



# Medieval Apothecary Medicine

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# What is Apothecary Medicine?

## Definition

**Modern Definition:** Medical Definition of apothecary. plural apothecaries. 1: a person who prepares and sells drugs or compounds for medicinal purposes : druggist, pharmacist. 2: pharmacy 2a.

**Medieval Definition:** 1. an archaic word for pharmacist; 2. (law) a chemist licensed by the Society of Apothecaries of London to prescribe, prepare, and sell drugs

**Word Origin:** C14: from Old French apotecaire, from Late Latin apothēcārius warehouseman, from apothēca, from Greek apothēkē storehouse

## History

The word 'apothecary' is derived from apotheca, meaning a place where wine, spices and herbs were stored. During the thirteenth century it came into use in this country to describe a person who kept a stock of these commodities, which he sold from his shop or street stall.

London apothecaries were originally members of another livery company, the Grocers', and together these tradesmen can be traced back to the Guild of Pepperers, an association formed



in the City in 1180. By 1316, the Pepperers had been joined by the Spicers.

This pestle and mortar (dated 1662) belonged to the Apothecary John Battersby of Fenchurch Street.

He became Master of the Society (1674/5) and was a friend of Samuel Pepys

The Pepperers subsequently became wholesale merchant traders dealing en gros (hence the word 'grocer') and in 1428 were incorporated as the Worshipful Company of Grocers. The trade in spicery and the development of pharmacy, on the other hand, became interdependent and led to the emergence of spicer-apothecaries. These

members of the Grocers' Company had their shops in Bucklersbury where they stored and sold spices, confectionery, perfumes, spiced wines, herbs and drugs which they compounded and dispensed to the public.

By the mid-sixteenth century apothecaries had become the equivalent of today's community pharmacists, dealing mainly with the preparation and sale of substances for medicinal purposes. Authority over medical practice, however, lay with the College of Physicians. The London apothecaries with their specialist pharmacy skills petitioned for several years to secede from the Grocers' Company. Gideon de Laune, a wealthy and influential Huguenot, led the separatists. He was Apothecary to Anne of Denmark, wife of James I, which may have helped them gain the king's approval. The Worshipful Society of Apothecaries of London was incorporated by royal charter on 6 December 1617.

The first page of the first volume of the Society's Court Minutes records the first meeting of the first Court of Assistants which took place on 16 December 1617. King James justified his decision in the House of Commons in 1624: "I myself did devise that corporation and do allow it. The grocers, who complain of it, are but merchants; the mystery of these apothecaries were belonging to apothecaries, wherein the grocers are unskilful; and therefore I think it is fitting they should be a corporation of themselves." The Society is No. 58 in the order of precedence of the City Livery Companies.

The Society's Hall in Blackfriars, formerly the guesthouse of the Dominican Priory of the Black Friars, was acquired in 1632. Destroyed in the Great Fire of London, it was re-built by 1672 on the same site, where it still stands.

Ogilby and Morgan's map of 1676 shows Apothecaries' Hall, the courtyard (C3) and 'Black Fryers' ten years after the Great Fire of London (reproduced with the permission of Guildhall Library, Corporation of London)

From 1672 until 1922, the Society of Apothecaries manufactured and sold medicinal and pharmaceutical products at the Hall, and in 1673 it founded the Chelsea Physic Garden, only relinquishing managerial control in 1899.

In 1704 the Society won a key legal suit (known as the Rose Case) against the Royal College of Physicians in the House of Lords, which ruled that apothecaries could both prescribe and dispense medicines. This led directly to the evolution of the apothecary into today's general practitioner of medicine.

Just over a century later, as a result of the Apothecaries' Act of 1815, the Society was given the statutory right to conduct examinations and to grant licences to practise Medicine throughout England and Wales, as well as the duty of regulating such practice.

(Source: [The Worshipful Society of Apothecaries of London](#))

## Practicing Medieval Medicine

### Doctors

There were four varieties of Medieval doctors – well trained and well paid doctors versed in Greek Medical theory (Hippocrates), Barber-Surgeons – university trained but not like the other doctors, Apothecaries – the skilled traders for grocers who could help heal most things with natural remedies, and then you had the healers – aka witches, sorceress, wizard, shaman, medicine man/woman, etc. with no formal training and the majority of the people could afford their trades of potions and salves.

No one knew what caused diseases then. There was no knowledge of germs. Medieval peasants had been taught by the church that any illness was a punishment from God for sinful behaviour. Therefore, any illness was self-imposed – the result of an individual's behaviour.

Other theories put forward for diseases included “humours”. It was believed that the body had four humours (fluids in our bodies) and if these became unbalanced you got ill. Doctors studied

a patient's urine to detect if there was any unbalance. Astronomers blamed the planets going out of line. As important, no-one knew how diseases spread – the fact that people lived so close together in both villages and towns meant that contagious diseases could be rampant when they appeared; as happened with the Black Death.

Physicians were seen as skilled people but their work was based on a very poor knowledge of the human anatomy. Experiments on dead bodies were unheard of in Medieval England and strictly forbidden. Physicians charged for their services and only the rich could afford them. Their cures could be bizarre though some cures, including bleeding and the use of herbs, had some logic to them even if it was very much a hit-or-miss approach. One of the most famous physicians was **John Arderne** who wrote "**The Art of Medicine**" and who treated royalty. He was considered a master in his field but his cure for kidney stones was a hot plaster smeared with honey and pigeon dung! Physicians would have had their own ideas as to what caused illnesses. Those who blamed bad smells developed a 'cure' to make the bad smells go away. Those who blamed bad luck would use prayers and superstitions. Those who blamed the body's four humours used bleeding, sweating and vomiting to restore the balance of the four humours.

