

Natural Antibiotics

Rod Reynolds

Bacteria are fairly ubiquitous in our environment. Certain types of bacteria are present in our intestines and are necessary for proper digestion and help prevent disease. Other kinds of bacteria may often be present in our surroundings, or even on or in our bodies. For example, according to the U.S. government Centers for Disease Control and Prevention *Staphylococcus aureus* bacteria are found in the noses of about a quarter to a third of the population. Other sources indicate that up to 90% of the population carry the bacteria somewhere on their bodies at one time or another.

Often we can coexist with such bacteria just fine, and they cause no problems. However, under certain conditions, such as cuts, scrapes, insect bites, ingesting contaminated food or water, promiscuous sex, unsanitary practices, or suffering from illnesses that weaken the body's immunity, bacteria or other micro-organisms can invade the body and cause a variety of diseases, some fatal.

Many plants have antimicrobial properties, as do some elements and compounds. Among those best documented as antibiotics are those discussed below. One of the problems with synthetic antibiotics is that they often destroy the friendly bacteria in the intestines along with the bad bugs. The natural antibiotics examined below, however, generally don't disturb the helpful flora much, if at all (any exceptions noted), and are still effective against a variety of harmful bacteria, and many of them will kill pathogenic viruses, protozoa and yeast as well.

This is not intended to be an exhaustive list of natural antibiotics, as there are many others not included in this article.

SPECIAL NOTICE: Covid-19 natural medicine links:

[Important Clarifications Regarding Covid-19 and Natural Medicine](#)

[Covid-19 and Natural Medicine](#)

[Covid-19: What We Know Now About Spread, Shedding Period, Symptoms, and Effects of Pollen](#)

[Virus Specific Nutraceutical and Botanical Agents](#)

[Boosting Immunity](#)

[Lifestyle Practices for Strengthening Host Defense](#)

[Top 6 Strategies for Managing Stress Around Infectious Disease](#)

In addition, take note of featured items below which have exhibited anti-viral properties, including herbs containing Berberine, olive leaf, and colloidal silver.

Brewer's yeast is effective against a wide range of pathogenic bacteria (including, among others, *Salmonella*, *Staphylococcus aureus*, *Clostridium difficile*, *E. coli*). It's also used medicinally against the pathogenic yeast, *Candida albicans* (*Herbal Medicine: Expanded Commission E Monographs*, pp. 424-427). Note that brewer's yeast is not to be confused with the infectious fungus *Candida albicans*. Nor

should brewer's yeast be confused with baker's yeast, torula yeast, or other yeasts found in food products. Brewer's yeast is often, especially in Europe, used to treat diarrhea, ulcers, fevers, boils, and acne (*ibid.*, p. 427). Experiments indicate brewer's yeast taken orally also boosts the immune system by increasing the quantity of immunoglobulin secreted into the gastrointestinal tract.

According to the University of Maryland Medical Center¹, and other sources, brewer's yeast is also a rich source of protein, B-complex vitamins, and minerals, especially chromium. Chromium is a mineral essential to health that among other things helps regulate blood sugar and cholesterol levels. The typical American diet is deficient in chromium. B-complex vitamins help metabolize food and fight stress and depression, and help maintain the health of the nervous and digestive systems, and that of the skin, hair, eyes, mouth and liver.

The Vitamins and Nutrition Center² suggests that brewer's yeast may also help prevent prostate cancer. Veterinarian Dr. Michael W. Fox recommends adding brewer's yeast to animals' food to help maintain health and repel insects, and suggests this works for humans as well.³

Brewer's yeast sold as a dietary supplement is not active (not living), and thus is non-leavening. Consumption of live brewer's yeast is not recommended.

Commission E (German government agency roughly equivalent to the U.S. Food and Drug Administration) reports contraindications may include, depending on the strain of brewer's yeast, yeast allergies. Side effects may include headaches, flatulence, skin irritations, edema. May interact with antimycotics and MAO-inhibiting drugs. Recommended dosage is 2 grams dried brewer's yeast three times per day unless otherwise prescribed (*ibid.*, pp. 426).

