

THE TREE DISPENSARY

The Uses, History, and Herbalism
of Exotic Trees



CHRISTINA STAPLEY

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AEON

First published in 2021 by
Aeon Books Ltd
Hilltop
Lewes
BN7 3HS

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British Library Cataloguing in Publication Data

A C.I.P. for this book is available from the British Library

ISBN: 978-1-91350-473-1

Typeset by Medlar Publishing Solutions, Pvt Ltd., India
Printed in Great Britain

www.aeonbooks.co.uk

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Dedication and Acknowledgements

This book is dedicated to Sally and Barbara with thanks for their brilliant company as we travelled together in search of trees.

I would like to thank my friends and colleagues in herbal history as well as herbalism; Anne Stobart, Vicki Pitman, and Barbara Lewis for their support and assistance, especially Barbara who accompanied me to Grenada, read the manuscript, and advised. Thanks to Rebekah Hodgkinson for her specialist advice. My thanks also go to Annie Campbell and friends in Grenada for their hospitality and introduction to trees there. We were greeted everywhere with great generosity of spirit. Many thanks are due to Roula Boura, who made the harvest of mastic so fascinating and enjoyable on my visit to Chios. Thanks to my American friends Susan Leigh-Anthony and Karen O'Brien for their hospitality and help with this book and Judith Sumner for her assistance. They have all accompanied me on this journey of discovery. Indeed, hospitality and welcome have been the hallmark of my travels, not least in Oman where frankincense trees are harvested sustainably and the evidence of a caring society and religious observance is impressive.

Foreword

During my training as a herbalist, I searched unsuccessfully for an in-depth book on trees in herbal medicine. Already a historical researcher and grower of thirteen trees offering herbal harvests, I found that the more encyclopaedic books available did not encourage my interest. At the time, however, I had much to learn in other areas of medicine.

My real fascination with trees grew from researching in preparation for tutoring a historical herb workshop, *The A–Z of Medicinal Trees*. The workshop was held at the Weald and Downland Living Museum, where there were fine examples of both native and some foreign trees. The interest attracted by that first and subsequent day courses, when I was asked so many questions, encouraged me to delve further into the histories of these medicinal trees.

Never again will a tincture or dried herb of tree origin be simply a name on the label and list of constituents, actions, and indications. I hope this book, written from personal experience and interaction with the trees, will encourage readers to feel a stronger connection with trees and foster a desire to explore, visit, or care for them.

In the first book of *The Tree Dispensary*, I wrote about growing and observing familiar native trees and those adapted to our temperate climate, alongside an exploration of their history and medicinal uses. However, when I first looked along the shelves in my dispensary and also reviewed trees involved in my historical workshop recipes, I realised that travel would be necessary to fully research many on the list. I grow or have grown a third of the trees in this second work and have experienced some in North America and on the Continent in previous years. Writing of others from a personal viewpoint could only be supported by visits to the Caribbean, Oman, and in the case of Mastic, the island of Chios.

These travels have inevitably deepened my emotional understanding of the terrible hardships endured by enslaved people on the plantations in Grenada. It was easy to be captivated by the beauty of the trees

that produce cocoa, but the history that surrounds their cultivation and harvest sets the production of chocolate in a different light. Visiting the mastic Museum on Chios, I was struck by the recording of a song that tells of a mother begging her daughter not to work with the mastic trees as the life is so hard with little reward. The history of the island has been one of repeated violence involving not only piracy to steal the valuable mastic but domination and massacre to gain control of this resource.

In North America once again I looked at the history and exploitation of trees. The original good relationship between hospitable Indians and early settlers who accepted their vital help was, even a few years ago not represented. It was difficult to find evidence of respect or acknowledgement that they were the first nations who owned the land and lived in harmony with their environment. It seems that everywhere, peoples who respected valuable trees and the environment and understood their medicinal uses and sustainable harvest have been almost swept away by the greed of others.

All across the world sustainability and examining past behaviour are, I would like to believe, inspiring a very different approach for the future and I hope this book may support an appreciation of trees to further this effort.

Exploring the trees and their uses has been a fascinating adventure, which I hope readers will enjoy following.

THE TREE
DISPENSARY

INTRODUCTION

The *Tree Dispensary* presents a personal appreciation of the trees as the author has experienced them through everyday life, as herb historian and herbalist.

