

Louisiana Pharmacists Association

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Louisiana Pharmacists Association Educates Patients about Food-Drug Interactions

Medication therapy does not occur in isolation. Overlooked aspects of this reality are food-drug interactions. Foods provide energy along with vitamins and minerals that are needed for normal function. Nutritional deficiencies like scurvy or rickets, caused by lack of vitamins C and D respectively, are treated by eating foods rich in these vitamins. Along with these nutrients foods often contain other chemicals called “nutraceuticals” that are for all intents and purposes, drugs. Caffeine, found in many beverages including coffee, tea and cola, is also found in foods that use these items in their preparation. Similarly alcohol, which is found in beer, wine and liquor, is also found in foods, extracts and other flavorings. These foods interact with many drugs. Many more foods interact with specific drugs.

Pharmacists are the most accessible health providers for patients taking medicines that are likely to interact with foods. Patients are encouraged to discuss their dietary routine with their pharmacist. Patients who may have apprehensions with dietary restrictions should note that health providers rarely recommend abstaining from favorite foods. Recommendations often involve moderating intake, careful timing when taking medication and self-monitoring.

Grapefruit

Grapefruit is a source of vitamin C, is relatively low in calories and widely available throughout the year. A popular weight loss diet utilizes grapefruit.(3) Patients, however, who take prescription medications, should limit their consumption of grapefruit. Furanocoumarins contained in grapefruit turn off liver enzymes that metabolize drugs. These furanocoumarins affect an enzyme called cytochrome P450 3A4. Over 85 commonly used drugs have the potential to interact with grapefruit. These effects occur because the liver is unable to remove drugs from the body. Drugs that are of biggest concern are cholesterol, heart, sedatives, cancer

medications and select antibiotics.(2) Patients should be mindful of effects that are specific to their medications. Even rare side effects are more likely to occur when drugs are taken with grapefruit.(1)

Leafy Green Vegetables

Leafy green vegetables like kale and spinach, but also broccoli, cabbage and other vegetables, are rich in vitamin K, calcium, potassium and many vitamins.(1) Vitamin K is essential to normal blood clotting. Patients with abnormal blood clots benefit from anti-clotting therapy. There are a number of targets that drugs exploit to produce this effect. Of particular concern for food-drug interactions is warfarin or Coumadin®, a vitamin K antagonist. Warfarin inactivates vitamin K which decreases clot production and prevents existent abnormal clots from getting bigger. Leafy green vegetables oppose the antagonist effects of warfarin. It is possible to continue to eat these healthy foods while on warfarin if a patient is closely monitored by a pharmacist or other healthcare provider.(1)

Conclusion

The efficacy of medication use must be considered in light of patient specific dietary habits. Pharmacists are an extremely knowledgeable and accessible resource for patients to learn how diet affects their health and medication use. Patients taking antibiotics, cholesterol or blood pressure medications should have a conversation with their pharmacist regarding their diet.

Resources

- 1.)Avoid Food-Drug Interactions; National Consumers League and U.S. Food and Drug Administration; retrieved 5/16/2013 from <http://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/GeneralUseofMedicine/UCM229033.pdf>
- 2.)Bailey, G., Dresser, G., Arnold, J. M., Grapefruit–medication interactions: Forbidden fruit or avoidable consequences? CMAJ March 5, 2013 vol. 185 no. 4 first published November 26, 2012, doi: 10.1503/cmaj.120951; retrieved 5/16/2013 from http://www.wusa9.com/assetpool/documents/121127024323_grapefruit%20medication%20interactions.pdf
- 3.)Zelman, K.; The Grapefruit Diet; 2010 WebMD; retrieved 5/16/2013 from <http://www.webmd.com/diet/features/the-grapefruit-diet>

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The Louisiana Pharmacists Association, established in 1882, strives to promote the interests of all pharmacists of the State of Louisiana. For more information about the LPA and its benefits, contact Julie Fuselier or Phyllis Perron, LPA Co-Executive Directors at 225/346-6883 or visit our website at www.louisianapharmacists.com.

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