



# Menopause, Diet & Cancer

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*eating well  
after cancer*

Katie E Johnston RD  
Dr Samantha J Cushen RD PhD

*A practical resource for women  
navigating menopause as a  
result of cancer treatment,  
offering evidence-based  
nutritional guidance to support  
health and well-being.*

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Irish  
Cancer  
Society

 **UCC**  
University College Cork, Ireland  
Coláiste na hOllscoile, Corcaigh



The production of this book was supported by the Irish Cancer Society, an Irish charity determined to help anyone affected by cancer in Ireland.

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School of Food and Nutritional Sciences



CUH/UCC CANCER CENTRE



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# About the Authors



## Katie E Johnston BSc RD

Katie graduated from the University of Chester in 2021 with a BSc (Hons) in Human Nutrition and Dietetics. After graduating, she worked as a community dietitian in Northern Ireland. Katie is a CORU & HCPC registered dietitian, and a member of the Irish Nutrition and Dietetic Institute.

She is currently undertaking a PhD in University College Cork under the supervision of Dr Samantha

Cushen and Professor Aoife Ryan, investigating the impact of targeted dietetic interventions during cancer survivorship, with a particular focus on breast and gynaecologic cancers. Katie's passion for this book was inspired by her mum's own journey and the women that she has met in her clinics. She hopes that this book will provide some comfort amongst the misinformation, support you during this part of your journey and allow you to enjoy food, without restriction or guilt.



## Samantha Cushen PhD RD

Dr. Samantha Cushen is a CORU-registered dietitian, who graduated from Trinity College Dublin/Dublin Institute of Technology in 2006. She completed her PhD at University College Cork (UCC) in 2015, where she focused on the impact of body composition on cancer outcomes. Since 2017, Samantha has been a full-time lecturer on the MSc Human Nutrition and Dietetics programme at UCC.

Her research explores how nutrition and body composition affect long-term health, particularly during the often-overlooked pre-treatment and survivorship phases of the cancer journey. She has published numerous peer-reviewed articles, presented her research at national and international scientific conferences, and received multiple awards for her contributions.

Samantha is deeply committed to supporting women facing treatment-induced menopause. Through this book, she aims to provide practical, evidence-based guidance to help women manage their nutritional needs during this challenging time, improving their health and quality of life. Her goal is to bridge the information gap and create a valuable resource for female cancer survivors navigating menopause.



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## A note to our readers:

This book is intended to support those experiencing menopause following a cancer diagnosis. While many people traditionally associate menopause with a woman's life, we acknowledge that not everyone experiencing menopause will consider themselves a woman.

Throughout this book, you'll find the terms "woman" and "women" used frequently. This is because the research and experiences shared within these pages are primarily based on studies conducted with cisgender women, particularly those navigating the complexities of menopause. We recognise the diverse experiences of non-binary, transgender and intersex people who may also be navigating similar changes. While the language here may seem focused on one group, the insights and support offered are meant for all who find themselves on this path.

Furthermore, this book may reference reproductive organs typically identified as female and treatments commonly associated with female cancers, such as endocrine therapy; however, its content and advice are intended for everyone, regardless of their gender.



# Introduction

**We are thrilled to present this book, created with dedication and care to meet the specific nutritional needs of those experiencing menopause as a result of cancer treatment.**

This resource is designed to offer practical, evidence-based guidance on how dietary and lifestyle choices can alleviate menopausal symptoms and enhance overall well-being during this unique phase of life.

Cancer treatments can sometimes trigger a sudden, intense menopause, often leading to more severe symptoms than those of natural menopause. For some, these symptoms are manageable, while others may find them overwhelming, impacting quality of life. This book provides support and strategies, covering nutrition and lifestyle modifications to help ease these challenges.

Developed by CORU-registered dietitians from the Clinical Nutritional and Oncology Research Group, University College Cork, in partnership with Cancer Research @UCC, University College Cork, and the Irish Cancer Society, this book emerged from the Women's Health Initiative "Linking You with Support and Advice" (LYSA) Trial. Throughout the LYSA Trial, we recognised a critical need for a dedicated resource offering reliable information on menopause for women affected by cancer—a group often overlooked in traditional menopause care and conversation.

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*Our aim is to close this gap, equipping readers with guidance to live well through menopause by addressing symptoms and highlighting the role of balanced nutrition and healthy lifestyle choices.*

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The book is organised into two parts:

- *Part I, Troubleshooting Symptoms*

and

- *Part II, Eating Well.*

In *Part I*, we explore the science behind specific menopausal symptoms and address common questions we've received from women affected by cancer. This section details the essential nutrients that support symptom relief and overall well-being.

*Part II* then translates this information into practical, actionable guidance through a variety of recipes. We have included a list of links and references from trusted sources at the end of this book.

The quotes in this book come from women who have experienced cancer and are likely navigating similar menopausal symptoms to you. Additionally, all the recipes in this book have been specially created and reviewed for women affected by cancer who have been advised by their medical team to follow a healthy diet. These tasty recipes will help translate the nutritional information and advice, contained in this book, into simple, nourishing, and enjoyable meal ideas.

We sincerely hope this book makes a meaningful difference in navigating the challenges of menopause and helps, even in some small way, to improve health and well-being during this time.

*Note:*

This book is not a replacement for advice from a healthcare professional and does not cover all possible options.

It is recommended that everyone diagnosed with cancer receive advice from a registered health care professional (preferably from a registered dietitian with experience in oncology or talk to their oncologist or cancer specialist nurse) on what diet best suits their diagnosis and personal needs.

### **Katie E Johnston RD**

Research Dietitian (Oncology), University College Cork,  
CORU & HCPC Registered Dietitian

### **Dr Samantha Cushen PhD RD**

Lecturer in Human Nutrition and Dietetics, University College Cork,  
CORU Registered Dietitian

# Letter from Consultant Medical Oncologist

As a medical oncologist specialising in breast cancer and the principal investigator of the LYSA survivorship clinical trial, I am honoured to introduce *Menopause, Diet, and Cancer*, a resource born directly from the insights and experiences of women who participated in our research. This book represents a crucial step forward in supporting the well-being of women navigating the unique challenges of menopause induced by cancer treatment.

This book addresses many of the questions my patients often ask but which, as a clinician, I cannot always comprehensively answer in a standard consultation. It integrates lived experiences, sound scientific evidence, and the invaluable perspectives of patients themselves, making it a trusted companion for women embarking on this complex journey.

Cancer treatments can often trigger an early and more intense menopause, compounding the physical and emotional burdens many women face during and after their cancer journey. These challenges frequently intersect with dietary concerns, as patients seek guidance on how best to manage their symptoms, maintain their strength, and reduce future health risks.

The nutritional challenges faced by women experiencing menopause after cancer treatment are both complex and multifaceted, demanding tailored, evidence-based interventions to support long-term health and quality of life. While the role of diet and nutrition in survivorship care is critical, access to reliable, practical advice has been historically limited.

This book changes that. Authored by expert CORU-registered dietitians from the Clinical Nutrition and Oncology Research Group, UCC in collaboration with Cancer Research @UCC and the Irish Cancer Society, *Menopause, Diet, and Cancer* translates the latest research into actionable advice, offering strategies that empower women to make informed choices about their health. It is a vital tool for patients and healthcare professionals alike, addressing the often-overlooked nutritional dimensions of cancer survivorship.

Through its pages, readers will find not only practical dietary solutions but also the voices of women who have navigated similar journeys, bringing a sense of solidarity and shared understanding. This book is more than a guide; it is a testament to the importance of integrating dietetics into comprehensive survivorship care.

It is my hope that this resource will provide the support and knowledge women need to thrive during this pivotal stage of their lives. I commend the authors for their dedication to advancing care for women affected by cancer and encourage all readers to embrace the insights it offers.



I wholeheartedly endorse this book as an innovative and compassionate guide for managing the often-overlooked challenges of menopause after cancer. I am confident that it will be a beacon of support for countless women and a testament to the power of research-driven, patient-centred care.



**Professor Roisin M Connolly**

Consultant Medical Oncologist | CUH/UCC Cancer Centre,  
Cork University Hospital  
Professor Gerald O'Sullivan Chair | Cancer Research @UCC,  
University College Cork.

# Letter from the CEO, Irish Nutrition and Dietetic Institute

We all want to live well and enjoy good health. For people living with and beyond cancer they can sometimes feel adrift after they have finished the acute part of their treatment. The desire to restore and maintain health is strong for patients and families but it can be hard to find the information they need.

Good nutrition is one of the fundamental building blocks of good health and this book, full of well researched, expert advice and delicious recipes will be invaluable.

This is the latest publication from the UCC Clinical Nutrition & Oncology Research Group, here in INDI we are proud to see these excellent dietitian developed resources to support cancer patients across their journey and our members look forward to using them in clinical practice around Ireland.



**Jennifer Feighan,**

Chief Executive Officer

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# Letter from CEO, Irish Cancer Society

If you're reading this book, you or someone you care about is likely living with or beyond cancer – and facing the added challenge of menopause. That's a lot to carry and I want you to know that you're not alone. The Irish Cancer Society is here to help.

As the largest funder of cancer research in Ireland, we are passionate about investing in research that makes a positive practical difference to people's lives. For too long, women have had to live with life-altering side effects of cancer treatment, such as early menopause, with little support. Our investment of over €1 million the Women's Health Initiative was designed to change that.

This resource, developed as part of that initiative by an incredible team at University College Cork, offers practical, evidence-based guidance on nutrition and managing menopause during and after cancer. Most importantly, it was shaped by women who've been through it themselves.

We are especially grateful to those women who gave their time and shared their lived experience to help create this book. Their contributions are truly invaluable.

We would also like to thank the LYSA team at University College Cork, especially Katie Johnston and Dr Samantha Cushen, for developing this excellent resource.

I hope you find this book helpful and invite you to reach out to the Irish Cancer Society if there is anything else you need support with. We offer a wide range of services to help people with the physical, emotional, practical and financial challenges cancer brings. You can talk to one of our cancer specialist nurses for free, and access our other services, through our Freephone Support Line at 1800 200 700 or by visiting one of our Daffodil Centres. For more information see [www.cancer.ie](http://www.cancer.ie). Please don't hesitate to reach out.

With warm wishes,



**Averil Power**

CEO, Irish Cancer Society



# Letter from Clinical Nurse Specialist

I write this letter as a colleague of Katie Johnston's on the LYSA team. We were the Cork team of the Irish Cancer Society's Women Health Initiative. While we were carrying out the LYSA trial it became abundantly clear that our participants were reaching out to health stores, friends family and colleagues seeking supplement information to cope with side effects of their cancer and its treatment.

We hoped to help with symptoms by participating in the study, but there were many, many more patients in similar situations. A resource to help with decisions around diet/supplements and non-pharmacological interventions was lacking and often misguided, even with the best intentions.

I welcome this resource, to help patients and healthcare professionals to guide interventions and complimentary therapies in the survivorship stage, of an already complex and exhausting personal journey for these women. This book will empower women to make their informed choices around managing complex and bothersome symptoms of the menopause after a cancer diagnosis. It has been driven by women, we listened to what they required, and we hope that we have taken a step to meeting their requirements. The lived experience voice is evident throughout. We believe this makes it a resource that is user friendly and will benefit many, many women facing menopausal symptoms after a cancer diagnosis.

I hope this book will provide support and clearer guidance for women. We are all here to learn and listen, so please reach out, to your healthcare providers also with this resource.

May the Road Rise to meet you. May the wind be always at your back.  
May the sun shine warm on your face; the rain fall soft upon your fields.  
*[unknown author]*

Enjoy this fantastic resource,  
Mise le meas,

Kate



**Ms Kate O'Connell**

Women's Health Initiative (Survivorship) Clinical Nurse Specialist  
CUH/UCC Cancer Centre,  
Cork University Hospital

*Part I*

**Chapter 1.  
Menopause after Cancer**



“The whole  
menopause piece  
just isn’t discussed  
enough around the  
start of the cancer  
journey, and it’s  
not mentioned  
afterwards”

Anonymous, 45 year old affected by breast cancer

## The Menopause

The natural part of every woman's life that's been deemed "unnatural" to talk about in society. A taboo topic that can have a major impact on a woman's everyday routine and her quality of life.

This is particularly important for women who have gone through treatment for cancer and are now transitioning from not only "patient" to "survivor" but from menstruating to menopausal. While some may identify with the term "survivor," others may not—but the physical and emotional changes of this stage are shared by many.

This transition might feel like a minefield – you've just had treatment for cancer, you might have been prescribed an endocrine (hormone-blocking) therapy, you're trying to get back to "normal life" – and now you're experiencing the menopause and everything that comes with it.

## The Road to Menopause for Women Affected by Cancer

Menopause is a natural stage in life that occurs when the ovaries gradually stop functioning and no longer produce the hormones oestrogen, progesterone, and testosterone. As a result, menstrual periods come to a permanent end. This typically happens between the ages of 45 and 55 and is confirmed when a woman has gone 12 consecutive months without a period.

However, you may have entered this part of your life earlier because of cancer treatment. The road to menopause may look different for you compared to the other women in your life who have not gone through cancer treatment.

The management of early menopause resulting from cancer treatment requires a different approach compared to managing menopause in older women who experience it naturally.

A 2021 survey of 385 women with breast cancer found that six years after diagnosis, many were still experiencing menopausal symptoms. The results showed that 90% had hot flushes or trouble sleeping, 75% had vaginal dryness, 62% had mood swings, and 59% had sexual difficulties <sup>1</sup>.

In Ireland, the *Menopause after Cancer* survey gathered information from 418 menopausal women who had been diagnosed with cancer. The survey reported that 29% of women were unable to sleep due to pain at least 3 times per week, and half of women surveyed reported feelings of anxiety.

The three symptoms that Irish women would most like to get rid of were

1. hot flushes and night sweats,
2. disturbed sleep *and*
3. feeling tired and worn out <sup>2</sup>.

## Menopause and Cancer Treatment

For women who experience naturally occurring menopause, they have a period of time to adapt to this huge change in their bodies – this is known as the perimenopause.

Some cancer treatments can trigger menopause earlier than naturally occurring menopause, leading to more intense and distressing symptoms (See Table 1 on Page 16).

It is important that you discuss with your medical team the impact that treatment may have on your menopausal status- whatever your age and what to expect.

### Dietitian's Top Tip:

If you have a BRCA1 or BRCA2 mutation and have not been diagnosed with cancer but have had surgery that causes menopause (like having your ovaries removed to lower cancer risk), diet is key to keeping you healthy and managing menopause symptoms.

The dietary advice in this book will be helpful for you. It's especially important to focus on your bone health, heart health, and muscle strength, as you'll learn in the upcoming chapters.

The recipes and nutrition tips in this book will support your overall well-being.

**Table 1. Examples of how cancer treatments can cause menopause or menopausal symptoms (adapted from Szabo et al.<sup>3</sup>). This is not an exhaustive list—your experience may differ depending on your diagnosis and treatment plan.**

Cancer Treatment	Reasons for Treatment	How Does It Induce Menopause?
Chemotherapy	<ul style="list-style-type: none"> <li>• Treating breast cancer in women who are still having their period (premenopausal) or are near menopause.</li> <li>• Treating blood cancers.</li> <li>• Preparing patients for a stem cell transplant.</li> </ul>	<p>Chemotherapy can stop the ovaries from working properly, which may lead to menopause.</p> <p>This could be temporary or permanent, depending on things like your age, the specific drugs used, how much you get, and how long the treatment lasts.</p> <p>In some cases, it can cause the ovaries to completely stop working, leading to early menopause or the complete loss of periods.</p>
Radiotherapy to the Pelvic area or Brachytherapy (Internal Radiotherapy)	<ul style="list-style-type: none"> <li>• Treating cancers in the uterus, cervix, vagina, vulva, bladder, anus, and colon.</li> <li>• Treating certain types of sarcomas or lymphoma.</li> </ul>	<p>Radiation aimed at the pelvic area, like for cervical cancer, can affect the ovaries and cause early menopause.</p> <p>The ovaries are very sensitive to radiation, even if they don't get the main focus of the treatment.</p> <p>Hormonal changes can start around three months after treatment, though this may happen sooner or later depending on the individual.</p>
Anti-Oestrogen Hormone Therapy	<ul style="list-style-type: none"> <li>• Treating hormone-sensitive breast cancers.</li> <li>• Reducing the risk of breast cancer in women who have a high genetic risk (like those with BRCA1 or BRCA2 mutations).</li> </ul>	<p>These drugs block or reduce oestrogen in the body.</p> <p>Tamoxifen (a medication used to treat certain types of breast cancer) blocks oestrogen in the breast tissue but not elsewhere in the body. It can be used for both premenopausal and postmenopausal women and is usually taken for 5 to 10 years.</p> <p>Aromatase inhibitors, like anastrozole (a medication used to treat certain types of breast cancer), stop the body from making oestrogen and are used for postmenopausal women. Treatment typically lasts 5 to 7 years.</p>
Surgery; removal of all ovarian tissue with or without a hysterectomy	<ul style="list-style-type: none"> <li>• Treating ovarian and endometrial cancers.</li> <li>• Reducing the risk of ovarian cancer in women with a high genetic risk (like those with BRCA1 or BRCA2 mutations).</li> </ul>	<p>For women with cervical cancer, surgery may involve removing both ovaries (bilateral oophorectomy), either on their own or along with a hysterectomy.</p> <p>This causes immediate menopause because the ovaries are removed and can no longer function.</p> <p>Women who have their ovaries removed can experience intense and sudden menopausal symptoms.</p>



The Menopause Minefield:



## Managing Menopausal Symptoms After Cancer

Every woman's experience of menopause is different, especially after cancer. The intensity of the symptoms can vary greatly.

Symptoms may include:

- Hot flushes and night sweats.
- Changes in body weight, joint and muscle pain.
- Issues with memory, concentration or mood, like brain fog, fatigue and feeling irritable.
- Vaginal dryness, urinary tract infections (UTIs), incontinence and lower sex drive.

Menopausal symptoms can be managed in different ways, including lifestyle changes, medical treatments, and adjusting your diet.

Some women may consider hormone replacement therapy (HRT), but for those with hormone-sensitive cancers, like hormone-receptor-positive breast cancer, certain types of HRT are often not recommended by doctors because of the risk of cancer returning or developing again.

In the pages that follow, we provide alternative methods for supporting well-being during menopause for those who cannot or prefer not to use HRT. If you are using HRT, the dietary advice in this book provide additional and useful information.

## Why is Nutrition Important?

Cancer treatment and early menopause can cause significant changes to your health. Whilst the numbers and statements we are about to share aren't intended to scare you – we know that knowledge is power. Knowing your risk means you can take the steps to support your long-term health.

- **Heart Health:**  
Heart disease is the leading cause of death in post-menopausal women, even more than cancer. Up to *80% of the risk* can be reduced through healthy lifestyle habits.
- **Muscle Mass:**  
People with cancer can lose up to *24 times* more muscle than those without cancer, which can affect physical function & long-term health.
- **Bone Health:**  
Women who are post-menopausal and take aromatase inhibitors (like anastrozole) may lose bone mass at a rate 7.7% higher per year than women in the general population.

- **Gut Health:**

Cancer treatments and menopause can disrupt the balance of bacteria in the gut, impacting digestion, immune function, and mental health due to the gut-brain axis. (For further details, refer to Chapter 6)

## Knowledge is Power

It's important for all women affected by cancer to be well-informed and actively take part in decisions about their treatment. Being informed helps you have better conversations with your healthcare professionals and understand all the treatment options available to you.

Here are some key points to remember:

- Keep track of your menopausal symptoms, including how severe they are and how they affect your daily life.
- Your medical team is there to answer any questions. Each woman's experience is unique, and what works for one may not work for another. There is no one-size-fits-all solution for managing menopause after cancer – so do not compare yourself!
- Remember, *you are not alone*, and *you are not going mad*. This period may be challenging, but support is available, and *you will get through it*.