“Getting to know the tree” sections cover a wide area of general knowledge from cultivation experience and folklore to listing their uses in cookery, and crafts.

In the histories, having been trained by my archivist father to go to primary sources, I have allowed these to dominate the text. Voices from the past speak for themselves from my library of original herbals, rather than presenting a modern view of the past.

That my historical sources are necessarily male dominated, reflects changes in society away from the early Celtic matriarchal culture to classical ideas. The Roman male head of the household was required to know how to treat sickness in those he was responsible for. It also confirms the lack of education for the average woman over many centuries. What so easily remains hidden is the importance of women with sound knowledge of herbal medicine in treating the sick.

One of my early appearances on television was filmed at Butser Ancient Farm, in which I appeared as a Celtic healer of the Iron Age. This showed the timeless feminine role of the carer who has always been there for the community. A local family was recruited to take part as my patients in the film. A few months later I found myself actually treating them, this time as their herbalist in the context of modern village life. For me the sense of continuity across two and a half thousand years was both striking and fulfilling.

The presence of women skilled with herbs may have been as any of the following: the wise woman of the community, licensed midwife, female surgeon allowed to follow her father or husband into the profession in the medieval period, an apothecary nun or the lady of the manor who treated her household, and often the poor as a Christian duty. Women have always filled the healing role and understood herbal medicine and still far outnumber men in the herbal world.

The herbalists' reference section is material selected from information, which I compiled as a handy reference when prescribing and has additions from my own observations. In this section dosages and constituents are taken from a wide variety of sources including:

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CARIBBEAN



Cacao pods can grow anywhere on the tree. Photo courtesy Annie Campbell.

Cacao

Theobroma cacao – Cocoa Tree – Sterculiaceae

COCOA – Usefulness – As a nutritive, flavoursome powder cocoa or cacao is added to drinks, cakes, puddings, and sweets. Eighty-five to one hundred percent chocolate is medicinally supportive for the micro-circulation in the eyes, kidneys, and bone. Chocolate is mostly appreciated as a mood enhancer and possible aphrodisiac. Oil of theobroma or cocoa butter is still used in pharmacy.

Dangers – Cocoa is a possible allergen and may trigger migraines in sensitive people. It is contraindicated for those with peptic ulcers and may worsen reflux and irritable bowel syndrome (IBS).

Getting to Know the Cacao Tree – I had travelled to the Caribbean to see five trees: the guaiacum, pimento, cinnamon, clove, and nutmeg. Little did I imagine that my heart would be won by another tree altogether. On the island of Grenada, the all-important nutmeg crop was devastated by the hurricane of 2004. By 2017, there was an expansion of the role of another long-established crop on the island, the cacao trees. Previously the cacao beans had been exported for processing either into the powder then known as cocoa, largely used for making the hot drink, or into chocolate. On my visit I saw the beginnings of a new industry preparing the beans and making Grenadian chocolate. It was particularly welcome given the dark history of slavery and exploitation on

the island to see that small scale growers are able to access an ethically run home market.

Descriptions of the tree tell of its beauty when bearing fruit or call it very engaging; neither description prepared me for the experience. I had never before seen tropical trees bearing tiny, perfect blossoms and later attractive fruits apparently at random anywhere on the trunk or branches. The botanical term for this is cauliflory. Cacao trees bear miniature flowers and these together with the bright varied colours of the fruit pods as they ripen are very attractive. In Grenada they are grown beneath nutmeg or mango trees, which supply the necessary shade that they would have enjoyed in their native rainforest in South America.

The flower is reminiscent of a scaled down orchid, with its intricate pink markings on the five white petals and a red centre at the base of the stamens. There is no appreciable scent but their delicacy on short pedicels or stalks stands out beautifully against the mottled grey-brown bark. The flowers appear every twenty-four hours, and if they are pollinated by the sandflies then a fruit pod begins to form. These insects and midges breed in fallen pods and so some need to be left beneath the tree to maintain the cycle.



Cacao flower and pod on the tree trunk. Photo courtesy Belmont Estate.

The dappled shade is provided not only from the long, bright green oval leaves of the cacao tree that terminate in a point, but also from the leaves of the shade tree, which, in the tree illustrated, was a mango. The fruit pods are long, curved, and deeply ridged from the wide end closest to the tree towards the narrower tip. They change colour as they ripen showing yellow, orange, and reddish purple.

