



# Herbal Medicine in Iraq Advantage and Disadvantage: A Scientific Review

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## Abstract

The study evaluated the recovery performance of any home herbs group as first aid in some emergency cases. The study involved 10 items of herbs (chamomile, black pepper, cloves, cinnamon, and anise) which used in acute cases such as cold, colic, inflammation of the intestine and tonsillitis, and (hibiscus, catnip, dried lime, cress seed, and ginger) were used for chronic cases such as hypertension, cardiovascular disease, and arthritis. The results showed the herbs had healing power and efficiency in the primary remedy for the above-mentioned diseases. The side effects, the contradictions, and the overdoses of these substances were discussed. It was concluded that home herbs could be used for treatment in emergency cases until modern medical assistance is obtained, if use is made within the limits of the permissible and recommended amounts by approved health organizations and departments.

**Key Words:** Herbal Medicine, Folk Medicine, Iraq.

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## Introduction

Herbal medicine is an ancient science and many interests or profession from ancient places in the world excelled in it, including people of Mesopotamia, the ancient Egyptians, Greeks, Romans, Chinese, Indians, the ancient citizens of America, and others. It is the accumulation of the sciences of generations and eras. It is sometimes called traditional medicine, and includes treatment with plant compounds such as flower, seed, fruit, leaves, stems and the roots. Herbal medicine is the nucleus of modern pharmacology and toxicology (1). In the third millennium, societies returned to nature again through herbal medicine, which was used by the elder in most of the ancient peoples, which has scientifically known as "folk medicine". The herbs are sold in forms as tablets, capsules, powders, extracts, and green or dried plants (2). Enlarged movement and trade around the world encouraged the wide consumption of fruits,

vegetables and herbs, especially has been endorsed by official health authorities such as the World Health Organization (WHO) and the Food and Drug Administration (FDA) (3). Several factors such as age, education and financial condition have influenced the amount and variety of plants used. (4).

In Iraq, the Herbal Medicine, Department of the Ministry of Health / Technical Affairs Department, in accordance with the instructions and legislation for the sale of medicinal herbs, is constantly holding a course to grant a license for a period of (9 months). One of the most important requirements to obtain a license and practice the sale of herbs, the person needs to get a secondary education as a minimum. In fact, most people who apply for a licence certificate hold a diploma or licence and sometimes with higher education credentials. (5).

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Recently, in Iraq, many herbal stores have spread across the governor's. Herbal shops became a destination for the Iraqi people and have increased by increasing the demand for their products, especially in the field of cosmetics, such as bleaches, slimes, and other compounds (5). Realty herbal medicine is an offered method for each person represented in-home kitchen; it is almost a primary treatment if the medical care is not available. Herbal medicine is defined as the use of plants to treat disease and enhance general health and wellbeing. The purpose of this study was to assess the healing power of a group of herbs at home (spies) that were used in certain emergency cases by family members of researchers in the year 2021.

## Material and Methods

### *Advantage of Herbal Therapy and Clinical Cases*

The study included 10 items of plant mentioned in figures No. 1 and 2, which are household used as flavors in the researcher's kitchen. The items were purchased from the herbal stores near the house in Al-Saydiyah neighborhood in the city of Baghdad. These items were used as therapeutic agents as a first aid in some illness cases of family members during the study year 2021. The material and methods were used at doses were described in Duke and others in 1929. (6):

#### *For Acute Cases*

##### *1. Rose Chamomile*

A 35-years-old woman was suffering from fever, lethargy, and throat pain. Treated with a teaspoon of rose chamomile put in a cup of boiling water, and drunk at the rate of 3 cups per day. She was healed and all the symptoms progressively disappeared.

##### *2. Black Pepper*

A 21-years-old male suffered from a cold, a runny nose, a headache, and depression. A quarter teaspoon of ground black pepper mixed with a liter of milk, and then drunk a warm cup twice a day. It led to recovery and disappear all signs in one day.

##### *3. Cloves*

Toothache and gingivitis in a 12-years-old male. The pain was relieved when a small spoon of clove powder mixed in a salt water. The case was cured following two days of treatment by gulping three times a day.

