

## BOOSTING NUTRITION

There are many commercially available formulas to boost nutrition. Some commonly used for cancer patients are Resource, Nutrocal, Glucema, Nutren, Ensure and Impact.

A special feed can be made at home which will boost nutrition. Add 50g wheat flour to 60ml oil or *ghee* and cook, add 60g soya flour and cook further. Remove from the heat and add 25g moong dal, 100g carrot and 100g jaggery. Pressure cook this mixture and blend with a little water. This feed can be stored in the fridge and used whenever needed by diluting with water or mixing with *dal* or *khichadi*. For diabetics, leave out the jaggery.

To increase nutritional value of any meal,

- ➊ Add skim milk powder to curd, custard, desserts, soup, milk and gravies.
- ➋ Add roasted and powdered nuts, *chana dal* or peanuts to porridge, *shira*, *halwa*.
- ➌ Add vegetables, *paneer* or *moong dal* to *parathas*.
- ➍ Mix *moong dal* and soya flour in the normal wheat flour.
- ➎ Boil milk down and reduce to one fourth or half and use to make *basundi*, *rabri* and *kheer*.
- ➏ Chicken stock and boiled chicken can be prepared ahead of time and kept in the freezer so that they are readily available when the patient feels hungry.
- ➐ Whenever the patient has juices, add glucose.
- ➑ Instead of plain rice, serve *khichadi* with *dals* and vegetables, cooked with excess water (3-4 times instead of 2).
- ➒ Flour of equal amounts of *nachani*, *moong dal* and *lapsi* (broken wheat) can be made by roasting each individually and grinding and a tasty porridge can be made of this flour. Pressure cook this flour mix; add milk, cardamom and dry fruits.

Cancer Patients Aid Association provides a nutritional powder specially formulated for cancer patients. To receive the powder free of charge, contact our Patient Care department on 24924000.



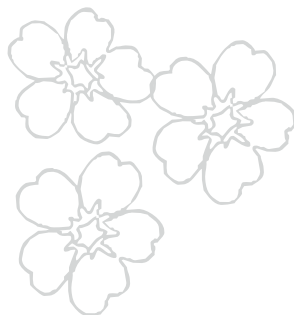
## Cancer Patients Aid Association TOTAL MANAGEMENT OF CANCER

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**Total Management of Cancer**  
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# DIET & CANCER



## DIET & CANCER

Recent research has proven the link between diet and risk of certain types of cancer. A faulty diet contains carcinogens (cancer causing substances) and can increase our cancer risks. On the other hand, a good diet contains anti-oxidants and other chemicals which can protect us and reduce our chances of contracting cancer.

### HEALTHY DIET SUGGESTIONS:-

#### Fiber

Certain parts of fruits, cereals and vegetables are indigestible and pass unchanged through the digestive system. The resulting fiber contributes to the formation of bulky stool, helping to ease out waste and also dilutes and flushes cancer causing toxins from the intestinal tract before they can do damage. An average of 27gms/day of fiber intake pushes cancer causing byproducts out of the body and results in a 20% lower risk of colon cancer. Foods rich in fiber include cereals, coarse breads, beans, fruits and green leafy vegetables. The traditional Indian diet provides an adequate quantity of fiber. Junk food, polished and processed food and a non-vegetarian diet tend to be lower in fiber content.



#### Fats and Oils

Studies have shown that a high intake of saturated animal fats is associated with an increased risk of cancers of the pancreas, colon and breast. It is advisable to replace animal fats with vegetable ones such as corn oil, olive oil and soybean oil. Olive oil and fish oils actually have a protective effect and should be used instead of saturated fats where possible.

#### Alcohol

Alcohol in small amounts, say a glass of red wine a day, has been shown to have a protective effect on the heart. However, excessive amounts of alcohol are involved in increased risk of cancers of mouth, throat and voice box, stomach, esophagus, bowel, liver and breast. The risk of digestive system cancers increases in proportion to the quantity of alcohol consumed above 25g/day. One 100 grams a day of alcohol has a 4 to 6 fold increase in risk of these cancers compared to light or non-drinkers. While tobacco and alcohol are individually known carcinogens for oral cancers, people who are both heavy smokers and drinkers have a disproportionately high risk of acquiring these malignancies.



#### Vitamins

Vitamins play an important role in protecting us from cancer. Beta carotene, a source of Vitamin A plays a role in reducing the risk of cervical and oral cancers. Regular consumption of yellow and orange vegetables reduces the risk of lung cancer in the case of ex-smokers.



Vitamin B protects against and repairs chromosomal damage, strengthening immunity, protecting us against pancreatic, esophageal and cervical cancers. Vitamins A, C and E act as anti-oxidants, trapping free radicals which weaken cells rendering them susceptible to cancerous changes.

- ☉ Take advantage of days when there is an improvement in appetite.
- ☉ If the patient themselves are cooking, cook when you can and freeze the food to be eaten later.
- ☉ It has been observed that building a positive ambience, for example by the judicious use of colours, can help improve appetite.
- ☉ A change in scene, even another room in the house can make a difference.
- ☉ Avoid drinking liquids before and during meals unless absolutely necessary and then have milk instead of water.
- ☉ Always eat with your family.
- ☉ If you experience a feeling of fullness, have small but frequent meals, eat slowly, chew your food well and savour every bite.
- ☉ Avoid salads and clear soups which have no calories.
- ☉ Add cheese, mayonnaise, curd dressings and cream to enhance the nutritional value.
- ☉ Some patients find drinking colas, *jal jeera*, lime juice or having mild pickles and lemon helpful.
- ☉ Food should be served at room temperature.
- ☉ In case these general measures do not relieve nausea, medicines can be taken 30-45 minutes before a meal. The patient should be told he is being given nausea controlling medication. This helps relieve symptoms psychologically.

