



# CINNAMON

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*The information below was originally published in 2015 in the Millhouse Integrative Newsletter, a monthly publication, primarily designed for clinic patients, highlighting useful strategies which may help prevent disease and improve health.*

## Prevention is better than treatment

Healthy food, regular exercise, satisfying work, empowering relationships and living in a safe home and environment are the important characteristics that together make for happiness and a long life. Spice medicine is also being increasingly recognised as an important measure in preventing and relieving disease. Last week I came across a [report from Ilam University of Medical Sciences](#), in western Iran, which showed that the spice cinnamon was effective in relieving menstruation pain but not as efficient as ibuprofen. I'm not disappointed that cinnamon was less effective than ibuprofen medication, but I'm sure if it was combined with the synergistic effects of turmeric and ginger, with magnesium rich foods, it would be more efficacious.

***Cinnamon has long been known to have therapeutic properties; it may also be an effective natural remedy for type 2 diabetes, chronic digestion problems, cardiovascular diseases, cancer and Alzheimer's disease.***

*This section on the effects of cinnamon in health and disease was written by 5<sup>th</sup> year medical student Amy Dendale, who has been placed with us for four weeks, learning and practising her doctoring skills.*

## Cinnamon: Beyond the Scrolls

Cinnamon is an aromatic spice derived from the dehydrated inner bark of a variety of tropical evergreens from the genus *Cinnamomum*. The two main types of [commercially available cinnamon](#) are Ceylon Cinnamon (*C. verum*), also known as 'true' or 'Mexican' cinnamon, and Cassia Cinnamon, the type more commonly sold. Ceylon C. is grown primarily in Sri Lanka and produces a softer, paler bark with finer layers and a milder flavour.

## Cinnamon through the Ages

The spice was a longstanding mark of privilege. Expensive and prized above many others from biblical times, it was used by Moses in anointing oil and later as incense burned in the ancient Jewish Temple. Throughout antiquity cinnamon was offered at the Temple of Apollo as a gift to the gods, and in Rome was added to wine for its aromatic qualities. Cinnamon was traditionally a familiar smell at Roman funerals, used to counteract the offensive odour of the deceased; the Egyptians too used cinnamon in their embalming practices.

Beyond its ceremonial uses, the [healing and medicinal properties](#) of cinnamon have long been recognised in the Far East. It has traditionally been used to treat diabetes in India and is thought to cure gastrointestinal and respiratory ailments such as bronchitis.

## Health Warning

Cassia Cinnamon, the type found in most store-bought products and grown in parts of China, Indonesia and Northern India, has high levels of a compound called 'coumarin' which is similar in chemical structure to the anti-coagulant medication Warfarin. It has been shown to cause liver toxicity when taken in excess quantities. Patients should consume no more than 1 and 1/4 teaspoons of cinnamon powder daily, for 5 days each week, taking a break over the weekend.



### Health Benefits of Cinnamon

- Regulates blood pressure
- Improves blood sugar control in diabetes
- Antibacterial
- Antifungal - helps fight candida infection
- Anti-inflammatory
- Promotes weight loss
- Neutralises Free Radicals - anti-cancer
- Improves Memory and Cognition

### Cinnamon and Diabetes

Lowering blood sugar levels and serum lipids is the mainstay of modern treatment for Diabetes. Various studies have demonstrated the ability of cinnamon to achieve these treatment goals, without the need for traditional medicines. Cinnamon's medicinal properties are due to the combination of fat- and water-soluble phytochemicals it contains. The essential oil derived from cinnamon bark contains the compound cinnamaldehyde.



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This has been [shown in a recent study](#) conducted on rats to be one of the active components of cinnamon, and is responsible for its hypoglycaemic effects. The study showed cinnamaldehyde to be as effective as Metformin, a traditional hypoglycaemic, at lowering plasma glucose and maintaining good blood sugar control, which it did in a dose-dependent manner. The same study also demonstrated the ability of cinnamaldehyde to lower HbA1c, LDL cholesterol ('bad' cholesterol), and total serum cholesterol.

It acts to increase the responsiveness of cells to insulin, promoting the uptake of glucose. Researchers at the Agricultural Research Unit in Maryland found that water-soluble polyphenols comprise the other active ingredient in cinnamon, and lower blood sugar and lipids by acting as a chemical carbon copy of insulin, able to activate its receptors and increase glucose absorption. When an isolate of this was given to laboratory mice, a dramatic decrease in their blood sugar levels was seen.

[A recent study in Pakistan](#), where participants with diabetes were given between 1 and 6 grams of capsulated cinnamon powder daily, demonstrated an average drop in blood sugar levels by 20%.

### Cinnamon as an Anti-inflammatory

In a [recent metanalysis](#), cinnamon has been shown to have anti-inflammatory properties and this means it may provide relief for those with arthritis or heart disease. Also, increasingly there is evidence to support its use in the treatment of Alzheimer's, another inflammatory condition thought to be linked to high levels of circulating insulin.



### Cinnamon as an Antibacterial

A trial which [compared the effectiveness](#) of 21 different essential oils in inhibiting 6 different bacterial pathogens commonly associated with human disease, demonstrated cinnamon to be the most broad-spectrum and potent of the group. Cinnamon extract was shown to be effective in fighting resistant oral candida in 5 patients with HIV, and hence its antibacterial properties extend to include fungal pathogens.

#### Te De Canela (Mexican Cinnamon tea)

4¼ cups of water

3 Ceylon Cinnamon Sticks

1 tsp lime juice

Place water in small saucepan. Break cinnamon sticks into small pieces and add to the water. Bring to a slow boil. Once bubbling, remove from heat and let steep for 15 minutes. Strain and add 1 teaspoon of lime juice. Yields 4 cups.

#### Cinnamon Orange Water

Boil cinnamon stick in 3 cups of water. Remove from heat and allow to cool. Remove cinnamon quill and add a slice or two of orange. Enjoy as a cool refreshing drink!

#### Other

Add cinnamon powder to your next cup of tea or coffee for added flavour.

Try in curries and with rice.

Sprinkle on toast or over cereals.

### How to Use Cinnamon

Cinnamon can be bought as a fine powder, sticks, essential oil or as a capsulated supplement.

Supplements have the advantage of having the coumarin component completely removed and therefore do not possess the same risks of liver toxicity. However using 1-2 drops of cinnamon bark oil (containing high levels of cinnamaldehyde) or a teaspoon of powdered Ceylon cinnamon (which contains only trace quantities of coumarin) daily is equally safe.

As with all medicinal treatments, cinnamon should be taken alongside a healthy diet and regular exercise to maximise diabetic control. Turmeric also has blood sugar-lowering properties and the two can be taken together.

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