I understand that some brands of brewer's yeast have aspartame added, evidently as a sweetener. I would avoid anything containing aspartame because of suspicions about its safety. Find a brand that does not contain aspartame. One source as of the date of this writing is puritan.com.

Echinacea is a broad spectrum antibiotic, antiviral, anti-fungal and anti-protozoa agent. It stimulates the immune system as well (Michael Castleman, *The Healing Herbs*, pp. 152-153; Murray and Pizzorno, *Encyclopedia of Natural Medicine*, p. 107; Gottlieb, *Alternative Cures*, p. 103).

Barberry, Goldenseal, Goldthread, Oregon Grape, Yellowroot, all contain berberine, "a well-documented antimicrobial agent" (Murray and Pizzorno, *Encyclopedia of Natural Medicine*, p. 172), along with other antimicrobial compounds. "In one study, berberine... proved more potent against bacteria than chloramphenicol, a powerful pharmaceutical antibiotic" (*The Healing Herbs*, p. 59). Kills a wide variety of infection causing bacteria (including *Staph.*, *Strep.*, *Salmonella*), protozoa, viruses, and the pathogenic yeast, *Candida albicans* (*The Healing Herbs*, pp. 60, 203; Duke, *The Green Pharmacy*, pp. 302-303; Duke, *The Green Pharmacy Herbal Handbook*, pp. 117-118; *Encyclopedia of Natural Medicine*, p. 172). Also stimulates the immune system, may reduce blood pressure, and even shrink some tumors (*The Healing Herbs*, p. 59; *The Green Pharmacy Herbal Handbook*, p. 118).

Be sure to buy only from reputable sources. Probiotic recommended while taking these herbs.

While believed to be safe when taken in moderate doses, these herbs can interact with a number of drugs. They should not be taken continually (more than six to eight weeks) without interruption (at

least two weeks), due to potential harm to the liver. Pregnant and nursing women should not take the supplements in this paragraph, as they could cause or worsen jaundice in newborns. These herbs may increase the effect of blood sugar reducing medication, and blood pressure reducing medications. Herbs containing berberine interact with Cyclosporine (brand names Neoral, Sandimmune, Gengraf), an immunosuppressant. They should not be taken by anyone taking Cyclosporine. These herbs may increase the risk of side effects of any of the large number of drugs that are substrates of cytochrome P450: CYP3A4, CYP2C9, and CYP2D6 enzymes (see list at article end). If you are taking any drug it would be wise to consult with a knowledgeable healthcare professional concerning possible drug interactions before using these herbs or a berberine extract.

<https://www.mskcc.org/cancer-care/integrative-medicine/herbs/goldenseal>

<https://www.webmd.com/vitamins/ai/ingredientmono-1126/berberine>

<https://liftmode.com/blog/berberine-side-effects/>

[Dr. Axe: Berberine](#)

<https://www.intelligentlabs.org/berberine-benefits-the-new-superstar-supplement/>

[Berberine Benefits](#)

<https://healthtrends.com/berberine/>

<https://www.mygenefood.com/blog/micro-dosing-berberine-good-idea-bad-idea/>

<https://www.naturalmedicinejournal.com/journal/2012-12/clinical-applications-berberine>

<https://www.gaia.com/article/ancient-medicine-berberine-could-help-with-leaky-gut-syndrome>

<http://diabetesupdate.blogspot.com/2013/08/berberine-works-but-may-very-well-be.html>

“**Garlic** is about the closest thing we have to an herbal wonder drug for treating infections” (Duke, *The Green Pharmacy*, p. 357). It’s effective against a wide variety of bacteria, including those involved in digestive tract infections (*ibid.*, p. 356; *Herbal Medicine: Expanded Commission E Monographs*, pp. 144-145). It also is anti-viral, anti-protozoa, and anti-fungal (*The Healing Herbs*, p. 179; *The Green Pharmacy*, p. 202). Studies indicate that garlic can also help prevent some types of cancer, and fight vascular diseases (*Herbal Medicine: Expanded Commission E Monographs*, pp. 139-145).

