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Grapefruit Juice Drug Interactions

Grapefruit juice decreases the activity of the cytochrome P450 3A4 (CYP3A4) enzymes that are responsible for breaking down many drugs and toxins. Grapefruit contains compounds known as furanocoumarins that block the CYP3A4 enzymes. When grapefruit juice is consumed, the enzyme's ability to break down the drug for elimination is decreased. Blood levels of the drug may rise, resulting in the risk for new or worsened side effects.

Alprazolam-Grapefruit and grapefruit juice may interact with ALPRAZolam and lead to potentially dangerous side effects. Discuss the use of grapefruit products with your doctor. Do not increase or decrease the amount of grapefruit products in your diet without first talking to your doctor. Do not drink alcohol while taking ALPRAZolam. This medication can increase the effects of alcohol. You may feel more drowsy, dizzy, or tired if you take ALPRAZolam with alcohol. Talk to your doctor or pharmacist if you have any questions or concerns.

Amiodarone- may be taken with or without food but should be taken at the same way each time. You ***should avoid consuming grapefruits and grapefruit juice while taking amiodarone. Do not increase or decrease the amount of grapefruit products in your diet without first talking to your doctor. Grapefruit can raise the levels of amiodarone in your body and lead to dangerous side effects. This can affect the rhythm of your heart.*** Call your doctor if you have symptoms of irregular heartbeat, chest tightness, blurred vision or nausea.

Atorvastatin- ***Grapefruit juice can increase the blood levels of atorvastatin. This can increase the risk of side effects such as liver damage and a rare but serious condition called rhabdomyolysis that involves the breakdown of skeletal muscle tissue. In some cases, rhabdomyolysis can cause kidney damage and even death. You should limit your consumption of grapefruit juice to no more than 1 quart per day during treatment with atorvastatin.*** Let your doctor know immediately if you have unexplained muscle pain, tenderness, or weakness during treatment, especially if these symptoms are accompanied by fever or dark colored urine. You should also seek immediate medical attention if you develop fever, chills, joint pain or swelling, unusual bleeding or bruising, skin rash, itching, loss of appetite, fatigue, nausea, vomiting, dark colored urine, and/or yellowing of the skin or eyes, as these may be signs and symptoms of liver damage. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Carbamazepine- ***You should preferably avoid the regular consumption of grapefruits and grapefruit juice while taking carBAMazepine. This can cause carBAMazepine levels to increase.*** You should report signs of carBAMazepine side effects such as nausea, visual disturbances, dizziness, or muscle weakness to your doctor. You should avoid or limit the use of alcohol while being treated with carBAMazepine. Alcohol can increase the nervous system side

effects of carbamazepine such as dizziness, drowsiness, and difficulty concentrating. Some people may also experience impairment in thinking and judgment. Talk to your doctor or pharmacist if you have any questions or concerns.

Cilostazol-Take cilostazol on an empty stomach 1 hour before or 2 hours after a meal unless otherwise directed by your doctor. Food may reduce the absorption of cilostazol. Taking cilostazol on an empty stomach will make it easier for your body to absorb the medication. *If you are receiving therapy with cilostazol you should avoid grapefruits and grapefruit juice. Grapefruit can raise the levels of cilostazol in your body and lead to dangerous side effects. You may experience headache, dizziness, chest pain, feeling short of breath, and swelling of your ankles or feet. Call your doctor at once if you have any of these symptoms.*

Colchicine-*Drinking large amounts of grapefruit juice can increase your blood levels of colchicine to dangerous levels. You should avoid the consumption of grapefruit or grapefruit juice during treatment with colchicine.* Let your doctor know if you experience abdominal pain, nausea, vomiting, diarrhea, fever, muscle pain, weakness, fatigue, and/or numbness or tingling in your hands and feet, as these may be early symptoms of colchicine toxicity.

Dronedarone-*Do not consume grapefruit or grapefruit juice during treatment with dronedarone unless directed otherwise by your doctor. Grapefruit juice can increase the blood levels of dronedarone to dangerous levels. This may increase the risk of an irregular heart rhythm that may be serious and potentially life-threatening, although it is a relatively rare side effect. You may be more susceptible if you have a heart condition called congenital long QT syndrome, other cardiac diseases, conduction abnormalities, or electrolyte disturbances (for example, magnesium or potassium loss due to severe or prolonged diarrhea or vomiting).* Talk to your doctor if you have any questions or concerns. You should seek immediate medical attention if you develop sudden dizziness, lightheadedness, fainting, shortness of breath, or heart palpitations during treatment. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Erythromycin- Food decreases the levels of erythromycin in your body. Take erythromycin on an empty stomach at least 30 minutes before or 2 hours after a meal. This will make it easier for your body to absorb the medication. However, some erythromycin products may be taken without regard to meals. Ask your healthcare provider about your particular prescription if you are uncertain of how to take it. *Grapefruits and grapefruit juice may increase erythromycin levels but how this may affect you is not known. Do not increase or decrease the amount of grapefruit products in your diet without first talking to your doctor.*