As our guide cut a brightly coloured fruit pod from the tree and opened it for us, he explained that the flavour of the mango entered the gloopy white covering of the twenty to thirty cacao beans inside the pod. I can only presume this happens through fungi which send threads into their soft root hairs connecting trees in a network so that the trees can share nutrients, and in this case flavours, which were carried up the tree in the xylem. There is certainly scientific evidence that different tree species are in helpful contact with one another when they are in proximity, even when they might view each other as competitors.¹

Our guide offered us a bean each, warning us not to bite into it but just to suck the creamy white covering, which frankly did not look appetising. He assured us that if the shade tree had been a nutmeg that would be the taste we would enjoy. Scientific evidence aside, any scepticism on my part vanished as my mouth was filled with the familiar flavour of mango.

The harvest of beans is first fermented. We saw a number of cubicles, the upper part open to the air reminding me of compost bins and a worker there was turning the beans, still with their white coating, from one to the next. This is a process which happens each day. They are then covered with banana leaves and left to ferment for twenty-four hours before being turned and moved again. This continues from seven to ten days according to requirements.

The beans now free of their coating, then progress to the great drying trays, which are fully extended in the hot sun and covered with brown cacao beans. Each tray can be pushed back into the side of the building just like a drawer if rain comes. With a smile our guide encouraged me to climb onto the tray to turn the beans with my bare feet as I walked the length of the tray! I complied and thoroughly enjoyed “walking the beans” as it is known. It was very different and much harder on the skin than pressing grapes but good fun.

We then saw more beans were drying inside a glasshouse before going elsewhere to be processed. Cacao beans are taken from their shells and pressed to remove a portion of the fat and then ground. At the small chocolate factory, tasting was encouraged; both of the bitter de-husked nibs and the resulting chocolate at different strengths and with different additional flavours. Vanilla or ginger flavours proved popular. Vanilla was already being added to chocolate in the eighteenth century. At the plantation there was also an avenue of vanilla vines. The pods had been harvested not long before, but one pod remained at the very end of the avenue and the wonderfully sweet and rich aroma from that one yellow pod only a couple of inches long led us to it. The pod was small and yet so powerful. By two days later, it had turned the familiar black of vanilla pods on sale.

When tasting chocolate, the seventy-five percent had the finest flavour. This had been made from the ground cocoa nibs with added

sugar, cocoa butter, and flavouring; but for health benefits it needs to be at least eighty-five percent cocoa, which has a corresponding level of bitterness. The small print of different plain dark chocolate bars shows how the amount of cocoa butter varies. Those bars containing less cocoa butter and therefore less fat are healthier. At home I enjoy one hundred percent cocoa chocolate chopped into small pieces and mixed with raisins and pine nuts to ease the bitter taste.

Chocolate rum punch sold at a Grenadian distillery is an exceptional drink and addition to food that is not available anywhere else. Still known as the spice island, Grenada is also making the most of growing chocolate. To appreciate



Vanilla vine and pod. Photo courtesy Belmont Estate.

the good reasons for indulging in eighty-five to one hundred percent chocolate—see Herbalist Reference.

Legends and Folklore. The Aztec people believed the tree to have a divine origin, and the frothy spiced chocolate drinks they made with added vanilla were thought of as part of the diet of their plumed serpent-god Quetzalcoatl.

Note

1. Peter Wohlleben, *The Hidden Life of Trees* (London: Harper Collins, 2016), 51.

COCOA – History of Medicinal Use

The earliest illustration of *Theobroma cacao* is in the Badianus Manuscript, a beautifully colourful Aztec Herbal from 1552, long kept in the Vatican Library. Although appearing as tiny along with other trees, the realism of the pods makes the cacao instantly recognisable. It is labelled *Tlapalcacauatl*, coloured *cacauatl*, or coloured cocoa. Early rulers in South America had pleasure gardens built on high ground containing many medicinal plants, sometimes brought long distances. Both the cacao and the vanilla orchid were conveyed with other plants to the important tropical garden of Huaxtepec, belonging to Montezuma. There, Aztec physicians widened their considerable knowledge of healing herbs. Doctor Hernández, the first European physician to study

plants in the garden in the 1550s, recorded the descriptive names for some 1200 medicinal plants.¹