When by some luck, a patient got better or simply improved, this was a sure sign that a cure worked. It also meant that the cure used would be used again. If it did not work on the next patient, this was the fault of the patient rather than of the cure.

Operations were carried out by 'surgeons'. In fact, these men were unskilled and had other jobs such as butchers and barbers. The traditional red and white pole outside of a barber's shop today is a throwback to the days in Medieval England when barbers did operations. The red stood for blood and the white for the bandages used at the end of an operation.

Operations could end in death as post-operative infections were common. Instruments used in an operation were not sterilised – as there was no knowledge of germs, there was no need to

clean instruments used in operations. Patients might recover from small operations, such as a tooth extraction (though this could not be guaranteed), but operations that included a deep cut through the skin were very dangerous.

Some monasteries had cottage hospitals attached to them. The monks who worked in these hospitals had basic medical knowledge but they were probably the best qualified people in the country to help the poor and those who could not afford their own physician. By 1200, there may have been as many as 400 hospitals in England.

### Medieval Medical Practitioners

**Physicians:** Physicians were scholars who studied at universities. In order to be declared a physician, a student had to prove himself able to recite, lecture and debate the contents of his studies.

**Barber/Surgeons:** Surgeons belonged to the working class and did the jobs that were considered beneath physicians, such as bloodletting and pulling teeth. Most surgeries were performed by the barber/surgeon. The most common operations were for hernias, gallstones and cesarean section.

**Monks:** During the early medieval centuries it was the monks who copied out manuscripts of the works of Hippocrates and other Greek or Latin medical writers. There is evidence that they practiced the medical knowledge they obtained as scribes. Each monastery had an infirmary for its ailing and aged members. Medical aid would also be provided to the poor, travelers and pilgrims who visited. Some monks gained such a reputation for being skilled healers that they were sought out by lay patients. In some cases the care of such outsiders gave rise to hospitals apart from the monks' infirmaries.

**Leeches:** Leeches were lay practitioners whose training was more practical than theoretical. Practicing without proper education, they relied more on informal observation and folk medicine. They may have been apprenticed to a barber-surgeon or physician at some point.

**Dentatores:** Dentatores were the dentists of the medieval era and were so expensive that usually only the very rich could afford their services. They removed decay, which was believed to be caused by worms, and filled teeth with ground bone. Gold was used for filling cavities by the fifteenth century. They repaired loose teeth with metal bindings and made dentures from ox and other animal bones.

**Herbalists (Folk Healers):** Practitioners of popular healing varied widely from place to place within Europe. In some areas the healers were mostly women; in other they were predominantly men. In some places the secrets of healing were passed only from woman to woman or from men to men, but in other regions the gender alternated with each transmission. In some places healers were thought to possess inherited skills and if an attempt was made to pass these skills to people without these inherited gifts, they would be ineffectual.

**Midwives:** Midwives were taught their duties by other midwives or were introduced into the craft by fathers or husbands who were medical men. Midwives were usually apprenticed to older more experienced midwives. The only requirement for becoming a candidate for midwifery was a statement from the parish priest attesting to the applicant's good character.

**Nurses:** Medieval nurses were women who attended to the more basic needs of the ill in hospitals. Many joined monastic orders, but there were secular nursing orders as well, especially during the Plague. As the disease spread women from all socio-economic groups came forward to care for the sick. Noble-born women who became nurses of the poor or sick, were considered "nursing saints."



## Medieval Medical Texts

The scientific approach to medicine, based on diagnosis and treatment, was introduced by Hippocrates. Hippocrates' work was augmented by a Greek army doctor, Dioscorides, whose *De Materia Medica*, appeared in the 1st century. Around the same time, Pliny the Elder produced his *Historia Naturali*, which describes plants and their healing qualities. These works were the foundation of the curriculum studied by the medieval scholars at university and were also implemented by the monks who copied the texts.

The earliest known herbal of British origin is the Saxon Leech Book of Bald, written in the tenth century. Around 950, a nobleman named Bald persuaded England's King Alfred to commission the book, which combined all aspects of herbalism - Anglo-Saxon, Celtic, Greco-Roman and Arab. A mixture of sacred ritual and herbal remedies, it discusses 500 plants and their healing qualities. In practices prescribed in this text, herbs were just as often worn as amulets to ward off evil or disease as they were taken internally.

The most notable original medical text emerging from the religious sector during the middle ages was Hildegard's *Medicine*, written by Hildegard of Bingen (1098-1179), Abbess of the Benedictine Rupertsburg convent in the German Rhineland. A nun from age 15, Hildegard claimed that visions of God commanded her to treat the sick and compile her herbal formulas. Her book combined Catholicism and folk medicine. She was the only medieval woman who left a written account of "wise woman" healing practices.

One of the largest sources of pharmaceutical and medical information from the middle ages is the *Compendium of Medicine* (circa 1250) by Gilbertus Anglicus (Gilbert the Englishman). Translated in the early 15th century from Latin to Middle English the text consists of medicinal recipes with guides to diagnosis, medicinal preparation and prognosis. The text names over 400 ingredients. Treatments are presented roughly from head to tail, beginning with headache and ending with hemorrhoids. <sup>1</sup>

## Cures from Medieval England:

### For toothache:

Take a candle and burn it close to the tooth. The worms that are gnawing the tooth will fall out into a cup of water held by the mouth.

### The cause of the Black Death according to Guy de Chauliac, a French doctor:

Three great planets, Saturn, Jupiter and Mars, are all in close position. This took place in 1345. Such a coming together of planets is always a sign of wonderful, terrible or violent things to come.