Felodipine- *Grapefruit juice may significantly increase the blood levels and effects of felodipine. You may be more likely to experience side effects such as headache, low blood pressure, irregular heartbeat, swelling, and fluid retention. It is important to tell your doctor about all other medications you use, including vitamins and herbs.*
Fentanyl-Do not use alcohol or medications that contain alcohol while you are receiving treatment with fentanyl. This may increase nervous system side effects such as drowsiness, dizziness, lightheadedness, difficulty

concentrating, and impairment in thinking and judgment. In severe cases, low blood pressure, respiratory distress, fainting, coma, or even death may occur. You should also avoid consuming grapefruit and grapefruit juice, as this may increase the blood levels and effects of fentanyl. Talk to your doctor or pharmacist if you have questions on how to take this or other medications you are prescribed. Do not use more than the recommended dose of fentanyl, and avoid activities requiring mental alertness such as driving or operating hazardous machinery until you know how the medication affects you. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medication without first talking to your doctor.

Fexofenadine (Allegra)- *a popular non-drowsy antihistamine available over-the-counter (OTC) can interact not only with grapefruit juice, but also with apples and orange juice. However, in the case of fexofenadine, blood levels of the drug go down and the effectiveness of the antihistamine may be reduced. This interaction occurs by a different mechanism than CYP450 3A4, but nonetheless, it is recommended that fexofenadine be taken with water, and not fruit juice.*

******Indinavir**-Large amounts of food decreases the levels of indinavir in your body. Indinavir should be taken on an empty stomach, at least 1 hour before or 2 hours after a meal. This will make it easier for your body to absorb the medication. **Take indinavir with a full glass (8 ounces) of water or skim milk. You may also drink juice, coffee, or tea with this medication. Drink at least 6 glasses of water each day to prevent kidney stones while you are taking indinavir.** If you prefer to take the medication with food, eat only a light meal, such as dry toast with jelly, or corn flakes with skim milk and sugar. Avoid eating a high-fat meal.

Losartan-If you are taking losartan you should avoid potassium-containing salt substitutes or over-the-counter potassium supplements without first talking to your doctor. This can cause high levels of potassium in your blood. High levels of potassium can cause weakness, irregular heartbeat, confusion, tingling of the extremities, or feelings of heaviness in the legs. Call your doctor at once if you have any of these symptoms. *In some patients grapefruits and grapefruit juice may decrease the efficacy of losartan. Grapefruits and grapefruit juice should be avoided if an interaction is suspected. Orange juice is not expected to interact.*

Lovastatin-*Grapefruit juice can significantly increase the blood levels of lovastatin. This can increase the risk of side effects such as liver damage and a rare but serious condition called rhabdomyolysis that involves the breakdown of skeletal muscle tissue. In some cases, rhabdomyolysis can cause kidney damage and even death. You should avoid the consumption of grapefruit or grapefruit juice during treatment with lovastatin.* Let your doctor know immediately if you have unexplained muscle pain, tenderness, or weakness during treatment, especially if these symptoms are accompanied by fever or dark colored urine. You should also seek immediate medical attention if you develop fever, chills, joint pain or swelling, unusual bleeding or bruising, skin rash, itching, loss of appetite, fatigue, nausea, vomiting, dark colored urine, and/or yellowing of the skin or eyes, as these may be signs and symptoms of liver damage. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Nilotinib-*Do not consume grapefruit or grapefruit juice during treatment with nilotinib unless directed otherwise by your doctor. Grapefruit juice can increase the blood levels of nilotinib to dangerous levels, increasing the risk of an irregular heart rhythm that may be serious. You should seek immediate medical attention if you develop sudden dizziness, lightheadedness, fainting, shortness of breath, or heart palpitations during treatment with nilotinib. Food may also increase the blood levels of nilotinib. Therefore, you should take nilotinib on an empty stomach, meaning no food should be eaten for at least two hours before or one hour after taking nilotinib. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.*

