



Nutritional Guidelines For Symptom Management

UNWANTED WEIGHT GAIN

DEFINITION:

Unwanted weight gain is an increase in body weight that is of concern to an individual. It may occur in some cancer patients as a result of the cancer itself, cancer treatment (including surgery, chemotherapy, and hormone therapy) or medications used to control the side effects of the cancer or treatment (eg. steroids). Surgical procedures, such as ovary ablation and hysterectomy that alter menopausal status, may also predispose women to weight gain.

Weight gain appears most common in breast cancer and cancers of the central nervous system (CNS), gynecological cancers, lymphoma and Hodgkin's disease.

Prevention and/or treatment of unwanted weight gain in patients with cancer is important for improving quality of life, enhancing body image, facilitating patients' sense of control, and has the potential to enhance overall survival in women with breast cancer (1,3,4).

POSSIBLE CAUSES

Steroid Use:

Weight gain frequently results from the use of steroids, such as Decadron® (dexamethasone), prescribed for the control of nausea and/or inflammation in patients with breast cancer, cancers of the CNS, lymphoma and Hodgkin's disease. Long-term use of steroids causes weight gain primarily due to an increase in energy intake resulting from an enhanced appetite.

Breast Cancer and/or Adjuvant Chemotherapy:

In women with breast cancer, it is unclear whether weight gain is an effect of the cancer itself or the effect of cancer treatment, specifically chemotherapy and hormonal therapy, or as a result of natural or treatment-related menopause. Weight gain during adjuvant chemotherapy has been consistently reported in the past two decades and is greatest with the use of multi-agents, longer treatment lengths, and with intravenous (versus oral) administration and is greater in pre-menopausal women (1, 3).

Weight gain in women with breast cancer is likely multifactorial, due to the following contributing factors. The most popular (but unproven theory) is that weight gain occurs due to an increase in energy intake (1, 3). This is thought to be as a result of frequent eating to diminish nausea, food cravings (similar to pregnancy), enhanced appetite with steroids (used as antiemetics), anticipation

of weight loss due to treatment, advice of care givers to increase caloric intake, and anxiety and/or depression associated with coping with the disease. Weight gain is also reported to occur due to a decrease in energy expenditure related to a decrease in physical activity, and cancer and treatment-related fatigue, and/or a temporary decrease in resting metabolic rate (1, 2, 3).

One study reported that pre-menopausal women with breast cancer who received nutrition counseling aimed at weight management during chemotherapy tended to gain less weight compared to a control group, however the reductions in calorie intake and weight gain were not statistically significant (5). These differences (despite lacking statistical significance) may be important to the quality of life for women, in whom weight gain is perceived to be a distressing side effect of treatment.

In 2005, the *Womens Intervention Nutrition Study* (WINS) demonstrated that a low fat diet (20% of calories from fat) reduced breast cancer recurrence in postmenopausal women (10). Furthermore in this study, the low fat diet prevented weight gain and led to an average weight loss of approximately 2 kilograms. Therefore, a low fat diet is advised for postmenopausal women with breast cancer as a potential means to achieve weight loss, and by way of dietary fat reduction or weight loss (or combination thereof) women may also benefit with reduced recurrence and improved cancer outcomes.

Hormonal Therapy:

- **Megace® (megestrol acetate) (prescribed as adjuvant treatment for metastatic breast cancer):** Weight gain is most often dramatic with the use of Megace®, due primarily to a stimulation of appetite. This medication is also used effectively to treat cachexia related to cancer and AIDS. However, because Megace® is used in metastatic breast cancer (when oral intake may be poor), weight gain is not always an undesirable side effect of therapy.
- **Tamoxifen:** Weight gain may result in some women treated with antineoplastic, antiestrogen therapy such as tamoxifen, however it is highly variable among women. It is important to recognize that weight gain may coincide with natural or treatment-induced menopause, which is associated with a trend for weight gain and a change in body fat distribution, making it difficult to ascertain the cause of weight gain.

