



**NEW**

# FORTIMEL OMEGACARE

Oral nutritional supplement to support your treatment goals. Designed to help with:



**Malnutrition and weight loss<sup>1,2</sup>**



**Cachexia<sup>1,2</sup>**



**Inflammation<sup>3</sup>**

## THE JOURNEY TO BETTER NUTRITIONAL CARE FOR CANCER PATIENTS



**Low volume, High Protein,  
High Energy, High vitamin D  
and enriched with Omega 3  
fatty acids**

**Designed for patients with or at  
risk of disease related malnutrition  
due to cancer, chronic catabolic  
disease or cachexia.**

**Sensory-adapted flavors  
validated with cancer patients<sup>4</sup>.**

Fortimel OmegaCare\* is a food for special medical purposes for the dietary management of patients with or at risk of disease related malnutrition due to cancer, chronic catabolic disease or cachexia. Must be used under medical supervision.

\*Fortimel OmegaCare coming soon in new look & feel

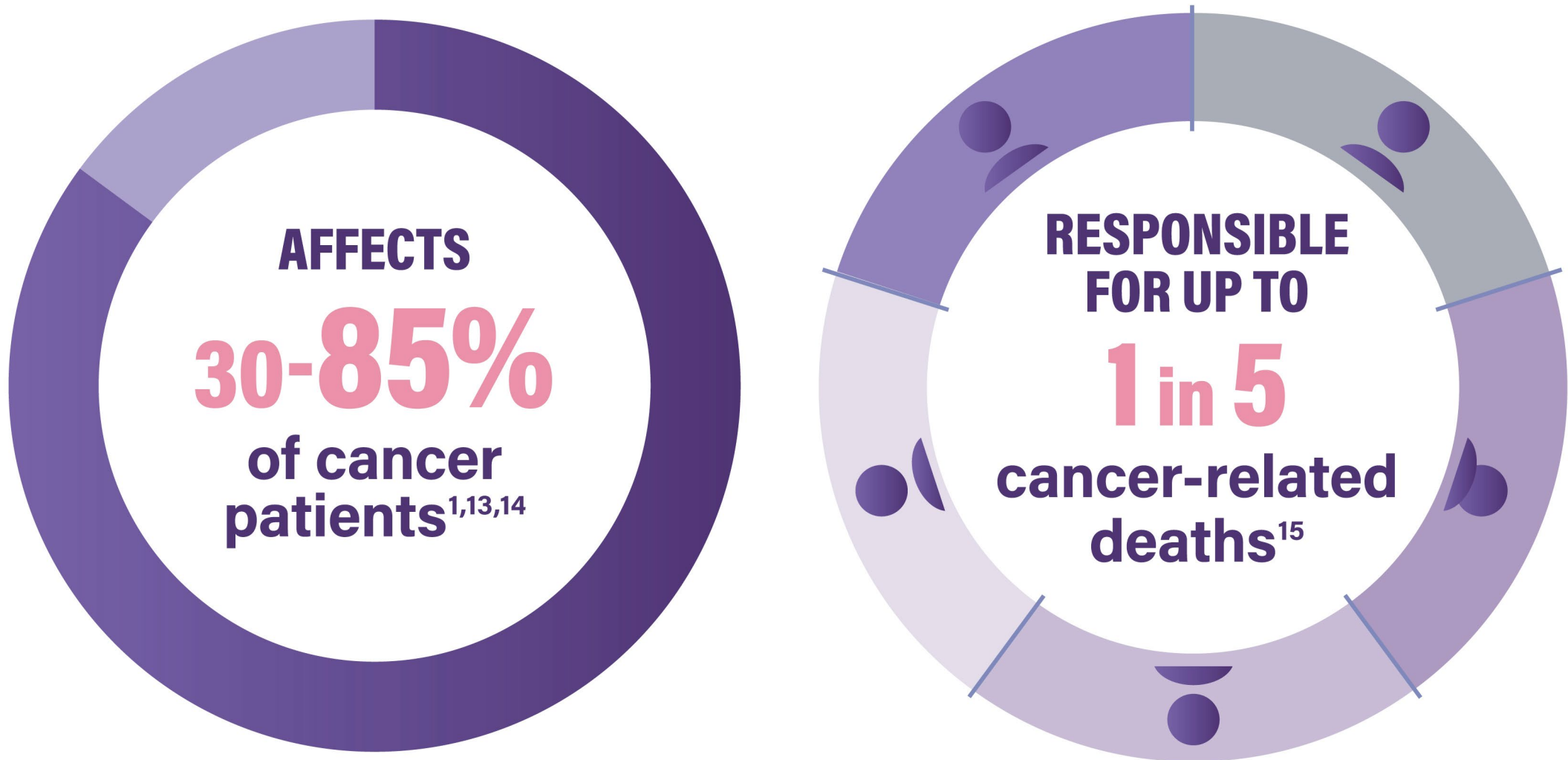
FOR HEALTHCARE PROFESSIONALS ONLY





# Malnutrition and cachexia are highly prevalent and threaten to undermine successful treatment outcomes for your patients<sup>1-15</sup>