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*“I think correct information can only be power at the end of the day. You know we’re going to get it from somewhere so I think having it informed can only help.”*

Anonymous, aged 36, affected by ovarian cancer

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## Chapter 2.

# The Menopause Plate

“It is just as important to see a dietitian and get a treatment plan for your diet as it is to get a treatment plan from your oncologist”

Anonymous, aged 58, affected by breast cancer and chronic lymphocytic leukaemia (CLL) survivor



### The Menopause Plate

We have created our own **Menopause Plate**® dietary guide, inspired by Mediterranean eating principles, to help women choose foods that support their health during menopause. Rich in fruits, vegetables, wholegrains, pulses, healthy fats and dairy, the Mediterranean style of eating is widely regarded as one of the healthiest, most flexible ways of eating in the world.

Research by the European Menopause and Andropause Society (EMAS) shows that following the Mediterranean style of eating for less than a year can help reduce menopausal symptoms like hot flushes. It also promotes overall health by improving cholesterol, blood pressure, mood, and symptoms of depression<sup>1</sup>.

*"It is just as important to see a dietitian and get a treatment plan for your diet as it is to get a treatment plan from your oncologist."*

Anonymous, aged 58, affected by breast cancer

What does the Mediterranean style of eating look like in everyday life?

Food Group	Recommended Servings	1 Serving Food Equivalent
Wholegrain Carbohydrates	3-6 servings per day	2 medium slices of bread 150g cooked rice or pasta or 3 tablespoons 175g potatoes or 2 medium size 40g or 3 tablespoon of porridge oats
Fruit and Vegetables	6+ servings per day  Fill up half your plate with fruit and vegetables	80g portion: 1 medium size apple/pear/orange/banana 1 handful of berries 2 plums/apricots/kiwis/satsumas 3 heaped tablespoons of cooked vegetables 1 cereal size bowl of salad
Pulses and Legumes	3+ servings per week	150g or 4 tablespoons of kidney beans/ chickpeas/lentils
Poultry and Fish	2-3 servings per week	90g of poultry 140g of fish
Dairy Products	3 servings per day	200mls glass of milk 125g pot of yoghurt 30g (matchbox size) cheese
Olive Oil	4 tbsp per day	

## Links Between the Mediterranean Style of Eating and Menopausal Symptoms

The Mediterranean style of eating supports menopausal health through its effect on body composition, heart health, hot flushes and night sweats, gut health, and mental well-being.

- **Body Composition:**  
It helps to reduce central obesity and improve bone health.  
Studies show it can lower the risk of obesity by 9% <sup>2</sup>.
- **Heart Health:**  
Research links it to reduced risks of heart failure, heart attacks, strokes, especially when you include olive oil or nuts <sup>4</sup>.
- **Hot Flushes and Night Sweats:**  
It can lower hot flushes and night sweats by 20% and plant-based foods like tofu and soy milk can reduce severe symptoms by 88% <sup>8</sup>.
- **Gut Health & Urinary and Vaginal Symptoms:**  
Improves gut health and reduces the risk thrush (bacterial vaginosis) by cutting back on processed foods.
- **Brain Health and Psychological Function:**  
It can help protect your brain, improve memory, and reduce feelings of sadness or depression <sup>9-11</sup>.

*“I think the information should come from dietitians, that is their expertise.”*

Anonymous, aged 47, affected by breast cancer









### **Elotes Corn Salad**

Following the Menopause Plate and Mediterranean style of eating does not have to be boring. This Elotes Corn Salad has 25% of your daily fibre needs, contains 3 of your 5 a day, 154% of your Vitamin B3 needs, is high in protein, and importantly, it's salad you'll want to eat again and again!

**For the recipe, go to page 104.**

# **Chapter 3.**

## **From Head to Toe: Supporting your Muscles & Bones**

**“Body composition  
is more important  
than body weight  
in menopause”**

Katie E Johnston RD & Samantha Cushen PhD RD

## Body Composition & Menopause After Cancer

Following cancer treatment and during menopause, your body may go through changes, some you can see and some you can't. It's essential to nourish and fuel your body during this time. Our focus is on building healthy habits that support physical, mental, and emotional well-being, rather than aiming for a specific weight.

### We take a “health gain” approach, not a “weight loss” approach

Key Points:

- **Follow A Health Gain Focus:**  
Small, sustainable habits for long-term health.
- **Body Composition:**  
Refers to muscle, bone, fat, and water in the body, which can vary daily

### Why Menopause Impacts Body Composition:

- Oestrogen declines during menopause, affecting muscle and bone mass.
- Up to 90% of breast cancer survivors report weight changes post-diagnosis <sup>1</sup>.
- Hormone therapies may speed up or intensify these changes.

### Muscle Mass:

- Menopause and declining oestrogen levels are associated with decreases in muscle mass and strength <sup>2,3</sup>.
- Muscle mass naturally decreases by 1% - 1.4% annually after age 40.
  - However, research has shown that following cancer treatment, adults have a rate of muscle loss that is 24 times higher than normal <sup>5,6</sup>.
- Maintaining or increasing muscle mass, regardless of body weight, has shown to have positive outcomes for those affected by cancer.
- Maintaining or improving muscle mass benefits quality of life, bone health, sleep, and mental wellbeing.

## Physical Activity Recommendations:

### 1. Resistance Training:

Strength exercises like squats, lunges, or bicep curls using body weight or household items. Aim for 2 days/week.

### 2. Aerobic Activity:

At least 150 minutes of moderate activity or 75 minutes of vigorous activity weekly (per HSE guidelines; for detailed guidelines on physical activity, visit [www.gov.ie](http://www.gov.ie))

### 3. Start Slowly:

Consult your GP or a registered physiotherapist, especially after surgery or if you're new to exercise.

#### *Remember:*

If you do not use it, you might lose it!

Speak to your GP or consult with a CORU registered physiotherapist first if you have not exercised for some time, or if you have had surgery such as a mastectomy or hysterectomy.

Make sure your activity and its intensity are appropriate for your fitness - if in doubt, consult a CORU registered physiotherapist.

*"My magic pill is exercise.  
If I have pain or feel down the exercise helps...  
I physically feel the benefits."*

Anonymous, aged 46, affected by breast cancer

## Can Diet Help Improve Muscle Mass?

Exercise is important but not enough on its own. Your muscles need protein to work properly and grow. Research shows protein intake decreases as we age, especially in women. It's best to spread your protein intake evenly throughout the day, as breakfast often has the least amount of protein <sup>7, 8</sup>.

Getting enough protein in your diet is linked to better physical function and overall performance in menopausal and post-menopausal women <sup>9</sup>.

## How Much Protein Do You Need?

- **For Healthy Ageing:**  
Aim for 0.8g–1.2g protein per kilogram of body weight each day <sup>10,11</sup>.
- **After Cancer Treatment:**  
Aim for 1.0g–1.5g protein per kilogram of body weight each day <sup>12</sup>.

*Example:*



Ameara weighs 70kg and has had radiotherapy for breast cancer. She has been prescribed Tamoxifen for 5 years. Ameara needs 70g–105g of protein per day to help her maintain her muscle mass. Including protein at every meal and snack makes reaching this goal easier.

*Try it for yourself:* using the table on page 28, see if you can reach 70g–105g of protein for three meals and two snacks!

## Quality of Protein:

Amino acids are the tiny building blocks that make up proteins, which are essential for repairing muscles, building strength, and maintaining overall health. To help with muscle building, it's important to choose high-quality proteins, such as chicken, fish, eggs, and milk, as they are easier for the body to digest and use.

Plant-based proteins can also work, but they need to be combined from different sources like beans, lentils, nuts, and grains to provide all the essential amino acids.

If you are vegetarian or vegan you'll need to plan your meals carefully to ensure you get enough protein!

One important amino acid is leucine, which helps trigger muscle growth. It's found in higher amounts in animal proteins like chicken, turkey, fish, and cheese.

## Sources of Protein

Food Type		Protein Content (g) per average portion of food type
Meat	Chicken Breast (grilled, without skin)	38g
	Pork Chop (lean grilled)	39g
	Beef steak (lean, grilled)	50g
Fish	Tuna (canned, spring water)	17g
	Salmon, (baked)	28g
	Cod, (baked)	26g
Seafood	Prawns, (cooked)	13g
	Mussels, (cooked)	15g
Eggs	Chicken, (boiled )	7.2g
Dairy	Whole milk	3.4g
	Semi skimmed milk	3.5g
	Skimmed milk	3.5g
	Cheddar Cheese	10g
	Reduced Fat Cheddar Cheese	11g
	Cottage Cheese	9.2g
	0% Fat Greek Yoghurt, plain	13g
	Natural Yoghurt, plain	7.1g
Pulses	Red Split Lentils (boiled)	7.8g
	Chickpeas, ½ can	8.9g
Beans	Baked beans	7.2g
	Kidney beans	13g
	Butter beans	7.4g
	Tofu, (steamed)	19g
Nuts	Almonds	2.1g
	Peanuts, (dry roasted)	7.4g
	Walnuts	2.3g
	Cashew Nuts	4.6g
Dairy Alternatives	Oat Milk, (unsweetened & fortified)	1g
	Almond Milk, (unsweetened & fortified)	0.5g
	Coconut Milk	1.3g
	Soya Milk, (unsweetened & fortified)	2.4g
	Dairy-Free Cheese Block, (coconut based)	0g
	Dairy Free Yoghurt	0.8g

Created by Katie E Johnston using Nutritics



## Do You Need Protein Powder?

Protein powders are a concentrated source of protein and can be made from plant-based ingredients like soy and animal-based options such as milk.

Protein powders can be a practical way to consume 20–30g of protein, especially for women affected by cancer who might find it hard to prepare or eat enough whole foods. While *not a substitute* for nutrient-dense foods, they can be helpful when your diet does not provide enough protein.

### *Note on Regulation:*

In Ireland, protein powders are regulated as foods, not medicines, by the Food Safety Authority of Ireland (FSAI). This means the quality and ingredients in these products can vary.

Also, the way they are made, labelled, and tested can differ substantially from one product to another.

Many protein powders contain added sugars, artificial flavours, and extra vitamins or minerals. These ingredients can lower the nutritional value and may include unnecessary or even harmful substances for people affected by cancer. Remember, more ingredients increases the risk for supplement medication interactions!

### Dietitian's Top Tip:

#### Choosing Protein Powder

##### Ingredient List:

- Opt for 100% Whey Protein:  
Whey is rich in leucine, and its easy to digest.  
*Note:* Soy Protein is a good alternative for plant-based diets but it contains less leucine and is slower to absorb in the body.
- Look for minimal ingredients and avoid allergens.
- Choose unflavoured powders so you can easily use them in both sweet and savoury dishes.
- Avoid ingredients like xylitol, sorbitol (sugar alcohols) if you have digestive issues.

##### Vitamins, Minerals, and Herbal Additives:

- Skip powders with added nutrients if you are taking a multivitamin – this helps to ensure you are not taking too much of any one vitamin or mineral.
- Talk to your oncology dietitian before using protein powders during chemotherapy or radiation.
- Avoid powders with herbal ingredients – these ingredients might interfere with medications like Tamoxifen.

### Dietitian's Top Tip:

#### Using Protein Powder

##### Start Small:

- Add protein powder to one meal or snack daily – breakfast is a great option, as this meal often contains the least amount of protein.

##### Supplement, Don't Substitute:

- Protein powders can enhance your diet but should not replace whole foods. Use them in addition to balanced meals, like blending into smoothies.

##### Distribute Evenly:

- Spread your protein intake evenly throughout the day for better muscle growth, especially alongside physical activity. Try to include a protein source in each meal and snack.

### Dietitian's Top Tip:

#### Should I be concerned about the phytoestrogen content of soy protein powders?

Soy protein contains phytoestrogens – plant-based compounds with a similar chemical structure to oestrogen – so it's important to be mindful of their intake, especially for women affected by cancer.

*(Please refer to Chapter 5 for more information on phytoestrogens).*

Based on our own research, 100% soy protein powders contain an average of 203mg of phytoestrogens (called isoflavones) per 100g of product. A typical scoop of soy protein powder is about 30g. This provides around 24g of protein and approximately 61mg of isoflavones.

##### Our advice:

If you're incorporating soy protein powder into your diet, *limit your intake to one to two scoops per day*, particularly if you are also consuming other soy-based foods. This ensures a balanced intake of phytoestrogens while supporting your nutritional needs after cancer.

## Collagen Supplements: What You Need to Know

Collagen is a vital protein for skin, joints, and connective tissues. Its natural production declines with age, which can lead to wrinkles, joint stiffness, and dry skin. While collagen supplements are popular, their benefits and safety for those affected by cancer remain uncertain.

Certain lifestyle factors can speed up the breakdown of collagen.



Collagen production may be affected by:

- Excessive alcohol use
- Nutrient deficiencies
- Poor sleep
- Smoking
- Lack of exercise
- Sun exposure

Although collagen has been used in a large number of areas - from skin care and joint health to wound healing <sup>15</sup> - no official dietary guidelines have been set for collagen or collagen supplements. Researchers agree that larger studies are needed to determine the right dosage and formulation of collagen supplements before general, safe recommendations can be made.

### Looking Closely at the Current Scientific Research

Emerging evidence suggests that collagen may improve skin elasticity <sup>16</sup>, but it's important to note that these studies do not focus on individuals affected by cancer.

It's also unclear whether the benefits are due to collagen itself, other ingredients in the supplements (e.g., co-enzyme Q10), or a combination of factors, including diet.

Amino acids, the building blocks of collagen, are easily obtained from a varied, nutritious diet. This has led many to argue that increasing protein intake is a more effective way to support skin health, as collagen supplements may not offer more benefits than a diet rich in protein <sup>17</sup>. It also may be a more cost-effective approach!

*The safety of collagen supplements for people  
affected by cancer remains unclear.*

While early pre-clinical research (primarily in mice) has shown that collagen can both slow down and promote tumour growth at different stages of cancer, we cannot yet extrapolate these findings to humans, and many questions remain unanswered <sup>18,19</sup>.

Without more studies, we cannot determine if collagen supplements are beneficial or harmful for women affected by cancer. Therefore, we advise caution for anyone with a history of cancer, particularly breast or gynaecological cancers, as there is not enough evidence to confirm the long-term safety of these supplements. More high-quality research is needed to assess potential risks.

Collagen supplements are more of an extra, and you're not missing out on much by skipping them. Weigh the potential benefits and risks carefully but remember that meeting your protein needs through diet will provide greater benefits than relying on supplements alone.

*Focus on the fundamentals* – getting in enough dietary protein, proper hydration, resistance exercise, and plenty of fruits and vegetables. These essentials offer proven benefits that collagen supplements cannot replace.

In Ireland, collagen is classified as a food supplement rather than a medicine, which means formulations can vary between different supplement companies and there are no regulations on the purity or consistency of ingredients used. Many collagen supplements may contain additional ingredients, such as herbal compounds or high doses of vitamins and minerals, that may not be suitable for you.

## Alternatives to Collagen Supplements

You can enhance your body's collagen production and support existing collagen by eating a variety of nutrient-rich foods.

- **Prioritise Protein:**  
Collagen needs protein to form. Include lean meats, poultry, fish, nuts, legumes, plant proteins and dairy in your diet for optimal protein intake.
- **Embrace a Mediterranean Style of Eating:**  
This diet is rich in nutrients that support collagen production including:
  - **Copper:** Found in beans, chickpeas, and cashew nuts.
  - **Vitamin C:** Abundant in berries, citrus fruits, leafy greens, and bell peppers.
  - **Zinc:** Present in nuts and seeds.
- **Enjoy Smart Sun Exposure:**  
Protect your skin while soaking up some sunlight.
- **Prioritise Quality Sleep:**  
A good night's rest supports overall health and collagen production.
- **Stay Active:**  
Regular exercise promotes circulation and supports collagen health.
- **Avoid Smoking and Limit Alcohol:**  
Both habits can negatively impact your skin and overall health.

## Bone Health During Menopause

- Our bones are made of protein fibres and minerals like calcium. They are living tissues that constantly renew and regenerate.
- As we age, our bones lose more than they regenerate, which can lead to conditions like osteoporosis, where bones become fragile and break easily.
- Women undergoing cancer treatment experience an even faster rate of bone loss—up to ten times higher than the general population <sup>21</sup>. This is especially true for those with breast cancer or those who go through early menopause (before age 45).

The National Institute for Health and Care Excellence (NICE) Guidelines for osteoporosis report that about 10% of people with hip fracture die within 1 month and about one third die within 12 months <sup>20</sup>.

## Oestrogen and Bone Health

- Oestrogen is critical for bone health as it slows bone breakdown.
- During menopause, declining oestrogen levels significantly speed up bone loss.
- Hormone therapies, often part of cancer treatment, further reduce bone mineral density, increasing the risk of fractures even after treatment ends.

Vitamin D is crucial to help your body absorb calcium from food and from supplements.

Our body cannot make Vitamin D from October to March, so the Department of Health in Ireland recommend taking a 400IU (10ug) supplement of Vitamin D during this time <sup>22</sup>.

Vitamin D is a fat-soluble vitamin, so it is best absorbed with meals containing fats, like olive oil, salmon or avocados.

Your medical team may have prescribed a calcium and Vitamin D supplement to help manage your risk of osteoporosis.

*The American Society of Clinical Oncology* and the *European Society for Medical Oncology* recommend a higher intake of Vitamin D, particularly for those on endocrine therapy such as anastrozole.

They recommend a daily intake of both:

- 800 - 1000IU [international units] or 20- 25ug (micrograms) of Vitamin D.
- 1000 - 1200mg/day (milligrams) of calcium (this is equal to approximately 4 portions of dairy foods per day).

**Dietitian's Top Tip:**

If you have been prescribed a calcium and Vitamin D supplement, like Calchew D3 Forte®, you *do not need* an additional Vitamin D supplement.

Consult your medical team or a CORU registered dietitian for personalised advice and ensure any supplements you take meet the recommended nutrient levels.

**Can What I Eat and Drink Help My Bone Health?**

Yes, calcium can be found in a variety of foods.

Calcium Sources	Calcium (mg)
Milk, 1/3 pint (200ml)	240
Calcium-enriched soya/oat milk alternative (200ml)	240
Hard cheese, matchbox-size (30g)	240
Yoghurt, plain/fruit 1 pot (150g)	240
Sardines with bones, ½ tin (60g)	240
Rice pudding, ½ large tin (200g)	180
Tofu / soya bean curd, (60g)	180
Calcium fortified bread, (180mg)	180
Spinach, boiled, 1 serving (120g)	180
Figs, dried, 4	180
Cheese triangle (15g)	120
Cottage Cheese, 1 pot (100g)	120
Custard, 1 serving (120ml)	120
White bread, 2 large slices	120
Soya yoghurt/dessert/custard (125g)	120
Baked beans, small tin (220g)	120
Fromage frais, 1 portion (50g)	60
Tinned salmon, ½ tin	60
Wholemeal bread, 2 large slices	60
Hummus, 1 serving (150g)	60
Brazil nuts or almonds (30g)	60
Orange 1	60
Broccoli, boiled, 2 florets (85g)	40

## Exercising for Bone Health

Weight-bearing exercises are vital for bone health. Activities like Pilates, yoga, weight training, and Zumba strengthen bones and muscles, which work together to support bone structure. Choosing exercises that you enjoy makes it easier to maintain a routine.

Exercise and adequate protein and calcium go hand in hand, especially if your bones are weakened. Always consult your GP or a CORU-registered physiotherapist before starting an exercise program, particularly if diagnosed with osteoporosis or have had surgery as part of your treatment.