Pasopanib-*Do not consume grapefruit or grapefruit juice during treatment with PAZOPanib unless directed otherwise by your doctor. Grapefruit juice can increase the blood levels of PAZOPanib, which may lead to an increased risk of serious side effects such as liver damage, irregular heart rhythm, bleeding, high blood pressure, heart attack, and stroke. Taking PAZOPanib with food can also significantly increase its absorption and levels in the blood.* Therefore, you should take PAZOPanib on an empty stomach, at least one hour before or two hours after eating. Call your doctor immediately if you develop fever, chills, joint pain or swelling, unusual bleeding or bruising, skin rash, itching, loss of appetite, fatigue, nausea, vomiting, dark colored urine, and/or yellowing of the skin or eyes, as these may be signs and symptoms of liver damage. You should also seek immediate medical attention if you experience signs and symptoms that could indicate cardiovascular problems such as sudden dizziness; lightheadedness; fainting; fast or pounding heartbeats; chest pain or tightness; pain in your arms, back, neck, or jaw; shortness of breath; numbness or weakness on one side of your body; and slurred speech or difficulty speaking. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Pimozide(Orap)- Using caffeine together with pimozide may increase the levels of pimozide and affect the rhythm of your heart. Contact your doctor if you experience irregular heartbeat, chest tightness, blurred vision or nausea. You may need a dose adjustment or special test if you use both medications. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor. You should avoid the consumption of large amounts of grapefruits and grapefruit juice while taking pimozide. *Grapefruit can raise the levels of pimozide in your body. This can affect the rhythm of your heart and cause other side effects. Call your doctor if you have symptoms of blurred vision or nausea. You should seek immediate medical attention if you develop sudden dizziness, lightheadedness, fainting, shortness of breath, or fast or pounding heartbeats during treatment with pimozide. Do not increase or decrease the amount of grapefruit products in your diet without first talking to your doctor. You should avoid or limit the use of alcohol while being treated with pimozide.* Alcohol can increase the nervous system side effects of pimozide such as dizziness, drowsiness, and difficulty concentrating. Some people may also experience impairment in thinking and judgment. Talk to your doctor or pharmacist if you have any questions or concerns.

Ranolazine-You may take ranolazine with or without food, but should try to take it the same way every time. *Grapefruit and grapefruit juice should be avoided if possible. Grapefruit juice can increase the levels of ranolazine in your body. High blood levels of food can occasionally cause an irregular heart rhythm that may be serious.* You should seek immediate medical attention if you develop sudden dizziness, lightheadedness, fainting, or fast or pounding heartbeats during treatment with ranolazine. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

******Saquinavir**-Food can enhance the levels of saquinavir in your body. Saquinavir should be taken with meals or within 2 hours after eating. This will make it easier for your body to absorb the medication. *Grapefruit can raise the levels of saquinavir in your body. Discuss the use of grapefruit products with your doctor. Do not increase or decrease the amount of grapefruit products in your diet without first talking to your doctor.*

Sildenafil(Viagra)- Sildenafil can lower blood pressure, and combining it with ethanol may further increase this effect. You may be more likely to experience symptoms such as dizziness, lightheadedness, fainting, flushing, headache, and heart palpitations. You should avoid or limit the use of alcohol while being treated with sildenafil, and use caution when getting up from a sitting or lying position. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor. *If you are receiving therapy with sildenafil you should avoid the regular consumption of large amounts of grapefruits and grapefruit juice. Grapefruit can raise the levels of sildenafil in your body and delay the time it takes for the medication to work. Do not increase or decrease the amount of grapefruit products in your diet without first talking to your doctor.*

Simvastatin-*Grapefruit juice can significantly increase the blood levels of simvastatin. This can increase the risk of side effects such as liver damage and a rare but serious condition called rhabdomyolysis that involves the breakdown of skeletal muscle tissue. In some cases, rhabdomyolysis can cause kidney damage and even death. You should avoid the consumption of grapefruit or grapefruit juice during treatment with simvastatin.* Let your doctor know immediately if you have unexplained muscle pain, tenderness, or weakness during treatment, especially if these symptoms are accompanied by fever or dark colored urine. You should also seek immediate medical attention if you develop fever, chills, joint pain or swelling, unusual bleeding or bruising, skin rash, itching, loss of appetite, fatigue, nausea, vomiting, dark colored urine, and/or yellowing of the skin or eyes, as these may be signs and symptoms of liver damage. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Tadalafil-Tadalafil can lower blood pressure, and combining it with alcohol may further increase this effect. You may be more likely to experience symptoms such as dizziness, lightheadedness, fainting, flushing, headache, and heart palpitations. You should avoid or limit the use of alcohol while being treated with tadalafil, and use caution when getting up from a sitting or lying position. *You may also want to avoid drinking large amounts of grapefruit juice, since it may increase the blood levels and effects of tadalafil. It is important to tell your*

doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Vardenafil(Levitra)- *Grapefruit juice may increase the blood levels and effects of certain medications such as vardenafil. You may want to limit your consumption of grapefruit and grapefruit juice during treatment with vardenafil. However, if you have been regularly consuming grapefruit or grapefruit juice with vardenafil, do not alter the amounts of these products in your diet without*

first talking to your doctor or other healthcare professional. Contact your doctor if your condition changes or you experience increased side effects. Orange juice is not expected to interact.

Verapamil- You may take verapamil with or without food, but take it the same way every time. You should avoid consuming grapefruit or grapefruit juice as much as possible during treatment with verapamil. *If you have been regularly consuming grapefruit or grapefruit juice with verapamil, do not increase or decrease the amounts of these products in your diet without first talking to your doctor. Grapefruit juice can increase the blood levels and effects of verapamil. Contact your doctor if you experience sudden, unexplained weight gain; swelling of the hands, ankles, or feet; chest pain; or difficulty breathing.* Avoid driving or operating hazardous machinery until you know how the medication affects you, and use caution when getting up from a sitting or lying position. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.