The first cacao fruits were taken to Spain from South America by Hernández Cortez in 1528, where he recommended the drink for fighting tiredness, but the first shipment of cacao to Spain did not follow until almost sixty years later. The taste for cocoa only became popular in England with the later spread of chocolate houses from Spain firstly to Paris, and then London, in the mid-seventeenth century, competing with the coffee houses. While editing *The Receipt book of Lady Anne Blencowe* from 1694 I found only a mention, with “Chocallett” (p.14) as an optional colouring when making a kind of biscuit, almond jumballs. An anonymous *Collection of Recipes* from



Trays of drying Cacao beans.
Photo courtesy Belmont Estate.

1746 includes one for chocolate puffs, which are basically chocolate meringues. In the following year, Hannah Glasse referred to a chocolate mill² used to whisk chocolate drinks, which often contained eggs at that period. The design of some resembling honey servers was adapted from the stick originally used by the Aztecs to froth their chocolate drink made with cacao, spices, and water. The Aztec drink had been cold, but the Spaniards altered it to a hot beverage.

Sir Hans Sloane brought a chocolate drink recipe back from Jamaica. He added milk for better digestion and recommended it for numerous complaints from urinary stones to fevers. It was later advertised as useful for consumptive patients.³ Another stillroom collection of recipes has a recipe for a “Jockallato drink” (p.144) made with milk and water, eggs, and sugar in a glass bottle set in boiling water.⁴ Vanilla might be added and for some at this time the popular flavourings of ambergrease or cinnamon completed the recipe. Indeed, since the sustaining medical benefits of chocolate drinks, which, among other things helped against emaciation of consumptive patients had been appreciated, various spices and a range of herbal additives were recommended for treating particular complaints. *The Experienced English Housekeeper* by Elizabeth Raffald has a simple recipe involving four ounces of chocolate to a quart of boiling water, which was whisked with the chocolate mill and sweetened and then once boiled, stood overnight before more milling and boiling.⁵

Cocoa butter was the first part of the cacao harvest to be used in medicine. This was separated from the beans as early as 1695 by Homberg. In 1719 it was recommended for inclusion in ointments by D. de Quelus. Soon after we find Geoffroy’s recommendation for applying the butter to haemorrhoids and chapped lips and skin.⁶ When Linnaeus gave the cacao tree the Latin name *Theobroma* this was referring not only to the qualities of the seeds. *Theobroma* means “food of the gods” and the Toltecs and Aztecs had believed that chocolate drinks had been enjoyed by Quetzalcoatl, the plumed serpent god. Hill’s *History of Materia Medica* gives us, “The Antients were wholly unacquainted with the *Cacao*, it has only been known to us since our making Settlements in *America*; but the first Planters of these Colonies found the Natives well acquainted with its Use and Virtues; they esteem’d it very highly, and not only in great Part lived upon the Drink they made from the Nuts, in the manner we

do Chocolate, but also used them as Money in the Purchase of other things.” (p.474). The drinks they made from ground and roasted cocoa beans had the addition of chillies, vanilla, the red colouring annatto, and other plants.

Hill lists four different kinds of cacao tree, two kinds of Nicaragua Cacao, the greater and the smaller Caracca Cacao, and the greater and lesser kinds from the Antilles. He judged the largest Nicaragua cacao to be the best. He describes these trees as having yellow flowers in clusters, the remainder of the description tallies with those I observed. Hill mentions that chocolate is sometimes prescribed as an ingredient in restorative electuaries. The History repeats it is classed as restorative, stomachic and thought by many to be a “provocative” (p.475).⁷ The best way to take it for medicinal properties, it was stated, was in liquid form.⁷

The sustaining nature of chocolate supported a large proportion of the cocoa imported into Britain in the mid 1800s being issued to the Royal Navy. Readers of the Alexander Kent novels set in the navy at that period will have noted the main characters portrayed drinking it.