Malnutrition and Cachexia



Prevalence of malnutrition in different cancer types

Malnutrition impacts treatment outcomes in patients with cancer

Low muscle mass and strength is associated with adverse outcomes



# Prevalence of malnutrition in patients with cancer\*<sup>1</sup>

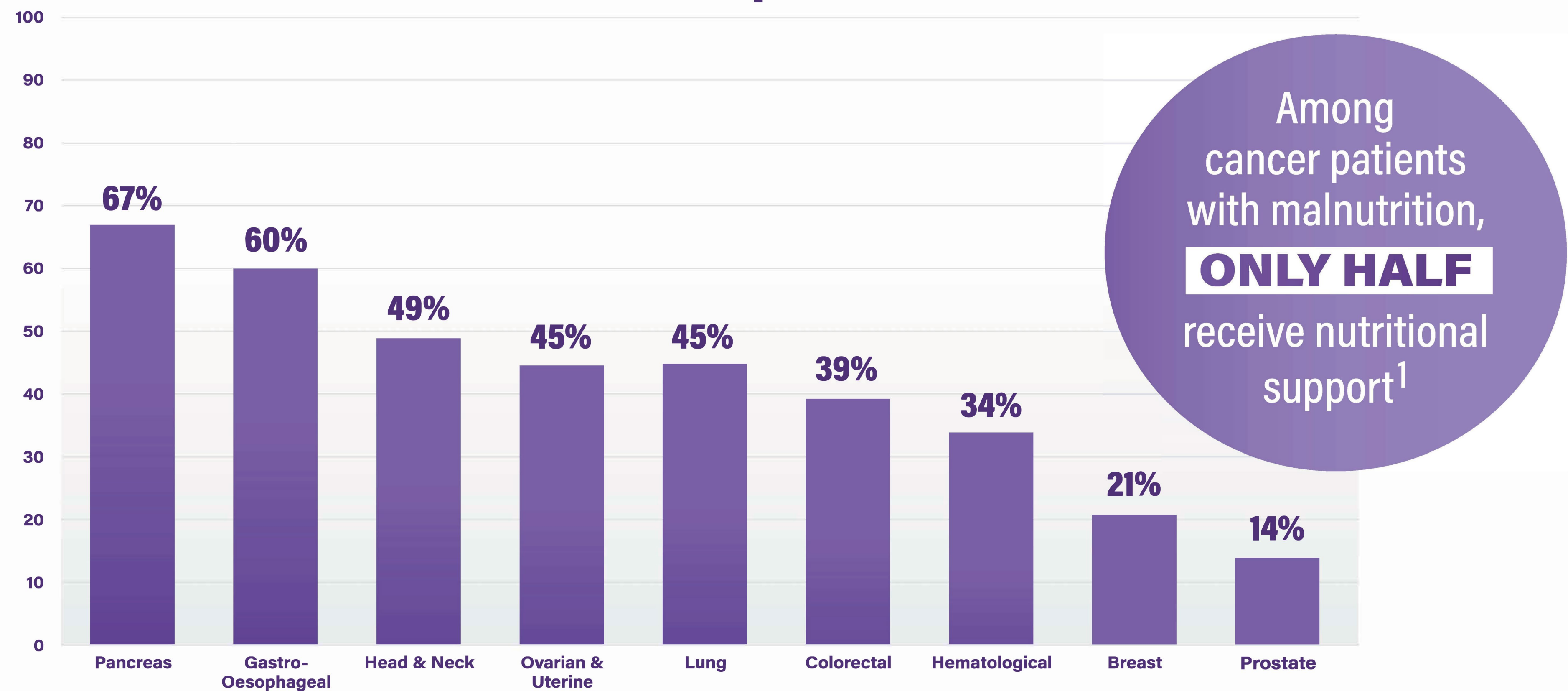


Figure adapted from Hebuterne et al.<sup>1</sup>

\*Results from a nutritional status survey conducted among 1903 patients (1109 men and 794 women, age 59.3±13.2 years) in 154 French hospital wards. Malnutrition was defined as a body mass index <18.5 kg/m<sup>2</sup> in patients <75 years old or <21 kg/m<sup>2</sup> in patients ≥75 years old and/or body weight loss >10% since disease onset.

## REFERENCES

1. Hébuterne X et al. JPEN J Parenter Enteral Nutr. 2014;38(2):196-204.



# Malnutrition impacts **treatment outcomes** in patients with cancer



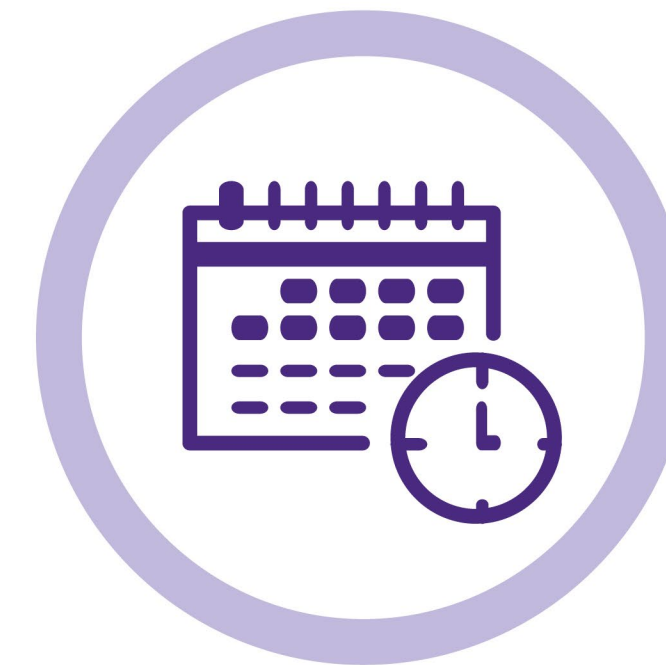
**Poorer tolerance to  
anti-cancer  
treatment<sup>1,2</sup>**



**Increased risk of  
infections (post-  
surgery and during  
chemotherapy,  
radiotherapy)<sup>3-8</sup>**



**Increased risk of  
post-operative  
complications<sup>7-9</sup>**



**Increased length of  
hospital stay and  
higher  
re-admission  
rates<sup>3,8,9,11,12</sup>**

## REFERENCES

1. Andreyev, et al. Eur J Cancer. 1998;34(4):503-9.
2. Daly, et al. Pro Nutri Society. 2018;77:135-151.
3. Marshall, et al. Clin Nutr. 2018;38(2):644-651.

