



MITIGATING SIDE EFFECTS OF CHEMO

Ask Your Pharmacist

Living with chemotherapy presents a considerable challenge to the cancer patient. Patients and family members may need to rearrange schedules and habits to accommodate changing needs. For example, nausea during chemotherapy often makes large meals impossible, in which case frequent and small meals may be more appropriate.

The basis for chemotherapy lies within this rapid growth of cancer cells. By using toxic chemicals to kill rapidly dividing cells, chemotherapy medications often effectively cause cancer to subside into remission, or at least slow its progression. However, many of these chemicals are also toxic to normal cells and to body cells that continue to divide somewhat rapidly throughout life, like hair and immune cells.

Possible chemotherapy side effects therefore include nausea, vomiting, diarrhea, constipation, appetite loss, anemia, lowered sperm count/motility, infections, mouth sores, hair loss, dry mouth, fatigue, and depression. However, not all patients experience side effects from chemotherapy. And some people only experience very mild side effects. But chemotherapy also has the potential to cause devastating events, which may be temporary (i.e. hair loss) or permanent (i.e. male infertility). Most patients are free of temporary side effects within a few months of ending the treatments.

One of the most common side effects in cancer patients is diarrhea. This can be due to either chemotherapy or the result of treatment of infections. In either case, diarrhea can be deadly, with mortality as high as 25% in elderly patients. Severe diarrhea caused by chemotherapy can occur in as many as 56% of patients treated for colon cancer and can lead to hospital admission in approximately 25% of patients.

Certain nutritional and herbal supplements may be useful for alleviating side effects or improving the effectiveness of chemotherapy medications. However, cancer patients should never use a nutritional or herbal supplement without first

consulting with a physician or pharmacist, due to the potential for dangerous interactions.

Glutamine, a natural amino acid necessary for bowel health, is depleted in patients with cancer undergoing chemotherapy. Glutamine supplements may protect the gastrointestinal lining against damage induced by chemotherapy medications for colorectal cancer. Glutamine may also reduce the duration and severity of chemotherapy-related mouth sores. Glutamine has been shown in clinical studies to prevent diarrhea and mouth sores in patients receiving chemotherapy or radiation therapy. Additionally, Glutamine boosts the immune system which helps prevent infections.

Antibiotics are commonly used in cancer patients to treat or prevent severe infections when the immune system is suppressed by chemotherapy. While antibiotics are very often effective at killing the offending bacteria they were prescribed to kill, antibiotics also kill many strains of protective bacteria. People taking antibiotics become more susceptible to colonization and infection by harmful gut bacteria, causing antibiotic-associated diarrhea. Probiotics can be used to replenish these protective bacteria and reduce the incidence of abdominal cramps and diarrhea.

The digestive tract maintains a balance between healthy and potentially harmful micro-organisms. Healthy micro-organisms, also called microflora, are residents of the digestive tract that have a protective role in our bodies. Probiotics, the supplement form of micro-organisms, increase the proportion of protective microflora and prevent many health conditions. The most familiar form of probiotics is yogurt. Many strains of bacteria have been used in probiotic supplements.

Probiotics can be used in situations where the intestinal microflora balance has been disturbed, resulting in digestive tract dysfunction. Besides improving digestion and bloating, probiotics are beneficial in many other situations as they restore balance between healthy and potentially harmful micro-organisms. Research shows that supplementing with these probiotics enhances the production of immune system cells known to be

for your best health

Visit our pharmacy or website to learn more about mitigating side effects of chemotherapy.

SIDE EFFECTS OF CHEMO (continued)

active against viral infections.

Interactions between food, herbs and drugs are more common than most people realize. Today, many people are taking herbal and nutritional supplements in addition to their "conventional" prescription medications. This multiplies the opportunities for unforeseen or harmful reactions. It is therefore vitally important to know how drugs, nutrients, and herbs react with each other. Information is often the key to preventing many of these unwanted or harmful reactions.

Patients should educate themselves about these remedies and take action for better chemotherapy tolerance, prevention of diarrhea, and more rapid return to dietary improvement.

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Our pharmacist can help you make an informed choice of natural products which can help mitigate the above mentioned side effects of chemotherapy. They are also trained to suggest products that are high quality, make sense to both you and your doctor, and are backed with scientific evidence of their nutritional benefit. This integration of natural and pharmaceutical medicine requires expertise in both areas. Integrating your diet, your nutritional needs, and your medications will result in a more comprehensive approach to your specific healthcare needs.

DIETARY CONSIDERATIONS FOR DIARRHEA

Food which passes quickly through the bowel before your body has a chance to absorb enough vitamins, minerals, and water may cause dehydration, which means that your body does not have enough water to work well. Long-term or severe diarrhea may cause problems, so contact your doctor if the diarrhea is severe or lasts for more than a couple of days. Here are some ideas suggested by the Natural Cancer Institute for coping with diarrhea:

Drink plenty of fluids to replenish what you lose with the diarrhea.

Eat small amounts of food throughout the day instead of three large meals.

Eat plenty of foods and liquids that contain sodium and potassium, two important minerals that help your body work properly. These minerals are often lost during diarrhea. Good high-sodium liquids include bouillon or fat-free broth. Foods high in potassium that don't

cause diarrhea include bananas, peach and apricot nectar, and boiled or mashed potatoes. Sports drinks contain both sodium and potassium and have easily absorbable forms of carbohydrates.

Try these foods: Yogurt, cottage cheese, rice, noodles, or potatoes, farina or cream of wheat, eggs (cooked until the whites are solid; not fried), smooth peanut butter, white bread, canned, peeled fruits and well-cooked vegetables, skinned chicken or turkey, lean beef, or fish (broiled or baked, not fried).

Avoid: Greasy, fatty, or fried foods if they make your diarrhea worse, raw vegetables and the skins, seeds, and stringy fibers of unpeeled fruits, high-fiber vegetables, such as broccoli, corn, dried beans, cabbage, peas, and cauliflower.

Avoid very hot or cold food or beverages.
Drink liquids that are at room temperature.

Limit foods and drinks that contain caffeine, such as coffee, some sodas, and chocolate.

Be careful when using milk and milk products. The lactose they contain can make diarrhea worse. Most people, however, can handle small amounts (about 1-1/2 cups) of milk or milk products.