##### *4. Cinnamon*

The hot cinnamon drink is drunk after take a shower of all family members spatially in winter as preventive from respiratory disorders such as colds, cough and tonsillitis when putting a teaspoon of cinnamon in one-liter boiling water and was drunk as a tea.

##### *5. Anise*

A woman in 45 years of age was suffering from abdominal pain, bloating, constipation, headache, fatigue, gastroesophageal reflux, and difficult defecation. One liter of boiling water was added to one teaspoon of anise seeds and drunk after 5 minutes. One cup per day, two times daily, the symptoms began to disappear gradually.

#### *For Chronic Cases*

##### *1. Hibiscus*

A 55-years-old woman who suffered hypertension was treated with Atacand (Candesartan Cilexetil) tablet 8 mg per day, a prescription is a medicine called an angiotensin receptor blocker. Sometimes with life stress and tension, therapy may don't be so useful the patient might drink hibiscus tea, one large spoon per liter of water three times daily would lead the vascular blood pressure has somewhat leveled.

##### *2. Catnip*

A 55-years-old woman had chronic stomach and bowel problems such as flatulence, tympanum in the abdomen, and shortness of breath. The catnip tea could be prepared by adding a teaspoon of catnip powder to the litter boiled water and then is drunk as 2-3 cups per day. The symptoms began to disappear gradually.

##### *3. Dried Lime*

A 37-years old man suffered from digestive disorders like diarrhea, colic, and a feeling of nausea. Five pieces of dried lime were put with one liter of boiled water, and then drank 100 ml of syrup three times daily. The condition gradually improved.

##### *4. Cress Seed*

A 62-years-old woman suffered from knee joint pain, difficulty on walking or standing. After one week of taking the cress seed at a rate of one teaspoon per day, the condition gradually



improved. The woman completely recovered when the pain disappeared and movement became regular after a week of treatment.

### 5. Ginger

A 50-years old man suffered from hypertension and diastolic dysfunction, he took about 1 gram of ginger root chewed as gum three times a day. It had a significant impact on stabilizing the health status. The researcher used these herbs for a short period. He used the herbs for acute cases for a period as a maximum three days and other herbs for chronic cases for a period as a maximum month. All herbs have proven their worth as a healer to help the patient until the appropriate medical forma is obtained.

### Disadvantage of Herbal Medicine

Spices are rarely eaten alone, however, sometimes cause allergic reactions, and can be difficult to know the cause of the allergy with all ingredients in the food, if an allergy occurs, it can occasionally be dangerous. In this study, the selected herbal elements hadn't shown side effects due to confirm recommended doses according to Duke and others in 1929(7). The side effects which observed through previous studies as follows:

Chamomile in overdose may cause some disorders, such as vomiting if oral use, allergies, and eczema if locally uses as skin creams or applied on the face may cause eye irritation. (8)

Intake of many amounts of black peppers may cause excessive tears in the eyes, burning sensation in the mouth, stomach pain, diarrhea, and vomiting due to the presence of the chemical material called capsaicin. In addition, peppers contain allyl iso-thiocyanates, which causes irritation of the mucous membranes of the nose and mouth, swollen lips, nasal congestion, hives, bloating, nausea, or diarrhea. In some rare cases, may cause an immediate strong allergic reaction in the immune system may increase the risk of death called anaphylaxis, in which the symptoms are wheezing, shortness of breath, swelling of the face, tongue, and throat, fast or weak heartbeats, confusion, dizziness or fainting (9).

In small amounts, the oily extract of clove can cause severe side effects such as seizures, liver damage, fluid imbalances, and bleeding disorders due to the presence of the chemical material called eugenol that seems to slow blood clotting (10).

About cinnamon, it contains coumarin material, which can cause liver injury in some people,

especially those who suffer from allergies or cause a sharp drop in blood sugar level, which may lead to fatal threats (11).

The excessive consumption of anise may cause hypoglycemia or cause problems related to hormones, such as swings (12).