Some sources say that garlic that is “aged” or “deodorized” has lost most or all of its antibiotic properties. Others dispute this claim (cf. [Intake of Garlic and Its Bioactive Components](#), [The Virus Killer They Don’t Want You to Know About](#)). If you choose to use fresh garlic, one way to make it palatable is to blend a fresh garlic clove with a few ounces of juice, such as grapefruit, carrot, or tomato juice. You can also include it in your diet with various foods. Three to twenty-four cloves a day (at intervals) can be effective for fighting or preventing a wide range of infections (*Green Pharmacy*, pp. 270, 317, 356, 457), especially when used in combination with other antibiotic herbs described here.

Naturopath Chris Deatheridge, N.D., suggests for nursing mothers four to six cloves of garlic with a few drops of Echinacea tincture in carrot juice every two hours to treat mastitis (*Green Pharmacy*, pp. 90-91). It’s reported that babies breastfed by mothers who regularly consume garlic nurse longer and

better (*ibid.*, p. 91). Some doctors, however, caution that garlic can cause allergic reactions in some people, and advise against its use by pregnant or nursing mothers as a precaution.

Garlic can be effective in helping to ward off mosquitoes and ticks.

Garlic in large enough doses can hinder blood clotting. Anyone with a blood clotting disorder or on a blood thinning medication should exercise caution. Besides medications used to prevent blood clots, caution should be exercised or a physician consulted in connection with use of garlic if taking any type of non-steroidal anti-inflammatory drugs (such as aspirin, ibuprofen, naproxen, and others), acetaminophen, birth control pills, or medications to treat HIV or AIDS. Undesirable reactions to garlic may include gas, nausea, vomiting, diarrhea. Large amounts of garlic may cause body odor which is offensive to some people.

When fresh garlic is chewed, cut or crushed, it releases allicin, which turns into a variety of fat and water soluble sulfur-containing compounds. Allicin is responsible for many of the health promoting properties of fresh garlic. Usually, once released from garlic, allicin degrades quickly. There are some products on the market that contain stabilized allicin, which may provide many of the benefits of whole fresh garlic. Two such products are Allimax, and Allicinmax, another is available at zhounutrition.com. The same precautions that apply to using garlic should be observed if using a stabilized allicin product.

“**Calendula**, sometimes known as pot marigold, has antibacterial, antiviral and immune-stimulating properties” (*The Green Pharmacy*, p. 439). Commercial ointments are available containing Calendula as a primary active ingredient. The German government Commission E has approved use of the Calendula flower for internal and topical treatment of mouth and throat inflammation, and external treatment of dermatitis, leg ulcers, bruises, boils and rashes (*Herbal Medicine: Expanded Commission E Monographs*, p. 45). It’s used to treat gastritis (stomach inflammation) and studies indicate it may be effective in treating ulcers (*The Green Pharmacy*, p. 439; *Expanded Commission E Monographs*, p. 44).

Flaxseed. while not specifically recommended as an antibiotic, is often used externally as a poultice for boils and carbuncles, and internally it is of value in treating inflammatory gastrointestinal complaints, constipation and diverticulitis (*Herbal Medicine: Expanded Commission E Monographs*, p. 136). It also has potent anti-cancer properties (*ibid.*, p. 135).

Olive Leaf. Olive leaf extract produced by boiling the leaves and drinking the liquid was used in Britain widely in the nineteenth century to treat malaria and fevers. Olive leaf extract containing the phytonutrient Oleuropein and other phytochemicals, is believed, based on *in vitro* research done by the Upjohn company and studies done by other researchers, to be effective against more than fifty different types of disease causing viruses, bacteria, fungi, and Malarial parasites. Among them are various influenza viruses, *Herpes*, *Polio*, *Staphylococcus aureus*, *B. cereus*, *E. coli*, and others. Olive leaf powder may also be used in capsules with the phytochemicals less concentrated than in an extract. It can also be used to make a tea.

