COMMUNITY USE OF ORAL NUTRITIONAL SUPPLEMENTS ON CLINICAL OUTCOMES

Cawood AL. Ageing Res Rev. 2023; 88:101953



Cancer type

Mixed

Treatment type

Surgery

Radiotherapy

Outcomes

Complications

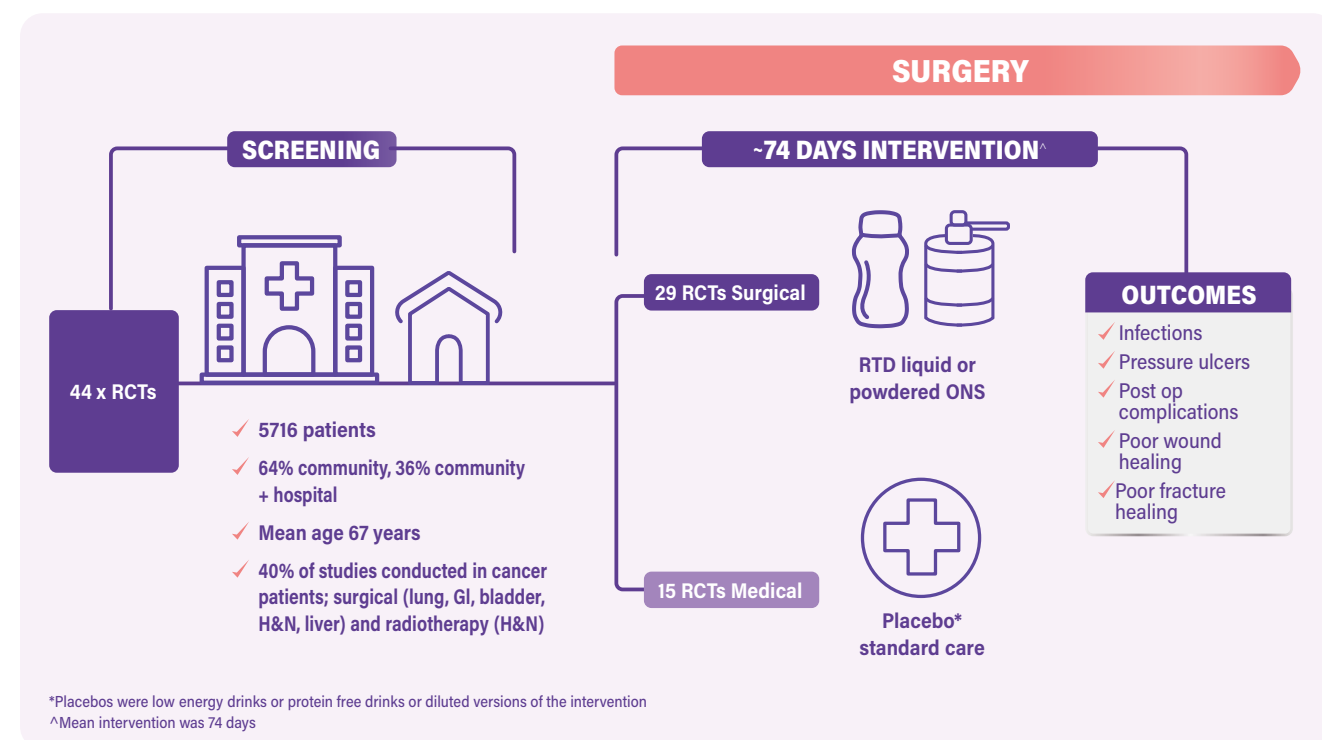
Compliance

INTRODUCTION

This systematic review and meta-analysis reviewed evidence from 44 RCTs (n=5716 patients) (29 RCT surgical, 15 RCT medical patients) analysing the effects of all types of ONS, consumed in a community setting in a variety of patient types, on the incidence of complications.

Complications included infections (respiratory, gastrointestinal, cardiac, renal, wounds), falls and general postoperative complications.