According to recent studies overdose of hibiscus can reduce estrogen levels and decrease blood pressure. The properties of hibiscus as diuretics and expansion of blood vessels if taken in overdose or in long periods (13).

One of the most important side effects of excessive consumption of catnip is serious disorders of GIT such as diarrhea, muscle pain, cramping, drowsiness, dizziness and low heart rate, these symptoms for containing menthol (14).

Some people may have allergic reactions to dried lime, which concentrates the effect of citrus fruits as they show symptoms such as contact dermatitis, and cause symptoms, redness of the skin, burning feeling, severe itching, peeling of the skin and blisters may appear. In addition to dental health problems due to a group of acid material such as salicylic acid and citric acid (15).

Cress seed contains a substance that prevents the absorption of iodine by the thyroid gland, and therefore may cause hypothyroidism, so preferred to avoid using it in along times. In addition, cress seed may cause digestive tract or urinary tract disorders (16, 17).

It should be careful when taking ginger in a long time and excessive amount if patients take antihypertensive drugs. A doctor should be consulted these can act in the same way, which may lead to a sharp drop in blood pressure and blood circulation (18).

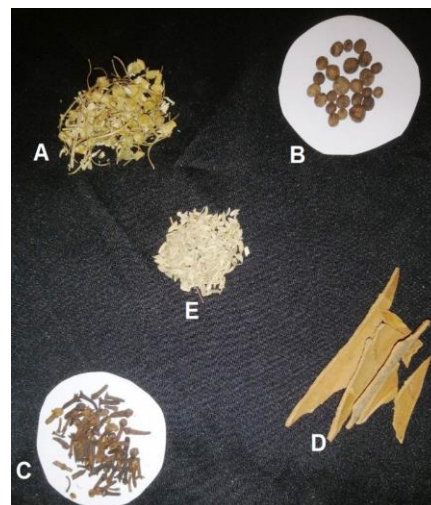


Figure 1. A: Rose Chamomile, B: Black pepper, C: Cloves, D: Cinnamon, E: Anise

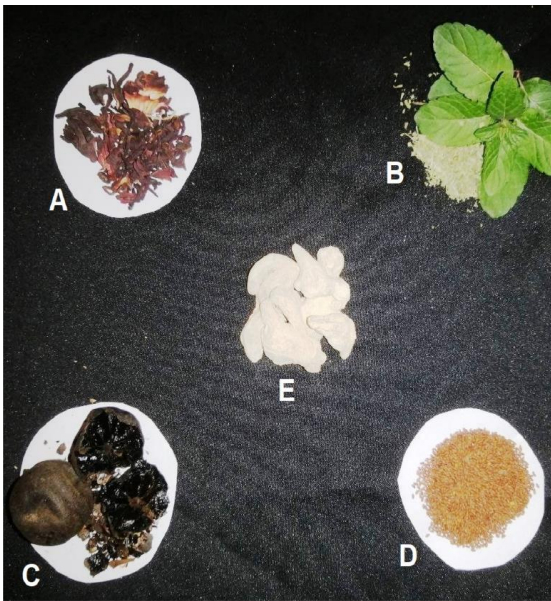


Figure 2. A: Hibiscus, B: Catnip, C: Dried lime, D: Cress seed, D: Ginger

## Discussion

The study of diet is not limited to the prevention of clinical deficiency and the maintenance of a healthy balance, but also includes knowledge the ways of food components to interact with the body then support health and prevent disorders or diseases (19). The purpose of diet component studies to enhance the digestion process and reduce the duration of food stay in the gut, stimulating the secretion of bile acids in the liver, which plays a key role in the digestion and absorption of fats and to improve the level of digestive enzymes such as proteases and amylase (20). Spices are used as supplements and additives to give flavor and taste to foods and, to stimulate the appetite. Spices are part of our food with little nutritional value, but some compounds are concentrated that can be used as therapy in urgent status. A review published in the Journal of Antioxidants in 2017 indicated that the spice helps in oxidative processes in the body due to its high content of chemicals and antioxidant compounds, such as flavonoids, polyphenols, essential oils, and alkaloids, as well as antibiotics that reduce the risk of acute and chronic diseases (21).