## Joint Pain

Aromatase inhibitors, such as anastrozole, can cause joint pain or stiffness, known as “aromatase inhibitor-induced arthralgias.” While more research is needed, small studies suggest that a Mediterranean-style diet, Omega-3 fatty acids, and tart cherry concentrate may help reduce symptoms <sup>23</sup>. Always discuss any joint pain with your medical team for proper management.

## Body Neutrality

After cancer treatment, body changes can affect self-esteem and mental health. Body neutrality offers a healthier perspective, focusing on body respect and functionality rather than appearance.

- **A Neutral Attitude Toward Your Body**

Body neutrality encourages the acceptance of body changes without judgment, offering what some find a more realistic approach compared to body positivity. A neutral attitude acknowledges the way that you feel about your body varies day to day but also respects your body and accepts changes and challenges without judgement <sup>24</sup>.

- **Appreciating Your Body's Functionality:**

It emphasises valuing your body for what it does, such as nourishing it with a balanced diet and strengthening it through exercise, while avoiding harmful restrictive practices.

- **Self-Worth Beyond Appearance:**

Body neutrality helps shift focus from looks to strengths within yourselves. This encourages self-worth independent of appearance or changing appearance.

Focus on gradual health improvements to enhance well-being and quality of life – the health gain approach! Small, sustainable changes can have the biggest impact in the long-term <sup>24</sup>.









### Korean Style Toast

Boost your gut health with this bold and tasty Korean Style Toast.

The probiotics in kimchi team up with fibre-rich wholegrain bread to keep your gut happy, while peanut butter adds a satisfying dose of protein and healthy fats. Crunchy, savoury, and just a little funky—this is the ultimate gut-friendly light meal or snack with a delicious twist!

**For the recipe, go to page 101.**

## Frequently Asked Questions:

**Q: I do not like the taste of my prescribed Calcium and Vitamin D supplement, is there an alternative?**

**A:** Some people find the taste of prescribed Calcium and Vitamin D supplements “chalky”. First, discuss an alternative with your medical team and/or a registered dietitian. It is important to adhere to prescribed medication.

Secondly, if you do decide to buy an over-the-counter calcium and Vitamin D, talk to a pharmacist. Ensure you are taking the correct dosage, not too much or too little: 1000mg of calcium and 800IU of Vitamin D once a day.

**Q: Do you have any advice regarding tart cherry concentrate for pain control with an aromatase-inhibitor induced joint pain?**

**A:** Small studies suggest that 30ml of tart cherry concentrate daily may help improve joint pain, including that caused by aromatase inhibitors, like anastrozole. Whilst the available evidence is limited, its general anti-inflammatory properties may provide some relief.

However, tart cherry concentrate can be very expensive in Ireland (€15 for 200mls), and is not easily accessible, often only available in health food shops. Consider combining tart cherry concentrate with gentle exercise or physiotherapy to further address joint pain.

**Q: I have a high calcium reading consistently throughout my treatment. I'm on letrozole and have a family history of osteoporosis. I'm receiving Zometa infusions. Should I add extra calcium in my diet?**

**A:** Before adjusting your calcium intake, consult your oncologist. High calcium can be influenced by your cancer, your treatment and underlying factors like parathyroid hormone (PTH) or Vitamin D levels.

Your doctor may do some blood tests (like PTH, Vitamin D levels, and kidney function) to determine the cause of your high calcium levels and guide the best course of action. It would be worthwhile getting a dietitian to assess your current calcium intake and collaborate with your oncologist to ensure its balanced with your body's needs.

Calcium supplements are typically not recommended when calcium levels are already high.



**Q: Should I choose snacks & cereal bars with “high protein” in them?**

**A:** Whilst cereal bars and prepackaged snacks can be convenient occasionally, approach them with caution. While protein is an important nutrient for maintaining muscle mass, repairing tissues, and supporting various bodily functions, it's important to consider the overall nutritional value of these snacks.

Look beyond the protein content. Many "high protein" snacks or bars can also be high in sugar, unhealthy fats, and artificial additives, which can make them less nutritious overall. Even if a product is labelled as "high protein," it may not be the healthiest choice if it contains excess added sugars or ultra-processed ingredients.

However, if you're on the go or need a convenient snack, choosing a high-quality protein bar containing whey, casein, or plant-based proteins like pea or soy, with minimal added sugars and healthy fats can be a good option in moderation.

## Chapter 4. Heart Smart: Tips for a Healthy Heart

“I just feel good about myself when I eat healthy. It's like a mental thing more than anything else”

Anonymous, aged 46, affected by breast cancer

## Why is Heart Health During and After Menopause Important?

- Oestrogen has a protective effect on our heart.
- It helps to control cholesterol levels, keep our blood vessels healthy and reduce the risk of fat building up in our arteries.
- During the menopause, as oestrogen levels drop, the level of fat in the blood can increase.
- These changes can increase the risk of developing conditions like high blood pressure, high cholesterol, heart disease or stroke.

These conditions all have what we call *modifiable risk factors*. These are practices that you can do in your life to reduce your risk of developing any of these conditions.

These modifiable risk factors include:

- Your diet
- Smoking status
- Alcohol consumption
- Physical activity levels
- Cholesterol levels
- Blood Pressure
- Body composition, particularly fat mass

### Body composition, particularly fat mass

These risk factors are important to consider. Research has shown that women who have gone through menopause early, either naturally or because they have had their ovaries removed, *are twice as likely* to develop heart disease as women of the same age, who have not reached menopause.

The good news? You can improve your heart health at any age.

## Cholesterol and Heart Health – The Key Facts

- High – Low-Density Lipoprotein LDL ("bad") cholesterol can lead to artery blockages, increasing the risk of heart attack or stroke.
- HDL – High-Density Lipoprotein ("good") cholesterol removes excess cholesterol, reducing heart disease risk.
- High triglycerides, another blood fat, also contribute to artery narrowing.

What Should My Cholesterol Levels Be?

Type of Cholesterol	mmol/l
Total Cholesterol	No more than 5
LDL Cholesterol	No more than 3
HDL Cholesterol	No more than 1
Triglycerides	No more than 2

(<https://irishheart.ie/how-to-keep-your-heart-healthy/cholesterol/>)

Can Your Diet Improve Heart Health?

Yes! What you eat, drink, and how you prepare food can significantly impact heart health.

- **Mediterranean Diet:** This eating pattern, linked to reduced cardiovascular disease since the 1960s, improves cholesterol and blood pressure<sup>1</sup>.
- **“Portfolio” Diet:** This eating pattern focuses on adding plant-based foods (nuts, legumes, soy, and fibre). Incorporating anyone of these elements into your diet can reduce LDL cholesterol by 5-10%, and combining multiple elements can lower it by up to 30%. In comparison, statins, the most effective class of cholesterol lowering medications reduce LDL cholesterol by 20-60% <sup>2</sup>.

Food Group	Sources	Portion Size	Expected LDL-Cholesterol Lowering Effect
Nuts	Mixed Nuts, Almonds, Peanuts, Natural Nut Butters, Pistachios, Walnuts	45g daily	5-10%
Plant Protein	Chickpeas, Peas, Tempeh, Tofu, Soy Beans, Lentils, Beans, Soy Milk	50g daily	5-10%
Viscous (Sticky Fibre)	Apple, Aubergine, Oats, Oat Bran Cereal, Oranges, Berries, Beans, Lentils	2 servings of lentils, chickpeas, beans, and oats; 5 servings of fruit & veg per day.	5-10%
Plant Sterols	Fortified plant sterol spreads, yoghurts and oils	2g daily	5-10%

## The Menopause Plate



### Fibre

Fibre is essential to the success of both of these eating patterns, offering multiple heart health benefits. It helps lower LDL cholesterol and reduce blood pressure.

For example, oats are an important source of fibre that supports heart health. They contain beta-glucans. Beta-glucan traps bile acids in the gut. This prompts the liver to use cholesterol from the blood to produce more bile. Consuming just 3g of beta-glucans daily (found in 40g of oats) can significantly support heart health.

You can find out more about fibre and your daily requirements, in Chapter 6.

### Salt

- Our body needs some salt (sodium), but too much raises blood pressure.
- Recommended daily intake: 6g of salt (2.5g sodium)<sup>3</sup>. This equates to about one level teaspoon of table salt. However, much of the salt we consume is hidden in processed foods and is included in your total daily intake
- High-salt foods include ultra-processed items, cured meats, canned soups, sauces, and some cheeses, so its best to limit these as much as you can.
- Pink Himalayan Salt has the same effect on your health as table salt; moderation is key.
- Use herbs, spices, citrus juice, or low-salt stock cubes to enhance flavour.

## Omega-3 Fatty Acids

- Omega-3 fatty acids are essential fats.
- Your body cannot make Omega-3 fatty acids, therefore you must get them from food sources.
- They play a crucial role in heart health, blood circulation, and reducing the risk of certain conditions.

There are three main types of Omega-3s:

- *EPA* (Eicosapentanoic Acid) and *DHA* (Docosahexanoic Acid): found in oily fish, like salmon, mackerel, tuna, and sardines.
- *ALA* (Alpha linoleic Acid): found in plant-based sources like flaxseeds, chia seeds, walnuts, and flaxseed oil.

These fatty acids are linked to improved heart health, with research showing they support heart function by:

- reducing a type of fat in your blood called triglycerides, high levels of which are linked to a greater risk of heart attack and stroke;
- improving blood circulation;
- preventing blood clots;
- lowering blood pressure;
- maintaining a healthy heart rhythm.

### How Much Do You Need?

- The current recommendations of EPA and DHA is two portions of fish per week, with one portion being oily fish, like salmon and mackerel.
- A portion is about the size of your palm or a small can of fish (140g).

### What If You Do Not Like Fish?

Try these simple tips to boost Omega-3s without eating fish:

- Add walnuts or seeds (like flaxseeds or chia seeds) to your snacks, porridge, or yoghurt.
- Cook with Omega-3-rich oils, such as flaxseed or rapeseed oil.
- Include soya-based foods like tofu or soya milk in your meals.

### Dietitian's Top Tip:

It is important to understand that ALA sources (plant-based) of Omega-3 cannot be absorbed in the body the same way EPA & DHA are.

The body must convert ALA to EPA and then DHA in the liver. Research suggests that our body can only convert approximately 15% of ALA to EPA and DHA.

Therefore, we cannot recommend that you solely use plant-based sources of Omega-3. Dietary sources of EPA and DHA (like fish) are essential.

### Omega-3 Supplements

- Omega-3 supplements are *not recommended* for the general population in Ireland, as the evidence supporting their benefits is inconclusive.
- Research shows that the protective benefits of Omega-3s are more effective when obtained from food sources rather than supplements.
- If you do not eat oily fish at least twice a week, an Omega-3 fatty acid supplement may be beneficial. If you wish to use Omega-3 supplements the recommendation for adults equals *250-500mg per day* of pure Omega-3.
- However, there is a wide range of Omega-3 supplements available over the counter and it's important to consult with your healthcare professional before starting any supplement, as Omega-3s can interact with certain blood thinning and blood pressure medications.



## Frequently Asked Questions:

### **Q: Should I use Pink Himalayan Salt? Is it healthier than normal salt?**

**A:** Despite the buzz around Himalayan and Pink Salt, they are basically the same as table salt. Claims that Himalayan Salt and other sea salts are healthier alternatives to table salt are largely untrue. Yes, they are usually less refined or processed than table salt, but they have the same effect on our blood pressure as regular salt does. So, if you do decide to use a Himalayan or Pink Salt, apply the same rules that you would for normal table salt.

### **Q: Are seed oils bad for you?**

**A:** Over time, social media has spread mixed messages about linoleic acid, a type of Omega-6 fat found in seed oils, and its effects on heart health. However, there's plenty of solid evidence showing that Omega-6 fats, like those from seed oils, can actually help reduce the risk of heart disease.<sup>12</sup> The key is getting the *right balance* of Omega-3 and Omega-6 fats in your diet.

Some people think seed oils are bad because research shows that, at very high temperatures, linoleic acid can break down into compounds that may cause inflammation<sup>12</sup>.

- However, this happens at extreme heat, and it's safe to use seed oils at normal home cooking temperatures.

In fact, studies have found that linoleic acid does not cause inflammation and can be good for your heart.

- One large study of nearly 70,000 people found that higher levels of linoleic acid were linked to a lower risk of dying from heart disease<sup>12</sup>.

So, cooking with seed oils at home is safe and can be part of a heart-healthy diet, provided you eat them in moderation and balance them with Omega-3 fats.

Seed oils are often found in ultra-processed foods, which are typically high in sugar, saturated fat, and salt.

- It's likely that these unhealthy aspects of ultra-processed foods, rather than the seed oils themselves, are the real issue when it comes to health problems. The seed oils in these foods are highly refined, but it's the overall poor nutrition profile of ultra-processed foods that contributes to negative health problems, not just the seed oils they contain.

**Q: I do not eat fish and so I have bought an Omega-3 supplement, but I am struggling to read the label to see if it contains enough EPA & DHA. Do you have any tips?**

**A:** Supplement labels can be hard to read! When looking at the content of a supplement label for Omega-3 Fatty Acids, follow these steps:

1. Start by looking at the total amount of Omega-3s listed on the supplement facts label.
  - This is often listed as “Total Omega-3 Fatty Acids” or similar.
  - However, this number includes all Omega-3s in the supplement, so you’ll need to dig deeper to see how much of it is specifically EPA and DHA.
2. Most reputable Omega-3 supplements will list the amounts of EPA and DHA separately.
  - This will usually be right underneath the total Omega-3 content.
  - The label may say something like:
    - *Total Omega-3s:* 800 mg
    - *EPA:* 500 mg
    - *DHA:* 300 mg

**Q: Are there any foods I can eat to lower my blood pressure?**

**A:** There is no one single food that you can eat to lower blood pressure, but following the Mediterranean style of eating, using our Menopause Plate™, has been shown to reduce blood pressure. Reducing your salt intake, but using spices and herbs for seasoning, and removing salt from the table, can help improve your blood pressure.

## Chapter 5. Cooling Down: Understanding Hot Flashes & Night Sweats

“Cognitive issues,  
joint pain, libido,  
hot flashes it’s just  
not talked about,  
even the sheer  
unexpectedness  
of it”

Anonymous, aged 45, affected by breast cancer

Hot flushes (or flashes) and night sweats, are among the most common menopause symptoms <sup>1</sup>. They affect around 75% of postmenopausal women (about 3 in 4), with nearly a third of these women experiencing severe symptoms <sup>1</sup>.

### Why Do Hot Flushes Happen?

- Hot flushes are linked to changes in hormone levels, particularly oestrogen.
- Lower oestrogen can make your body's thermostat (the hypothalamus) more sensitive to small changes in temperature <sup>1</sup>.
- When the hypothalamus detects an increase in heat—real or not—it triggers a response to cool you down.

This response includes:

- *Increased blood flow to the skin*, causing warmth in the face, chest, and neck (the “flush”).
- *Sweating*, to release heat.
- Followed by *chills*, a faster heart rate, and sometimes anxiety.

Hot flushes usually last 2–5 minutes and can vary from a few times a week to several times an hour.

### What Are Night Sweats?

- Night sweats are hot flushes that occur during sleep, often waking you up in a cold, damp bed.
- This can disturb your sleep, leading to irritability, trouble concentrating, and forgetfulness <sup>1</sup>.

Persistent sleep loss may also affect your health, increasing the risk of conditions like high blood pressure, type 2 diabetes, and anxiety. Disturbed sleep can also have an impact on our diet and the food choices that you make daily.

## Can Diet Help?

Yes! Certain foods and drinks can help reduce hot flushes and night sweats, while others may trigger them.

Adjusting your style of eating can be an effective way to manage these symptoms and improve your comfort.



- Research highlights the benefits of a Mediterranean style of eating, which is rich in healthy fats, fruits, vegetables, and whole grains.
- A review by the European Menopause and Andropause Society found that following this diet for up to 12 months can ease these symptoms <sup>2</sup>, with one Australian study showing a *20% reduction in severity and frequency* <sup>3</sup>.

The exact reasons are not fully understood, but this style of eating's rich nutrient profile plays a role. Omega-3 fatty acids and Vitamin E may further reduce the severity of hot flushes and night sweats, while also benefiting heart and brain health <sup>4,5</sup>.

## Soya and Menopause: What You Need to Know

*"A lot of confusion where hormone sensitive cancers are concerned.  
Oh my god the debate around soy... like, what's the actual answer?"*

Anonymous, aged 45, affected by breast cancer

Soya is often discussed in relation to menopause and cancer, especially breast cancer. This due to its content of isoflavones.

- Isoflavones are a type of phytoestrogen (a compound found in plants) that has a similar chemical structure to human oestrogen.
- Soya foods may help reduce hot flushes and night sweats, as they can support the body during oestrogen changes <sup>6-10</sup>.
- However, more research is needed to fully understand their impact.

*Confusion about soya arises from the term "phytoestrogens."  
However, phytoestrogens are not the same thing as female oestrogens.*

***Soya foods do not contain oestrogen.***

Research around soya reducing hot flushes is based on the amount that is recommended and the length of time that it takes for it to work.

The current scientific evidence recommends the following that may reduce hot flushes:

- 25mg to 100mg of soya isoflavones daily.
- Dosage to be taken daily for a minimum of 3 months up to 2 years <sup>8,10</sup>.

Soy-based foods and their labels do not specify how much soya isoflavones they contain, so it's important to know roughly how much one portion contains.

- **Tofu:** An 85g serving of tofu contains about 20mg of isoflavones.  
So, you would need about 1.5 to 5 servings per day to reach 25mg to 100mg.
- **Soy milk:** A cup (240ml) of soy milk typically contains about 20-30mg of isoflavones.  
To reach 25mg to 100mg, you would need 1 to 3 cups per day.



## CONSUMPTION OF SOY ISOFLAVONES: FOOD VS SUPPLEMENT



85g (3oz) of soft tofu =  
20mg of Isoflavones



1 Supplement containing Soya  
Isoflavones ranges between 56mg and  
1500mgs of isoflavones

## INTAKE OF SOY ISOFLAVONES OVER A WEEK:



2x 85g (3oz) servings of soft tofu =  
40mg of Isoflavones



7 Soya Isoflavone containing Supplement  
=  
ranges between 392mg - 10,500mg

Soya foods, like tofu, are considered safe and may even offer protective benefits against breast cancer, according to organizations like the World Cancer Research Fund, the American Cancer Society and the American Institute for Cancer Research.

### *Note:*

There is no reason to steer clear of soya and there is also no reason to consider it a must-have if you prefer not to include it in your diet. Soya can be a nutritious part of a balanced diet, but there are plenty of other foods that can provide similar health benefits. Your overall dietary choices can be just as effective in supporting your health, whether or not soya is a part of them.

## Food Triggers for Hot Flushes

### Caffeine:

Caffeine, found in coffee, tea, soft drinks, and chocolate, stimulates the nervous system, which can lead to symptoms like anxiety, palpitations, and increased sweating. Some studies suggest high caffeine intake may worsen hot flushes and night sweats. The safe limit is 400mg per day, and consuming over 600mg may cause insomnia, irritability, anxiety and increased blood pressure <sup>11</sup>.

### Alcohol:

Alcohol may make the body more sensitive to temperature changes, causing hot flushes <sup>12</sup>. Studies show heavy drinking (no more than 20g of ethanol or 2 standard drinks per day) significantly increases hot flush frequency <sup>13</sup>.

- The HSE (Health Service Executive) recommends no more than 11 standard drinks per week and at least 2-3 alcohol-free days.
- No more than 6 standard drinks should be consumed in one sitting.

### What is a Standard Drink?

In Ireland, a standard drink is classed as 10g of pure ethanol.  
What does this equate to in drinks?