STUDY DESIGN



STUDY CHARACTERISTICS

- Mean prescribed energy and protein intakes were 588kcal/day and 22g/day, respectively
- Mean energy density of ONS was 1.5kcal/ml with 23% energy from protein
- Mean intervention period was 74 days
- Control groups varied between studies; standard diet (n=25), placebo (n=10) and dietary advice (n=9)

POPULATION CHARACTERISTICS

- 5,716 adult patients with disease of any nutritional status in the community (including oncology, frailty and disease related malnutrition)
- 66% of the studies were conducted on patients undergoing surgery, and 34% on medical patients including head and neck cancer

STUDY RESULTS



Reduced complications

- 32% reduction in complications with ONS use (p<0.0001)
- Reduced Infections
- Reduced pressure ulcers
- Reduced post op complications
- Improved wound healing
- Improved fracture healing



Not all ONS are equal

- 37% reduction in complications when compliance was high >80% of (p=0.001)
- 31% reduction in complications with RTD Liquid ONS (p<0.001) vs not evident with powdered ONS (p=0.261)
- Significant benefit with high protein ONS (>20% energy from protein) (p<0.001)

CONCLUSION

- Untreated malnutrition increases the risk of complications such as infections. Oral nutritional supplements (ONS) effectively manage malnutrition and significantly reduce clinically relevant complications—including infections, pressure ulcers, poor wound healing, and postoperative issues.
- Multi-nutrient ONS (≈588 kcal, 22 g protein/day), taken for ~3 months pre-and postoperatively in the community, delivers meaningful benefits across diverse patient groups, particularly older adults.

KEY MESSAGE

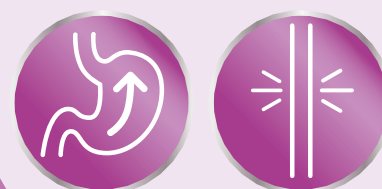
High protein, liquid RTD ONS with high rate of compliance in community settings can lead to meaningful reductions in complications.

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PERIOPERATIVE NUTRITIONAL SUPPORT IN PATIENTS WITH GASTRIC AND ESOPHAGEAL CANCER UNDERGOING RADICAL SURGERY. PRELIMINARY RESULTS FROM CASE-CONTROL STUDY

Khomyakov V, et al. Eur J Surgical Oncol 2019; 45(2), E83 [Abstract Only]



Cancer type

Gastric
Esophageal

Treatment type

Surgery

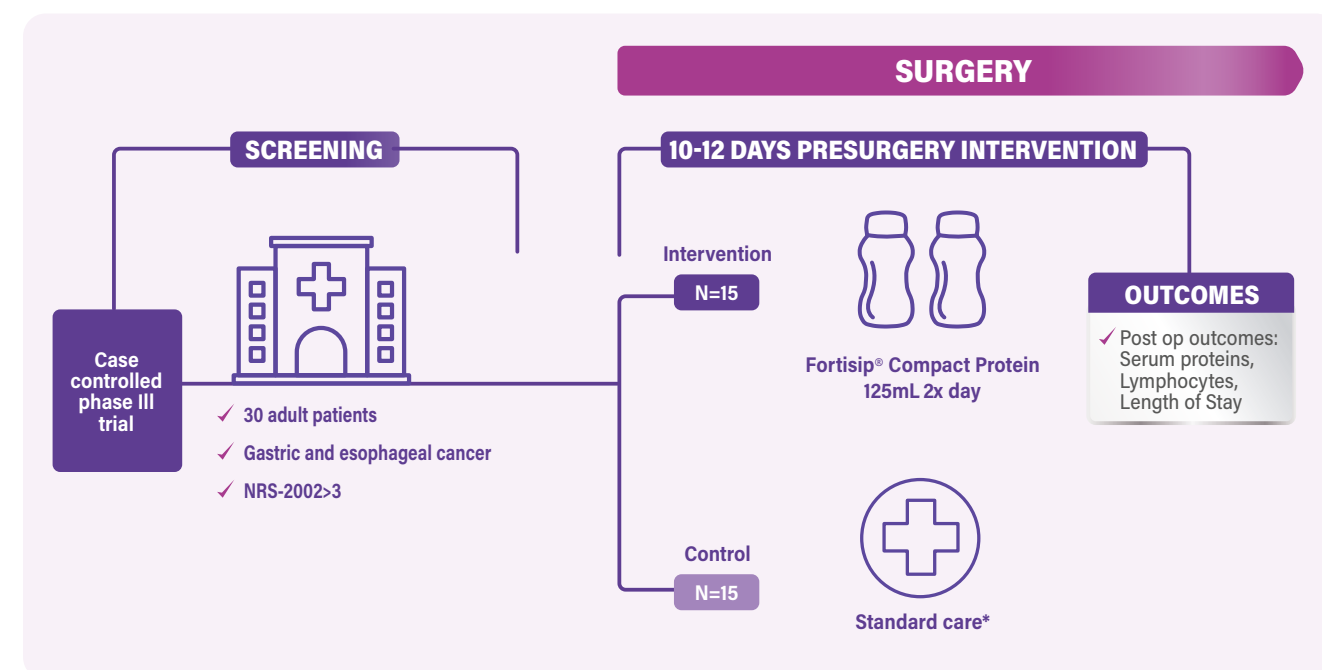
Outcomes

Length of stay

INTRODUCTION

Upper gastrointestinal cancers are associated with excessive weight loss and decreased calorie intake leading to deterioration of postoperative recovery after radical surgery. This case-controlled phase III trial investigated the effects of perioperative nutritional therapy on postoperative outcomes in patients with gastric and esophageal cancer.