### For evil spirits in the head:

For this, surgeons used **trepanning**. This was where a surgeon cut a hole into the skull to release evil spirits trapped in the brain. The operation might also include cutting out the part of the brain that had been 'infected' with these evil spirits. Incredibly, people are known to have survived operations such as these as skulls have been found which show bone growth around the hole cut by a surgeon – a sign that someone did survive such an operation if only for a while.

### For general illnesses:

People were told that a pilgrimage to a holy shrine to show your love of God would cure them of illnesses especially if they had some holy water sold at the place of pilgrimage. After the death of Thomas Becket in 1170, Canterbury Cathedral became a place of pilgrimage which brought even more wealth to the city. However, more people coming to the city also increased the risk of disease being brought in.

### Blood letting:



This was when blood was drained from a certain spot in your body. The idea behind this was similar to trepanning in that it released bad blood from your body. The use of leeches was common for this but dirty knives were also used which only increased the risk to the patient.

### Cauterization:

This was where a physician identified that a certain part of your body was ill and it was cured by having red hot pokers put on it.

## Astrology:

Astrology played an important part in many cures. For fever, one medicine book stated “A man suffering from fever should be bled immediately the moon passes through the middle of the sign of Gemini.”

## Herbcraft

Using herbs for healing dates back to the beginning of time. Many of these practices are still used today even in some modern medicines. Western herbologists are beginning to emerge again after hundreds of years. They are finding that many of the pharmaceutical treatments have become resistant with their patients. Herbs have been used to treat everything from bad breath to cancer. In the Far East, herb practitioners have been using centuries old herbal remedies and they swear by their practices. While not always humane (ie: the bile farms) they seem to have found the answer to heal their patients.

Here are some of the more common herbs used in medicinal herbcraft:



1. **Aloe:** Greek physician Dioscorides recommended aloe externally for wounds, hemorrhoids, ulcers and hair loss. Pliny prescribed it internally as a laxative.
2. **Angelica (Wild Celery):** Angelica leaf necklaces were worn as protection against illness and witchcraft. Angelica was reputed to be the only herb witches never used and its presence in a woman's garden or cupboard was successfully used as a defense against charges of witchcraft. Gilbert Anglicus' Compendium of Medicine gives the following prescription for using angelica as a cough remedy: And if the cough is of sticky thick phlegm, give him a syrup made with horehound, the root of fennel, radish, wild celery and anise.
3. **Anise:** Hippocrates recommended anise to help clear mucus from the respiratory system. It was also recommended by other renowned physicians as a breath freshener, digestive aid, a cure for "hicket" (hiccups), headache, asthma, insomnia, nausea, lice and

infant colic. Anise was so popular in medieval England as a spice, medicine and perfume that in 1305 Edward I placed a special tax on it to raise money to repair London Bridge.

4. **Apple:** Hildegard of Bingen prescribed raw apples as a tonic for healthy people and cooked apples as the first treatment for any sickness.
5. **Balm (Melissa):** Lemon balm and bee balm were prescribed for nervousness and anxiety in the form of Melissa water or Eau de Melisse. Recommended for treatment of insomnia, arthritis, headache, toothache, sores, digestive problems and cramps, balm was considered to be something of a cure-all. Greek physicians recommended applying balm leaves to wounds and added the herb to wine to treat a variety of illnesses. Pliny prescribed it to stop bleeding.
6. **Basil:** The ancient physicians disagreed on the merits of basil. Dioscorides and Galen warned that taking basil internally would cause insanity and the spontaneous generation of internal worms. Pliny used it to treat stomach ailments. Hildegard of Bingen used basil in a concoction that included powder from a vulture's beak to treat tumors.
7. **Blackberry:** Blackberry was also known as "goutberry" as its most popular use was as a treatment for gout. Leaves and bark were chewed for bleeding gums, leaves were applied to the skin to sooth burns and scalds. Blackberry syrup was recommended for treatment of dysentery.
8. **Buckthorn:** Buckthorn became popular around the 13th century and was primarily used to purge the body of "foul humors". Buckthorn bark seeped in water produced a powerful laxative. It was also recommended for jaundice, hemorrhoids, gout and arthritis.
9. **Burdock:** In the 14th century burdock leaves were used to treat leprosy. Hildegard of Bingen used it to treat cancerous tumors. Burdock root was also prescribed for fever, ringworm and skin infections.
10. **Caraway:** Caraway seeds were recommended for the treatment of indigestion, gas and infant colic. Gilbertus Anglicus prescribed the following decoction for a syrup to treat ailments of the lungs: Take barley water which has been strained, raisins, violets, jujube,

seed of melon and gourd, wheat starch, licorice, black plums, fennel root, parsley, wild celery, anise, caraway, and make thereof a syrup. That is to say, seep all these in water until the virtue of them be in the water. Then strain it and add sugar or honey. And then set it over the fire to steep softly. Then take the white of four eggs and beat them well and add them. And always skim it until it is clear. Then take it down and strain it clean so that no dregs remain therein. Put it in a closed vessel.