4. Fukuda, et al. Ann Surg Oncol. 2015;22(3):S778-85.
5. Lieffers, et al. Br J Cancer. 2012;107(6):931-6.
6. Zheng, et al. Ann Surg Oncol. 2017;24(11):3376-85.

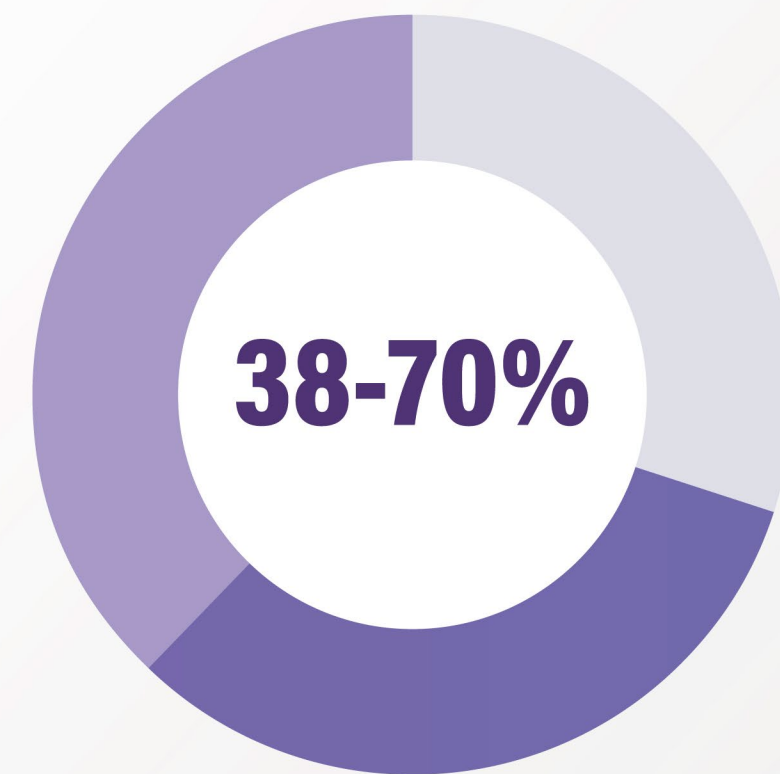
7. Zhao, et al. Nutr Cancer. 2018;70(8):1254-1263.
8. Pressoir, et al. Br J Cancer. 2010;102(6):966-71.
9. Na, et al. Nutr Cancer. 2017;70(8):1228-36.

10. D'Almeida, et al. J of Nutrition, Health & aging. 2020;24:166-171.
11. Loan, et al. Nutrition. 2018;48:117-121.
12. Zhang, et al. J Geriatric Oncol. 2019;10(6):874-883.



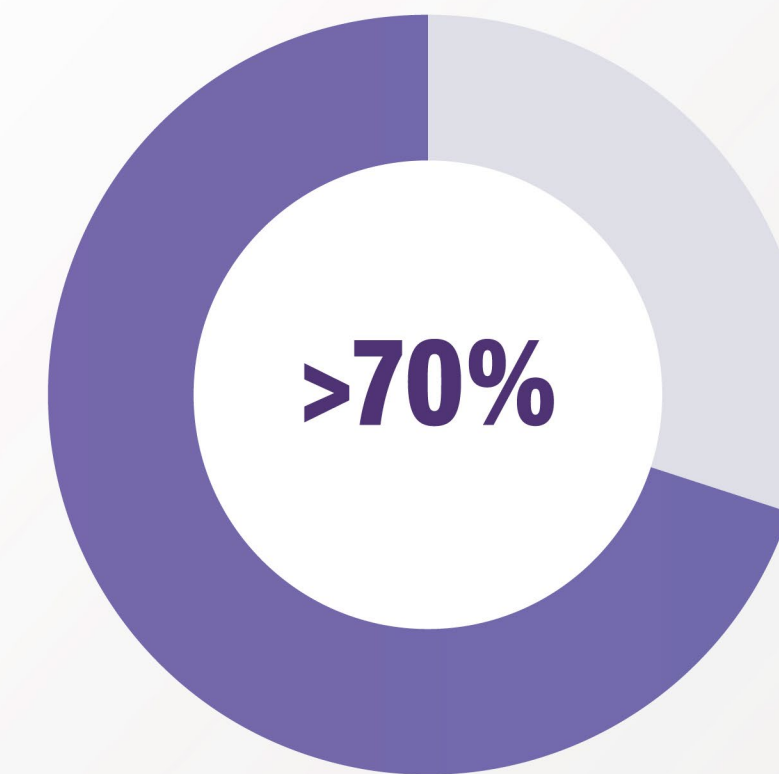
# Low muscle mass and muscle strength is common in cancer patients and is associated with adverse outcomes<sup>1,2</sup>

Low muscle mass is present in



of cancer patients,  
depending on tumor type<sup>3</sup>

Loss of muscle mass accounts for



of total body mass lost in patients  
with cancer-related malnutrition<sup>4</sup>

**Muscle loss is a poor prognostic factor, being associated with higher post-operative complication, longer hospital stay, increased treatment toxicity, and reduced survival**

## REFERENCES

1. Anjanappa, et al. Tech Innov Patient Support Radiat Oncol. 2020;16:50-57.
2. Cruz-Jentoft, et al. Age Ageing. 2019;48(1):16-31.