One standard drink:



**125mls  
of wine**  
(a small  
glass)



**284mls  
of normal  
strength beer**  
(a half-pint)



**35.5mls  
of spirits**  
(a standard pub  
measure)

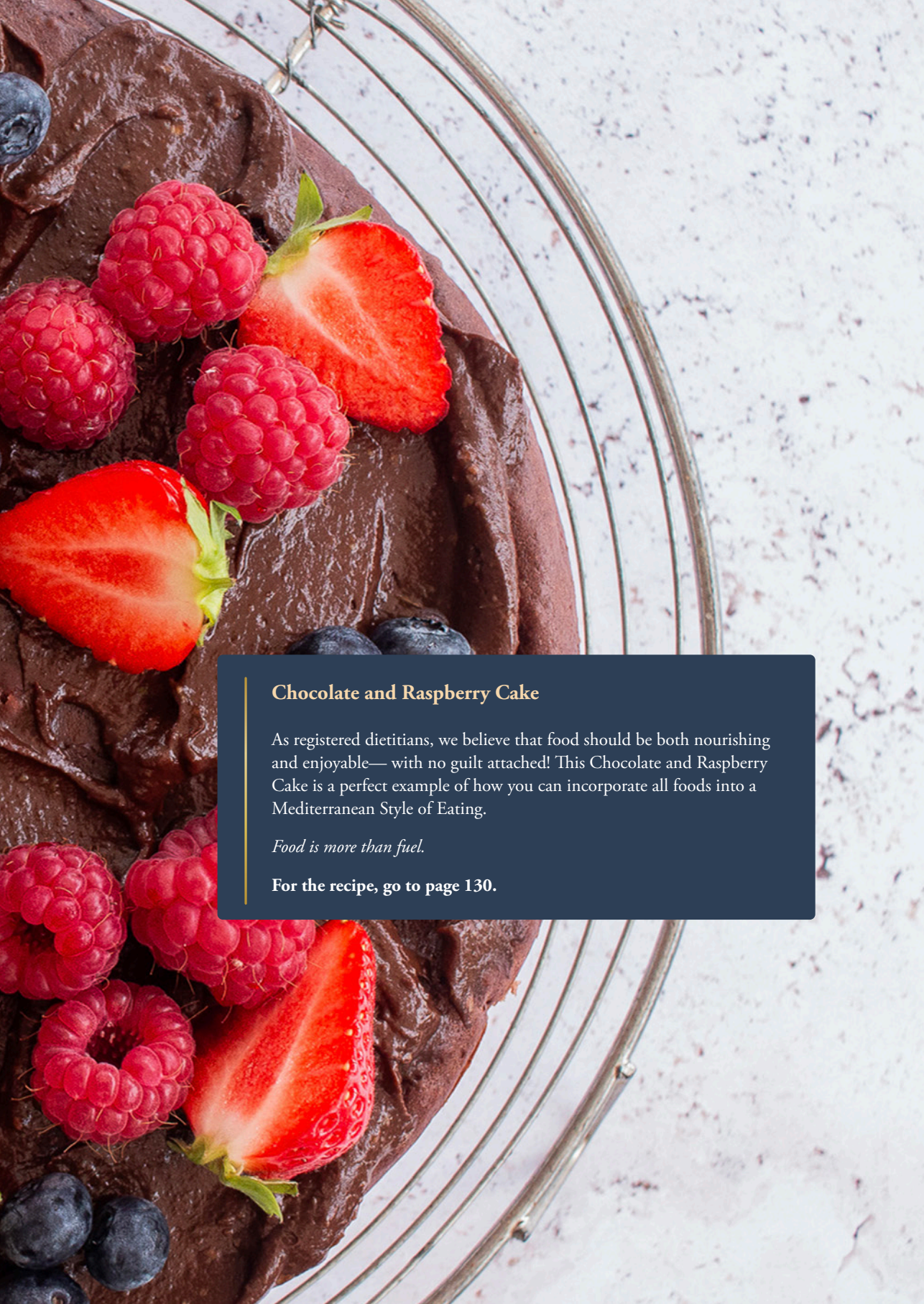


**275mls  
alco-pop**  
(a standard  
bottle or can)









### Chocolate and Raspberry Cake

As registered dietitians, we believe that food should be both nourishing and enjoyable— with no guilt attached! This Chocolate and Raspberry Cake is a perfect example of how you can incorporate all foods into a Mediterranean Style of Eating.

*Food is more than fuel.*

**For the recipe, go to page 130.**

## Herbal Supplements to Avoid if Taking Tamoxifen

Herbal Supplement	Reason to Avoid
Black Cohosh (Cimicifuga Racemosa)	It is often used to relieve hot flushes, sweats, irritability, mood swings, and sleep disturbances due to its oestrogen-like effects in the body. However, it can interfere with the activity of Tamoxifen, leading the British Menopause Society and NICE guidelines to advise against its use in those taking that drug. Additionally, there is uncertainty about the safe dosage of Black Cohosh for women affected by breast cancer. The European Medicines Agency states that there is a potential connection between Black Cohosh and hepatotoxicity <sup>14, 15, 16</sup> .
St. John's Wort (Hypericum Perfortatum)	It is commonly used for low moods and hot flushes, but it can affect how other medications are metabolised, potentially making them less effective. It interacts with Tamoxifen, leading the British Menopause Society to advise against its use in individuals taking this medication <sup>14</sup> .
Turmeric / Curcumin:	Turmeric contains the substance curcumin, which can affect certain enzymes in the body like CYP3A4, which are important for breaking down Tamoxifen <sup>18</sup> . Although studies are still limited, some recent research suggests that taking turmeric with Tamoxifen could lower the amount of its active form, endoxifen, in the body <sup>18</sup> . This reduction might make Tamoxifen less effective. More research is needed to fully understand this interaction, but it is best to avoid turmeric in supplement form, while taking Tamoxifen. However, consuming turmeric as part of your diet in <i>food form</i> , is considered safe.
Ginseng (Ginseng Panax)	This is sometimes used to manage hot flushes, but it can block important enzymes in your body, specifically CYP3A4 and CYP2D6, which are crucial for metabolising certain medications <sup>18</sup> . Because of this, it's best to avoid taking large amounts of ginseng if you're using medications like Tamoxifen, which depend on these enzymes.
Isoflavone supplements	None of the major international health bodies recommend isoflavone supplements for women with a history of breast cancer. According to NICE guidelines <sup>19</sup> , the use of soya (which contains isoflavones) should not be used to treat hot flushes in women with breast cancer. While eating soya in its natural food form is considered safe, we advise to avoid any type of isoflavone supplements <sup>14</sup> .
Red Clover (Trifolium Pratense)	Red Clover contains isoflavones, which act as phytoestrogens and can activate oestrogen receptors, potentially helping to reduce menopausal symptoms. However, the concern with Red Clover is its oestrogenic activity, especially in supplement form, where it may contain high levels of isoflavones. Importantly, there is no safety data on the use of high doses of isoflavones in women with breast cancer. Due to inconsistent research quality, it's advisable to avoid Red Clover supplements if you have hormone-dependent cancer until more reliable studies are available.
Dong Quai (Angelica sinensis)	This has oestrogenic properties that may counteract Tamoxifen's benefits by reducing its effectiveness through enzyme interactions. It's advisable to avoid this supplement if you are taking Tamoxifen or have hormone-dependent cancer.

*Caution with the following:*

The following supplements warrant caution, if taking Tamoxifen, due to insufficient evidence supporting their effectiveness for alleviating menopausal symptoms. Additionally, there are some concerns about their safety, potential “oestrogenic-like” activity, and how they might interfere with Tamoxifen, so it’s important to be cautious before using them:

- *Sage* (*Salvia Officinalis*)
- *Maca Root* (*Lepidium Meyenii*)
- *Wild Yam* (*Dioscorea Villosa*)
- *Evening Primrose Oil* (*Oenothera Biennis*)
- *Ginkgo* (*Ginkgo Biloba*)

## Frequently Asked Questions:

### **Q: My hot flushes are bad – would I be better taking a soy isoflavone supplement instead of the food products?**

**A:** No. Soya foods are safe for women affected by cancer, but isoflavone supplements have limited safety evidence. These supplements can vary in strength and their effects are not well understood. It’s better to get isoflavones from food rather than supplements.

Soya-based foods like tofu provide additional nutrients (such as fibre, antioxidants, and vitamins) that supplements can’t offer. Soya supplements often contain very high doses of isoflavones, much higher than those typically found naturally in food or used in human research studies. For example, 85g of tofu contains around 20mg of isoflavones, while some supplements may contain between 56mg and 1500mg per dose. You can manage hot flushes by including soya foods in your diet, without the need for high-dose supplements.

*We advise against using concentrated isoflavone supplements, especially in combination with HRT, for women with breast cancer until more safety evidence is available. Please seek medical advice from your health care professional before consuming isoflavone or soya supplements if you have a history of cancer.*



## Chapter 6. Finding Comfort: Managing Urinary & Gut Health

“Changes in bowel habits is a big thing people don’t talk about”

Anonymous, aged 62, affected by breast cancer

## What is Genitourinary Syndrome of the Menopause?

- After cancer treatment, especially for breast and gynecological cancers, many women experience symptoms affecting the bladder, vagina, and vulva (where the word genito-urinary comes from).
- Up to 50-75% of women with breast cancer report at least one genitourinary symptom<sup>1</sup>.

Symptoms of this syndrome include:

- the increasing need to urinate;
- urinary incontinence;
- vaginal dryness and itching;
- a decreased libido and pain during sex (also known as dyspareunia);
- recurring urinary tract infections (UTI).

## Why does this happen?

These symptoms are linked to reduced oestrogen levels, either as a result of cancer treatments, like surgery or as a result of menopause.

- Oestrogen plays a key role in the health of the bladder, vagina, and pelvic muscles.
- Low oestrogen levels weakens tissues in these areas, leading to symptoms like incontinence and vaginal dryness.
- During menopause, declining oestrogen levels can lead to changes in bowel habits, including constipation or diarrhoea, due to oestrogen's role in gut health.
- Additionally, rising cortisol levels (the stress hormone) can affect the gut through the “gut-brain axis,” a connection between the brain and gut. This may contribute to gastrointestinal symptoms.

As always, please consult your medical or radiation team regarding any of the medical management symptoms.

## Changes to Bowel Habits and Gut Health After Cancer Treatment and During Menopause

Changes to bowel habits can occur as a result of cancer treatment or menopause-related hormonal changes.

- Women who have had pelvic radiotherapy or brachytherapy may experience gut-related symptoms, as radiation can damage the digestive system, affecting nutrient absorption and digestion.

This condition, known as *Pelvic Radiation Disease*, can cause symptoms that persist for months or even years after treatment.

### Common symptoms experienced by people with Pelvic Radiation Disease:

- Bloating
- Constipation
- Wind
- Diarrhoea
- Gurgling
- Fatigue
- Rushing to the toilet
- Having accidents, leakage (soiling oneself)
- Unintentional weight changes
- Pain during sex
- Needing to poo more often
- Uncontrolled bladder

The symptoms listed above can be caused by damage to the usual gut functions and be affected by different components of the diet including:

- Certain carbohydrates within foods (e.g. lactose).
- Fat - both saturated and unsaturated.
- Fibre - wholegrains, vegetables and fruit.

As a result, you may have difficulty digesting your foods (have problems with pancreatic enzymes or small bowel bacteria problems) or you may have issues with reabsorbing bile (to help with digestion of fat).

*If you are experiencing pelvic radiation disease, please consult your medical or radiation oncology team regarding the management of your symptoms.*

*They may recommend further tests to better understand the underlying causes, and any dietary adjustments will be personalised and tailored to your specific symptoms, ideally by a specialist dietitian with expertise in oncology.*

### Can What I Eat and Drink help manage Genitourinary Syndrome and Support Gut Health during Menopause?

#### Fibre

Fibre is essential for bowel health and managing menopause symptoms.

Dietary fibre is the part of plants that you eat but it does not get digested in the small intestine. Instead, it is completely or partially broken down (fermented) by bacteria in your large intestine.

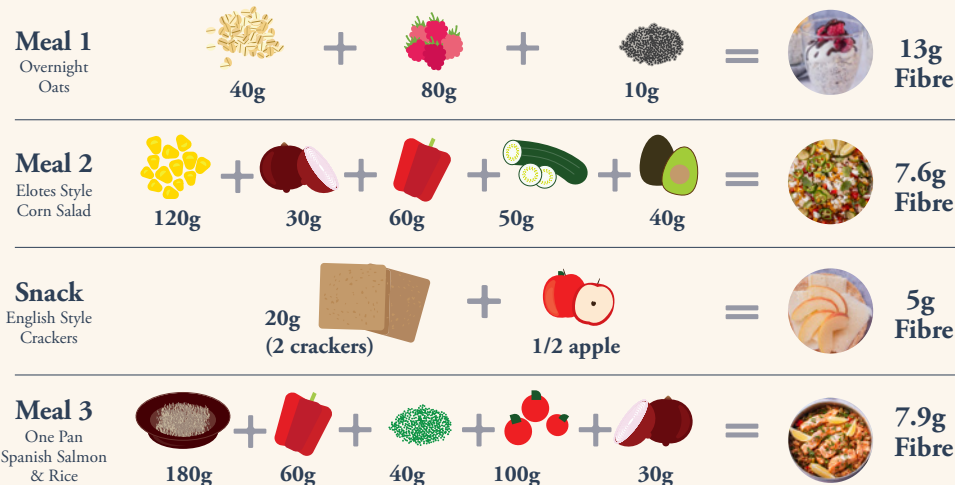
It helps support gut bacteria, our bowel movements, our heart health, our bone health and even our brain health.

- Studies have shown that for every 5g of fibre you consume, your risk of depression decreases by 10% <sup>2</sup>.
- Randomized controlled trials show that 5 to 10 grams of soluble fibre daily can produce a 4% to 10% reduction in LDL cholesterol <sup>3</sup>.

**How much fibre do I need?**

The requirements for fibre are 30g per day. In Ireland, the average intake of fibre in adults is only 18.3g per day <sup>4</sup>.

**What does 30g of Fibre look like in a day?**



**What foods contain fibre?**

There are two different types of fibre:

- Soluble
- Insoluble

**Soluble fibre** dissolves in water to form a gel-like material and slow the digestion of food down. It can help lower cholesterol and blood glucose levels. Foods containing soluble fibre include oats, beans, peas, bananas, apples, carrots and avocado.

**Insoluble fibre** adds bulk to our stool (also called roughage) and appears to help food pass more quickly through the stomach and intestines. It can be of benefit to those who experience irregular stools or constipation. Foods that contain insoluble fibre include wholewheat flour, wheat bran, nuts, kale, potatoes, spinach and cauliflower.

## Probiotics, Prebiotics, and Synbiotics

- Improving gut health with *probiotics* (which introduce beneficial bacteria to the gut) and *prebiotics* (which nourish them) can help balance the microbiome, support cognitive function, and improve mood.
- Gut bacteria produce brain signals like serotonin and dopamine, which regulate mood and cognition.
- Maintaining gut health can help with mental clarity, mood regulation, and overall well-being.

Probiotics, Prebiotics and Synbiotics can help manage symptoms like vaginal dryness and urinary tract infections.

- Probiotics balance gut bacteria, while prebiotics feed the good bacteria.
- Synbiotics combine both probiotics and prebiotics to support gut and vaginal health and may have other benefits including lowering cholesterol and improving the absorption of magnesium and calcium in the body.

A diet rich in diverse plant foods—up to 30 different types a week—supports gut health and the beneficial bacteria that regulate mood and digestion.

Probiotic-rich foods like yoghurt, kefir, and sauerkraut are cost-effective alternatives to expensive supplements.

If you are considering a probiotic supplement for vaginal health, choose probiotics with *Lactobacillus* strains.

- Lactobacillus is a natural ‘good bacteria’ that colonises the vagina of a healthy individual.
- It maintains vaginal pH and prevents infections by ‘bad bacteria’.
- Yoghurt contains Lactobacillus strain, which is good for vaginal health.

Probiotics may improve how our body uses isoflavones from foods, which in turn can help with genitourinary symptoms <sup>5</sup>.

*For more information on how to select safe, high-quality supplements, please refer to Chapter 8*

## Simple diet tips for managing Genitourinary Syndrome symptoms

- Betaine, found in wheat bran, spinach, shellfish, and goji berries, may help manage symptoms like vaginal dryness and UTIs by supporting the vagina's microbiome <sup>7</sup>.
- A diet that is low in simple carbs (like white bread and sugary snacks) can help prevent yeast infections and support a healthy balance of bacteria in the vagina <sup>8</sup>. Switching to whole grains can improve both gut and vaginal health.
- Drinking enough fluids (8-10 drinks a day, or 1.5L-2L) supports bladder health and prevents constipation.

## Frequently Asked Questions:

### **Q: Does Cranberry Juice help with UTIs?**

**A:** Cranberry juice is often cited as an old wives' tale in helping prevent or manage urinary tract infections. But does it actually work? In 2021, a large-scale analysis involving nearly 4000 participants reported that cranberry based products, like cranberry juice could reduce the incidence of UTIs <sup>6</sup>.

Interestingly, the analysis also found that cranberry juice was more effective than supplements or capsules in reducing the incidence of UTIs. It is important to note that a large volume of cranberry juice with high sugar content may cause severe gastrointestinal symptoms or other adverse effects. Limit your intake of cranberry juice to 150ml per day.

### **Q: I've started taking supplements and noticed I am experiencing loose stools, what should I do?**

**A:** Often high doses of supplements, like Vitamin C and extremely strong probiotics, can cause diarrhoea and loose stools. Ensure that you are not exceeding the recommended dose, and remember, you are probably getting most of your vitamin and minerals from your diet.

Use [www2.hse.ie/conditions/vitamins-and-minerals/](http://www2.hse.ie/conditions/vitamins-and-minerals/) to check the recommended dosages, and safe upper limits!

*Note:* If you are experiencing blood in your stools or loose stools are not resolving, please consult your GP or medical team.

### **Q: I am trying to improve my gut health. Would homemade kefir made with full fat milk be ok or would it cause weight gain? Also, what about homemade kombucha?**

**A:** Kefir and kombucha are great ways to help improve your gut health. They are sources of probiotics and "good" bacteria, because of the natural fermentation process.



Kefir is a fermented dairy product that contains beneficial bacteria (probiotics) and yeasts. These probiotics, particularly *Lactobacillus* and *Bifidobacterium*, can help maintain or restore a healthy balance of gut bacteria, which is important for digestion, immune function, and even mental health. The fermentation process breaks down lactose, making kefir easier to digest for people who are lactose intolerant. Kefir's probiotics also help improve digestion and may alleviate symptoms of irritable bowel syndrome (IBS) and other digestive issues.

Full fat milk alone will not cause weight gain. It is a great source of calcium, protein and other vitamins and minerals. If you are concerned, you can try a low-fat milk – but this may change the texture of the kefir.

Kombucha is a fermented beverage made from sweetened tea and a symbiotic culture of bacteria and yeast (SCOBY). It contains a variety of probiotics, which can help improve gut health by promoting a diverse microbiome and supporting digestion. Some studies suggest kombucha may support digestion by improving gut motility and supporting the gut barrier function.

Kombucha does contain some sugar, but much of it is fermented during the brewing process. A typical serving (8 ounces or 240 mL) of kombucha may contain around 2-6 grams of sugar, depending on the length of fermentation. While this is a relatively small amount, it's important to monitor how much you consume if you're watching your sugar intake.

With any homemade products, please ensure you refrigerate and store correctly to avoid any contamination and risk of food poisoning.

**Q: I am trying to include more fibre in my diet, I've started taking fibre supplements, but they are expensive – are there easy ways to do it that do not break the bank?**

**A:** Absolutely! You do not need fancy dietary supplements – remember, it's a supplement *not a substitute*. Sources of dietary fibre are relatively inexpensive. You can include more dietary fibre in your day-to-day meals with great ease!