Dr. Morton Walker reports that properly processed olive leaf extract contains “natural phytochemicals, including oleuropein and associated antioxidants. Working synergistically, the various phytochemicals fight off strains of bacteria, spirochetes, rickettsiae, chlamydiae, fungi, yeasts, molds, viruses, protozoa,

worms (helminths), and other parasites” (*Townsend Letter for Doctors and Patients*, May, 2001). For more details see Dr. Walker’s book, *Olive Leaf Extract*, Kensington Books, New York, 1997). Dr. Walker recommends the Seagate brand of extract because of the manner in which it is processed (<http://www.seagateproducts.com/olive-leaf-extract.html>). There are a number of sources for olive leaf powder. Other sources of information include an article by James R. Privitera, M.D., (<http://curezone.com/foods/oliveleaf.html>), and another by Robert Rountree, M.D. titled “Winning the Yeast Infection War”⁴; also, about-olive-leaf-extract.com; www.olivus.com.

“Standardized” olive leaf extracts may not be advantageous over non-standardized extracts. Dr. Walker explains: “Almost every olive leaf extract touts on its label that the particular product is standardized to a certain percentage of oleuropein, the main antimicrobial ingredient identified in olive leaves. For each manufacturer, such standardization is achieved in accordance with the extraction method employed to process the described brand. Usually the standardization takes place as a result of isolating one specific phytochemical in the olive leaf, the oleuropein. The manufacturer invariably tries for the highest purity of phytochemical in its isolation procedure. In doing so, often purification approaches pharmaceutical industry standards, and chemicals or solvents like hexane are applied. One or more chemical components become precipitated out from the herbs, and this makes for chemical destruction or elimination of one or more of them. Such an action will be disadvantageous to the medical consumer who is looking for a definite antimicrobial/therapeutic effect from the olive leaf” (*Townsend Letter for Doctors and Patients*, May, 2001).

Although olive leaf and olive leaf extract is generally regarded as safe and may be taken over a long term with no known adverse effects, individuals taking antibiotics derived from molds or fungi should exercise caution, since Oleuropein and the antibiotic may react in a manner that cancels each other’s effectiveness. Note that brewer’s yeast is a fungus, and the same caution may apply to using brewer’s yeast with olive leaf extract as well. Certain amino acids (lysine, glycine, or histidine) can reduce the effectiveness of olive leaf if consumed at the same time. People on blood thinners or taking blood pressure medicine should see a physician before taking olive leaf, since it relaxes the coronary walls of veins and arteries and makes them more pliable, and reduces blood pressure. Some people experience a “die-off effect” as the extract kills pathogens, causing temporary flu like symptoms. Reduce the dosage somewhat until the symptoms subside.

Dietary support may be needed to help protect you against resistant germs. Dosage recommendations vary, depending on the purpose and body mass. About 500 mg. daily is about the minimum recommendation. Recommended dose take 2 to 4 450 mg. Olive leaf extract capsules a day as a maintenance level. Take 4 to 9 capsules per day for additional support. Generally, extract is more concentrated, so more may be required if using olive leaf powder instead of extract. Olive leaf can be taken with or between meals; although it is preferable to be taken one half hour before meal time.

Colloidal Silver. Silver has been used as a sterilizing agent for thousands of years. It has been used by Russian armies to purify water (storing it in silver lined containers). Silver in various formulations has been used externally to treat wounds and skin infections, and as germicidal coatings on medical apparatuses. Silver nitrate diluted to a 0.5 percent solution is used externally as a topical antiseptic

(drugs.com; pubchem.ncbi.nlm.nih.gov). If ingested, some silver formulations, such as silver nitrate, are poisonous.