We also find an appreciation of cocoa butter for cosmetic use in *The Toilet of Flora* when under a recipe for “*A Pomatum for the Skin*” there is the note, “A great quantity of a substance resembling Butter is extracted from the Cocoa Tree, which is excellent to mollify and nourish the skin, and has long been used for this purpose amongst the Spanish Creolian women.” (p.170)⁸

The Pharmacopoeia of 1791 does not include *Theobroma*. By 1829 *A Manual of Materia Medica and Pharmacy* published in Philadelphia lists the *Theobroma cacao* tree as native to Mexico. The Manual gives a description of the tree and says several species were then found in commerce. Although published in America, the manual also gives the principal officinal preparations in the London, Dublin, and Edinburgh Pharmacopoeias. The cacao oil or butter is given as being obtained by the different method of boiling the cacao nuts in water allowing the oil to float to the surface. Here it is listed as being given internally in an emulsion or pills for its demulcent, soothing properties for the stomach (especially cancer of the stomach), lungs, and urinary passages. The uses noted earlier for chapped lips and nipples are listed as salves, along with suppositories for haemorrhoidal tumours.⁹ [N.B. The terms Cacao and cocoa are found used interchangeably when the oil or butter is

mentioned in Pharmacopoeias at different historical dates. It is now accepted that the term cacao refers only to the un-processed beans].

Meanwhile the cocoa butter had by then become a by-product of the chocolate manufacturing process, with the shelled seeds yielding forty-five to fifty percent of their weight in oil. Pharmacies on the Continent had long used cocoa butter as it tends to keep rather better than many fats. It also has the advantages of being solid at room temperature, being readily broken up in that state and melting at body temperature which has seen it useful for suppositories. However, it is not until 1879 that we find it being recorded as introduced into pharmacies in England just a few years before.¹⁰ Cocoa butter has also been administered internally, usually as a coating over pills to give a preferable taste in the mouth.

Later in the nineteenth century, we find cocoa butter appears in the British Pharmacopoeias for 1885 and 1898. In 1914, the British Pharmacopoeia lists it as an ingredient in suppositories as oil of theobroma and acting as a carrier for tannic acid, morphine, belladonna, or compound lead mixtures.¹¹ Oil of theobroma remained in the 1958 British Pharmacopoeia although the only medium under suppositories has changed to glycerine.¹²

The Extra Pharmacopoeia of 1967 describes prepared theobroma (cocoa powder) being used as a basis for tablets and lozenges, for coating certain tablets and sometimes in the preparation of barium sulphate meals. Cocoa syrup was also used to disguise the bad taste of some medicines. Of cacao butter there is a description, advice on melting point and care in hot climates, together with the use in suppositories, pessaries, bougies, emollient ointments, and massage lubricant.¹³ Most Theobroma is grown in Africa rather than South America today.

Summary. When cacao beans first arrived in this country in the mid-seventeenth century preparations from them were initially appreciated in the form of chocolate drinks or use of the powder as flavouring in cookery. The nourishing aspect of the drink was at the fore although its sale was already encouraged by ideas that it might be restorative in a medicinal sense as well as nourishing. By a century later chocolate taken in a drink was referred to as stomachic, restorative, and provocative as a stimulant. It appears in electuaries in the eighteenth century as in the recipe below.

Cocoa butter had been separated from the beans in 1695 but it was not until 1719 that it was recommended as an ingredient in ointments. Pomatums and creams followed for treating chapped, dry skin and in the nineteenth century the oil or butter was given in an emulsion or pills for its demulcent, soothing properties for the stomach, (especially cancer of the stomach), lungs, and urinary passages. The convenient properties of keeping well and being solid at room temperature yet softening and melting at body temperature has facilitated long-standing use in suppositories. Both cocoa butter and the powdered nut have been included in tablets and cocoa syrup has in the last century been used in Belgium and the United States with added vanilla and glycerine to flavour and sweeten bitter tasting medicines. Cacao appears in use in these forms in the 1967 Extra Pharmacopoeia.

Recipe

Extracted from A Complete English Dispensatory. 1736. “Electuarium Analepticum. *A restorative Electuary.* Take Powder of Chocolate and sweet Almonds blanched, of each an ounce; fine Sugar and Conserve of red Roses, of each an ounce and half; pass all thro’ the Pulping-sieve, after beating them in a Mortar with a sufficient quantity of Juice of Kermes, and add to them Balm of *Gilead* 2 scruples, and Syrup of Balsam an ounce; make them into an Electuary.