#### **Breakfast time:**

- Make porridge or overnight oats, and add in a banana or some berries, along with some seeds.
- Use a wholegrain toast instead of white toast to increase the fibre content.
- Opt for a wholegrain cereal, like Weetabix or wholegrain hoops.

#### **Lunch time:**

- If you're having a sandwich, try using wholegrain bread, add some lettuce, peppers, tomatoes and cucumbers.
- If you're having a salad, add some quinoa or couscous to increase the fibre content, and help you to feel fuller for longer.

**Dinner time:**

- Reduce the meat content in your spag bol and add in a tin of lentils – the same meaty texture, but more fibre!
- Blend in extra vegetables, like carrots, celery or peppers, to your pasta sauce.
- Try some vegetarian versions of common dishes, these are usually loaded with beans, pulses and vegetables – a great source of fibre!

**Snacks:**

- Ensure each snack has a wholegrain carbohydrate and a portion of fruit or vegetables, extra fibre, and you will feel fuller for longer!
- Try including wholegrain crackers or crisp breads with some hummus – you'll get a source of fibre from the wholewheat flour and the chickpeas in the hummus.

**Shopping:**

- Use frozen fruit and veg – always handy to have in the freezer, and a really easy way to get more fibre in without all the extra chopping!
- Tinned ingredients like chickpeas, lentils, butter beans are very inexpensive and a great source of fibre.

Do not change everything overnight – you will not be able to keep up the habits. Make one positive change to your style of eating this week and go from there.

**Q: How do I know if something is high fibre?**

**A:** You can identify if a food product is a source of fibre or high in fibre by reading the food label. You are looking at the amount of fibre per 100g of food.

- Source of Fibre: >3g fibre per 100g of food.
- High Fibre: >6g fibre per 100g of food.

In Ireland, to make a claim that something is high in fibre or a source of fibre, producers must meet these thresholds.

## Chapter 7.

# Nurturing Your Mind: Managing Brain Health & Fatigue

“My memory often fails me and my family look at me as if to say I am losing it”

Anonymous, aged 59, affected by breast cancer

In addition to physical symptoms like hot flushes, menopause can also affect your mood and brain function.

Common symptoms that can affect how your brain functions include <sup>1</sup>:

- Brain fog
- Anxiety
- Irritability
- Difficulty concentrating
- Low mood or depression
- Memory issues

These symptoms can impact daily life, relationships, and overall well-being . Approximately two-thirds of women experience symptoms that impact brain function during the menopause transition <sup>2</sup>.

### Why Does This Happen?

- Hormonal changes during menopause, particularly a decline in oestrogen, can affect brain function, leading to symptoms like memory problems and mood swings <sup>1,2</sup>.
- Oestrogen helps regulate brain energy and supports memory.
- As oestrogen decreases, brain energy may be reduced, triggering symptoms that impact brain function.

If you have experienced a surgical menopause, research suggests that symptoms impacting brain function may be more severe and occur more quickly. These can include problems with verbal memory, understanding words, and processing information <sup>3</sup>.

- At a microscopic cellular level, oestrogen helps brain cells to “consume” and burn glucose, which is the brain’s fuel source.
- Oestrogen receptors in the brain are located in areas that help control memory and executive functions <sup>4</sup>.
- Oestrogens also play a role in the creation and break down of hormones such as dopamine and serotonin <sup>5</sup>.

### Can Diet Help Manage Symptoms Impacting Brain Function?

Yes! A balanced diet and proper meal planning can support brain function. The brain needs a steady supply of glucose to function optimally. Regular, balanced meals and specific nutrients can help manage symptoms like anxiety, brain fog, and mood swings.

## Dietary Guidance for Brain Fog and Mood Changes in Menopause

### Eating Patterns:

- The brain needs regular glucose to function properly, which comes from whole grains like oats, whole wheat, and potatoes.
- Eating regularly helps maintain mood, concentration, and energy levels.
- Restricting the food that you eat or how regularly you eat during the day can have an impact on your concentration, your mood and fatigue, and on your relationship with food.
- Aim for three meals and 1-2 snacks per day to avoid low blood sugar (hypoglycemia) and fatigue.

### Fats:

- Essential fatty acids are a type of polyunsaturated fat and known as Omega-3 (as outlined in Chapter 5) and Omega-6 fatty acids.
- Omega-3 fatty acids are key for your brain health – approximately 50-60% of the brain is made up of fats, 35% of which consists of Omega-3 fatty acids.
- Omega-3 helps support brain function, protects our brain cells and slows down brain ageing.
- Like Omega-3s, Omega-6 fatty acids are essential for our brain health. They are found in sunflower seeds, walnuts, soybeans, tofu and vegetable oils.
- About one-third of daily energy should come from fat, mainly unsaturated fats (around 70g per day for women). Saturated fats should be limited to no more than 10% of daily intake, roughly 20g.

### Micronutrients:

#### B Vitamins

- B Vitamins play an important role in how our body generates the energy from the food that you eat. This is an extremely complex system, with many steps.

You may be feeling fatigued, particularly after cancer treatment, but also from the menopause. Ensuring that your diet contains good sources of B Vitamins may help with symptoms like tiredness and fatigue.

#### Key B Vitamins for brain function include:

- B1 (Thiamin): Found in whole grains, nuts, fruit, beans, peas, and pork.
- B3 (Niacin): Found in meat, fish, wheat flour, and eggs.
- B6 (Pyridoxine): Found in poultry, fish, dairy, whole grains, seeds, vegetables, and legumes.
- B12 (Cobalamin): Found in meat, fish, dairy, eggs, and fortified cereals.

B Vitamins are water-soluble, meaning they are not stored in the body and need to be replenished regularly.

If following a vegan diet, B12 supplementation is crucial. *Always speak to your GP, Medical Team or a Dietitian to discuss dietary strategies and supplements.*

### Choline

- Choline is an essential nutrient that your body needs for many important functions, especially for brain health.
- It helps produce acetylcholine, a chemical that supports memory, mood, and muscle control <sup>5,6</sup>.
- While our liver makes some choline, most of it needs to come from food. After menopause, women may need more choline due to lower levels of oestrogen.
- Low choline intake has been previously linked with increased risks of dementia and Alzheimer's disease in older adults <sup>9</sup>.

The recommended intake for adult females is 400mg/day.

Choline-rich foods include:

- |                                     |  |
|-------------------------------------|--|
| • Eggs (147mg per egg)              | • Kidney beans (1/3 cup contains 45mg) |
| • Fish (3oz of cod contains 71mg)   | • Peanuts (1/4 cup contains 24mg)      |
| • Beef liver (3oz contains 356mg)   | • Milk (1 cup contains 43mg)           |
| • Soybeans (1/2 cup contains 107mg) |  |

### Iron

- Iron is essential for making red blood cells, which carry oxygen throughout the body.
- Without enough iron, you may feel weak, tired, and sluggish, potentially leading to anemia.
- To avoid this, include iron-rich foods like fish, beans, lentils, poultry, and red meat in your diet.

#### Dietitian's Top Tip:

Certain substances, like tannins found in tea and coffee, can reduce iron absorption, so it's best to avoid drinking these with meals.

Vitamin C, on the other hand, can help your body absorb iron more effectively. Try adding foods like oranges, strawberries, kiwis, bell peppers, or sweet potatoes to meals to boost iron absorption.



### **Hydration:**

- The brain is 98% water, so staying hydrated is key for mood and focus.
- Aim for 6-8 glasses of fluid daily.
- Limit caffeine, as it can affect sleep and increase anxiety.

### **Alcohol:**

- Alcohol can disrupt brain chemistry, worsen mood swings, and impair cognition.
- Follow the HSE's weekly low-risk guidelines if you do decide to consume alcohol. [www2.hse.ie/living-well/alcohol/health/improve-your-health/weekly-low-risk-alcohol-guidelines/](http://www2.hse.ie/living-well/alcohol/health/improve-your-health/weekly-low-risk-alcohol-guidelines/)
- Avoid excessive drinking to prevent dopamine depletion, which can contribute to low mood and anxiety.

### **Planning Your Meals**

- Taking 20 minutes to plan your meals before your weekly food shop can make a big difference.
- Look at your schedule for the week—identify busy days, travel days, or evenings when you need to juggle family duties.
- Plan meals that suit these days and consider making extra portions for leftovers.
- Preparing meals ahead of time, like on a Sunday, can save you time during hectic days.

### **Plan Your Food Shop**

- Shopping can be stressful, especially with symptoms like brain fog or hot flushes.
- Planning your meals and snacks in advance helps reduce stress and ensures you have everything you need.
- Make a list before you shop, and stock up on pantry and freezer essentials to avoid last-minute rushes.

## Frequently Asked Questions:

### **Q: Are there any foods that can help with fatigue?**

**A:** Unfortunately, there is no one magic food that is going to give you all the energy in the world! However, following a Mediterranean style of eating, and using The Menopause Plate as a basis for your meals will ensure that you are getting enough vitamins, minerals, carbohydrates, protein and healthy fats. Being prepared with meals and snacks will also help with fatigue – have snacks in the fridge that you can grab and go.

### **Q: I'm seeing a lot online about blood sugar spikes after eating and fatigue – is this something I should be worried about?**

**A:** An increase in your blood sugar (glucose) levels is a completely normal response in your body following the consumption of food or drinks.

- When food is eaten and digested, the carbohydrates break down into glucose (sugar), which enters your blood stream.
- When the glucose enters your blood stream, this signals our pancreas to release a hormone called insulin.
- Insulin acts like a key, and attaches itself to the glucose (the lock).
- Insulin then moves glucose out of the blood stream, where it is used in the body for energy or it is stored in our muscles if it isn't used (glycogen).
- Blood glucose levels will then return to a “normal” level.

Concerns around “blood sugar spikes” for healthcare professionals arise when the blood sugar levels do not return to normal after a period of time. This may be an indicator of Type 1 or Type 2 Diabetes and is caused by the body's inability to create enough insulin or the body's inability to use the insulin it has created. A diabetes diagnosis requires several tests, including a blood test, and careful management by a team of specialist medical and healthcare professionals.

### **Q: Can I take Maca Root to help with my mood?**

**A:** Maca Root (*Lepidium Meyenii*) is an adaptogenic herb known for its ability to help the body cope with stress, both physical and mental, which can support overall mental well-being. The root of the Maca plant has long been consumed as food in certain regions of South America and is thought to improve concentration <sup>24</sup>.

Maca root is commonly used during menopause for its potential to manage symptoms, with evidence suggesting it may have oestrogen-like effects in the body <sup>25</sup>. However, we currently do not know whether there is a direct link between Maca root consumption and adverse health effects, or what the maximum safe level of dietary intake is. It is also unclear whether certain groups of people may be more at risk for potential negative effects of Maca.

While research on Maca's effects in women with a history of breast cancer is limited, some preclinical studies (lab-based) have shown mixed results. For example, some studies have reported anticancer effects of Maca in breast cancer cells <sup>26,27</sup>, while a more recent 2022 preclinical study found that Maca root extract increased the ability of triple-negative breast cancer cells to migrate, which could potentially promote cancer progression <sup>28</sup>.

Maca Root was identified in a June 2024 report from the Heads of European Food Safety Agencies on dietary supplements as potentially posing a health risk <sup>29</sup> (*more details on this report in Chapter 8*). Given these concerns and the mixed evidence regarding its effects, it is worth avoiding Maca Root until more is known about its safety. You are not missing out by not taking it!

The Mediterranean diet, rich in Omega-3 fatty acids from sources like fatty fish, olive oil, and nuts, has been shown to support mood and mental health, offering a safer and more evidence-backed alternative to supplements like Maca root <sup>30</sup>.

*Always consult your healthcare provider before using any herbal supplement like Maca Root.*

## Chapter 8. Supplements: What You Should Know

“I went into the health food shop a couple of times and there’s just so many things...  
You feel like you should be taking everything...  
I really don’t know what...”

Anonymous, aged 49, affected by endometrial cancer

Today, there is a growing range of dietary supplements for menopause available everywhere – in supermarkets, health food stores, pharmacies, and on social media. These supplements come in various combinations and doses, with widespread marketing telling women that supplementation is both common and essential.

### But are they really necessary?

- While it's true that some supplements can be helpful in some circumstances, people regularly overestimate the benefits and safety.
- And with all the mixed messages from the media and people around us, it's easy to get confused.
- Many use dietary supplements without understanding the supplement industry or talking to a dietitian, and they instead rely on advertisements, testimonials from customers or friends.

*Just because something is on a shop shelf does not automatically mean it's safe.*

This is especially important for menopausal women affected by cancer who are taking Tamoxifen or an aromatase inhibitor.

So, do these supplements actually help, or are they just a waste of money? And more importantly, are they *safe* for women affected by cancer?

This chapter aims to help women figure out if the potential benefits of dietary supplements are worth the risks, and if they are, how to pick a safer option.

### What are Supplements?

As the name implies, supplements (dietary / nutritional) are any product that aims to 'supplement' the diet with nutrients that could potentially be missing.

By law, food supplements can only supplement the diet, they must not replace it.

Don't underestimate what a nutrient-packed meal can do for you compared to a pill/powder made in a factory!

Dietary supplements, which are defined by the European Food Safety Authority (EFSA) as "*concentrated sources of nutrients or other substances with a nutritional or physiological effect*", include:

- Vitamins
- Minerals
- Amino Acids
- Fatty Acids
- Herbal/Botanical Extracts

They are often designed to be taken in small, measured unit quantities referred to as a 'dose', are available in a wide range of potencies, combinations and are presented in a variety of forms, including pills, tablets, capsules, liquids, gummies, spray and powders.

## Regulation in Ireland

In Ireland, supplements are regulated as *food products* rather than medicines, meaning they fall under food safety laws and regulations.

- Regulations for dietary supplements are less strict than prescription medications.
- Those who manufacture the supplements are responsible for ensuring that the products being placed on the market are safe and compliant with the legislation.
- While certain nutrients may offer beneficial effects when taken as supplements (e.g. Vitamin D), it is important to recognise that many nutrients can have adverse effects if consumed in excessive doses.
- Supplement companies often exceed the Nutrient Reference Value (NRV) in their products to account for the potential decline in the quality of the nutrient to decline over time.
- Since food law requires the nutritional composition on labels to reflect the average nutrient value over a supplement's full shelf life, some manufacturers add extra amounts of certain nutrients, particularly water-soluble vitamins like Vitamin C and B Vitamins, to account for natural degradation during processing and storage.

*High doses of supplements can lead to toxicity or imbalances that may outweigh their potential benefits.* Therefore, it is crucial to approach supplementation with caution and seek guidance from healthcare professionals.

## What should I know about dietary supplements?

- In the Ireland and the European Union (EU), dietary supplements (including vitamins, minerals) are regulated as foods and regulated under food law <sup>1,2</sup>, and even though you may purchase these in a pharmacy, they are still considered a “food”. They adhere to food safety and health claims.
- In Ireland, the Food Safety Authority of Ireland (FSAI) sets guideline values for safe maximum amounts of vitamins and minerals present in food supplements.
- No NRVs have been set by European Law for herbal/botanical ingredients. There are no maximum safe levels for these ingredients in Ireland.
- Dietary supplement companies are responsible for ensuring that their products are safe and accurately labelled.

## How do I know if I need a dietary supplement?

As dietitians, we know that a balanced eating plan is the best way to get all the nutrients your body needs. However, it's not realistic to eat perfectly every day, and the typical Irish diet often does not meet recommendations from experts.



In Ireland, many women aged 18-64 do not get enough fibre, Vitamin A and calcium, and a large part of the population has low levels of Vitamin D3.

You may need to consider a dietary supplement (ideally under supervision of a health care professional) if:

- You have a nutrient deficiency that has been diagnosed by a medical doctor using a blood test.
- You follow a vegan dietary pattern and avoid all animal products or avoid foods from one or more food groups e.g. dairy products.
- You follow a restrictive diet including ketogenic, gluten free, intermittent fasting.
- You have certain medical conditions like iron deficiency anaemia, or if you have had stomach surgery.

Manufacturers may add vitamins, minerals, and other supplement ingredients to foods you eat, especially breakfast cereals and beverages. As a result, you may get more of these ingredients than you think, and more might not be better. Taking more than you need costs more and might also raise your risk of side effects.

### Single Nutrient Supplements for Menopause after Cancer

As dietitians, we advocate a “food first” approach for managing health, preferring nutrients from a balanced diet over supplements. We generally recommend supplements only for proven deficiencies. However, for menopausal women affected by cancer facing unique challenges, certain key nutrients may be considered to support overall health.

#### Dietitian's Top Tip:

In these cases, we advise opting for single-nutrient supplements rather than multi-ingredient blends. This allows you to tailor your supplementation to meet your individual health needs with precise control over dosage and specific ingredients. It also gives you the flexibility to adjust your supplementation based on your dietary intake.

For example, some days you may meet your calcium requirements through food alone, while on other days you might not. The same applies to nutrients like Omega-3 fatty acids. This approach ensures that your supplementation aligns more closely with your day-to-day nutritional needs.

Nutrient	Purpose	Considerations
Vitamin D	Enhances calcium absorption and supports bone health, as well as immune function.	Vitamin D deficiency is common, especially in women affected by cancer. Low Vitamin D levels are associated with an increased risk of falls and fractures. A blood test can determine if supplementation is needed, but be cautious with high doses to avoid toxicity. If you are prescribed an endocrine therapy, your medical team may prescribe a Vitamin D supplement for you.
Calcium	Supports bone health, which is crucial after cancer treatment due to the increased risk of osteoporosis.	While dietary sources are ideal, supplements may be necessary if you are unable to meet your needs through food.  If you are prescribed a hormone therapy like anastrozole, your doctor may prescribe a Calcium supplement for you. High doses should be monitored to avoid side effects like constipation.
Omega- 3 fatty acids	May help reduce inflammation and improve mood, which can be beneficial during menopause. Omega-3 fatty acids reduce blood pressure and cholesterol and therefore protect our heart whilst also having the additional benefits of supporting, brain, gut, hair, skin and nail health.	Choose high-quality supplements to avoid contaminants.  Omega-3s can interact with blood-thinning medications, so discuss with your doctor or pharmacist.  <i>See Chapter 4 for tips on selecting an Omega-3 supplement</i>

**Dietitian’s Top Tip:**

Be careful when using several supplements, as their effects can build up. It’s safer to stick to single nutrients you need and skip unnecessary multi-supplement products.

### Dietitian's Top Tip:

#### What is Vitamin and Mineral Stacking?

“Stacking” refers to taking several different supplements each day, from single nutrients to multivitamins.

For instance, if you take a single Vitamin D tablet, a calcium supplement that also contains Vitamin D (like Calcichew- D3 Forte®), Omega-3 fish oil supplement with added Vitamin D and a multivitamin with Vitamin D, you might end up consuming too much of this vitamin without even realising it.

This can happen easily when using multiple supplements, leading to an unintended excess of a particular nutrient. The varying doses can also make it difficult to maintain a balanced intake.

Consult with a healthcare professional to ensure these supplements are appropriate for your individual health needs and to avoid potential interactions with medications or other treatments.

### Supplements & Interactions with Medications

When we talk about interactions with medications, we are not necessarily referring to immediate physical reactions like skin rashes or discomfort.

Instead, certain supplements can interfere with how medications, like Tamoxifen, work in the body. For example, some supplements may reduce Tamoxifen's effectiveness without causing noticeable symptoms.

These interactions can be subtle and not something you would feel, but they could impact your treatment outcomes.

*“There's always a concern around what is interfering with your medications.”*

Anonymous, aged 45, affected by breast cancer

If you're considering taking homeopathic, natural, or herbal remedies that have not been prescribed for you, you need to discuss this with your doctor or dietitian or specialist nurse before you start taking them, to ensure they are safe for you.