3. Ryan, et al. Nutrition. 2019;67-68:110539.
4. Silver, et al. Head & neck. 2007;29(10):893-900.



# Malnutrition and cachexia are caused both by the cancer itself and anti-cancer treatment<sup>1-10</sup>

## REDUCED FOOD INTAKE

Due to taste changes, nausea, poor appetite, psychological stress, pain, malabsorption

## INCREASED METABOLIC NEEDS

Due to elevated energy expenditure, excessive catabolism, and inflammation

## MALNUTRITION AND CACHEXIA

- Disturbed protein metabolism with increased protein breakdown in skeletal muscle and decreased muscle synthesis
- Loss of lean tissue and reduced performance status
- Cachexia driven by protein loss, fat loss and anorexia
- Reduced immune function, increased risk of infections



# Reduced food intake in cancer patients is associated with micro-and macronutrient deficiencies, particularly in vitamin D<sup>1-5</sup>

**49-66%** of cancer patients **do not consume sufficient protein** according to recommendations<sup>6-8</sup>

Up to **67%** of cancer patients have **vitamin D inadequacy** and up to **31%** has a **vitamin D deficiency**<sup>3,4</sup>



Cancer patients have a **50-75% gap** between micronutrient intake and the RDA<sup>5</sup>

Cancer patients **often fail to reach 50% of the RDA\*** for potassium, calcium, vitamin D, folate and vitamin C<sup>5</sup>

\*Recommended dietary allowance

## REFERENCES

1. Nejatinamini, et al. Nutr Cancer. 2017;70(3):474-82.
2. Nejatinamini, et al. Nutrients. 2018;10(9):1236.
3. Churilla, et al. BMJ Open. 2011;1(2):e000397.

4. Ströhle, et al. Oncology Reports. 2010;24(4):815-28.
5. Mardas, et al. Support Care Cancer. 2015;24(6):2619-25.
6. Prado et al. Can J Diet Pract. 2012;73(4):e298-303

7. McCurdy et al. Nutrients. 2019;11(11):2473
8. Stobaus et al. Nutr Cancer. 2015;67(5):818



# Taste changes are often exacerbated during treatment and lead to reduced appetite, reduced energy intake, and weight loss<sup>1-6</sup>

Up to **70%** of cancer patients experience **taste changes** during chemotherapy and radiotherapy<sup>6</sup>

**40%** of patients undergoing chemotherapy experience **dry mouth (xerostomia)**<sup>8</sup>



**Common taste alterations include** reduced taste threshold and **bad tastes** (eg. bitter, **metallic**, chemical, or nauseating)<sup>7,8</sup>

Taste changes may persist for up to **1 year** after treatment<sup>6</sup>

## REFERENCES

1. Rehwaldt, et al. Oncol Nurs Forum. 2009;36(2):E47-56.
2. Ravasco, Eur J Oncol Nurs 9 Suppl. 2005;2:S84-S91.
3. Coa, et al. Nutr Cancer. 2015;67(2):339-353.
4. van Bokhorst-de van der Schueren, Eur J Oncol Nurs 9 Suppl. 2015;2:S74-83.
5. Skolin, et al. Support Care Cancer. 2006;14(4):369-378.
6. Spotten, et al. Ann Oncol. 2017;28(5):969-984.
7. Hutton, et al. J Pain Symptom Manage. 2007;33(2):156-165.
8. Sarhill, et al. Support Care Cancer. 2003;11(10):652-659.



# Cancer-related malnutrition and/or low muscle mass (sarcopenia) can leave patients vulnerable to treatment toxicity or even treatment failure<sup>1,2</sup>

Lower muscle mass is a significant, independent predictor of:

Early treatment discontinuation/termination<sup>3</sup>



**OR: 2.34**

(p=0.03, 95% CI: 1.04-5.24)

Dose reductions



**OR: 2.24**

(p=0.01, 95% CI: 1.37-3.66)

Risk of high-grade **adverse events** is increased



in patients with low muscle mass and/or low muscle attenuation\* receiving cancer immunotherapy<sup>4</sup>