This is an extraordinary Composition, to be constantly used for some Months together by hectic and consumptive Persons, whom it much nourishes, and softens the sharp hot Humours, which in such Persons abrade and wear away the Substance of the Muscles; it is to be taken 3 or 4 times a day at discretion.” (p.618).¹⁴

Notes

1. Emily W. Emmart, trans., *The Badianus Manuscript (Codex Barberini, Latin 241)* (Baltimore: The John Hopkins Press, 1940), 77–78, 152, 273.
2. Hannah Glasse, *The Art of Cookery made plain and easy* (Original 1747). (London: Prospect Books, facsimile edition. 1983), 145.
3. Philip K. Wilson & W. Jeffrey Hurst, *Chocolate as Medicine* (Cambridge: RSC Publishing, 2012), 84.

4. H.W. Lewer, ed., *A Book of Simples (1700–1750)*, (London: Sampson Low, Marston & Co. Ltd., 1908), 144.
5. Elizabeth Raffald, *The Experienced English Housekeeper* (Lewes: Southover Press, 1997), 163.
6. Friedrich Flückiger & Daniel Hanbury, *Pharmacographia. A History of Drugs*, 2nd edition (London: Macmillan & Co., 1879), 96.
7. John Hill, M.D. *A History of the Materia Medica* (London: Longman, Hitch and Hawes, 1751), 474–476.
8. Anon. *The Toilet of Flora* (London: Murray & Nicoll, 1784), 169/170.
9. Joseph Tognoli, M.D. & E. Durand, trans., *A Manual of Materia Medica and Pharmacy* (Philadelphia: Carey, Lea & Carey, 1829), 433.
10. Flückiger, *A History of Drugs*, 97.
11. *British Pharmacopoeia* (London: Constable & Co., General Council Medical Education, 1914), 278, 372–374.
12. *British Pharmacopoeia* (London: Published under direction of General Medical Council, 1958). 673, 293.
13. R.G. Todd, ed., *Extra Pharmacopoeia Martindale*, 25th edition (London: Pharmaceutical Press, 1967). 252, 903.
14. John Quincy, MD. *A Complete English Dispensatory*, 10th edition (London: Thomas Longman, c1736), 618.

THEOBROMA CACAO – Herbalists' Reference

The Parts of Cacao Used for Medicine – The bean husks, extracted cocoa butter and roasted seeds are all used in mainstream and herbal medicine.

Dosage and Forms – A matter of judgement and situation. The form may be eighty-five to one hundred percent cocoa powder or chocolate.

Constituents – Cocoa is regarded as being nutritious, having a high content of iron, vitamin B, and protein. The seeds also contain small amounts of caffeine and theobromine as well as fat, condensed tannins, and flavonoids, including epicatechin. Eighty-four different volatile compounds give us the rich aroma which we enjoy so much from a mug of hot chocolate or chocolate bar.¹

Preparation – The beans are first fermented, then dried, by which time they are already brown as I have described in my introduction to the tree. Then they are roasted. Next the testa or husk is crushed and the rest of the seed pressed to yield cocoa butter. Theobromine has now become more concentrated in the husk by processing. Those patients



Opened pod and beans. Photo courtesy Douglaston Estate.

who need to avoid taking caffeine can still enjoy white chocolate, which is made from the cocoa butter with no cocoa solids present. Many herbalists include cocoa butter in creams for its properties, which soothe poor and damaged skin.

Effects, Actions and Uses – The amount of caffeine contained in milk and dark chocolate varies considerably as to the type of beans, the length of fermentation, and manner of processing. Beans that have had the outer white membrane removed before processing contain almost no caffeine. The mild stimulation felt from eating chocolate may well be due more to the combination of theobromine and theophylline than caffeine. Theophylline, the isomer of caffeine is even more diuretic. Tryptophan raises the neurotransmitter serotonin, which is helpful to mood. Pre-menstrual syndrome is the result of imbalances at many levels and among these may be a lack of sufficient tryptophan in the diet to make serotonin. It is possible that the cravings some women feel at such a time for foods containing tryptophan, such as chocolate, can be understood as an instinctive response in light of this. With appreciably less caffeine than coffee, the chocolate nevertheless contains more theobromine, which has a lesser action on the central nervous system but is more diuretic aiding lowering blood pressure and is a greater stimulant to the cardiovascular system, dilating coronary arteries.²

Generally, 100% dark chocolate contains considerably more theobromine to the ounce than chocolate with milk added. It also contains flavonoids which aid the health of blood vessel walls and support the antioxidant effect of catechin, decreasing LDL cholesterol. Dark chocolate has been known to increase HDL cholesterol at least since 2015 when an epidemiological study in 20,951 people showed a twelve percent lower risk of cardiovascular disease in habitual chocolate eaters.³ However, it does need to be within that eighty-five to ninety percent bracket. If there is more fat and sugar, it will not have the same effects.

