

Herb and Supplement Interactions with Cancer Treatment

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N-acetyl cysteine	Do not take while taking cisplatin
Alpha lipoic acid	Theoretically, may interfere with chemotherapy as it acts as an antioxidant. No conclusive evidence exists
Antioxidants	Although this is a controversial area, many clinicians feel that antioxidants should not be taken while receiving chemotherapy and/or radiation. This area remains understudied. These therapies generate free radicals and an oxidative process to kill tumor cells. It is theorized that taking antioxidants may increase the tumor cell's life instead of destroying it. Antioxidants should be stopped two days prior to treatment and avoided during the whole course of therapy. They can be started again three days after completing treatment
Ascorbic acid	May blunt the effect of chemotherapy
Astragalus	Some animal studies show that astragalus may reverse the immunosuppression caused by cyclophosphamide (evidence is weak), while other studies show no effect. Theoretically, may decrease the effect of immunosuppressant drugs including azathioprine, cyclosporine, mycophenolate, tacrolimus, sirolimus, and oral steroids
Beta carotene	Smokers should not use beta-carotene supplements (often found in multivitamins). There is a documented increased risk of lung cancer in smokers who have taken beta-carotene
Black cohosh	May interfere with the effectiveness of cisplatin
Chinese herbs	Chinese herbs, particularly those manufactured in China, are often contaminated with heavy metals and/or adulterated with non-declared prescription drugs
Coenzyme Q-10	May act as an antioxidant
Curcumin	Also known as turmeric. May reduce the effectiveness of cyclophosphamide. May act as an antioxidant and should be avoided during chemotherapy and/or radiation. Has antiplatelet effects and may increase the risk of bleeding during surgery
Dong quai	Acts as a phytoestrogen and may be best avoided by those with estrogen sensitive cancers
Echinacea	Avoid if on immunosuppressant therapy such as cyclosporine or methotrexate

Fish oil	A study published in JAMA Oncology showed that fish oil consumption may negate the antitumor activity of platinum-containing chemotherapy. Avoid on days surrounding chemo
Garlic	Induces CYP3A4 enzymes which may affect the metabolism of docetaxel (Taxotere)
Grapefruit juice	May interact and decrease the effect of etoposide
Green tea	Polyphenols in green tea prevented tumor cell death induced by bortezomib (Velcade)
Horse chestnut	May interact with lapatinib (Tykerb)
Kava	Preliminary evidence suggests a possible interaction with etoposide, paclitaxel, vinblastine, vincristine, and vindesine
Milk thistle	Animal research suggests milk thistle may increase tamoxifen levels. Whether this interaction occurs in humans is unknown
Piperine	Black pepper extract. May lessen the effect of tamoxifen. Often found in curcumin or turmeric supplements
Pycnogenol	Has strong antioxidant activity and should be avoided during chemotherapy and/or radiation
Red clover	Acts as a phytoestrogen and may be best avoided by those with estrogen sensitive cancers. May reduce the effectiveness of tamoxifen
St. John's wort	May significantly interact with irinotecan (Camptosar), bortezomib (Velcade), imatinib (Gleevec), enzalutamide (Xtandi), and tamoxifen. Avoid during chemotherapy
Soy	Genistein (a soy phytoestrogen) may compete with tamoxifen for estrogen-receptor binding and probably should be avoided
Valerian	Higher doses (1000 mg) may affect CYP3A4 enzymes, which may affect the metabolism of chemotherapeutic agents including etoposide, paclitaxel, vinblastine, vincristine, and vindesine; however, clinical evidence of this interaction is extremely weak. May weaken the effect of tamoxifen
Vitamin E	A large study associated vitamin E use with an increased risk of prostate cancer. Also acts as an antioxidant