STUDY DESIGN



POPULATION CHARACTERISTICS

- Gastric and esophageal cancer patients undergoing surgery
 - ✓ 13 gastrectomies, 2 esophagectomies in intervention group
 - ✓ 12 gastrectomies and 3 esophagectomies in control
- Moderate and severe malnutrition

STUDY RESULTS



Faster hospital discharge

- Reduced length of stay by 3 days



Improved recovery trajectory

- Increased albumin levels from day 3 post op (p=0.56)
- Lower lymphocyte count both pre and post op day 3

CONCLUSION

- Perioperative nutritional support may improve recovery from major surgery in malnourished patients with upper gastrointestinal cancers, including shorter length of stay in hospital.

KEY MESSAGE

Twice daily high-protein, low-volume ONS pre-surgery reduces hospital length of stay in patients with upper gastrointestinal cancers

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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

Grupińska J, et al. Nutrients. 2021;13(10):3549.



Cancer type

Breast

Treatment type

Chemotherapy
Surgery

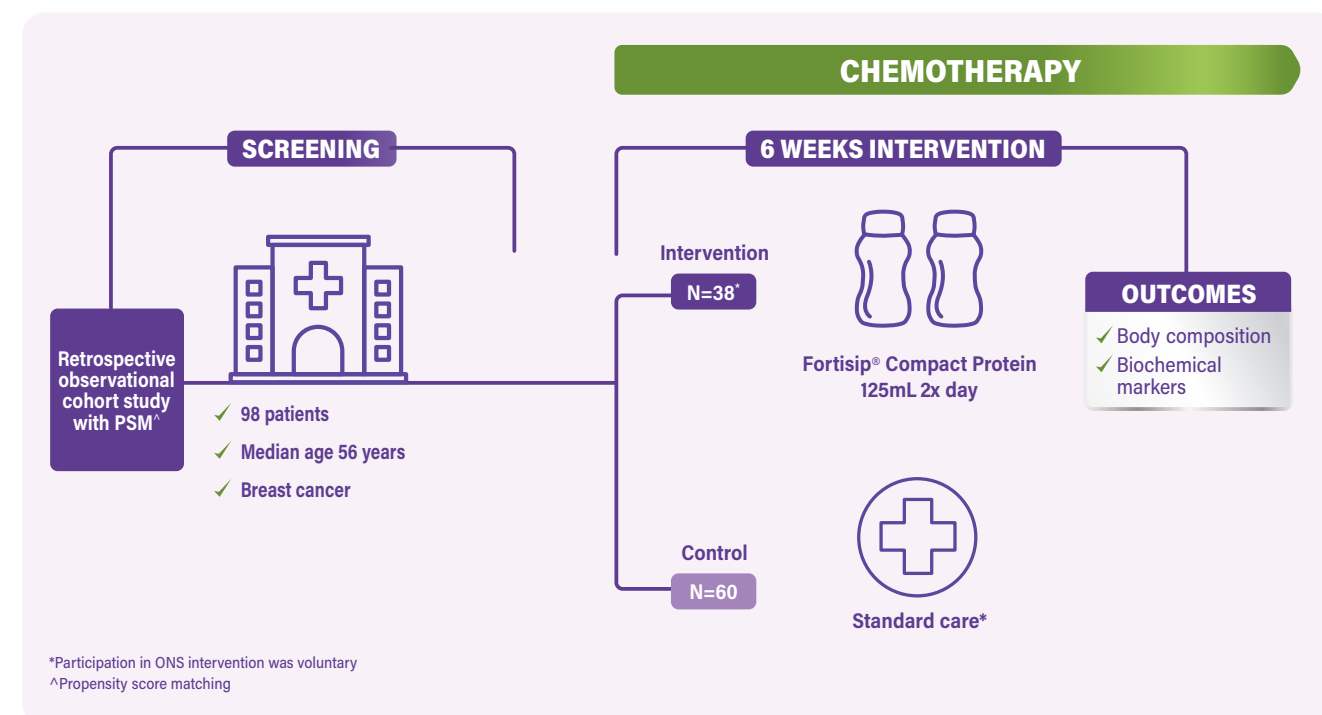
Outcomes

Anthropometry
Nutrition status

INTRODUCTION

Recently, more attention has been paid to the role of nutritional intervention in preventing the side effects of chemotherapy in oncology patients. This retrospective observational cohort study with propensity score matching (PSM) evaluated the impact of oral nutritional supplements on body composition and biochemical parameters in women with breast cancer who underwent postoperative adjuvant chemotherapy for 6 weeks.