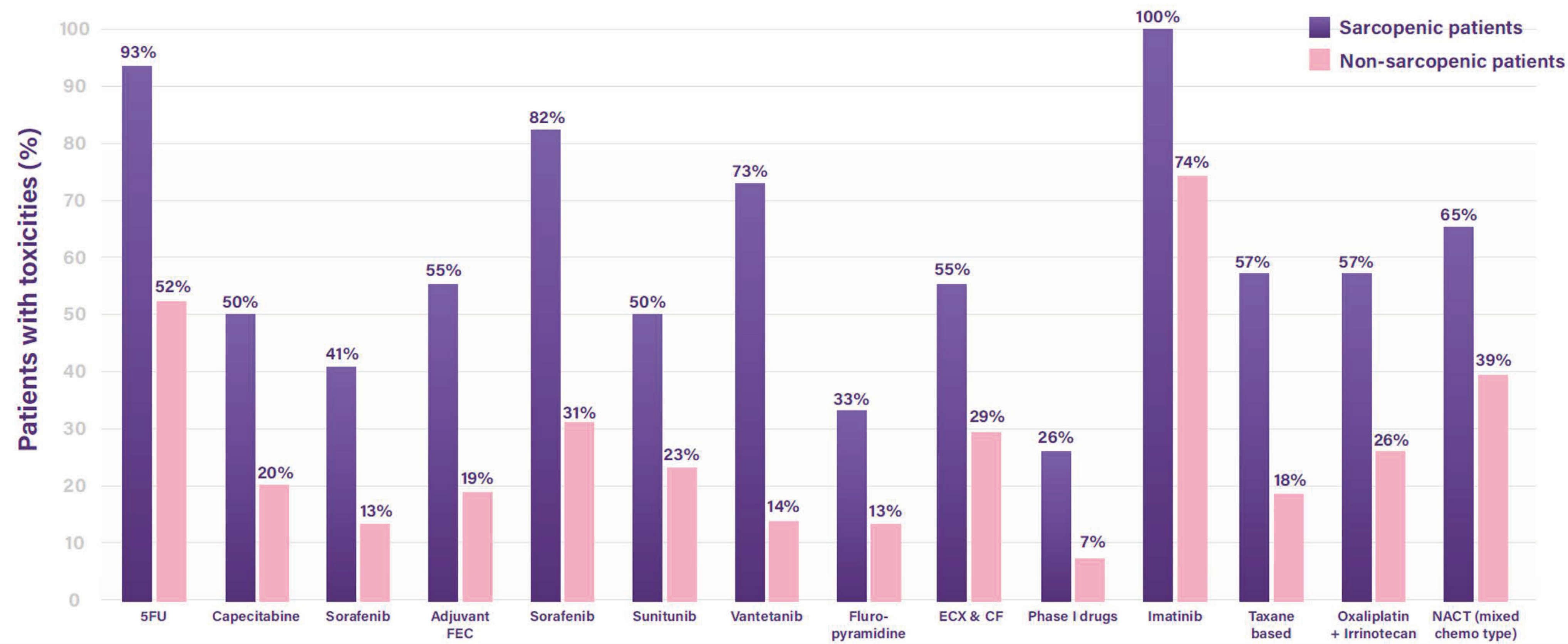
\*Low muscle attenuation refers to a poor-quality skeletal muscle (increased intramuscular adipose tissue)

**Sarcopenia and dose-limiting toxicity to specific anti-cancer therapies**





# Across a wide range of cancer treatments, dose-limiting toxicity is more frequent in patients with low muscle mass (sarcopenia)<sup>1</sup>



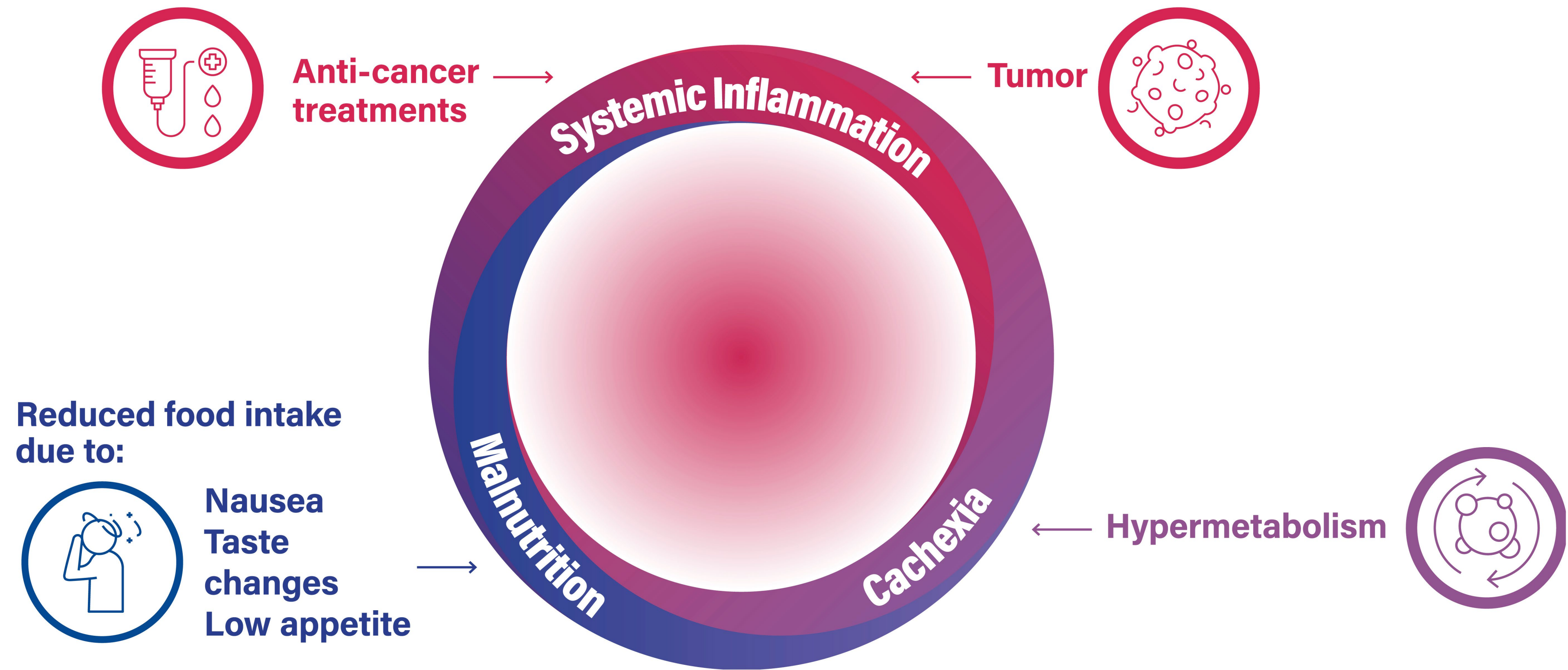
<sup>1</sup>5FU, Fluorouracil; FEC, 5-fluorouracil, Epirubicin, Cyclophosphamide; ECX, Epirubicin, Cisplatin, Capecitabine; CF, Cisplatin, Fluorouracil; NACT, Neoadjuvant chemotherapy

