Berberine

url: https://medlineplus.gov/druginfo/natural/1126.html  
  
  
Berberine  
What is it?  
Berberine is a chemical found in some plants like European barberry, goldenseal, goldthread, Oregon grape, phellodendron, and tree turmeric.  
  
Berberine is a bitter-tasting and yellow-colored chemical. It might help strengthen the heartbeat, which could benefit people with certain heart conditions. It might also kill bacteria, help regulate how the body uses sugar in the blood, and help reduce swelling.  
  
People most commonly use berberine for diabetes, high levels of cholesterol or other fats in the blood, and high blood pressure. It is also used for burns, canker sores, liver disease, and many other conditions but there is no good scientific evidence to support many of these uses.  
  
  
  
  
How effective is it?  
Natural Medicines Comprehensive Database rates effectiveness based on scientific evidence according to the following scale: Effective, Likely Effective, Possibly Effective, Possibly Ineffective, Likely Ineffective, Ineffective, and Insufficient Evidence to Rate.The effectiveness ratings for BERBERINE are as follows:Possibly effective for...  
Canker sores. Applying a gel containing berberine can reduce pain, redness, oozing, and the size of canker sores.  
Diabetes. Taking berberine by mouth seems to slightly reduce blood sugar levels in people with diabetes.   
A digestive tract infection that can lead to ulcers (Helicobacter pylori or H. pylori). Adding berberine by mouth to multiple medications that are typically used to treat this condition might work as well as other accepted treatments for this condition. These other treatments also use multiple medications.   
High levels of cholesterol or other fats (lipids) in the blood (hyperlipidemia). Taking berberine by mouth, alone or with other ingredients, might help lower total cholesterol, low-density lipoprotein (LDL or "bad") cholesterol, and triglyceride levels in people with high cholesterol.   
High blood pressure. Taking 0.9 grams of berberine by mouth daily along with the blood pressure-lowering drug amlodipine reduces blood pressure better than taking amlodipine alone in people with high blood pressure.  
A hormonal disorder that causes enlarged ovaries with cysts (polycystic ovary syndrome or PCOS). Taking berberine by mouth might lower blood sugar, improve cholesterol and triglyceride levels, reduce testosterone levels, and lower waist-to-hip ratio in people with PCOS.   
  
There is interest in using berberine for a number of other purposes, but there isn't enough reliable information to say whether it might be helpful.  
  
  
Is it safe?  
When taken by mouth: Berberine is possibly safe for most adults. It's been used safely in doses up to 1.5 grams daily for 6 months. Common side effects include diarrhea, constipation, gas, and upset stomach.   
When applied to the skin: Berberine is possibly safe for most adults when used short-term.  
  
  
Special precautions & warnings:  
Pregnancy: It's likely unsafe to take berberine by mouth if you are pregnant. Berberine can cross the placenta and might cause harm to the fetus. Kernicterus, a type of brain damage, has developed in newborn infants exposed to berberine.  
Breast-feeding: It's likely unsafe to take berberine if you are breast-feeding. Berberine can be transferred to the infant through breast milk, and it might cause harm.  
Children: It's likely unsafe to give berberine to newborns. It can cause kernicterus, a rare type of brain damage that can occur in newborns who have severe jaundice. There isn't enough reliable information to know if berberine is safe in older children.  
High bilirubin levels in the blood in infants: Bilirubin is a chemical that is produced when old red blood cells break down. It is normally removed by the liver. Berberine may keep the liver from removing bilirubin fast enough. This can cause brain problems, especially in infants with high levels of bilirubin in the blood. Avoid using.  
  
  
  