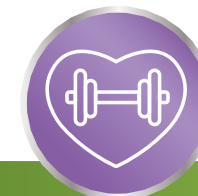
STUDY DESIGN



POPULATION CHARACTERISTICS

- All patients underwent surgical treatment and were qualified for adjuvant chemotherapy (doxorubicin + cyclophosphamide)

STUDY RESULTS



Improves muscle mass

- 1kg increase in muscle mass (p=0.002)
- 1.16kg increase in fat free mass (p=0.0015)
- 0.43kg/m² increase in fat free mass index (p=0.0012)



Supports nutritional status

- Albumin levels maintained (p=0.0194)

CONCLUSION

- ONS protects against loss of muscle mass content, hypoalbuminemia, and lipid abnormalities in women with breast cancer receiving adjuvant chemotherapy
- By helping to preserve lean body mass, prevent hypoalbuminemia, and manage lipid profiles, ONS contribute to better metabolic resilience during treatment.
- Integrating nutritional support into routine oncology care can enhance the safety and efficacy of anticancer treatments and improve overall patient outcomes

KEY MESSAGE

Twice daily high-protein, low-volume ONS during systemic anti-cancer treatment helps maintain lean body mass and supports metabolic health in breast cancer patients receiving postoperative chemotherapy.

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TASTE CHANGES IN CANCER

Common in patients with cancer undergoing systemic anti-cancer, taste and smell alterations may develop throughout the course of cancer (before and during) and last up to one year after treatment,¹ with up to 70% of cancer patients experiencing taste changes during chemotherapy and radiotherapy.²

Sensory alterations have a negative impact on nutritional status and may participate in cancer-related malnutrition and cachexia.³⁻⁵

Food aversion and reduction in food enjoyment³

Less energy >20-25% fewer calories/day^{4,5}

Greater weight loss^{4,5}

IMPACT OF CANCER AND ITS TREATMENT

The trigeminal nerve is the largest cranial nerve and innervates the face, mouth and nasal cavity.³ It plays an important role in how we perceive taste and flavour.^{6,7}

- Distinct from taste and smell but just as important to overall flavour of food^{6,7}
- Perception of sensations, such as freshness, cooling, warming, tingling etc^{6,7}
- Sensitises perception of temperature and flavour^{6,7}



Chemotherapy and radiotherapy, especially in head and neck cancers, can damage oral and nasal mucosa, affecting trigeminal nerve endings. This leads to **reduced sensitivity** to temperature, texture, and chemesthetic cues - diminishing flavour perception, which contributes to reduced appetite, malnutrition and lower quality of life.

Nutritional interventions in cancer patients such as Oral Nutritional Supplements (ONS) can improve overall energy and protein intake, overall body weight, muscle mass and quality of life.²

Optimising the palatability and acceptability of ONS is important to support patient adherence to oral nutritional supplements. ⁸	
Food bland and/or tasteless?	Hot chilli pepper and ginger flavours give a "warm" taste ^{9,10}
Bad taste in mouth?	Menthol derivatives give a "fresh" taste ^{9,10}
Hypersensitive to taste and/or smell or metallic taste in mouth?	Without additional sensory stimuli ^{9,10}

1. Spotten et al. Ann Oncol 2017; 28:969-84 2. Alvarez-Camacho et al. Qual Life Res 2016; 25:1495-504 3. Boltong et al. Support Care Cancer 2012; 20:2765-74 4. Brisbois et al. J Pain Symptom Manage 2011; 41:673-83 5. Belqaid et al. Acta Oncol 2014; 53:1405-12 6. Viana F, et al. ACS Chem Neurosci. 2011;2(1):38-50. 7. Green B, et al. Chemesthesis: Chemical Touch in Food and Eating. 2016. John Wiley & Sons. 8. De Haan JJ et al. Supportive Care in Cancer. 2021;29(10): 5691-5699 9. Liedtke et al. TRP Ion Channel Function in Sensory Transduction and Cellular Signaling Cascades. Boca Raton (FL): CRC Press/Taylor & Francis; 2007. Available from <https://www.ncbi.nlm.nih.gov/books/NBK1856/>. 10. Tominaga M, et al. Chemical Senses. 2005;30(1):191-192