Colloidal silver, fine (nano-particle size, especially 10 nm or less), particles of silver with a negative electrical charge in suspension in purified water, is said to be effective against hundreds of disease organisms in vitro. A substantial amount of evidence indicates that colloidal silver may be used to fight infectious diseases internally as well. Colloidal silver is generally recognized as safe if taken in recommended doses. Suggested doses from the website silvermedicine.org are as follows:

- **Silver Mineral Supplement Dose**
 - One teaspoonful full daily in the morning on an empty stomach
 - Silver held in mouth from 30 seconds to three minutes
- **Medicinal or Therapeutic Dose of Silver**
 - One ounce of colloidal silver held in the mouth for at least 30 seconds to three minutes
 - Once daily in the morning up to one ounce every four hours
- **Emergency Dosing**
 - 4 ounces per hour
 - Either once per hour or one ounce every 15 minutes

These dosage levels are relative to the individual's personal experience, the condition being treated, and should be regarded only as a starting point to give an idea of how some have used colloidal silver as a remedy.

Successful treatment of microbe infections depends on a number of factors. Among them: The silver must reach the site of the infection in a bioactive form, and in a great enough quantity to be effective, and consistently enough to defeat the disease causing bacteria population. Studies have shown that silver can enhance the effectiveness of other antibiotics ("Silver Enhances Antibiotic Activity Against Gram-Negative Bacteria," *Science Translational Magazine*, June, 2013). It should be borne in mind that colloidal silver preparations can vary widely in quality and potency.

The following is advice from the website silvermedicine.org:

"Wherever an infection needs fighting, silver is one of the best resources available to help the body's immune system respond. While not always a cure all for infections, hundreds of thousands of people have learned that silver is a great tool which aids in the fight against any infectious condition."

Some sources for further information:

[Colloidal Silver – Antimicrobial, Antifungal and Antiviral Mechanisms with Clinical Actions](#)

[Colloidal Silver's Antimicrobial Properties And Safe Usage Suggestions](#)

[Clinical Applications of Bioactive Forms of Silver Hydrosol](#)

[Assessment of Size-Dependent Antimicrobial and Cytotoxic Properties of Silver Nanoparticles](#)

[Study Shows Silver Nanoparticles Attach to HIV-1 virus](#)

[Is Colloidal Silver Really the 'Silver Bullet' Against Potentially Deadly Viral Infections?](#)

To be most effective colloidal silver must have particles in the range of 10 nanometers or less. Such a colloid will be clear with a pale yellow color. Some products sold as “colloidal silver,” or various other names, are clear, with no color. These are mostly ionic silver, with very little in the way of colloidal particles. Ionic silver will quickly combine with chloride to form an insoluble compound (cf. [About Ionic Silver](#)). Color is a good indicator of the size of particles, as the color will change as the silver aggregates into larger particles. Colloidal silver should be stored in a dark place, in an opaque food grade plastic or brown glass container, to prevent it degrading from light.

Purchasing colloidal silver in a store or on the Internet is usually quite expensive, and you may wind up with an inferior product. You can easily and inexpensively make your own high quality colloidal silver, for a small investment of less than \$100. If you would like a free report on how to do this with an explanation of the equipment you need, which you can find online or elsewhere, send your request to contact@cogmessenger.org.

In general, herbs used to fight infections are more effective if used in combination, as long as they don't interfere with one another. They must be used in the proper quantities to have any effect. The sources listed or other documentation can be consulted. One good thing about natural antibiotics is that because of their complexity no bacteria against which they are effective is likely to develop resistance to them, as they do with synthetic antibiotics.

While generally safe in recommended dosages, some of the above substances have contraindications, side effects and possible drug interactions that need to be taken into account. See the sources or other documentation for more information.

“It is important to keep in mind, however, that like any nutritional supplement it [Olive leaf] should not be considered a cure-all or panacea. In holistic practices such as mine, individual supplements are part of a comprehensive program that includes better diet, exercise, and stress control methods. That's how we maximize health and minimize symptoms.

“In such a program, a patient may start with supplement X, Y and Z, get involved in an exercise program, and experience perhaps 50 percent relief for a given condition. That's a lot of relief but then we keep trying to improve the situation. We now add another supplement, let's say the olive leaf extract, and we get another degree of improvement, often quite large. In this manner, we continually tailor the program of an individual patient for the best results. And in this scheme of things, olive leaf extract is making a very positive contribution. It complements all the good things patients are doing.