Are there interactions with medications?  
MajorDo not take this combination.Cyclosporine (Neoral, Sandimmune)Berberine might decrease how quickly the body breaks down cyclosporine. This might increase the effects and side effects of cyclosporine.ModerateBe cautious with this combination.Dextromethorphan (Robitussin DM, others)Berberine might decrease how quickly the body breaks down dextromethorphan. This might increase the effects and side effects of dextromethorphan.Losartan (Cozaar)The liver activates losartan to make it work. Berberine might decrease how quickly the body activates it, which might decrease the effects of losartan.Medications changed by the liver (Cytochrome P450 2C9 (CYP2C9) substrates)Some medications are changed and broken down by the liver. Berberine might change how quickly the liver breaks down these medications. This could change the effects and side effects of these medications.Medications changed by the liver (Cytochrome P450 2D6 (CYP2D6) substrates)Some medications are changed and broken down by the liver. Berberine might change how quickly the liver breaks down these medications. This could change the effects and side effects of these medications.Medications changed by the liver (Cytochrome P450 3A4 (CYP3A4) substrates)Some medications are changed and broken down by the liver. Berberine might change how quickly the liver breaks down these medications. This could change the effects and side effects of these medications.Medications for diabetes (Antidiabetes drugs)Berberine might lower blood sugar levels. Taking berberine along with diabetes medications might cause blood sugar to drop too low. Monitor your blood sugar closely.Medications for high blood pressure (Antihypertensive drugs)Berberine might lower blood pressure. Taking berberine along with medications that lower blood pressure might cause blood pressure to go too low. Monitor your blood pressure closely.Medications that slow blood clotting (Anticoagulant / Antiplatelet drugs)Berberine might slow blood clotting. Taking berberine along with medications that also slow blood clotting might increase the risk of bruising and bleeding.Metformin (Glucophage)Berberine might increase the amount of metformin in the body. This may increase its effects and side effects. This interaction seems to occur when berberine is taken around 2 hours before metformin. Taking berberine and metformin at the same time doesn't appear to increase the amount of metformin in the body.Midazolam (Versed)The body breaks down midazolam to get rid of it. Berberine can decrease how quickly the body breaks it down. This might increase the effects and side effects of midazolam.Pentobarbital (Nembutal)Pentobarbital is a medication that can cause sleepiness. Berberine might also cause sleepiness and drowsiness. Taking berberine with pentobarbital might cause too much sleepiness.Sedative medications (CNS depressants)Berberine might cause sleepiness and slowed breathing. Some medications, called sedatives, can also cause sleepiness and slowed breathing. Taking berberine with sedative medications might cause breathing problems and/or too much sleepiness.Tacrolimus (Prograf)Tacrolimus is removed from the body by the liver. Berberine might slow down the body's ability to remove tacrolimus. This might increase the effects and side effects of tacrolimus.  
  
  
Are there interactions with herbs and supplements?  
Cannabidiol (CBD)Taking berberine and CBD together might cause heart rhythm problems at high doses. CBD might also slow down the body's ability to remove berberine. This might increase the effects and side effects of berberine.Herbs and supplements that might lower blood pressureBerberine might lower blood pressure. Taking it with other supplements that have the same effect might cause blood pressure to drop too much. Examples of supplements with this effect include andrographis, casein peptides, L-arginine, niacin, and stinging nettle.Herbs and supplements that might lower blood sugarBerberine might lower blood sugar. Taking it with other supplements with similar effects might lower blood sugar too much. Examples of supplements with this effect include aloe, bitter melon, cassia cinnamon, chromium, and prickly pear cactus.Herbs and supplements that might slow blood clottingBerberine might slow blood clotting and increase the risk of bleeding. Taking it with other supplements with similar effects might increase the risk of bleeding in some people. Examples of supplements with this effect include garlic, ginger, ginkgo, nattokinase, and Panax ginseng.Herbs and supplements with sedative propertiesBerberine might cause sleepiness and slowed breathing. Taking it along with other supplements with similar effects might cause too much sleepiness and/or slowed breathing in some people. Examples of supplements with this effect include hops, kava, L-tryptophan, melatonin, and valerian.ProbioticsProbiotics are living organisms. Berberine might kill certain probiotics. If taken together, berberine might reduce how well probiotic supplements work.  
  
  
Are there interactions with foods?  
There are no known interactions with foods.  
  
  
How is it typically used?  
Berberine has most often been used by adults in doses of 0.4-1.5 grams by mouth daily for up to 2 years. Berberine has also been used in eye drops and gels. Speak with a healthcare provider to find out what type of product and dose might be best for a specific condition.  
  
  
Other names  
Alcalo de de Berb rine, Berberina, Berb rine, Berberine Alkaloid, Berberine Complex, Berberine Sulfate, Sulfate de Berb rine, Umbellatine.  
  
  
Methodology  
  
 To learn more about how this article was written, please see the Natural Medicines Comprehensive Database methodology.   
   
  
  
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