### TYPICAL DIET RELATED PROBLEMS

Typical eating problems that are encountered are sore mouth, dry mouth, and change in taste, constipation, diarrhea, flatulence, nausea and reduced appetite.

Patients often experience a sore mouth due to chemotherapy or improper flow of saliva. For a sore mouth, avoid citrus juices. Have *khichadi*, bananas, soft *paneer*, and fresh curd (not sour). Avoid hard foods, or break them into small pieces. Use a straw when possible. Suck on sweets to keep the mouth moist. Soften bread or *chapattis* by dipping in *dal* or milk. Try pureeing food in a blender. Cold milk with Rose syrup helps relieve a sore mouth.

In case of diarrhea drink plenty of fluids. Rice *kanji*, noodles, boiled egg whites, bread, whey, arrow root and soups are good. Avoid food with high amounts of fiber like cauliflower and cabbage. To restore the sodium/potassium balance, the patient should be given oral rehydration salts ex: Electral, bananas, apples and potatoes. Avoid milk, but have buttermilk; curds which have the lactose in a broken down form, which is easier to digest.

For constipation, increase the fiber content in your diet. Drink plenty of fluids through the day and a glass of hot water and honey just before bowel movement. Eat a lot of vegetables, liquidized if desired, but do not strain.

Dried ginger or ginger soaked in lemon juice or *ajwain* water can be taken to relieve flatulence. To prevent gas, avoid sprouted pulses; though they are a healthy source of proteins.

To support the patient during chemotherapy, take one beetroot, carrot, tomato and a bunch of spinach. Peel the beetroot and carrot, chop and add with a little water to a pressure cooker. Cook to one whistle, remove and grind in a mixer. The mixture can be had in the form of soup with a little salt and pepper or as a juice with added sugar. It can be stored in a fridge, but should be finished within a day.

## Fruits and Vegetables

Certain plant derived foods contain phyto-chemicals, nutrients that have a powerful ability to prevent healthy cells from turning cancerous. They detoxify cells and stimulate the immune system, and possess anti-bacterial and anti-viral properties. All of these are helpful in maintaining a healthy environment that reduces the risk of cancer. Studies indicate that each daily portion (80-100gms) of fruit or vegetables reduces the risk of mouth cancer by approximately 20% and stomach cancer by about 30%.



Additives and pesticides are items which are introduced into our diet through commercially produced fruits and vegetables and could be carcinogenic. Always wash fruits and vegetables well before eating or purchase organic products which are grown without harmful chemical pesticides and fertilizers.

Fruits and vegetables are also the potential sources of vitamins. It is advisable to include vegetables and fruits of different colours like green (spinach, okra, pear), yellow (pumpkin, mango), red (beetroot, strawberry, watermelon), orange (carrot, orange, melon) and purple (eggplant) in your diet- a "rainbow" diet. This ensures that your body receives all the essential minerals and vitamins it needs to maintain good health. Today many foods are fortified with vitamins. Try to choose such products where possible.

### THE IMPORTANCE OF PHYSICAL ACTIVITY AND MAINTAINING HEALTHY WEIGHT

Physical inactivity has been shown to be responsible for approximately 25% of breast and colon cancer cases globally. For adults at least 30 minutes of moderate to intense physical activity 5 days per week reduces the risk of these cancers. School going children should exercise at least 60 minutes each day for optimum health benefits.

Women, especially after menopause, tend to gain stubborn weight which accumulates in adipose tissue. Estrogen in young women is largely produced by ovaries, but after menopause, adipose tissue is the main source of estrogen which may fuel certain kinds of breast cancer. Maintaining a uniform body weight through appropriate physical activity and a healthy diet reduces the risk of this kind of cancer.

### DIET FOR CANCER PATIENTS

A balanced diet is necessary for all of us, but for a cancer patient, a balanced diet becomes an important part of their recuperation needs. The cancer patient's diet must contain carbohydrates (*chapati*, rice), proteins (*dal*, meat, poultry, and fish), fats (oil and butter), vitamins and fiber (fruits and vegetables). A typical daily diet should include 4 servings of cereals (each serving consists of 1 bowl of rice/ 2 *chapattis*/ 1 slice of bread, *nachani*, *jawar* or *bajra*), 3 servings of proteins (each serving consists of 1 bowl whole *dal*/60 grams meat), 2 servings of oil, 2 cups of milk and 4 servings of fruits and vegetables (1 bowl of vegetables, half a banana, 1 orange). In general there are no restrictions to what a patient can eat, but you should aim for a diet high in proteins and calorific value. It is important for those who are having difficulty eating, to have small and frequent meals so that the total intake is not reduced.

### GENERAL TIPS

During treatment, patients experience a loss of appetite and a change in taste. Diet plays an important part in improving the ability of the patient to cope with treatment.

- ☉ Try to coax the patient's palate by changes in diet and by including different items.

