

NUTRITION
**DURING AND AFTER
BREAST CANCER
TREATMENT**



Hi,

We know that breast cancer elicits many questions, deliberations and doubts, all of which are but a small fraction of the highly complex process you are going through.

In order to help, we put together professional nutrition recommendations that provide a basic reply for some foundational questions. We would be happy to meet you in person at any time to provide more personalized and specific answers.

This leaflet is a collaboration of Assuta and Maccabi's joint nutrition teams.



The best diet for cancer prevention, treatment and healing is **the Mediterranean diet**.

Worldwide heart associations recommend this regimen proven by numerous global studies as the most beneficial over time.

Mediterranean cuisine is known for its health advantages and was found to be highly instrumental in preventing various diseases, including cancer.

The Mediterranean diet draws on fresh, plant-based and locally sourced ingredients. Mediterranean fare is rich in health-essential components, such as monounsaturated fatty acids, complex carbohydrates, fibers, minerals, vitamins and phyto-chemicals (which give vegetables and fruit their color, like lycopene, chlorophyll, and beta-carotene).

The Mediterranean menu entails daily consumption of vegetables (at least 5 portions a day), fruit (2-3 portions a day), grains (whole), legumes, nuts and seeds, olive oil, tahini and avocado.

Dairy (preferably low fat) and eggs are consumed only once a week, and chicken, turkey and fish are alternated.

At the same time, consuming red meat,

sweets, snacks, processed food and sweet beverages and should be minimized.

Water and exercise in moderation are always advisable.

Adopting this family-friendly diet and healthy eating habits may lower the risk of recurrence and weight gain during treatments.



Recommended habits during treatments

PROPER WEIGHT

Proper weight maintenance is important and highly recommended to the extent possible throughout treatment. Weight gain is fairly common during treatments. The reason is probably due to high levels of estrogen produced in fatty tissue increased by reduced activity, loss of muscle mass, steroids and hormonal changes.

During treatments **you may seek out nutritional guidance** for support and counseling that will help avoid unwanted weight gain and adopt healthy eating habits.

We recommend limiting your intake of high calorie foods, especially processed foods such as chips, doughnuts, pizza, sweets and snacks, incorporating low calorie foods such as vegetables, fruit (in moderation) and legumes. In addition, choose water over sweet and carbonated beverages.



PHYSICAL ACTIVITY

Physical activity according to your personal fitness level is recommended.

Even 10 minutes of physical activity has benefits. Physical activity has been known to reduce treatment-related fatigue and help with weight and muscle mass maintenance.

Muscle mass can be damaged during treatment due to the treatment itself as well as generally reduced activity, steroids and so forth. It is therefore important that you engage in anaerobic activity as much as possible to maintain your muscle mass. Maintaining your muscle mass will help strengthen your body and improve your ability to cope with treatment side effects.



PROTEIN

A sufficient protein intake will help prevent muscle mass atrophy.

Be sure to get protein from sources such as chicken, fish, legumes, dairy (low fat) and eggs. Your dietitian can help you to monitor your protein intake and suggest enrichment solutions if necessary.



FIBER

Fiber helps balance blood sugar, creates a feeling of fullness, regulates bowel movement and prevents tumors in the digestive system. Fiber can help facilitate improved glycemic control and estrogen metabolism, which is especially important for women with estrogen positive tumors.

Frequently, high fiber foods are also high in antioxidants, which help remove carcinogens substances from your system. Grain fiber has been found to offer the highest protection against cancer.

Since fiber helps you feel full, it is highly effective in preventing excess weight gain.

Fibers can be found in whole grains (whole grain rice, bread, bulgur, pasta and so forth), legumes, fruits and vegetables.



DIETARY FAT



Plant-based unsaturated fat intake (e.g., olive oil, canola oil, different nuts, seeds, avocado, tahini) is better than animal saturated fat (e.g., fatty meats, organ meat, processed meat, high-fat dairy products, butter) and trans and hydrogenated fat (e.g., margarine, pastries and various snacks).