Surgery:

An increase in body weight may also result in any women with cancer (such as breast, ovarian and endometrial cancers) if treated with ovarian ablation or hysterectomy.

NUTRITIONAL GOALS

To achieve weight maintenance during treatment and gradual sustained weight loss following completion of treatment. “Ideal” or “desired” body weight may be defined as a body mass index (BMI) between 18.5 - 24.9 (11) and a realistic weight *range* defined by the patient and dietitian. Weight maintenance may be a more realistic goal for patients required to continue therapy with steroids or in patients who have major limitations on their level of physical activity such as patients with cancer of the CNS.

PHYSICAL ACTIVITY

- Physical activity is an essential component of a weight loss program and is encouraged. However, not all patients will be able to achieve adequate levels of physical activity to support weight loss and this must be assessed on an individual basis. Some patients may have considerable restrictions in their tolerance to physical activity due to recent surgery, pre-existing medical conditions, significant treatment-related fatigue or bony metastases. For women with breast cancer, exercise may have additional benefits in managing fatigue (12) and improving survival (13).

STRATEGIES FOR NUTRITIONAL MANAGEMENT

Nutrition intervention for weight management is difficult to achieve and maintain in the general population, and limited information is available for people with cancer. Strategies for weight management include:

- Obtain a detailed diet and weight history to be able to individualize dietary guidelines to patient’s specific food choices and lifestyle.
- Emphasize healthy eating versus dieting.
- Focus on dietary changes such as increasing whole grains, fruits, vegetables, and a reduction in fat (20% calories from fat) to achieve overall decrease in caloric intake (6, 7, 10).
- Set realistic goals.
- Encourage adoption of healthful and sustainable eating and exercise behaviors indicated for reduced disease risk and improved feelings of energy and well-being (9)
- Encourage an increase in physical activity in those patients for which it is appropriate.
- Refer particular patients to other counseling services or practitioners if you suspect that the patient has a long history of more serious eating disorders (see resource section).
- Consult with oncologist(s) to determine dose/length of therapy, to assess the impact of various medications that may impede weight loss (eg. tamoxifen, Megace®, steroids).

PATIENT EDUCATION RESOURCES

- **Nutrition and Breast Cancer: What you need to know** (Canadian Cancer Society)

A comprehensive teaching tool to focus on healthy eating versus dieting to achieve a healthy body weight. This 48-page booklet provides a Healthy Eating Plan and a meal plan with additional advice on reducing dietary fat intake, including food substitutions, a sample menu, guidelines for reading food labels, a list of the fat content of common foods, and a list of recommended cookbooks.

- **Heart Health Eating** (Heart Health: Nutrition for Cholesterol Lowering, patient handout, Dial-a-Dietitian website: www.dialadietitian.org)

Includes a list of common foods and their fat content as well as “six steps to heart healthy eating”.

- **Dietary Fats & Your Health** (Healthy Eating – General, patient handout, Dial –a-Dietitian website: www.dialadietitian.org)

This handout is useful for patients who are focusing on reducing fat intake but not necessarily intended for weight loss. Provides healthy eating tips for home and dining out, and reading food labels.

- **Eat Well, Be Active - What You Can Do** (Canadian Cancer Society)

A comprehensive teaching tool to focus on healthy eating, healthy body weight, eating well and being active. Also provided practical ideas for implementing change in the grocery store, at home, at work and when going out.

- **Achieving a Healthy Body Weight – Community Services and Programs** (BCCA)

This document provides information on achieving a healthy body weight. Local reliable weight management programs and services are also provided.

- **Healthy Living: Canada’s Guide to Healthy Eating and Physical Activity**

An attractive fold out brochure providing information on Canada’s Food Guide, healthy eating tips and label reading as well as guidelines on exercise frequency, intensity and duration.

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This information is not meant to replace the medical counsel of your doctor or individual consultation with a registered dietitian. This information may only be used in its entirety.