For menopausal symptoms, some herbal remedies have mixed results, and others have no beneficial results <sup>5</sup>.

While many herbal remedies are safe if you're not taking other medicines, they have not yet been proven to help with menopause symptoms. Even if no interactions of herbs and medications are reported, it is possible that *unknown* interactions exist, so further research is warranted.

*For further details on herbal interactions with Tamoxifen, please refer to Chapter 5.*

Remember, you're not missing out by skipping these herbal supplements! Your health and safety come first, and the potential risks of interactions with Tamoxifen far outweigh any unproven benefits these supplements might offer.

### Dietitian's Top Tip:

#### Proposal to Restrict Use of Popular Supplement Ingredients in EU

A review has begun that will lead to tighter regulation of food supplements in Ireland and across Europe. This initiative follows a June 2024 report by the Heads of European Food Safety Agencies <sup>4</sup>, aiming to improve consumer safety by identifying substances, other than vitamins and minerals, like herbal substances, that may need to be restricted or banned in supplements.

The working group reviewed 117 ingredients and prioritised 13 for further scrutiny due to potential health risks, particularly when consumed through supplements in higher doses than from a balanced diet.

Some commonly used ingredients found in menopausal supplements under review include:

- Tryptophan (aids sleep)
- Black Cohosh (for hot flushes)
- Curcumin (anti-inflammatory)
- Maca (for hot flushes)

This serves as additional advice to exercise caution with these ingredients. Some herbal substances are already linked to potential interactions with Tamoxifen, which we have advised against in previous chapters (*see Chapter 5*).

These substances could face restrictions, bans, or further evaluation by the European Food Safety Authority (EFSA), with final decisions expected in the coming years. The goal is to enhance consumer protection and create uniform supplement regulations across the EU.

## Choosing a Supplement

If you decide to take a supplement while undergoing treatment with medications like Tamoxifen, it's essential to consider several important factors:

*First...*

1. Ask yourself why do you want to take this supplement?
2. Discuss with your dietitian/pharmacist/doctor/nurse and ask them:
  - a. Is this supplement safe for me, given my cancer history?
  - b. Will this supplement interact with my current medications?
  - c. Is there scientific evidence supporting the effectiveness of this supplement for menopausal symptoms?
  - d. What are the potential side effects?
  - e. Are there lifestyle changes or other non-supplement options that could help?

Discussing these questions with your healthcare provider can help ensure that any supplement you consider is safe and appropriate for your specific needs.

Once you've discussed it with your healthcare team and decided to purchase a supplement, here are a few things to look out for:

- **Reputable Source:**  
Buy supplements from a reputable source - for example, your local pharmacy or supermarket. Supplements purchased outside of Ireland (internet products) may not meet Irish standards, so dosages and ingredients can vary. For example, a supplement purchased online from another country, like the United States, may have a different dosage or contain ingredients that are restricted or banned in Ireland.
- **Read the label:**  
Start by checking the serving size, which can give you an idea of how much you should take to reach the desired dosage. It can also help you to determine whether it should be divided into multiple doses during the day or if it can be taken all at once, which some people may prefer. Check for standardisation marks, evaluate the manufacturers. Choose a well-known, reputable brand that follows good manufacturing practices (GMP). This does not guarantee the product works or is safe; it just ensures that the product was properly made and contains the listed ingredients. This information will be on the company's website if not visible on the packaging.
- **Check the list of ingredients:**  
Ingredients are listed in order of quantity, from highest to lowest. If an additive or filler appears in the first few ingredients, it means it is present in higher amounts in the supplement. Examples of fillers and additives you might find on the label are; sodium benzoate, potassium sorbate, magnesium stearate, talcum powder or titanium dioxide

- **Third-Party Testing:**

Third-party testing should give you the confidence that your chosen supplement has gone through a thorough manufacturing procedure and whatever they specify on the packaging is what it contains. Look for supplements that have been third-party tested by independent organisations to ensure quality and purity. However, third-party testing is not required by the FSAI and is more common in other, non-EU countries, so many supplements may not have this indicated on their label. This information may be available on the product's website if it's not clearly shown on the label.

- **Nutrient Levels:**

Always check the % NRV (Nutrient Reference Values) on vitamin and mineral supplements to ensure you're not exceeding safe levels. Excessive intake can be harmful. While some supplements may exceed 100% NRV, avoid going over the tolerable upper intake level (UL) to prevent adverse effects. You can find UL guidelines from reputable sources such as the European Food Safety Authority (EFSA) and the FSAI. Supplement labels indicate the daily percentage of vitamins and minerals provided, helping you avoid deficiencies.

### Dietitian's Top Tip:

Vitamin and mineral supplements have not been proven to control menopausal symptoms, and there is limited evidence supporting their effectiveness in this area.

Avoid multi vitamin supplements with added herbal ingredients e.g. soy/ isoflavones, red clover, black cohosh, maca, ginseng etc.

### Red Flags

- Beware of extravagant claims; if it sounds too good to be true, it is usually not true.
- Beware of testimonials and endorsements, especially from celebrities and influencers. Even the most sincere, well-meaning success stories offered by friends and relatives without financial incentives can not establish a product's safety. The decision to use a product should be based on **your nutritional needs** and not the often wildly exaggerated promises made by the producer.
- More is not always better: Although Vitamin A is essential for health, for example, doses that exceed the NRV (2,330 International Units (IU) for women) increase the risk of fractures. Don't exceed the recommended dose, unless advised to do so by your doctor.
- Beware of meaningless terms. The list includes *all-natural*, *antioxidant-rich*, *anti-aging*, and other vague but seductive claims – such claims are not backed by evidence.



Dietitian’s Top Tip:

It is common practice for supplement brands to include a vitamin and mineral content at the higher end of the labelling tolerance to allow for longer shelf life and vitamin and mineral deterioration over time.

It’s smart to be extra careful about having too much of certain nutrients. To avoid going over the recommended amount, it’s best to get those nutrients only from food.

Safer Swaps

Symptom	Common Herbal Supplement	Safer Alternative	Notes
Hot Flashes	Black Cohosh	Mediterranean Diet	A Mediterranean diet rich in fruits, vegetables, whole grains, and healthy fats may help reduce hot flashes naturally.
Night Sweats	Red Clover		
Mood Swings	St. John’s Wort	Omega-3 Fatty Acids (Oily fish twice per week)	Omega-3s support mood stability without the risks associated with St. John’s Wort, like interactions with Tamoxifen
Cognitive Function		Vitamin D	
Sleep Disturbances	Valerian Root	Magnesium  2 Kiwis 1 hour before bed	Magnesium promotes relaxation and improved sleep quality with a better safety profile
Vaginal Dryness	Dong Quai	Natural Yoghurt	Probiotics in yoghurt support vaginal health and moisture balance by maintaining a healthy microbiome
General Menopause Symptoms	Maca root	Mediterranean diet, more plant-based foods, Isoflavones from foods (e.g., flaxseeds, beans, nuts, seeds)	Incorporating plant-based foods and isoflavones, like those in flaxseeds, into a Mediterranean diet can naturally support hormone balance and ease various menopause symptoms.

## Final Message

Throughout the book, we have presented the potential benefits and risks of using supplements, but at the end of the day, it is up to each individual to figure out if the benefits of using supplements outweigh the risks.

So even if you take supplements, be sure to eat well, exercise regularly, and next time you are seeing your doctor for check-ups, screening tests, and treatments, be sure to tell them about all your supplements. Many people are reluctant to tell their doctors that they use alternative or complementary therapies, but full disclosure is important for health, particularly since supplements can have adverse interactions with medications.

*Remember, every “safe” supplement can pose a risk*

## For further information:

If you're interested in learning more about herbal supplements and their effects, we highly recommend visiting the Memorial Sloan Kettering Cancer Center's "About Herbs" database. This trusted resource provides detailed, science-backed information on various herbs and supplements, helping you make informed decisions about their use. For easy access, there's also an app available for download on your phone, allowing you to have this valuable information at your fingertips whenever you need it.

*[mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs/search](https://mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs/search)*

To explore detailed information about various herbs and their uses, you can click on the "Herbs at a Glance" section on the National Center for Complementary and Integrative Health website. This resource provides quick, accessible fact sheets that contain the benefits, side effects, and scientific evidence behind many commonly used herbs

*[nccam.nih.gov](https://nccam.nih.gov)*

You can search for medical and scientific studies on specific dietary supplement ingredients using PubMed <https://pubmed.ncbi.nlm.nih.gov>

## *Part 2*

# **The Recipes**

“Recipes would be so useful because it just takes the thinking out of it, and you could have five or six different ones to go to”

Anonymous, aged 46, affected by breast cancer

This guide offers a collection of delicious, nutritious recipes crafted to support health and alleviate menopausal symptoms. These recipes have been thoroughly tested, not only by women affected by cancer but also by their families, who helped us fine-tune them to be enjoyable and suitable for everyone.

Our aim is to provide practical, evidence-based dietary guidance centred on real food to support you through this important life transition.

### Recipe Guide Icons

Each recipe is marked with icons to indicate specific health benefits and features:



**High in Protein** (more than 20% of total energy from protein).



**High in Fibre** (more than 6g of fibre per 100g of food).



**Source of Calcium** (more than 120mg of calcium per 100g of food).



**Allergen information** will be listed at the end of each recipe.



**Heart Healthy** (<1.5g of saturated fat and <0.5g of salt per 100g of food).



**Timesaver** (recipes ready in under 30 minutes).



**Meat-Free Option**

Allergen information will be listed at the end of each recipe.

We'll also highlight preparation and cooking time, as well as the number of servings per recipe. Additionally, each recipe will feature a "Menopause Plate," icon where specific vitamins and minerals essential for managing symptoms are highlighted.





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## Breakfast Recipes



# Tahini & Cardamom Granola



This nut and seed granola is nutrient-packed to help get your morning off to the best start. Lightly spiced, this granola can be made in bulk and stored in an airtight container. Serve with yoghurt and seasonal fruit for a delicious breakfast.

*Makes 14 servings*



**Ingredients:**

50g tahini paste	1 tsp ground cardamom	45g cashew nuts
50g olive oil	1 tsp ground ginger	25g almonds
50g honey	2 tsp vanilla essence	25g whole chia seeds
1 tsp ground cinnamon	200g porridge oats	25g sunflower seeds
1 tsp ground nutmeg	45g walnuts	25g pumpkin seeds

**Method:**

*Preheat the Oven:* Preheat your oven to 180°C (350°F).

*Prepare the Wet Ingredients:* In a bowl, combine the oil, tahini, honey, and vanilla extract. Whisk until the mixture is smooth. Add the spices (cinnamon, nutmeg, and cardamom) and whisk again until well combined.

*Combine the Dry Ingredients:* In a separate bowl, weigh out and combine the dry ingredients.

*Mix Wet and Dry Ingredients:* Add the dry ingredients to the bowl with the wet ingredients. Mix until everything is well combined.

*Transfer to Tray:* Pour the mixture onto a baking tray. Use a spoon or spatula to pat it down tightly and evenly.

*Bake:* Place the tray in the preheated oven. Bake for 40 minutes, turning it halfway through to ensure even cooking.

*Cool and Store:* Once baked, allow it to cool completely. Transfer to an airtight container for storage.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
40g	204	14	1.9	3.1	5.1	0	54.4

**Gut Health:** High in Fibre (porridge oats and nuts)

**Brain Fog:** Thiamin (B1) (oats, seeds), Vitamin E (nuts & seeds), Magnesium (nuts & seeds), Iron (nuts)

**Bone Health:** Calcium (Tahini)



**Allergens:** Gluten, Tree Nuts, Sesame



# Overnight Oats



Start your day with minimal effort, by preparing these overnight oats. Topped with your favourite toppings, a sure-fire way to get the day off to a great start. Packed with fibre to aid digestion, heart-healthy oats can help regulate cholesterol levels, while their slow-releasing energy keeps you feeling satisfied throughout the morning.

*Makes 1 serving*



**Ingredients:**

- 40g porridge oats
- 10g whole chia seeds
- 90mls semi skimmed milk
- 45g 0% fat Greek yoghurt

**Toppings:**

**Nut Butter and Wild Blueberries**

- 1 tbsp peanut butter
- 40g frozen wild blueberries
- 1 tbsp 0% fat Greek yoghurt

**Raspberry and Dark Chocolate**

- 80g frozen raspberries
- 7g 70% - 84% dark chocolate (one square)
- 2 tbsp 0% fat Greek yoghurt

**Tropical**

- 120g frozen tropical fruit smoothie mix
- 2 tbsp 0% fat Greek yoghurt
- 1 tsp honey

**Method:**

- Combine the ingredients evenly.
- Leave in the fridge overnight.
- In the morning top with your favourite toppings.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
185g: Overnight Oat Base	272	7.9	1.8	7	14	0.18	242.35
288g: Nut Butter and Wild Blueberries	427	17	2.9	9.8	24	0.25	302.4
362g: Raspberry and Dark Chocolate	397	11	3.7	13	26	0.33	369.24
402g: Tropical	396	8.4	1.9	8.9	25	0.35	385.92

- Body Composition:** High protein (Greek yoghurt and milk), calcium (greek yoghurt and milk)
- Gut Health:** High fibre (oats and chia seeds, fruit)
- Heart Health:** Low in saturated fat, low in salt, Omega-3 fatty acids (chia seeds)



**Allergens:** Gluten, Milk, Nuts  
**May Contain:** Tree Nuts, Sesame



## Shakshuka: Family Style



Spice up your morning with a warm, flavourful shakshuka, a hearty dish of eggs in a rich tomato and pepper sauce. Packed with protein and vibrant veggies, it's a nourishing and satisfying start to your day.

*Makes 2 servings*



**Ingredients:**

1 tsp olive oil	1 garlic clove	1 can chopped tomatoes
2 bell peppers	1 tsp cumin seeds	4 large eggs
1 small onion	1 tsp paprika	10g fresh coriander
1 red chilli	1 tsp oregano	30g feta cheese

**Method:**

*Heat the Pan:* Set a large pan over medium heat and add olive oil.

*Sauté Vegetables:* Add the onion and bell peppers to the pan. Cook for 5-7 minutes until the vegetables are softened.

*Add Garlic and Spices:* Stir in the garlic and spices. Cook for 1 minute until fragrant.

*Incorporate Tomatoes:* Pour in the chopped tomatoes. Stir to combine and let the mixture simmer for 10-15 minutes, allowing it to thicken slightly.

*Add the Eggs:* Use a spoon to create 4 small wells in the tomato sauce. Crack 4 large eggs into each well. Cover the pan and cook on low heat for 5-8 minutes, or until the eggs are done to your desired liking.

*Garnish:* Remove the pan from the heat and garnish with fresh coriander, and crumbled feta cheese.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
549g	338	17	5.5	7	22	0.89	54.4

**Body Composition:** High Protein (eggs)

**Gut Health:** High Fibre (tomatoes, peppers,) Prebiotics (onions)

**Brain Fog:** Choline (eggs), Vitamin D (eggs)



**Allergens:** Eggs, Milk



A close-up photograph of a silver fork resting on a white plate with a blue and gold decorative border. The plate holds a piece of toast topped with a vibrant salad of diced tomatoes and potatoes in a red sauce, garnished with crumbled white feta cheese. The background is a light-colored, textured surface.

## Light Meal Recipes







## Brunch 4 Ways

Never be bored with toast again! These 4 brunch inspired toppings for toasts are perfect midweek or at the weekend. An option for everyone! Using a variety of toppings, turn the humble slice of toast into a nutritious meal!

*Makes 1 serving*



# New York Style Toast



Prep time: 10 minutes | Makes 1 serving

**Ingredients:**

- 1 small can salmon (drained)
- 30g reduced fat cream cheese
- 1 tsp lemon juice
- 2 slices brown bread or sourdough bread
- 2 slices red onion
- 2 sprigs fresh dill

**Method:**

*Prepare the Spread:* In a bowl, mix the drained salmon with the reduced fat cream cheese and lemon juice until well combined.

*Toast the Bread:* Toast the brown bread or sourdough slices until golden and crispy.

*Assemble:* Spread the salmon mixture evenly over the toasted bread.

*Garnish:* Top with slices of red onion and fresh dill.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
218g	345	11	3	3.8	30	16	207.1

# Korean Style Toast



Prep time: 10 minutes | Makes 1 serving

**Ingredients:**

- 2 slices brown bread or sourdough
- 2 tbsp natural peanut butter, smooth or crunchy
- 40g kimchi
- ½ spring onion, chopped finely
- 1 tsp sesame seeds

**Method:**

*Toast the Bread:* Toast the brown bread or sourdough slices until crispy and golden.

*Spread:* Evenly spread the natural peanut butter over each slice of toast.

*Top:* Spoon the chopped kimchi over the peanut butter, then sprinkle with finely chopped spring onion and sesame seeds.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
150g	416	23	3.4	7.3	17	0.74	75

# Melbourne Style Toast



Prep time: 10 minutes | Makes 1 serving

**Ingredients:**

- 2 slices brown bread or sourdough
- 2 soft boiled eggs
- ½ avocado
- 1 tsp lime juice
- 1 tbsp mixed seeds

**Method:**

*Toast the Bread:* Toast the brown bread or sourdough slices until crispy and golden.

*Prepare the Avocado:* Mash the avocado with lime juice and season with a pinch of salt.

*Assemble:* Spread the avocado mixture evenly over the toasted bread.

*Top:* Slice the soft-boiled eggs in half and place them on top of the avocado toast. Sprinkle with mixed seeds.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
255g	515	32	7.3	5.3	25	0.63	165.75

# Mexican Style Toast



Prep time: 10 minutes | Makes 1 serving

**Ingredients:**

- 2 slices brown bread or sourdough
- 190g spicy beans
- 15g feta cheese

**Method:**

*Toast the Bread:* Toast the brown bread or sourdough slices until crisp and golden.

*Heat the Beans:* Warm the spicy beans in a pan

*Assemble:* Spoon the warm spicy beans over the toasted bread.

*Top:* Sprinkle crumbled feta cheese on top of the beans.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
266g	343	9.4	3.1	13	16	0.62	122.36





# Spicy Butter Beans



Baked beans, but better! This recipe with store-cupboard essentials is a great way to make a family favourite even more delicious!

Makes 4 servings

**Ingredients:**

- 2 tsp olive oil
- 1 small red onion
- 1 tsp paprika
- 1 tsp garam masala
- 1 tsp tomato puree
- 1 tin chopped tomatoes
- 1 tin butter beans

**Method:**

*Sauté Onion:* Heat the olive oil in a pan over medium heat. Add the finely chopped red onion and cook until softened and translucent.

*Add Spices:* Stir in the paprika and garam masala, cooking for another minute until fragrant.

*Combine Ingredients:* Add the tomato puree and chopped tomatoes to the pan, stirring to combine. Let it simmer for 5 minutes.

*Add Beans:* Stir in the butter beans and cook for an additional 10 minutes, allowing the flavours to meld and the sauce to thicken.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
186g	144	2.8	0.4	9.8	7.4	0.02	34.224

**Heart Health:** Omega 3 Fatty Acids (salmon)  
**Gut Health:** Probiotics (kimchi), Fibre (bread, butter beans)  
**Body Composition:** Calcium (cream cheese, feta cheese), Protein (eggs, cream cheese, salmon, butter beans)  
**Brain Fog:** Choline (eggs)



**Allergens:** Gluten, eggs, milk, sesame

## Elotes-Style Corn Salad



**This is Katie's own go-to recipe for BBQs or for lunch. You can adapt this with whatever veg is in season or in your fridge. It's a winner with everyone, even those who don't like salad!**

*Makes 4 servings*



**Ingredients:**

480g frozen sweetcorn	1 avocado	2 tsp olive oil
1 small onion	16g coriander (1 small bunch)	1 tsp cumin
2 peppers	30g feta cheese	1 tsp paprika
1/2 cucumber	2 limes	4 cooked chicken breast
2 green chillies		

**Method:**

*Roast the Corn:* Heat a dry pan over medium-high heat. Add your frozen corn and cook for 10-15 minutes, stirring occasionally.