Eat less red meat and avoid processed meat (hamburgers, kebab, cold cuts, and sausages and so forth), all of which are associated with an increased cancer risk. Chicken and turkey may be consumed (skinless). As well as fish, are good options. Choose food that is fresh, steamed, baked, roasted or boiled rather than fried and processed food.

SOY



Soy is actually a legume, and the only plant source that provides a complete protein. It also contains phytoestrogens (plant substances functioning as estrogen on a weakened level). This quality has raised suspicion that soy could possibly generate a physiological reaction similar to that of the estrogen. However, over time, that concern and the recommendation to avoid soy have been negated.

Recent evidence shows that soy offers protection against estrogen-positive breast cancer, with the phytoestrogen linking to breast cell receptors (like lock and key) instead of endogenous estrogen, thus preventing stronger estrogenic activity. In addition, it halts estrogen production from excess fatty tissue, acting as an antioxidant and anti-inflammatory agent as well. In fact, soy can reduce the development of cancerous tumors in several different ways

Eating foods that contain soy does not increase the risk of recurrence, but rather acts as a general shield for estrogen-positive tumors as well. Consuming up to 3 portions a day is safe.

A portion of soy could be: a cup of soy milk, a soy pudding, half a cup of tofu or tempeh, or half a cup of edamame (soy beans).

However, one should avoid nutritional supplements containing ingredients such as: soy, isoflavones or phytoestrogens, because the safety in high dosages is unclear.

SUPPLEMENTS



Supplements – At present, there are no supplements that conclusively proven as preventing or treating breast cancer.

Where there is any nutritional deficiency, supplements can be taken following consultation with a physician or dietitian.

Regarding herbal supplements and other ingredients, there is not sufficient evidence of their efficacy and safety in treatments, so the official recommendation of many cancer research organizations is to avoid taking them during treatments.

Recommendations following treatment

Maintaining a healthy weight

If you are overweight, try a supervised weight loss plan with a balanced diet. Maintaining a healthy weight is the best strategy for preventing a recurrence and ensuring a good quality of life. We recommend a nutritional support program to ensure a healthy lifestyle and proper weight.

Physical activity

We recommend 150 minutes a week of moderate activity or 75 minutes of vigorous activity. This could be moderately paced walking 5-7 times a week or brisk walking 3 times a week. In addition, it is good to incorporate some resistance exercises (shaping/toning weights) 2-3 times a week. Studies have shown that physical activity helps to prevent recurrence and reduce mortality.

Alcohol and smoking

Anyone at risk of breast cancer should avoid alcohol.

The combination of alcohol and smoking increases the risk of breast cancer more than each independently.

Antioxidants

To reduce the risk of cancer recurrence, it is recommended that you adopt a **Mediterranean diet**, eating plenty of vegetables and fruit, whole grains, fresh nuts, almonds and olive oil.

Antioxidants neutralize free radicals in the body. Examples of known antioxidants are vitamins E and C, beta-carotene, coenzyme Q10, flavonoids, phenols, polyphenols, phytoestrogens and minerals such as selenium and manganese. These can be found in antioxidant-rich fruits and vegetables.

We recommend that the fruit and vegetables eaten are varied in color. Fruit and vegetables are rich in vitamins, minerals and fiber. The daily recommendation is 5 portions of vegetables and 3 of fruit.

Your health is always important to us.

We are happy to offer you various nutritional guidance programs:

- **In-person/online nutritional counseling with a clinical dietitian –**
[see the services guide](#)
- **Maccabi-Kal groups** – These are groups for weight loss and changing lifestyle/eating habits, encompassing 10 sessions led by a clinical dietitian. In these meetings you will be provided with nutrition tools in line with a Mediterranean diet and the associated foods. We discuss various nutrients and their role in health maintenance, as well as ways to handle eating out, social functions and stress, improving exercise motivation and maintaining longterm adherence. You can locate Maccabi-Kal workshops near you via the Maccabi website.
- **Maccabi-Bari workshops are supermarket tours** with a clinical dietitian. They provide tools and skills reading the labels and making informed choices for you and for your family according to a Mediterranean diet. You can locate a tour near you via the Maccabi website.

Wishing you good health!

The nutritional teams at
Maccabi Health Services and Assuta