11. **Chamomile:** Used to treat headaches, kidney, liver and bladder problems and as an aid for digestive upsets.
12. **Cinnamon:** Hildegard of Bingen recommended cinnamon to treat colds, flu, cancer and "inner decay and slime".
13. **Coltsfoot:** Used for treating coughs, wheezing, shortness of breath, fever and inflammation.
14. **Comfrey:** Boiling comfrey root in water produced a thick paste in which cloth was soaked and then wrapped around broken bones. Internally, comfrey was used for treating respiratory and gastrointestinal problems.
15. **Dandelion:** Dandelion was prescribed to treat colds, boils, ulcers, dental problems, itching, jaundice and gallstones.
16. **Dill:** Digestive aid and gas remedy. Also a cure for hiccups. From Gilbertus Anglicus' Compendium of Medicine this treatment for squinacy (quinsy): But if a postem be of phlegm, after his blood-letting and his purging, make him a gargle of sap from a hazelnut tree, dill, poppy, either the water that bark from a nut or mulberry tree has been seeped in, or the juice of bittersweet, with dried honeysuckle leaves and aloe.
17. **Elecampane:** Prescribed to treat coughs, bronchitis, asthma and indigestion.
18. **Fennel:** The ancient physicians prescribed fennel to treat infant colic, as an appetite suppressant and recommended the seeds to nursing mothers to boost milk production. Pliny believed that fennel was a cure for eye problems, including blindness. Hildegard of Bingen recommended fennel for treating colds, heart ailments and to aid in good digestion and body odor. Folk healers mixed fennel with strong laxatives such as buckthorn to counteract intestinal cramps.

19. **Fenugreek:** Fenugreek seeds mixed with water was used as a salve to soothe inflamed or irritated tissue. Internally, it was used to treat fever and digestion and respiratory ailments. Gilbertus Anglicus considered a plaster using fenugreek (femigreke) in combination with a gargle made of other ingredients to be somewhat of a cure-all: Good for every postem both within a man's body and without: Take the root of hollyhock and lily roots and seep them in water. Then crush them with fresh grease and butter and add meal of flax seed (linseed) and fenugreek and snails and crush them together. And give him a gargle of vinegar that barley has lain in and water that pomegranate or sumac or roses or oak galls or lentils have soaked in.
20. **Garlic:** Greek and Roman physicians recommended garlic for infections, wounds, cancer, leprosy, heart problems, colds, and epilepsy among many other ailments. In the middle ages the upper class shunned the use of garlic, but the peasantry viewed it as a preventative medicine and cure-all.
21. **Horehound:** First used in ancient Rome as an ingredient in poison antidotes lead medieval Europeans to believe horehound provided protection from witches' spells. Hildegard of Bingen considered it one of the best herbs for colds. Galen was the first to recommend horehound for coughs and respiratory problems.
22. **Hyssop:** Prescribed for use in a tea for coughs, wheezing and shortness of breath and in plasters and salves for chest decongestion. Hildegard of Bingen recommended a meal of chicken stewed in hyssop and wine as a treatment for depression.
23. **Licorice:** Hippocrates recommended licorice for cough, asthma and other respiratory diseases. Hildegard of Bingen prescribed it for stomach problems.
24. **Mint:** Spearmint was the original medicinal mint and was used to aid in digestion and the treatment of gout. In Gilbertus Anglicus' Compendium of Medicine the following treatment is recommended for "stinking of the mouth": If there be no rotten flesh, let the mouth be washed with wine that birch or mint has been soaked in. And let the gums be well rubbed with a rough linen cloth until they bleed. And let him eat marjoram, mint and parsley til they be well chewed. And let him rub well his teeth with the herbs he chewed and also his gums.

25. **Motherwort:** Used to treat heart palpitations and depression; later to stimulate contractions during childbirth.
26. **Myrrh:** Myrrh was valued primarily as an oral treatment for bleeding gums, mouth ulcers and sore throat. It was also used as an expectorant for colds and congestion.
27. **Oregano:** Used as a digestive aid, arthritis treatment, expectorant for cough, colds and chest congestion.
28. **Parsley:** Galen prescribed parsley for epilepsy and as a diuretic to treat water retention. Hildegard of Bingen recommended parsley compresses for arthritis and parsley boiled in wine for chest and heart pain.
29. **Pennyroyal (Fleabane):** Pliny first discovered that when rubbed on the skin or strewn, pennyroyal repelled fleas. He also recommended it as a cough remedy and digestive aid. Taken with honey, pennyroyal was said to cleanse the lungs and clear the chest of "all gross and thick humors".
30. **Roses:** Hippocrates recommended rose flowers mixed with oil for diseases of the uterus. Hildegard of Bingen prescribed rose hip tea as the initial treatment for many complaints including headache, dizziness and cramps. For difficulty in swallowing, Gilbertus Anglicus recommended a syrup called "honey roset" which consisted of a pound of minced roses soaked in a pound of honey over a fire.
31. **Rosemary:** In 1235 Queen Elizabeth of Hungary became paralyzed. According to legend, a hermit soaked a pound of rosemary in a gallon of wine for several days then rubbed it on her limbs, curing her. Rosemary/wine combinations became known as Queen of Hungary's Water and were used externally to treat skin problems, gout, dandruff, and prevention of baldness.
32. **Saffron:** Rare in Europe until after the Crusades, by the 14th century saffron was recommended to treat jaundice, insomnia and cancer.
33. **Sage:** Sage was considered to be something of a cure-all. Pliny prescribed it for snakebite, epilepsy, intestinal worms and chest ailments. Dioscorides recommended using sage leaves as bandages for wounds. Gilbertus Anglicus recommends the following for aching eyes: And if it (the ache of the eyes) comes of phlegm purge it as I told in the

headache and in other sicknesses of the head. And if it be of melancholy, purge it. And afterward let him be stood over a stew five or seven times, that is made of wormwood, betony, fennel, sage, flowers of thyme, chamomile flowers, melilot flowers, hock, and wild celery. All these must be soaked in wine and water together, half wine and the other half water. And let him hold his eyes and his head over the stew. And afterward take a linen cloth or cotton and wet in the water. And anoint therewith his eyes.