“There is always the possibility that one ingredient, one supplement, can fill a large gap or particular need in the body and by itself lead to major improvement. We see that happen all the time. But usually it is all the elements in a nutritional program that work together — like a team of horses pulling a wagon — that gets the job done most effectively.

“Biochemist Arnold Takemoto puts it this way: ‘Olive leaf extract is not a single magic-bullet. There are very few such things, especially in non-pharmaceutical medicine. In many cases it takes a whole lot more than just one ingredient to get over a particular condition. Yet I find it a very valuable addition against chronic fatigue syndrome and many other viral conditions, especially those that are more

tenacious. It fills a hole that we haven't been able to fill before.” (James R. Privitera, M.D., “Olive Leaf Extract: A New/Old Healing Bonanza for Mankind,” www.curezone.org/foods/oliveleaf.asp).

God can certainly intervene supernaturally and heal anytime he chooses to do so. We're instructed to pray and seek anointing and prayer from the elders of the Church when we are sick ([James 5:13-16](#)).

But I also believe God wants us to do for our health what we can do, especially in learning of the natural laws he set in motion to protect health and promote healing, including diet, exercise and self control ([Leviticus 11:47](#); [2 Kings 20:7](#); [Psalm 104:14](#); [Proverbs 3:7-8](#); [4:20-22](#); [17:22](#); [Isaiah 1:5-6](#); [Jeremiah 8:22](#); [Ezekiel 34:4](#); [47:12](#); [Mark 2:17](#); [Luke 10:33-34](#); [Acts 27:34](#); [Colossians 4:14](#); [1 Timothy 4:8](#); [5:23](#); [Hebrews 6:7](#); [Revelation 22:2](#)). Christians are subject to the same laws of health as everyone else, and are not necessarily immune to infectious diseases that affect non-Christians.

You may want to include in your health regimen prophylactic doses of a natural antibiotic, or more than one. I currently use olive leaf powder and a garlic supplement with stabilized allicin daily in this way.

None of this, of course, precludes you from seeing a doctor competent in dealing with your health problems as you see fit. If you're being treated by a doctor, it would be wise to discuss with him any herbs you are taking for medicinal use. No dietary supplement, herb or drug should be taken without researching its effectiveness, possible contraindications, side effects, or possible interactions with other drugs.

DISCLAIMER: Not intended to diagnose, treat or prevent any disease. For informational purposes only.

1. <https://web.archive.org/web/20070427045935/http://www.umm.edu/altmed/articles/brewers-yeast-000288.htm>
2. <http://www.vitamins-nutrition.org/vitamins-guide/brewers-yeast.html>
3. <https://web.archive.org/web/20060415092059/http://tedeboy.tripod.com/drmichaelwfox/id35.html>
4. <https://web.archive.org/web/20070427045935/http://www.umm.edu/altmed/articles/brewers-yeast-000288.htm>

Cytochrome P450 drug metabolism: Source of Substrate Table below: National Library of Medicine, retrieved 4-6-2020; list may not be complete:

(<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1312247/>)

CYP2C9	CYP2D6	CYP3A4
amitriptyline (<i>demethylation</i>)	amtriptyline	alprazolam
celecoxib	clomipramine	astemizole
diclofenac	codeine	bupirone
flurbiprofen	desipramine	calcium channel blockers
ibuprofen	dextromethorphan	carbamazepine
losartan (not candesartan)	imipramine	cisapride
naproxen	metoprolol	cyclosporine

phenytoin	nortriptyline	doxorubicin
piroxicam	oxycodone	erythromycin
sulfamethoxazole	paroxetine	etoposide
tolbutamide	propafenone	felodipine
warfarin	risperidone	fentanyl
	thioridazine	HIV protease inhibitors
	timolol	ifosphamide
	tramadol	lovastatin (not prevastatin)
	venflaxine	midazolam
		nifedipine
		pimozide
		quinidine
		quinine
		simvastatin
		tacrolimus
		terfenadine
		triazolam

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