## REFERENCES

1. Daly, et al Proc Nutr Soc 2018;77(2):135–51.



# Systemic inflammation accelerates the cycle of malnutrition and cachexia – just when patients need to be at their strongest¹



Prevalence of inflammation by cancer site **+**

Inflammation adversely impacts treatment success **+**



# Systemic inflammation is a hallmark of cancer-related malnutrition<sup>1</sup> that contributes to anorexia, metabolic changes, and muscle and fat depletion<sup>2</sup>

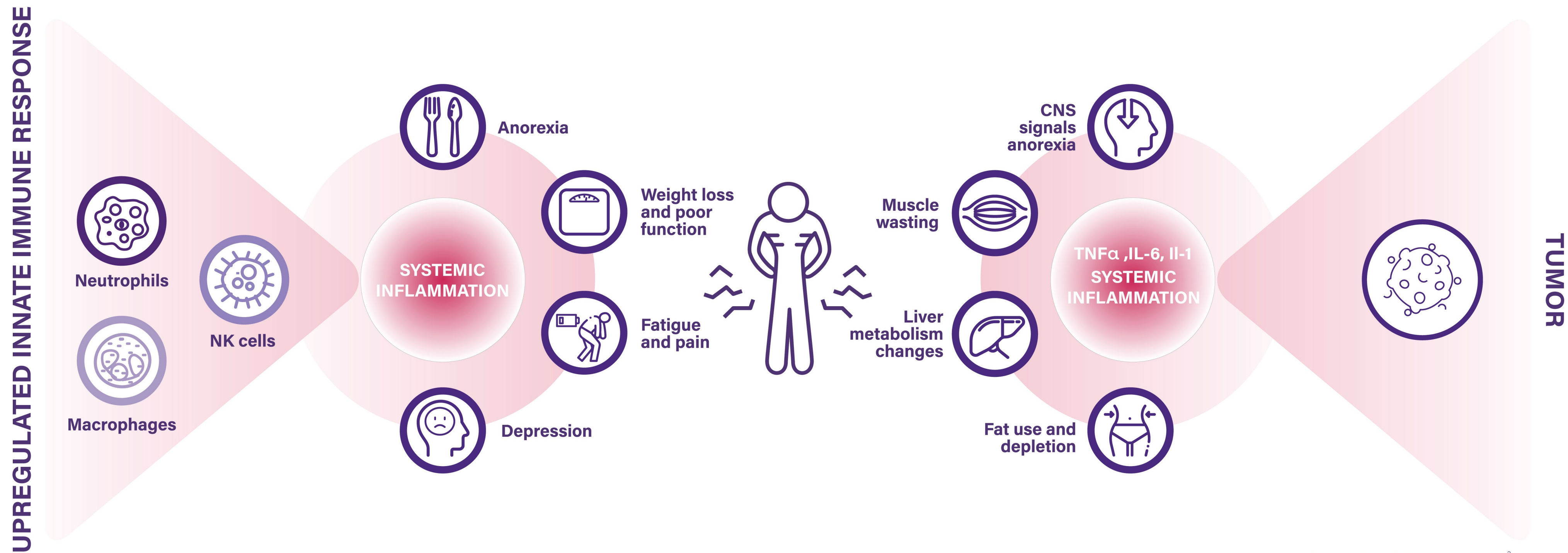


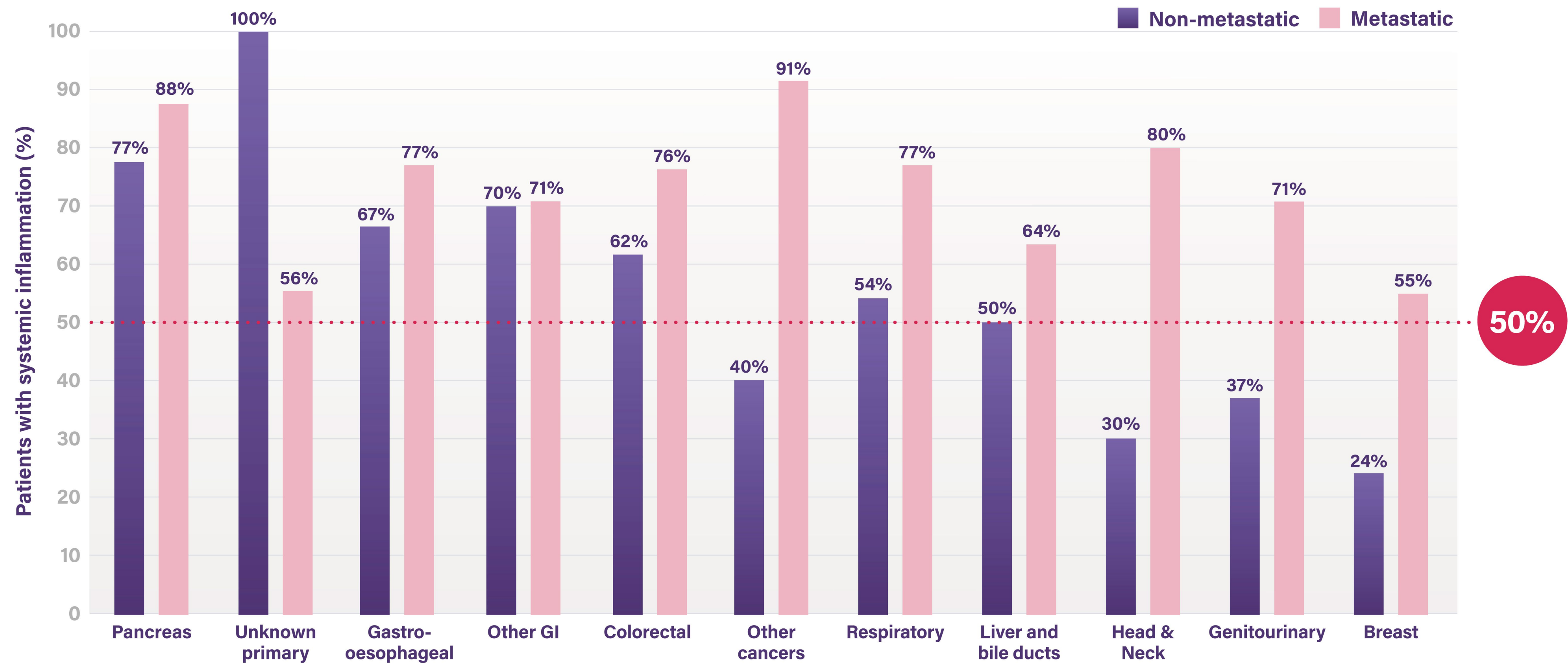
Figure adapted from Arends et al.<sup>2</sup>

## REFERENCES

1. Fearon, et al. Lancet Oncol. 2011;12(5):489-495.