Chocolate is being recommended, therefore, in a healthy dietary package along with curcuma, broccoli, beetroot and other red vegetables containing anthocyanidins, ginger, and garlic. This is to support the micro-circulation in particular in the kidneys and eyes, which take most damage from high blood pressure. Cacao has a place in treating diabetics who are subject to damage in these areas, as it also raises sensitivity to insulin. The high antioxidant activity and procyanidin

constituents have made cocoa of interest to researchers looking at potential anti-cancer compounds.

It has been contended by some that the presence of phenylethylamine restores the depletion in the body when suffering lovesickness, and chocolate has earned a reputation for being an aphrodisiac from this. However, more recent interest in anandamide, a neurotransmitter which heightens sensations, may prove to be the reason for its popularity and reputation as a gift for a lover.⁴

Many people turn to eating chocolate when they are depressed, to help them feel better. The result of eating large amounts of chocolate, which is rich in milk fats and sugar, was described in a positive light in history as helping consumptive patients not to become emaciated. However, if dark chocolate low in fat and sugar can be enjoyed it may help to calm and settle dementia patients as well as those who are anxious or depressed without them gaining weight. In fact, some research has linked frequent consumption of chocolate with a lower BMI.⁵

There is considerable research taking place on the possible benefits of dark chocolate relating to heart disease, supporting cognitive ability and cancer. These are fields to explore further.

The oil or cocoa butter is still used in allopathic and herbal pharmacy when making creams or suppositories. The theobromine, a lower homologue of caffeine that passes largely into the husks during processing has been extracted from them for use as a diuretic drug. It has been given for angina, as a myocardial stimulant to dilate coronary and other arteries. Theobromine is now produced synthetically.

Contraindications and Precautions – It should be noted that for some people the amines, phenylethylamine, tryptamine, and tyramine can trigger migraine attacks. Chocolate is also contraindicated for patients with peptic ulcers. It may increase reflux and worsen IBS.

Notes

1. Trease & W.C. Evans, *Pharmacognosy*, 14th edition (London: W.B. Saunders, 1999), 402.
2. Wilson and Hurst, *Chocolate as Medicine*, 136.
3. W.J. Kelly, ed., *Nursing Herbal Medicine Handbook* (Pennsylvania: Springhouse Corporation, 2001), 95.

4. Kwok, Chun Shing et al., “Habitual chocolate consumption and risk of cardiovascular disease among healthy men and women.” *Heart (British Cardiac Society)* vol. 101,16 (2015): 1279–87. doi:10.1136/heartjnl-2014-307050
5. Golomb, B.A., Koperski, S. & White, H.L., “Association between more frequent chocolate consumption and lower body mass index,” *Archives of Internal Medicine*, 172 (2012): 250, 519–521 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4285439/>



Cinnamon flowers in bud.

An Exploration of the Uses, History, and Herbalism of Exotic Trees

The Tree Dispensary explores the history, folklore and medicinal uses of thirty exotic trees, beautifully illustrated with the author's own photographs. From Cacao to Eucalyptus, and Almond through to Frankincense, Christina Stapley takes us on a journey through North America, Oman, the Mediterranean, China and the Caribbean. This is the companion volume to her previous work which explored the history, herbalism and uses of native European trees.

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Christina Stapley has been researching historical uses of herbs for over forty years, an interest which sprang from research writing a novel set in the Elizabethan period. She is a retired phytotherapist and has grown more than three hundred herbs over the last thirty years. Christina now lives in Wiltshire and teaches at the School of Herbal Medicine in the Southwest. She is the author of *The Tree Dispensary: The Uses, History, and Herbalism of Native European Trees*.

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