34. **St. John's Wort:** Early physicians prescribed St. John's Wort taken internally with wine as a cure for poisonous snakebite and externally as a treatment for burns. Christians believed that St. John's wort repelled evil spirits and burned it in bonfires on St. John's Eve to purify the air, drive away evil spirits and ensure healthy crops.
35. **Thyme:** Thyme was used as a cough remedy, digestive aid and treatment for intestinal worms. Hildegard of Bingen favored it for skin problems. Thyme was also recommended to those who suffered from depression; they were advised to sleep on thyme-stuffed pillows. Gilbertus Anglicus recommended the following involved treatment for a soft spleen: For softness of the spleen, if it be of cold humors give him oximel (medicine made of two parts vinegar and one of honey) to defy the humors. Afterward give him iera pigra Galieni (a decoction made of valerian, cinnamon, saffron, camel hay, hazelwort, bark of cassia and balsa, violets, wormwood, roses, gourds and aloes among other spices) to purge the humors. After the third day treat with a bath of hot herbs such as oregano, mint, horehound, thyme, rosemary and such others. And the next day let him bleed under the ankle in the underside of the left foot. And make him hot plasters of rue, celandine, and nettles to consume the humors and lay to the spleen.
36. **Valerian:** Ancient physicians recommended valerian as a diuretic, antidote to poisons, for pain relief and as a decongestant. Hildegard of Bingen prescribed it as a tranquilizer and sleeping aid.
37. **Vervain:** In the middle ages healing herbs were called simples. Vervain was prescribed so often and for so many different ailments that it became known as "simpler's joy." It was recommended for fever, tumors, blood infections, toothache, and acne among many other ailments.



38. **Yarrow:** Used to treat inflammations, to stop bleeding, as a digestive aid, for pain relief and as a mild sedative.

## Medieval Medicines

Medicines in the medieval period were sometimes homemade, if they weren't too complicated. Simple medicines consisted of a single ingredient – usually a herb – but if they required numerous ingredients or preparation in advance, they could be purchased from an apothecary, rather like a modern pharmacist.

Although some medical remedies were quite sensible, others were extraordinarily weird. They all now come with a health warning, so it's probably best not to try these at home...

1) St Paul's Potion for epilepsy, catalepsy and stomach problems: Supposedly invented by St Paul, this potion was to be drunk. The extensive list of ingredients included licorice, sage, willow, roses, fennel, cinnamon, ginger, cloves, cormorant blood, mandrake, dragon's blood and three kinds of pepper. Although this sounds like a real witch's brew, most of the ingredients do have some medicinal value: licorice is good for the chest – it was and continues to be used to treat coughs and bronchitis; sage is thought to improve blood flow to the brain and help one's memory, and willow contains salicylic acid, a component of aspirin. Fennel, cinnamon and ginger are all carminatives (which relieve gas in the intestines), and would relieve a colicky stomach.

Cormorant blood – or that of any other warm-blooded creature – would add iron for anemia; mandrake, although poisonous, is a good sleeping draught if used in small doses, and, finally, dragon's blood. This isn't blood at all, and certainly not from a mythical beast! It is the bright red resin of the tree *Dracaena draco* – a species native to Morocco, Cape Verde and the Canary Islands. Modern research has shown that it has antiseptic, antibiotic, anti-viral and wound-healing properties, and it is still used in some parts of the world to treat dysentery – but I'm not sure it could have done anything for epileptics or cataleptics.

2) A good medicine for sciatica [pain caused by irritation or compression of the sciatic nerve, which runs from the back of your pelvis, all the way down both legs]. A number of medieval remedies suggested variations of the following: “Take a spoonful of the gall of a red ox and two spoonfuls of water-pepper and four of the patient’s urine, and as much cumin as half a French nut and as much suet as a small nut and break and bruise your cumin. Then boil these together till they be like gruel then let him lay his haunch bone [hip] against the fire as hot as he may bear it and anoint him with the same ointment for a quarter of an hour or half a quarter, and then clap on a hot cloth folded five or six times and at night lay a hot sheet folded many times to the spot and let him lie still two or three days and he shall not feel pain but be well.”

Perhaps it was the bed rest and heat treatments that did the trick, because I can’t see the ingredients of the ointment doing much good otherwise!

3) For burns and scalds: “Take a live snail and rub its slime against the burn and it will heal”  
A nice, simple DIY remedy – and yes, it would help reduce blistering and ease the pain! Recent research has shown that snail slime contains antioxidants, antiseptic, anesthetic, anti-irritant, anti-inflammatory, antibiotic and antiviral properties, as well as collagen and elastin, vital for skin repair.

Modern science now utilizes snail slime, under the heading ‘Snail Gel’, as skin preparations and for treating minor injuries, such as cuts, burns and scalds. It seems that medieval medicine got this one right.

4) For a sty on the eye: “Take equal amounts of onion/leek [there is still debate about whether ‘cropleek’, as stated in the original recipe, in Bald’s Leechbook, is equivalent to an onion or leek today] and garlic, and pound them well together. Take equal amounts of wine and bull’s gall and mix them with the onion and garlic. Put the mixture in a brass bowl and let it stand for nine nights, then strain it through a cloth. Then, about night-time, apply it to the eye with a feather.”