*Prepare the Vegetables:* While the corn is cooking, finely chop the onion, pepper, avocado, cucumber, coriander, and green chilli. Ensure they are chopped to about the same size as the corn kernels. Place the chopped vegetables in a bowl, squeeze in the juice of 1 lime, and combine well.

*Make the Dressing:* In a separate dish, combine the cumin, paprika, lime juice, and olive oil and mix well.

*Combine Ingredients:* Once the corn is cooked, add it to the bowl with the chopped vegetables, shredded cooked chicken and mix well.

*Serve the Salad:* Just before serving, mix the dressing into the salad. Transfer the salad to a serving dish, top with crumbled feta, and garnish with extra coriander leaves.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
466g	379	14	3.7	7.6	35	0.31	70.832

**Body Composition:** Protein (chicken), Vitamin C (vegetables)

**Heart Health:** Low in saturated fat and salt

**Brain Fog:** Vitamin B3 (chicken) Vitamin C (vegetables)

**Gut Health:** 1 serving is equal to 3 of your 5 a day, prebiotics (onion)



**Allergens:** Milk



# Italian Caprese Butter Bean Salad



Transport yourself to Italy with this vibrant salad, made with simple store-cupboard essentials for a quick and easy meal. Bursting with protein and fibre, it's a light yet satisfying dish, perfect for a refreshing and wholesome lunch on warmer days!

*Makes 1 serving*



**Ingredients:**

Half ball of 10% fat mozzarella	40g rocket
140g cherry tomatoes or 1 large plum or heirloom tomato	5 basil leaves
1/2 tin butter beans	1 tsp olive oil
	1 tsp sherry vinegar

**Method:**

*Prepare the Mozzarella and Tomatoes:* Tear the mozzarella into bite-sized pieces. Slice the tomatoes and place both into a mixing bowl.

*Rinse the Butter Beans:* Drain and rinse the butter beans, then add them to the bowl with the mozzarella and tomatoes.

*Add the Rocket and Basil:* Gently toss in the rocket leaves. Tear the basil leaves into smaller pieces and add them to the salad.

*Make the Dressing:* In a small dish, combine 1 teaspoon of olive oil and 1 teaspoon of sherry vinegar. Mix well until emulsified.

*Combine and Serve:* Drizzle the dressing over the salad and toss everything together until well coated.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
480g	404	13	5.6	22	29	0.4	345.6

**Heart Health:** Low in saturated fat and salt

**Body Composition:** Protein (butter beans and mozzarella), Calcium (mozzarella)

**Gut Health:** Fibre (butter beans, tomatoes, rocket)



**Allergens:** Milk, Sulphites





Main Meal Recipes







# Loaded Beef Burritos



A family favourite, quick and easy for a delicious mid-week evening meal. Packed with protein-rich beef and black beans, these burritos provide essential nutrients for maintaining muscle mass, while the addition of red cabbage, avocado, and Greek yoghurt offers a boost of fibre, healthy fats, and calcium—important for bone health during menopause.

*Makes 2 servings*



**Ingredients:**

2 8oz beef steaks	125g cooked white rice	1 tsp olive oil
1 tin black beans	½ lime, juiced	1 tsp paprika
100g cherry tomatoes	1 small bunch coriander leaves	1 tsp cumin
½ avocado	75g 0% fat Greek yoghurt	1 tsp chilli powder
½ small onion	2 wheat tortilla wraps	½ tsp garlic powder
100g red cabbage		½ tsp oregano

**Method:**

*Prepare the Salsa:* Finely chop half of the onion and place it in a small bowl. Halve the cherry tomatoes and add them to the bowl. Roughly chop half of the coriander leaves and mix them in. Squeeze in the juice of half a lime, season with salt and pepper, and set the salsa aside.

*Prep the Cabbage and Yoghurt:* Finely shred the red cabbage and place it in a separate bowl. Squeeze the remaining lime juice over the cabbage, season with salt, and scrunch it together with your hands to soften slightly. In a small dish, combine the Greek yoghurt and a little lime juice, mixing until smooth. Set aside.

*Cook the Steak and Beans:* Season the steaks with salt, pepper, paprika, cumin, chilli powder, garlic powder, and oregano. Heat a large frying pan over high heat, add the olive oil, and sear the steaks until cooked to your liking. Remove the steaks and let them rest. In the same pan, add the drained black beans and cook until warmed through, stirring in any remaining spice mix from the steaks.

*Prep the Rice and Avocado:* Heat the cooked white rice until piping hot. Roughly chop the remaining coriander leaves and stir them into the rice. Slice the avocado into thin wedges.

*Assemble and Serve:* Warm the tortillas in a dry pan or microwave. Place slices of steak in the centre of each tortilla, followed by the spiced black beans, coriander rice, red cabbage, salsa, Greek yoghurt, and avocado slices. Fold the ends over and roll up to seal. Slice each wrap in half and enjoy!

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
556g	737	21	6.9	18	54	2.1	289.12

**Body Composition:** Protein (beef, black beans, Greek yoghurt), Calcium (Greek yoghurt, black beans)

**Brain Fog:** Vitamin B3 (beef & black beans), Vitamin B12 (beef & black beans)

**Gut Health:** Fibre (Wheat Tortilla Wrap, black beans, vegetables) Prebiotics (onions)



**Allergens:** Gluten, Milk

**May Contain:** Sesame, Sulphites



# Moroccan Style Chickpeas with Crispy Tofu



A Moroccan inspired dish gently spiced topped with crispy tofu. Popular with all ages – believe us, we’ve tested it! This vibrant dish is packed with plant-based protein and fibre to support overall health during menopause.

*Makes 4 servings*





**Ingredients:****For the Crispy Tofu:**

464g pressed tofu  
 2 tsp paprika  
 2 tsp cumin  
 2 tsp garlic powder  
 2 tsp low sodium soy sauce

**For the Chickpeas**

2 tins chickpeas  
 2 tins chopped tomatoes  
 1 red onion  
 2 garlic cloves  
 1 courgette  
 1 red bell pepper  
 1 bag of spinach  
 2 tsp paprika  
 2 tsp cumin  
 1 tsp cinnamon  
 1 low salt vegetable stock cube  
 1 tsp olive oil  
 2 tbsp flaked almonds  
 10g fresh coriander

**Method:**

**Make the crispy tofu:** Preheat the oven to 200 degree Celsius. In a bowl, add the spices, oil and soy sauce, mix well. Then crumble in the tofu. Place on a tray in the oven for 20 minutes, flipping half way to ensure it's golden brown.

**Sauté Onions and Garlic:** Finely chop the onion and garlic. Add the olive oil in the same pan and sauté the chopped onion and garlic for about 5 minutes until soft.

**Add Spices:** Once the onion and garlic are soft, stir in the spices and combine well.

**Add Veg:** Add in roughly chopped pepper and courgette and cook for 3-4 minutes.

**Incorporate Chickpeas and Tomatoes:** Add a tin of chickpeas with their water and a tin of chopped tomatoes to the pan. Stir to combine. Crumble in the stock cubes and continue mixing until fully dissolved. Add the spinach at the final moment and combine well.

**Add Coriander:** Chop a handful of coriander and add it to the tomato and chickpea mixture, saving some for garnishing later.

**Top with tofu:** Sprinkle over the tofu, coriander and flaked almonds. Serve in the centre of the table for everyone to share.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
514g	366	12	1.6	12	23	0.41	472.88

**Hot Flashes:** Phytoestrogens (Tofu)

**Gut Health:** Fibre (chickpeas, vegetables) Prebiotics (Onions, garlic)

**Body Composition:** Protein (chickpeas, tofu), Calcium (tofu, chickpeas)



**Allergens:** Gluten, Tree Nuts, Celery, Soya and Sulphites

## One Pan Spanish Salmon & Rice



**This mid-week, one-pan salmon dish combines Omega-3-rich salmon, fibre-rich brown rice, and vegetables for a hearty and nourishing meal.**

*Makes 4 servings*



**Ingredients:**

1 tbsp olive oil	Pinch of saffron	400g tin chopped tomatoes
1 onion, peeled and finely chopped	2 tsp hot smoked paprika	300g brown rice
1 red pepper, diced	1 tsp dried thyme leaves	4 salmon fillets
1 green pepper, diced	1 tsp dried oregano	150g frozen peas
3 cloves garlic, peeled and minced	1 tsp cumin	Parsley, small bunch, chopped
	800ml chicken stock	Lemon wedges to serve

**Method:**

*Sauté the Vegetables:* Add the oil to a large saucepan over medium-high heat. Once hot, add the chopped onion, peppers, and minced garlic. Sauté until the onions are soft and translucent.

*Add Spices and Simmer:* Stir in the herbs and spices, allowing them to become fragrant. Then, add the tinned tomatoes, stock, and rice. Bring the mixture to a boil, then reduce the heat to low. Cover the saucepan and let it simmer until the rice is almost tender, about 10 minutes (or according to the recommended cooking time for your chosen rice).

*Cook the Salmon and Peas:* Add the salmon to the saucepan. Cover again and cook for 10 minutes, add the peas and cook for another 5 minutes.

*Garnish and Serve:* Serve the dish garnished with freshly chopped parsley and a wedge of lemon for squeezing over the top.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
625g	582	19	3.5	7.9	33	1.2	71.25

**Brain Fog:** High in Omega-3 Fatty Acids (Salmon), Thiamin (B1)

**Gut Health:** Fibre (rice, vegetables) Prebiotics (onion and garlic)

**Body Composition:** Protein (salmon)

**Heart Health:** Low in saturated fat and salt, high in Omega-3 fatty acids



**Allergens:** Fish









## Snack Recipes





# Creamy Hummus



**This homemade hummus combines chickpeas, tahini, and olive oil for a smooth and tasty dip. Rich in protein and fibre, it offers a satisfying and nutrient-dense option. Enjoy with fresh veggies or whole-grain crackers for a delicious, guilt-free snack!**

*Prep time: 15 minutes | Cook time: 10 minutes | Makes 10 servings*



**Ingredients:**

1 tin chickpeas	1 garlic clove, minced	60mls lemon juice
100mls chickpea water	175g tahini	(juice of 1.5 lemons)
½ tsp bicarbonate of soda	4 ice cubes	1.5 tsp cumin

**Method:**

Drain the chickpeas from the can, using a sieve and a bowl to save the aquafaba (liquid the chickpeas are in).

In a pan, add the chickpeas, 200mls of water and bicarbonate of soda. Bring to the boil and leave for 10 minutes until the chickpeas are soft.

In a food processor, add the softened chickpeas, 100mls of the aquafaba and minced garlic. Blend until smooth.

Next, add the tahini to the food processor and blend again. Once combined, add in four ice cubes and blend.

Add the juice of 1.5 lemons, 1.5 tsp cumin and blend until combined.

Serve in a bowl, top with some paprika and coriander.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
58g	144	11	1.5	4.3	0.5	3.2	5.7	0.15	121.22

**Body Composition:** Calcium (tahini and chickpeas), Protein (chickpeas)

**Gut Health:** Fibre (chickpeas, tahini)

**Heart Health:** Low in salt



**Allergens:** Sesame



## Crackers: 4 Ways



**A filling, quick delicious snack - four easy ways to make, so you never get bored!**

*Prep time: 5 minutes | Makes 1 serving*





# New York Style

2 rye crisp breads | 30g low fat cream cheese | 55g cucumber | 1 sprig dill | Cracked black pepper

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
107g	136	4.1	1.8	15	3.8	4.5	7.4	0.7	177.62

# Italian Style

2 rye crisp breads | ¼ mozzarella ball, reduced fat | 4 slices plum tomato | 5 basil leaves

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
128g	153	5	2.6	15	3.7	4.8	8.9	0.31	134.4

# Moroccan Style

2 rye crisp breads | 60g creamy hummus | 1 tbsp seeds

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
59g	195	10	1.6	16	1.3	5.7	6.9	0.21	112

# English Style

2 rye crisp breads | 4 slices cheddar cheese | ½ apple, sliced thinly

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
146g	312	17	9.9	22	10	5	14	0.93	348.94

**Body Composition:** Protein (cream cheese, mozzarella, cheddar cheese, hummus), Calcium (cream cheese, mozzarella, cheddar cheese, hummus)  
**Gut Health:** Fibre (hummus, rye crisp breads, apple, seeds)  
**Heart Health:** Low in salt



**Allergens:** Milk, sesame, gluten

## Chocolate & Goji Berry Trail Mix



Fuel your day, and adventures, with this homemade trail mix. Using store cupboard ingredients, this combines crunchy nuts and seeds with rich dark chocolate and chewy goji berries and sultanas. A favourite – especially with Katie's mum – they are the perfect on-the-go snack for busy days - prepare ahead to grab and go!

*Prep time: 10 minutes | Makes 10 servings*



**Ingredients:**

50g plain unsalted peanuts	1 tbsp sunflower seeds
60g walnuts	1 tbsp goji berries
55g plain, unsalted cashew nuts	28g sultanas (1 standard snack size box)
45g almonds, skin on	22g 85% dark chocolate chopped finely
1 tbsp pumpkin seeds	

**Method:**

Weigh ingredients and combine in a bowl.  
Store in an airtight container, and portion into 30g servings when you need.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
29.3g	168	13	2.3	5.6	3.7	2.4	5.2	0.01	28.714

- Body Composition:** Calcium (nuts), Protein (nuts)  
**Gut Health:** Fibre (goji berries, nuts, seeds, sultanas), Vitamin E (nuts)  
**Heart Health:** Omega-3s (Walnuts)  
**Brain Health:** Omega-3s (Walnuts), Magnesium (dark chocolate, nuts and seeds)



**Allergens:** Sesame







# Brain Bites & Peanut Butter Balls

See pages 126 & 127



# Brain Bites



**Fuel your brain & stay sharp with our delicious no bake Brain Bites! These nut free snacks are naturally sweet and easy to prep for the week ahead- perfect for a mid-afternoon pick-me-up.**

*Makes 10 servings*



This recipe has been adapted from Little Lou Cooks' energy ball recipe with permission. A big thank you to her for the inspiration! Check her out on instagram @littlouloucooks

## Ingredients:

200g dates

75g oats

50g chia seeds

50g sunflower seeds

50g pumpkin seeds

40g coconut, desiccated  
(Plus ½ cup coconut  
for coating)

1-2 tbsp cacao powder or cocoa  
powder (whichever you prefer)

30g whey protein powder  
(opt for 100% whey)

## Method:

Place the dates in a bowl, cover with boiling water and let them soften.

While the dates are soaking, blend the oats, seeds, and coconut in a food processor until they reach an ultra-fine powder consistency.

Add the cacao/cocoa powder and protein powder to the blended mixture and blend again until well combined.

Drain the softened dates and add them to the blender. Blend until the mixture forms a thick paste. If the mixture is too dry to roll, add a dash of water and blend again.

Roll the mixture into balls of your preferred size. For reference, our nutritional information is based on balls weighing approximately 26g each.

Coat the balls in coconut (*Tip:* To help the coconut stick, wet your hands before rolling the balls in coconut).

Store the energy bites in the freezer until needed.

Serving Size	Energy (kcal)	Fat (g)	Sat Fat (g)	Protein (g)	Salt (g)	Fibre (g)	Calcium (mg)
26g	103	4.8	1.6	3.8	0.02	3	34.3



**Allergens:** Gluten, Milk, Sulphites

# Kate's Kitchen Peanut Butter Balls



**Katie has been making these since university – to help fuel long study days! Delicious straight from the fridge, they are the perfect chocolate, nutty energy hit you need at any time of the day.**

*Makes 16 balls*



These Peanut Butter Power balls hail from Kates Kitchen, a small, family run café & deli in County Sligo. We love their ethos, and more importantly, their peanut butter balls!

## Ingredients:

160g porridge oats  
50g cacao powder  
70g chia seeds  
1 pinch of salt

200g honey  
200g natural peanut butter  
1 tsp vanilla essence

## Method:

**Mix Dry Ingredients:** In a bowl, combine oats, chia seeds, cacao powder, and a pinch of salt. Stir to blend.

**Heat Wet Ingredients:** In a saucepan, combine peanut butter, honey, and vanilla extract. Heat over low, whisking constantly until smooth and warm, but not too hot.

**Combine:** Pour the warm mixture into the dry ingredients and mix until well combined.

**Shape:** Measure out 43g portions and roll the mixture into balls. Place them on a tray.

**Store the Bites:** Store the energy bites in the freezer. They will keep for approximately 6 months.

Serving Size	Energy (kcal)	Fat (g)	Sat Fat (g)	Protein (g)	Salt (g)	Fibre (g)	Calcium (mg)
43g	185	8.7	1.5	5.8	0.04	4.6	32.25

## Optional Toppings:

Feel free to experiment with different coatings like nuts, seeds, or melted chocolate for extra flavour!

**Brain Fog:** High in Omega-3 Fatty Acids (from the chia seeds), Iron (dates), Thiamin (B1) (oats, seeds), Vitamin E (seeds), Magnesium (seeds, cacao powder)



**Allergens:** Gluten, Peanuts  
**May Contain:** Tree Nuts, Sesame









## Desserts, Sweets & Baking Recipes



# Chocolate & Raspberry Celebration Cake



**One of Katie's own recipes – this indulgent, rich chocolate & raspberry cake is perfect for special occasions.**

*Prep time: 20 minutes | Cook time: 40 minutes | Makes 12 servings*



**Ingredients:****For the cake**

175g plain white flour  
 1 large or 2 small ripe avocados (approx. 140g), room temperature  
 100g light brown sugar  
 40g dark fine cocoa powder  
 200mls 1% fat milk  
 1 tsp vanilla extract  
 1 tsp bicarbonate of soda  
 ½ tsp baking soda  
 125g raspberries, cut in half

**For the icing**

30g cocoa powder  
 100g agave syrup  
 1 large or 2 small ripe avocados (approx. 140g), room temperature  
 1 tsp vanilla extract

**To decorate**

125g raspberries  
 50g goji berries, chopped finely

**Method:**

*Preheat the Oven:* Set your oven to 160°C (140°C fan)/Gas 3.

*Prepare the Cake Tin:* Grease an 18cm cake tin and line it with parchment paper.

*Mix the Batter:* In a bowl, mash the avocado, then whisk in the brown sugar until the mixture is smooth. Add the cocoa powder and whisk until fully combined. Gradually pour in the milk and vanilla extract, mixing well. Sift in the flour, bicarbonate of soda, and baking powder, folding the mixture gently until combined. Carefully fold in the raspberries.

*Bake the Cake:* Pour the batter into the prepared cake tin, spreading it evenly. Bake for 35- 40 minutes or until a toothpick inserted into the centre comes out clean.

*Cool the Cake:* Allow the cake to cool while you prepare the chocolate icing.

*Prepare the Icing:* Mash the avocados in a bowl until they reach a puréed consistency. Whisk in the cocoa powder, then gradually add the agave syrup and vanilla extract, continuing to whisk until the mixture is smooth.

*Ice the Cake:* Evenly spread the chocolate icing over the top of the cooled cake, using the back of a spoon to smooth it out to the edges.

*Add the Finishing Touches:* Arrange raspberries and goji berries over the top of the cake.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
93g	197	5.9	1.9	30	17	3.5	4.1	0.27	59.52

*For a vegan alternative* – replace the dairy milk with a fortified dairy-free alternative.