2. Arends, et al. Clin Nutr. 2017;36:1187-1196.



# Systemic inflammation affects >50% of patients with cancer, and is more prevalent in advanced disease<sup>1</sup>

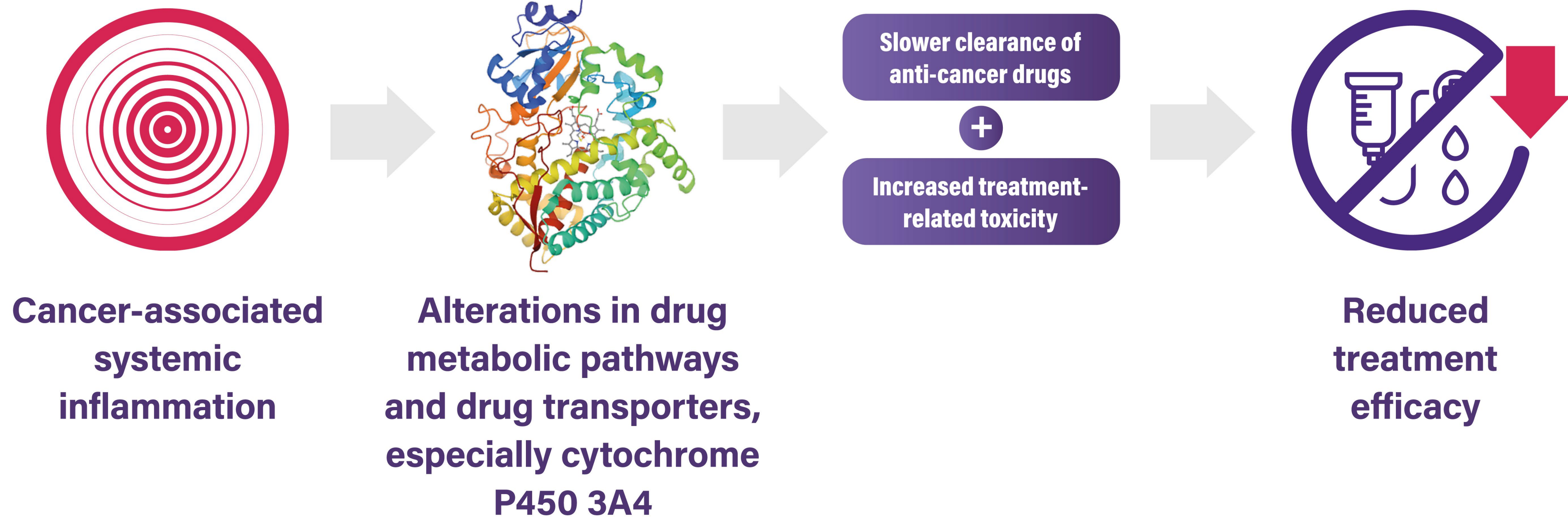


## REFERENCES

1. Muscaritoli, et al. Oncotarget. 2017;8(45):79884-79896.



# Systemic inflammation can reduce the success of anti-cancer treatment<sup>1</sup>



## REFERENCES

1. Roxburgh, et al. Br J Cancer. 2014;110(6):1409-12.
2. Cressman, et al. Expert Rev Clin Pharmacol. 2012;5(1):69-89.
3. Rayburn, et al Mol Cell Pharmacol. 2009;1(1):29-43.
4. Diakos, et al. Lancet Oncol. 2014;15(11):e493-503.