Would this Anglo-Saxon recipe have done any good? The onion, garlic and bull's gall all have antibiotic properties that would have helped a sty – an infection at the root of an eyelash. The wine contains acetic acid which, over the nine days, would react with the copper in the brass bowl to form copper salts, which are bactericidal. Recently, students at Nottingham University made up and tested this remedy: at first, the mixture made the lab smell like a cook shop, with garlic, onions and wine, but over the nine days the mixture developed into a stinking, gloopy goo. Despite its unpromising odour and appearance, the students tested it for any antibiotic properties and discovered that it is excellent. The recipe is now being further investigated as a treatment against the antibiotic-resistant MRSA bug, and it looks hopeful. The ancient apothecary was right about this remedy, but it was one that needed to be prepared in advance for sale over the counter. The apothecary's shop. From *Johannis de Cuba Ortus Sanitatis*, Strasbourg, 1483. © Pictorial Press Ltd / Alamy

5) For gout: “Take an owl and pluck it clean and open it, clean and salt it. Put it in a new pot and cover it with a stone and put it in an oven and let it stand till it be burnt. And then stamp [pound] it with boar's grease and anoint the gout therewith.”

Poor owl! I can't think that this would have helped the patient very much either...

6) For migraines: “Take half a dish of barley, one handful each of betony, vervain and other herbs that are good for the head; and when they be well boiled together, take them up and wrap them in a cloth and lay them to the sick head and it shall be whole. I proved.”

Betony [a grassland herb] was used by the medieval and Tudor apothecary as an ingredient in remedies to be taken internally for all kinds of ailments, as well as in poultices for external use, as in this case. Modern medicine still makes use of the alkaloid drugs found in betony for treating severe headaches and migraine. Vervain's glycoside [a class of molecules in which, a sugar molecule is bonded to a 'non-sugar' molecule] derivatives too are used in modern treatments for migraine, depression and anxiety, so once again the apothecary knew what he was doing with this recipe!

7) For him that has quinsy [a severe throat infection]: “Take a fat cat and flay it well, clean and draw out the guts. Take the grease of a hedgehog and the fat of a bear and resins and fenugreek and sage and gum of honeysuckle and virgin wax. All this crumble small and stuff the cat within as you would a goose. Roast it all and gather the grease and anoint him [the patient] with it.” With treatments like this, is it any wonder that a friend wrote to Pope Clement VI when he was sick, c1350, to say: “I know that your bedside is besieged by doctors and naturally this fills me with fear... they learn their art at our cost and even our death brings them experience.”

8) To treat a cough: “Take the juice of horehound to be mixed with diapienidion and eaten” Horehound [a herb plant and member of the mint family] is good for treating coughs, and diapienidion is a confection made of barley water, sugar and whites of eggs, drawn out into threads – so perhaps a cross between candy floss and sugar strands. It would have tasted nice, and sugar is good for the chest – still available in an over-the-counter cough mixture as linctus simplex.

9) For the stomach: “To void wind that is the cause of colic, take cumin and anise, of each equally much, and lay it in white wine to steep, and cover it over with wine and let it stand still so three days and three nights. And then let it be taken out and laid upon an ash board for to dry nine days and be turned about. And at the nine days’ end, take and put it in an earthen pot and dry over the fire and then make powder thereof. And then eat it in pottage or drink it and it shall void the wind that is the cause of colic”

Both anise and cumin are carminatives, so this medicine would do exactly what it said on the tin – or earthen pot. The herbs dill and fennel could be used instead to the same effect – 20th-century gripe water for colicky babies contained dill. This remedy would have taken almost two weeks to make, so patients would have bought it from the apothecary, as needed.

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Her books, all published by Amberley, include *Everyday Life in Medieval London: From the Anglo-Saxons to the Tudors*; *The Medieval Housewife & Other Women of the Middle Ages* and her latest book, *Dragon's Blood & Willow Bark: The Mysteries of Medieval Medicine*, which is out now.<sup>2</sup>

### Folk Remedies

In the Dark Ages the secrets of plants and herbs and natural healing properties were regarded as the domain of the Druids. In the Middle Ages the folk healers, usually wise women, who had learned the secrets of which herbs, flowers, trees and plants had the power to heal and ward off evil influences passed them down, usually just before death, to the next generation.

Many of the folk remedies applied were effective because of the medicinal qualities and beneficial substances contained within the plants. The folk healers went the extra step of assuring the effectiveness of their cures by picking the herbs at the right time (facing south at sunrise when pulling herbs made them more potent) and with the addition of spoken charms.

**Listed below are several unusual folk remedies.**

1. Buttercups worn in a bag around the neck would cure insanity.
2. An amulet of senna, mint, and rue worn as a bracelet averted evil, as did primrose and convolvulus picked on May first and twined into wreaths.
3. Woodbine cut on the waxing moon was made into hoops which were preserved until the following March. When children were ill they passed through a hoop three times to cure them.
4. St. John's Wort was most effective for curing fever if found by accident, especially on Midsummer's Eve.

5. Mustard and garlic warded off the plague.
6. Eating nettles mixed with the white of an egg cured insomnia.
7. Heather boiled in water and applied warm to the top of the head cured a headache.
8. To cure cataracts draw fresh water from a well, taking care not to rest the basin on earth or stone, only wood. Add a gold or silver coin to the water, then blades of grass and let seep. Pass the blades of grass across the eye, then pour water from the basin into the eyes.
9. To cure ague swallow a spider wrapped in a raisin.
10. To cure baldness rub goose droppings over the affected area.
11. Tie an eel skin around the knee to alleviate cramps.
12. To cure a toothache, touch a dead man's tooth.
13. To make freckles disappear, cover them with blood from a bull or hare, or use water distilled from crushed walnuts.