**Body Composition:** Calcium (milk)

**Gut Health:** Fibre (avocados, raspberries, goji berries)

**Heart Health:** Healthy Fats (avocados)

**Brain Health:** Natural Melatonin (goji berries)



**Allergens:** Milk, Gluten

**May Contain:** Sulphites (Goji Berries)



# Carrot Cake Traybake with Tahini Cream Cheese Icing



A modern twist on a classic. Inspired by Broma Bakery, this sweet and umami traybake makes a great party piece! Fuss-free, just pour the icing on top for a luxury finish!

*Prep time: 30 minutes | Cook time: 30 minutes | Cooling time: 45 minutes | Makes 18 servings*





**Ingredients:****For the cake**

237g olive oil

300g sugar

4 large eggs

60g milk

250g plain white flour

1.5 tsp baking powder

1.5 tsp bicarbonate of soda

½ tsp ground ginger

2 tsp cinnamon

2 large carrots

48g walnuts

**For the icing**

360g low fat cream cheese

100g tahini paste

1 tbsp vanilla essence

100g icing sugar

**Method:**

*Preheat the Oven:* Set your oven to 350°F (175°C). Line a 9 x 13 x 3-inch cake tin with parchment paper, ensuring all sides are covered. Set the pan aside.

*Prepare the Wet Ingredients:* In a large bowl, finely shred the carrots. Add the sugar, oil, eggs, milk, and vanilla extract to the shredded carrots. Mix everything together until well combined.

*Combine Dry Ingredients:* In a separate bowl, combine the flour, baking powder, ginger, cinnamon, and salt. Gently fold the dry ingredients into the wet mixture until almost fully incorporated.

*Bake the Cake:* Place the cake tin in the preheated oven and bake for 30 minutes, or until a knife inserted into the centre comes out clean. Allow the cake to cool completely in the tin before icing.

*Prepare the Icing Base:* In a medium-sized bowl, add 360g of low-fat cream cheese and 100g of tahini paste. Use a hand mixer or a whisk to blend them together until smooth and creamy.

*Add Vanilla and Sugar:* Add 1 tablespoon of vanilla essence to the mixture. Gradually sift in 100g of icing sugar, mixing continuously until fully incorporated and the icing is smooth.

*Chill the Icing:* Once the icing is well mixed, place it in the fridge to chill for about 15-20 minutes. This will help it firm up slightly, making it easier to spread on the cake.

*Ice the Cake:* Once your carrot cake has completely cooled, spread the chilled tahini cream cheese icing evenly over the top of the cake using a spatula.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
102g	368	21	4	35	25	1.9	7.8	1	172.38

**Body Composition:** Calcium (Tahini), Protein (Cream Cheese, Eggs, Milk)

**Gut Health:** Fibre (Walnuts, Carrots)

**Heart Health:** Healthy Fats (Olive Oil), Omega-3s (Walnuts)



**Allergens:** Gluten, Eggs, Milk, Tree Nuts and Sesame



# The Everyday Dessert

See pages 136 & 137







# The Everyday Dessert



Whether you need a quick dessert or a satisfying snack, The Everyday Dessert is our go-to. It's ready in minutes and offers a delicious, guilt-free way to satisfy your sweet tooth. With a variety of toppings, you can enjoy a different combination every day of the week!

*Prep time: 10 minutes | Cook time: 10 minutes | Makes 1 serving*

## Summer Berry

### Ingredients:

125g 0% fat Greek yoghurt	4 strawberries	15 blueberries
1 tsp vanilla essence	10 raspberries	½ tsp honey

### Method:

Wash and prepare the berries; hull and quarter the strawberries.

Mix the Greek yoghurt with vanilla essence, then spoon it into a serving bowl.

Top with berries and drizzle with honey.

*Note:* For added texture, consider sprinkling a few crushed nuts or our Tahini and Cardamom granola on top. You can also substitute or mix in other seasonal fruits like blackberries or sliced bananas.

## Apple Crisp

### Ingredients:

125g 0% fat Greek yoghurt	1 tsp vanilla essence	50g stewed apples	20g tahini & cardamom granola (See page 92)
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### Method:

Mix 125g of Greek yoghurt with 1 teaspoon of vanilla essence.

Spoon the yoghurt into a bowl, top with 50g of stewed apples

Sprinkle with 20g of tahini and cardamom granola.



# Peaches and Cream

## **Ingredients:**

125g 0% fat greek yoghurt | 1 tsp vanilla essence | 1 peach, sliced | 6g flaked almonds

## **Method:**

Mix the Greek yoghurt with vanilla essence and spoon it into a serving bowl.

Top with sliced peach and sprinkle with flaked almonds.

# Chocolate and Strawberries

## **Ingredients:**

125g 0% fat Greek yoghurt | 1 tsp vanilla essence  
2 large squares of dark chocolate, melted or grated | 5 large strawberries

## **Method:**

Mix 125g of Greek yoghurt with 1 teaspoon of vanilla essence.

Spoon the yoghurt into a bowl, top with 5 large strawberries, and drizzle with 2 large squares of melted dark chocolate or sprinkle with grated dark chocolate.

Serving Sizes	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
216g Summer Berry	117	0.5	0	13	13	2.9	14	0.21	183.6
200g Apple Crisp	199	7	1	17	11	2.4	16	0.21	198
206g Peaches & Cream	141	3.4	0.3	11	10	2.1	15	0.21	189.52
208g Chocolate & Strawberries	179	6.2	3.6	13	13	4	15	0.2	191.36

**Body Composition:** Calcium (Greek yoghurt), Protein (Greek yoghurt)

**Gut Health:** Fibre (peaches, apple, berries, tahini & cardamom granola)

**Heart Health:** Low in salt, low in saturated fat

**Brain Health:** B Vitamins (Greek yoghurt, granola)



**Allergens:** Milk, Peanuts, Tree Nuts, Sesame, Gluten



Drinks

# Refreshing Blueberry Nojitos



This “no”-ijto alcohol-free recipe blends muddled blueberries, fresh mint, and zesty lime to create a vibrant, fruity twist on the classic cocktail.

Prep time: 5 minutes | Makes 1 serving

### Ingredients:

15 blueberries  
4g mint  
15g lime juice  
1 tsp agave syrup  
150mls soda water

### Method:

*Muddle:* In a glass, muddle the blueberries and mint leaves to release their flavours.

*Mix:* Add the lime juice and agave syrup, stirring to combine.

*Top Up:* Fill the glass with ice and pour in the soda water.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
190mls	34	0	0	6.6	5.9	0.5	0.5	0.08	11.02

# Cooling Mint & Ginger Iced Tea



A cooling, caffeine-free iced tea. Perfect for hotter days when you fancy something fresh!

Prep time: 15 minutes | Makes 8 servings

### Ingredients:

4 mint green tea bags  
2l boiled water  
2 tbsp honey  
100g ice cubes  
170g fresh ginger

### Method:

*Brew the Tea:* In a large heatproof jug, steep the mint green tea bags and sliced ginger in 2l of boiled water for 10 minutes.

*Sweeten:* Remove the tea bags and ginger, then stir in the honey until fully dissolved. Let the tea cool to room temperature.

*Chill and Serve:* Fill a large jug with ice cubes, pour the cooled tea over the ice, and stir.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
310mls	27	0	0	5.8	4.6	0.5	0.5	0	3.72

## Spiced Cherry Fizz



One of Katie and her mum's favourites - this spiced cherry fizz is perfect for any special occasion. The tart cherry concentrate, ginger and citrus balanced with fresh mint and sweet agave create a delicious mocktail.

*Prep time: 10 minutes | Makes 2 servings*

### Ingredients:

30mls lemon juice  
30mls lime juice  
1 tsp agave syrup  
60mls tart cherry concentrate  
5g fresh ginger  
8g fresh mint  
150mls sparkling water

### Method:

*Prepare the Mixture:* In a cocktail shaker, muddle the fresh mint leaves and grated ginger. Add the lemon juice, lime juice, agave syrup, and tart cherry concentrate.

*Shake:* Fill the shaker with ice and shake well to combine and chill the mixture.

*Strain:* Strain the mixture into a glass filled with ice.

*Top Up:* Top with sparkling water and stir gently to combine.

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
145mls	105	0	0	23	15	0.6	1.3	0.02	23.49

**Body Composition:** Joint pain (Tart Cherry) Heart Health: Low in salt and saturated fat

## Nu-Go Spritz



An alcohol-free version of a classic! Using alcohol free Prosecco, you will barely notice the difference. Perfect for special occasions, catching up with friends or if you fancy something refreshing during summer days.

*Prep time: 5 minutes | Makes 1 serving*

### Ingredients:

120ml alcohol free Prosecco  
25ml soda water  
20mls elderflower cordial  
4g fresh mint

### Method:

*Muddle:* In a glass, muddle the mint and elderflower cordial

*Top Up:* Top up with soda water and alcohol free Prosecco

Serving Size	Energy (kcal)	Fat (g)	Sat fat (g)	CHO (g)	Sugars (g)	Fibre (g)	Protein (g)	Salt (g)	Calcium (mg)
310mls	27	0	0	5.8	4.6	0.5	0.5	0	3.72



# Useful Links & Websites

CORU

Regulating Health and Social Care Professionals:

[\*\*www.coru.ie/health-and-social-care-professionals/\*\*](http://www.coru.ie/health-and-social-care-professionals/)

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Irish Cancer Society

Menopause, Diet and Cancer Webinars:

[\*\*tinyurl.com/menodietcancer\*\*](http://tinyurl.com/menodietcancer)

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Irish Nutrition and Dietetic Institute:

[\*\*www.indi.ie/\*\*](http://www.indi.ie/)

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Memorial Sloan Kettering

“About Herbs”:

[\*\*www.mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs\*\*](http://www.mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs)

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thisisGO.ie

An online personalised resource for you and yours  
who have been impacted by a gynaecological cancer.

**ThisIsGO.ie**

# **List of Abbreviations & Glossary of Terms**

## List of Abbreviations

**ALA** – Alpha-Linolenic Acid

**BMI** – Body Mass Index

**BSc** – Bachelor of Science

**BRCA1 / BRCA2** – Breast Cancer Susceptibility Genes 1 and 2

**CORU** – Health and Social Care Professionals Council (Ireland's health regulator)

**CUH** – Cork University Hospital

**DHA** – Docosahexaenoic Acid

**EPA** – Eicosapentaenoic Acid

**EU** – European Union

**FSAI** – Food Safety Authority of Ireland

**GP** – General Practitioner

**HCPC** – Health and Care Professions Council (UK)

**HRT** – Hormone Replacement Therapy

**ICS** – Irish Cancer Society

**INDI** – Irish Nutrition and Dietetic Institute

**IU** – International Units

**LDL** – Low-Density Lipoprotein (often referred to as "bad" cholesterol)

**LYSA** – Linking You with Support and Advice (clinical trial)

**MSc** – Master of Science

**PTH** – Parathyroid Hormone

**RD** – Registered Dietitian

**SEFS** – College of Science, Engineering and Food Science

**UCC** – University College Cork

**UPFs** – Ultra-Processed Foods

**UTIs** – Urinary Tract Infections

**WHO** – World Health Organization

## Glossary of Terms

### **Aromatase Inhibitors**

A type of hormone therapy used to treat hormone-sensitive cancers by reducing oestrogen production in the body.

### **Body Composition**

The proportions of muscle, fat, bone, and water in the body. Maintaining healthy body composition is important during and after cancer treatment.

### **Bone Density**

The amount of bone mineral in bone tissue. Lower bone density increases the risk of osteoporosis, especially after menopause or cancer treatment.

### **Brachytherapy**

A type of internal radiotherapy where a radioactive source is placed inside or near a tumour, commonly used for cervical and uterine cancers.

### **BRCA1/BRCA2**

Genes that, when mutated, can increase the risk of breast and ovarian cancer. Women with these mutations may undergo risk reducing surgeries that cause early menopause.

### **Cognitive Symptoms**

Mental effects such as memory loss, brain fog, difficulty concentrating, and reduced mental clarity, often reported during menopause or after cancer treatment.

### **CORU**

Health and Social Care Professionals Council – Ireland's regulatory body for health and social care professionals. CORU registration indicates a qualified health professional, such as a dietitian or physiotherapist.

### **CYP3A4 / CYP2D6**

Cytochrome P450 enzymes in the liver that metabolise many medications.

Some foods and supplements may interact with these enzymes, affecting how cancer or menopause drugs work.

### **DHA – Docosahexaenoic Acid**

A long-chain omega-3 fatty acid found in oily fish. Supports heart, brain, and eye health.

### **EFSA – European Food Safety Authority**

An EU agency that provides scientific advice on food-related risks, including supplements, food safety, and nutrition claims.

### **Endocrine Therapy**

Hormonal treatment for cancer that affects hormone levels and can induce menopause symptoms.

### **EPA – Eicosapentaenoic Acid**

A long-chain omega-3 fatty acid from fish, beneficial for heart and brain function and reducing inflammation.

### **FSAI – Food Safety Authority of Ireland**

National body ensuring food products in Ireland are safe and accurately labelled. Regulates food supplements like protein powders and collagen.

### **HDL – High-Density Lipoprotein**

Often referred to as "good" cholesterol.

### **HRT – Hormone Replacement Therapy**

A treatment that replaces declining hormones (mainly oestrogen and progesterone) during menopause. Not recommended for some women with hormone-sensitive cancers.

### **Hysterectomy**

Surgical removal of the uterus.

### **Isoflavones**

A type of phytoestrogen found in soya foods.



### **LDL – Low-Density Lipoprotein**

Known as "bad" cholesterol.

### **Mediterranean Diet**

A dietary pattern high in fruits, vegetables, wholegrains, legumes, nuts, olive oil, and fish. Promoted in the book for managing menopause symptoms and supporting long-term health.

### **NICE Guidelines – National Institute for Health and Care Excellence**

UK-based clinical guidance used internationally to inform evidence-based care practices, including osteoporosis and cancer-related menopause care.

### **Oestrogen**

A key female hormone that declines during menopause. Its loss affects bone, heart, and mental health, and contributes to various menopause symptoms.

### **Omega-3 Fatty Acids**

Essential fats found in fish, flaxseeds, and walnuts. Beneficial for heart health and inflammation.

### **Phytoestrogens**

Plant-derived compounds with a similar structure to oestrogen. Found in soy and flaxseed, often discussed in relation to hormone-sensitive cancers.

### **Protein**

Vital for muscle maintenance, particularly post-cancer. Emphasis is placed on quality sources.

### **Resistance Training**

Strength-building exercises (e.g., weights or bodyweight training) to support muscle mass and bone health during and after menopause.

### **Tamoxifen**

A common medication used to treat hormone-receptor-positive breast cancer.

### **Triglycerides**

A type of fat found in the blood. High levels are linked to increased risk of heart

disease and are influenced by diet and lifestyle.

### **Urogenital Symptoms**

Symptoms affecting the urinary and genital systems, such as UTIs, dryness, and incontinence. Common during menopause, especially after cancer.

### **UTIs – Urinary Tract Infections**

Infections affecting any part of the urinary system.

### **Vasomotor Symptoms**

Symptoms such as hot flushes and night sweats, typically caused by declining oestrogen levels during menopause.

### **Vitamin D**

Essential for calcium absorption and bone health. Supplementation is often recommended in Ireland, particularly from October to March.

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Kate graduated from University College Cork with a BSc in Nursing Studies in 2002. She began her career in oncology in the Royal Free Hospital in London, and returned to Ireland in 2005 where she took up position as Clinical Nurse Manager II in the Bon Secours Hospital. Kate graduated from University College Dublin with a PDip in Cancer Nursing in 2007. In 2015, Kate took up a Clinical Nurse Specialist position in Breast Cancer at Cork University Hospital.

In 2019, she became an integral part of the LYSA Trial's team, as the Clinical Research Nurse Manager II, setting up the trial, running the clinics and disseminating the research. As a result of the trial, Kate now holds the first dedicated survivorship post in Cork University Hospital as Clinical Nurse Specialist (Survivorship), where she continues her vital work. Kate hopes this resource will not only help guide the women it was written for, but the medical and healthcare professionals who care for them.

### Roisin Connolly MD



Roisin was appointed as the Professor Gerald O'Sullivan Chair in Cancer Research at UCC and Cork University Hospital in September 2019. She joined the university from the Sidney Kimmel Comprehensive Cancer Center (SKCCC) at Johns Hopkins, US, where she was an Associate Professor of Oncology and Co-Director of the Developmental Therapeutics Program.

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### Professor Aoife Ryan



Professor Aoife Ryan, a Trinity College Dublin graduate, is a CORU-registered dietitian and Professor of Human Nutrition & Dietetics at University College Cork. She previously worked as a surgical oncology dietitian at St. James's Hospital, completed her PhD at Trinity College Dublin, and held a faculty position at New York University before returning to Ireland in 2011.

Her research focuses on cancer-related malnutrition, sarcopenia, and dysphagia, with multiple ongoing clinical trials. She has secured €3.8m in research funding and received numerous awards, including 'Research Dietitian of the Year.' Aoife has published widely in scientific journals and authored 13 cookbooks for cancer patients, including *The Anti-Cancer Cookbook: Recipes to Reduce Your Risk*.

## Professor Josephine Hegarty



Professor Josephine Hegarty is Head of the School of Nursing and Midwifery at University College Cork (UCC), Ireland. She trained as a nurse at Cork University Hospital and earned her BSc, MSc in nurse education, and PhD at UCC. She has worked as a lecturer and researcher at UCC, and in clinical roles at Cork University Hospital, Central Middlesex Hospital, and Bon Secours Hospital.

She has held leadership positions, including Head of School and Dean of Graduate Studies at UCC. Professor Hegarty has secured national and international research funding, published over 86 peer-reviewed articles and 14 commissioned reports. As Chair in Nursing at UCC, she leads the Enhancing Cancer Awareness and Survivorship (ECASP) group. She was the first author on the report commissioned by the National Cancer Control Programme: National Cancer Survivorship Needs Assessment: Acute Sector Cancer Survivorship Services in the Irish Context. Josephine is the principal investigator of the Irish Cancer Society funded LYSA “Linking You to Support and Advice” Trial, where the concept of this book was born.

## Dr JJ Keating



J.J. Keating is a pharmacist and lecturer in the School of Pharmacy, University College Cork. He received his B.Sc.(Pharm.) and PhD degrees from Trinity College Dublin. He has over 20 years of experience as a practising locum community pharmacist and has been a lecturer in UCC's Pharmacy School since 2002. His current research interests include the expansion of the roles and services provided by pharmacists in Ireland and internationally, in addition to the development of drugs with neurological activities.

J.J.'s interests also extend to the discipline of pharmacognosy which is the study of the chemical, physical, and biological properties of natural products (unique organic molecules made by organisms such as plants) by and their potential for medicinal/health benefits.

## Dr Elaine McCarthy



Elaine graduated from University College Cork with a BSc in Nutritional Sciences in 2012 and PhD in Human Nutrition in 2016. Elaine is now a Lecturer in Nutrition at the School of Food and Nutritional Sciences in University College Cork as well as a Principal Investigator at the Cork Centre for Vitamin D and Nutrition Research and Lead Investigator at the INFANT Research Centre. Her main research interests are in the field of maternal and paediatric nutrition, particularly on the role of iron in growth and development during pregnancy and early life.

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**We hope that *Menopause, Diet & Cancer: Eating Well After Cancer* has helped you in some small way during this part of your journey.**

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*Thank you - Katie & Samantha*



**Cancer treatments can trigger an intense menopause, often with more severe symptoms than natural menopause. While some manage these symptoms, others may struggle, impacting their quality of life.**

Written by CORU-Registered dietitians, this book is for women navigating menopause as a result of cancer treatment and those seeking evidence-based guidance on using diet and lifestyle to ease symptoms and improve overall well-being.

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