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SELF-REPORTED TASTE AND SMELL ALTERATIONS AND THE LIKING OF ORAL NUTRITIONAL SUPPLEMENTS WITH SENSORY-ADAPTED FLAVOURS IN CANCER PATIENTS RECEIVING SYSTEMIC ANTITUMOR TREATMENT

De Haan JJ et al. Supportive care in cancer. 2021;29(10): 5691-5699



Cancer type
Mixed

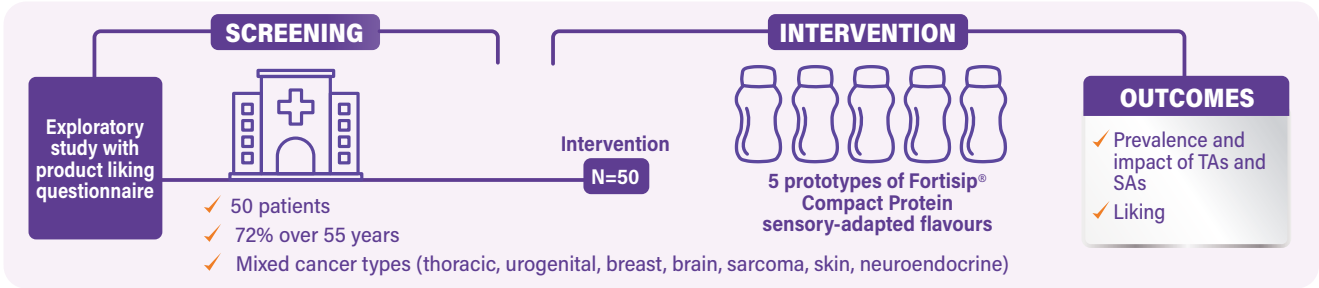
Treatment type
Chemotherapy
Immunotherapy

Outcomes
Liking

INTRODUCTION

Taste and smell alterations (TAs and SAs) are commonly experienced by cancer patients receiving treatment, which can have consequences on food intake, increasing their risk of malnutrition and cachexia. This exploratory study aimed to assess the prevalence of taste and smell changes in cancer patients receiving anticancer treatment, and determine the impacts on patients' tolerance and enjoyment of oral nutritional supplements (ONS) formulated with warming and cooling sensations.

STUDY DESIGN



STUDY RESULTS

Taste alterations have high prevalence and significant impacts

- 50% of patients reported TAs
- 40% of patients with TAs reported the severity as moderate-severe
- 26% of patients with TAs reported SAs. No patients experienced SAs alone
- 37% of patients with TAs reported that they impacted daily life

TAs both reduce & heighten taste sensitivities

- 30% and 16% reported a weaker taste for salty and sweet flavours, respectively
- 17% and 10% reported a stronger taste for sweet and sour flavours, respectively

High acceptability for sensory adapted ONS

- Of the 5 flavours assessed, 3 were positively received by patients with TAs (with & without SAs)
- 93% liked Cool Red Fruits
- 73% liked Neutral
- 67% liked Hot Tropical Ginger

CONCLUSION

Patients experiencing TAs were more discerning when choosing flavours of ONS they deemed palatable, appearing to prefer sensory-adapted flavours. This suggests that TAs should be accounted for when developing and selecting ONS flavours for oncology patients.

KEY MESSAGE

Patients with taste alterations receiving anti-cancer therapy prefer sensory-adapted flavours of ONS, supporting better acceptance and compliance.

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Scan QR code to read study online



SUMMARY



Early Intervention Improves Outcomes

- Early perioperative nutritional intervention with Fortisip® Compact Protein improves physical function, nutritional status and QoL, reduces infections and shortens LOS.^{1,2}



High-Protein ONS Improves Muscle Mass

- High compliance to low volume high protein Fortisip® Compact Protein enables more patients to meet ESPEN protein recommendations for Cancer.³
- Fortisip® Compact Protein significantly increases muscle and fat free mass, preserves lean body mass, prevents hypoalbuminemia and improves metabolic resilience.⁴



Nutrition Improves Patient Outcomes

- High Protein, Fortisip® Compact Protein reduces complications, infections and LOS, improves nutritional status, physical function and appetite.^{1,2,3,4,5,6}

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TO IMPROVE OUTCOMES FOR
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