### **Dangerous (Poisonous) Herbs**

There is still a lot of controversy over many of the herbs used in the Middle ages. I don't necessarily agree with all of their "unsafe" herbs. As a nurse for a Naturopath doctor, we used



kava-kava, bitter orange, and colloidal silver often. As with any herbal supplement, I would always suggest to check with your doctor to make sure that it will not counteract with any of the current medications that you are on. Some of these herbs have been tagged by the FDA as unsafe for humans. Here is their list:

NAME (also known as)	PURPORTED USES	POSSIBLE DANGERS	COMMENTS
<b>ACONITE</b> (aconiti tuber, aconitum, radix aconiti)	Inflammation, joint pain, wounds, gout.	Toxicity, nausea, vomiting, low blood pressure, respiratory-system paralysis, heart-rhythm disorders, death.	Unsafe. Aconite is the most common cause of severe herbal poisoning in Hong Kong.
<b>BITTER ORANGE</b> (aurantii fructus, Citrus aurantium, zhi shi)	Weight loss, nasal congestion, allergies.	Fainting, heart-rhythm disorders, heart attack, stroke, death.	Possibly unsafe. Contains synephrine, which is similar to ephedrine, banned by the FDA in 2004. Risks might be higher when taken with herbs that contain caffeine.
<b>CHAPARRAL</b> (creosote bush, Larrea divaricata, larreastat)	Colds, weight loss, infections, inflammation, cancer, detoxification.	Liver damage, kidney problems.	Likely unsafe. The FDA advises people not to take chaparral.
<b>COLLOIDAL SILVER</b> (ionic silver, native silver, Silver in suspending agent)	Fungal and other infections, Lyme disease, rosacea, psoriasis, food poisoning, chronic fatigue syndrome, HIV/AIDS.	Bluish skin, mucous membrane discoloration, neurological problems, kidney damage.	Likely unsafe. The FDA advised consumers about the risk of discoloration on Oct. 6, 2009.
<b>COLTSFOOT</b> (coughwort, farfarae folium leaf, foalswort)	Cough, sore throat, laryngitis, bronchitis, asthma.	Liver damage, cancer.	Likely unsafe.
<b>COMFREY</b> (blackwort, common comfrey, slippery root)	Cough, heavy menstrual periods, chest pain, cancer.	Liver damage, cancer.	Likely unsafe. The FDA advised manufacturers to remove comfrey products from the market in July 2001.
<b>COUNTRY MALLOW</b> (heartleaf, Sida cordifolia, silky white mallow)	Nasal congestion, allergies, asthma, weight loss, bronchitis.	Heart attack, heart arrhythmia, stroke, death.	Likely unsafe. Possible dangers linked with its ephedrine alkaloids banned by the FDA in 2004.
<b>GERMANIUM</b> (Ge, Ge-132, germanium-132)	Pain, infections, glaucoma, liver problems, arthritis, osteoporosis, heart disease, HIV/AIDS, cancer.	Kidney damage, death.	Likely unsafe. The FDA warned in 1993 that it was linked to serious adverse events.
<b>GREATER CELANDINE</b> (celandine, chelidonii herba, Chelidonium majus)	Upset stomach, irritable bowel syndrome, liver disorders, detoxification, cancer.	Liver damage.	Possibly unsafe.
<b>KAVA</b> (awa, Piper methysticum, kava-kava)	Anxiety (possibly effective).	Liver damage.	Possibly unsafe. The FDA issued a warning to consumers in March 2002. Banned in Germany, Canada, and Switzerland.
<b>LOBELIA</b> (asthma weed, Lobelia inflata, pukeweed, vomit wort)	Coughing, bronchitis, asthma, smoking cessation (possibly ineffective).	Toxicity; overdose can cause fast heartbeat, very low blood pressure, coma, possibly death.	Likely unsafe. The FDA warned in 1993 that it was linked to serious adverse events.
<b>YOHIMBE</b> (yohimbine, Corynanthe yohimbi, Corynanthe johimbi)	Aphrodisiac, chest pain, diabetic complications, depression; erectile dysfunction (possibly effective).	Usual doses can cause high blood pressure, rapid heart rate; high doses can cause severe low blood pressure, heart problems, death.	Possibly unsafe for use without medical supervision because it contains a prescription drug, yohimbine. The FDA warned in 1993 that reports of serious adverse events were under investigation.

Source: Natural Medicines Comprehensive Database, Professional Version, June 2010

Be careful what you touch, and what you eat. Some vegetation can snuff out your life as surely as a venomous snake. There are hundreds, if not thousands, of poisonous plants in the world, and some of them are deadly.

## 10 of the World's Deadliest Plants

**10) Conium (aka Hemlock):** Let's start with something you're likely to have heard of. If we're going to talk about poisonous plants, then right at the top of the list should be hemlock, don't you think? Widely known for its uses in ancient Greece as a means of execution, hemlock's most famous victim was the philosopher Socrates, who suffered the effects of the plant's most potent toxin, coniine.

Ingestion of even small amounts of coniine (6—8 leaves, or an even smaller dose of the seeds or roots, usually does it) causes death by disrupting your body's neuromuscular junctions, resulting in what is known as "ascending muscular paralysis." The paralysis typically begins in a person's legs, and ascends up the body until it reaches the respiratory muscles, resulting in death.

**9.5) Hemlock again:** *Cicuta* (aka Water Hemlock, death-of-man, poison parsnip): Members of the genus *Cicuta* belong to the same family of plants as the hemlock that did in Socrates; and their toxic effects are so harrowing they warrant an appearance on this list as well.