# Omega 3 polyunsaturated fatty acids (PUFAs) have established anti-inflammatory properties<sup>1-3</sup>

## INCREASED

- Production of eicosanoids with lower biological potency
- Production of anti-inflammatory endocannabinoids
- Production of proresolution resolvins and protectins

## REDUCED

- Leucocyte chemotaxis
- Adhesion molecule expression and leucocyte-endothelial adhesive interactions
- Production of pro-inflammatory eicosanoids from arachidonic acid (prostaglandins, leukotrienes)
- Production of inflammatory cytokines
- T-cell reactivity

EPA=Eicosapentaenoic acid

**Oral nutritional supplements enriched with EPA, an Omega 3 PUFA, can reduce inflammation and improve nutritional status, weight, and muscle mass in patients with cancer<sup>2,3</sup>**



# By ensuring your patients' nutritional needs are met, you help give them the best chance of treatment success

## Cancer patients have specific nutritional needs...

ESPEN/ESMO guidelines recommend:<sup>1,2</sup>

- ✓ **High protein**
- ✓ **High energy**
- ✓ **Adequate micronutrients, in particular vitamin D**
- ✓ **Omega 3 fatty acids**

## ...and individual patients may have specific requirements to support adherence to medical nutrition

- ✓ **Tailored-made or sensory adapted flavours to improve palatability in patients with sensory changes<sup>3</sup>**
- ✓ **Different flavours to provide variety**
- ✓ **Small volume to improve compliance in patients with low appetite<sup>4</sup>**

[View ESPEN & ESMO Guideline Recommendations](#)



ESPEN: European Society for Clinical Nutrition and Metabolism; ESMO: European Society for Medical Oncology.



| ESPEN guidelines on nutrition in cancer patients (2017) <sup>1</sup>   |                     | ESMO guidelines on cancer cachexia in adult patients (2021) <sup>2</sup>  |
|--|---------------------|---|
| 25–30 kcal/kg/day in all patients with cancer, if energy expenditure is not measured directly  | ENERGY              | 25–30 kcal/kg/day to maintain nutritional status, adjust regimen as required  |
| >1 g/kg/day and if possible, up to 1.5 g/kg/day in all patients with cancer  | PROTEIN             | At least 1.2 g protein/kg/day should be provided to patients with cancer  |
| Vitamins and minerals be supplied in amounts approximately equal to the RDA  | MICRONUTRIENTS      |   |
| In patients with advanced cancer undergoing chemotherapy, use supplementation with long-chain Omega 3 fatty acids or fish oil to stabilize or improve appetite, food intake, lean mass and body weight | OMEGA 3 FATTY ACIDS | Offer patients receiving chemotherapy, radiotherapy or chemoradiotherapy high-protein ONS enriched with Omega 3 to increase body weight, attenuate loss of lean body mass and improve quality of life |

**All patients with cancer should undergo regular nutritional screening and assessment<sup>1,2</sup>**

**REFERENCES**  
 1. Arends, et al Clin Nutr. 2017;36(1):11-48.  
 2. Arends et al. ESMO Open. 2021; 6(3):100092.



**NEW**

# Fortimel OmegaCare: The journey to better nutritional care for cancer patients

Designed specifically for patients with or at risk of disease related malnutrition due to cancer, chronic catabolic disease or cachexia.

**HIGH ENERGY,  
HIGH PROTEIN**

306 kcal and  
18 g protein

**HIGH IN  
VITAMIN D**

10 µg Vitamin D

**ENRICHED  
WITH OMEGA 3  
FATTY ACIDS  
FROM FISH OIL**

1.1 g EPA and  
0.7 g DHA



Small 125ml  
compact volume

Tailored and  
validated flavours<sup>6</sup>

DHA: Docosahexaenoic acid; EPA: Eicosapentaenoic acid.



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## **Omega 3 helps to target systemic inflammation**

Known anti-inflammatory properties, with EPA and DHA from fish oil being the most potent of the fatty acids<sup>3</sup>

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1.1 g EPA and  
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10 µg Vitamin D

To help address the  
high prevalence of  
**Vitamin D deficiency** in  
patients with cancer<sup>4,5</sup>

## ENRICHED WITH OMEGA 3 FATTY ACIDS FROM FISH OIL

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**To support compliance  
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with a patient-centric  
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**To support compliance and patient experience**  
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DHA: Docosahexaenoic acid; EPA: Eicosapentaenoic acid.



# A range of sensory-adapted flavours, tailored to patient needs\*

Designed by Nutricia scientists with +10 years' experience  
in researching taste alterations in patients with cancer

">72% of patients **liked the flavours** and  
most found the **sweetness 'just right'**"

"Most patients found Cool Berry and Cool Mango  
Peach flavors **refreshing** and **easy to drink**"

"71% patients liked the cooling sensation of **Cool  
Mango Peach** and **75% liked Cool Berry**"

\*Study completed  
in 2021 with n=50  
oncology patients  
undergoing cancer  
treatment<sup>1</sup>



Cool Mango Peach

Cool Berry



# FORTIMEL OMEGACARE

THE RIGHT NUTRITIONAL  
SUPPORT CAN **HELP MAXIMIZE**  
**THE POTENTIAL OF CANCER**  
**TREATMENTS BY IMPROVING**  
**THE NUTRITIONAL STATUS**  
**OF PATIENTS**

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