There are four species belonging to the genus, and all of them are extremely poisonous. The plants contain a compound called cicutoxin, a chemical that is most concentrated in the plant's root system. These roots, when pulled freshly out of the ground, are often mistaken for edible plants like parsnip. Eating the plant, however, is a decidedly awful idea, as cicutoxin is a potent neurotoxin that operates by overstimulating the central nervous system, leading to nausea, abdominal pain, respiratory impairment, kidney failure, irregular heartbeat, tremors, seizures, and death. The neurotoxin is also incredibly potent; ingestion of the plant has been known to lead to death in cattle in as little as 15 minutes.

**9) Nerium oleander (aka Oleander):** This shrub is one of the most dangerous on the list, which is bizarre on account of how widely it's used as a decorative shrub. This bush pops up in parks, schools, and back yards all over the country, especially in the southern and western regions of the US. And while it might be nice to look at, don't go chewing on any part of it — its leaves, flowers, and fruit all contain chemicals known as cardiac glycosides, which, while therapeutic in precise doses, can put you into cardiac arrest if ingested unsystematically.

**8) Aconitum (aka monkshood, wolfsbane, and devil's helmet):** The poisonous properties of members of the *Aconitum* genus have been known for generations; several species of the plant, for example, have long been used in preparing poison-tipped arrows for purposes of hunting and warfare. In humans, accidental ingestion can be fatal; the plants contains appropriately named aconitine neurotoxins and cardiotoxins, which lead to gastrointestinal complications, motor weakness, and heart and lung paralysis.



**7) *Ageratina altissima* (aka White Snakeroot):** White snakeroot is so potent that just drinking the milk or eating the meat of a cow that's ingested the plant can lead to severe sickness and even death. The plant contains a toxin called tremetol, which, when ingested by humans, can lead to trembling, vomiting, and serious intestinal troubles. The illness brought on by secondary tremetol ingestion was so widespread in the early 19th century that it became known as "milk sickness," and is estimated to be responsible for thousands of deaths at the time — including that of Abraham Lincoln's mother, Nancy Hanks Lincoln.

**6) *Brugmansia* (aka Angel's Trumpet):** Botanists will tell you that members of the genus *Brugmansia* get their nickname, "Angel's Trumpet," from their large, hanging, trumpet-shaped flowers, which can measure up to 50cm long and 35cm wide at their openings. But we like to think it's named for the trumpeting angels that will herald your arrival in the afterlife. Ingestion of the plant, which contains dangerous levels of the chemicals scopolamine and atropine, is often fatal.

**5) *Dieffenbachia* (aka Dumbcane):** Members of the genus *Dieffenbachia* are made up of cells containing microscopic needle-shaped crystals of calcium oxalate called raphides, shown here at 600x magnification. When leaves of the *Dieffenbachia* plant are chewed, these tiny spears of calcium oxalate typically lead to oral irritation, excessive drooling, and swelling. In rare cases, however, irritation becomes so severe that the tongue, mouth, and throat are effectively immobilized, while tissues become so swollen that the airways are blocked, leading to death.

**4) *Abrus precatorius* (aka Jequirity, Crab's Eye, Rosary Pea):** *Abrus precatorius* is native to Indonesia, where its vibrant black, red, and white beads are often used in the region's percussion instruments. But the seeds are also highly poisonous on account of their abrin content. Abrin, which is chemically similar to the ricin found in castor seeds (see below), sabotages your body's functions at the cellular level by inactivating ribosomes, the molecular machines in your body responsible for synthesizing proteins. The abrin content of just one seed is said to be fatal to humans.

**3) *Hippomane mancinella* (aka Manchineel, manzanilla de la muerte ["little apple of death"]):**

The Manchineel tree does not like company. If you brush up against the tree, the white sap it produces is liable to produce a violent allergic reaction on your skin. Standing beneath the tree during a rainstorm will cause any skin that comes in contact with runoff from the tree to blister. These epidermal effects are caused by the powerful irritant phorbol, just one of the many toxins found in the tree's milky sap. Ingesting the tree's fruit, pictured here, is often fatal on account of its physostigmine content, which can lead to complications involving nausea, vomiting, diarrhea, and seizures. Basically, don't mess with the manchineel; there's a reason it's called "the little apple of death." You won't like it, and it definitely doesn't like you.

**2) Cerbera odollam (aka The Suicide Tree):** This species of tree belongs to the same family as Oleander, and is also quite toxic to humans. The seeds of the Suicide Tree contain a toxin called cerberin, a potent compound capable of disrupting calcium ion channels in heart muscle, which can lead to an irregular heart beat that is often fatal if the toxin is ingested in high enough quantities.

The plant has been referred to by some as the perfect murder weapon. Getting someone to ingest the cerberin in the suicide tree is purportedly pretty easy to do, as its flavor can be disguised by spices when served in food. The toxin is also notorious for being overlooked as a cause of death in autopsies.

It may not come as a surprise, therefore, that a team of French forensic toxicologists concluded that *Cerbera odollam* is used by more people to commit suicide and murder than any other plant, having identified more than 500 cases of fatal *Cerbera* poisoning between 1989 and 1999 in the south-west Indian state of Kerala alone.

**1) Ricinus communis (aka the Castor Oil Plant):** Much like oleander, Castor oil plants can be found in houses and gardens all over the world, despite the fact that their seeds are actually very dangerous — so dangerous, in fact, that the plant is the current holder of the Guinness Book of World Records title for world's most poisonous plant.

The seeds harbor an incredibly toxic chemical called ricin, and a lethal dose is considered to be in the range of 4 to 8 seeds. Ingestion of the seeds can lead to burning sensations in the mouth and throat, intense abdominal pain, and bloody diarrhea within 36 hours, and can lead to death within 3-5 days if left untreated.

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