This study showed the consumption of spices may have a role in for critical medical cases. We note that the chamomile has many benefits such as supporting the immune system, treating sore throat, and promoting the health of the digestive system. It is a healthy alternative to black tea or coffee. Chamomile contains high levels of antioxidants and vitamin C (7). Cinnamon is often

safe in a dose ranging from one to six grams daily, for a period of no more than six weeks. There is suggestive evidence from human studies that cinnamon can lower blood glucose and modulate insulin levels associated with type 2 diabetes. However, the indications of using cinnamon in the treatment of diabetes is weak and not yet conclusive. It would be of considerable value to further confirm the benefits of cinnamon intake in improving glucose tolerance and insulin sensitivity in people without diabetes. Evidence that cinnamon also lowers diabetes-associated blood cholesterol and lipid concentrations is inconsistent and inconclusive (22).

Catnip is used for treating Irritable bowel syndrome (IBS), stimulating the movement of the digestive system and stomach, and opening the respiratory airways when inhaled or chewed, and it can be useful for long-term slimming. It can be used topically as a hair growth stimulant. About cloves, In addition to being a good smell and used in perfume products, most of its benefits are as a pain reliever in gingivitis and teeth, also it can be an antiseptic and anti-bacterial material. It contains eugenol oil, which acts as an anesthetic. A pilot study published in the International Journal of Antimicrobial Agents indicated that aqueous extract of cloves may help fight microbes, such as *Shigella flexneri*, and also have a slower effect in *Staphylococcus aureus*, *Escherichia coli* and *Salmonella typhi* also can inhibit the growth of yeasts. (23)

It was agreed with previous studies for hibiscus, it helps reduce and control blood pressure without any side effects if used according to the recommended dosage, the blood pressure may cause risk human disorders such as clots and strokes. Also hibiscus is a rich source of vitamin C, so it is a natural anti-inflammatory like cold and flu, it is also the most famous antioxidant that helps the body fight cancer, and it has an important role in iron absorption (13).

Anise is a plant with a sweet taste close to the taste of licorice. One of the most important benefits of anise is relieving constipation, and it has a laxative effect. In addition, anise oil can be used to treat Irritable bowel syndrome (IBS) and relieve associated depression. One of the benefits of anise for the stomach is to prevent ulcers and reduce symptoms such as indigestion, vomiting, burning, and nausea. Anise reduces the secretion of stomach acids, which protects from damage. The multi-benefits of anise are reducing the level of

sugar in the blood for diabetics, anti-fungi such as *Candida albicans*, and preventive agents to certain types of cancers such as breast and cervical cancers. If used as a topical preparation for the skin, it helps to improve the overall appearance by reducing wrinkles, scars and enhancing skin elasticity (24).

It is noteworthy, a pilot study indicated that spices like cloves which contain eugenol, and anise seeds which contain anethole, or black pepper are important anti-mycotic agents, such as *Aspergillus flavus* and *Aspergillus versicolor*. (23)

One of the most important nutrients is the black lemon because it contains vitamin C, which has many health benefits, such as supporting the body's immunity, fighting some chronic diseases, and iron absorption. In addition, vitamin C stimulates collagen formation in the skin, so regularly eating black lemon may help give elasticity and freshness to the skin and prevent skin pigmentation. Some studies have shown that the black lemon may help raise the level of citrate in the urine, which may reduce the chances of developing kidney stones. It was found that drinking a cup of soaked black lemon might help slow down the metabolism of cancer drugs and double their effect, thus improving the body's ability to benefit, which may enable a cancer patient to get the same benefit in lower doses of medications. It is also useful in improving cardiovascular health by improving blood circulation and reducing the incidence of atherosclerosis, heart attacks and lowering cholesterol levels. It also maintains eye health, excess weight loss and reduces stress (25). Cress seeds (*Lepidium sativum*) are useful for bones and joints; it was used in ancient to speed up the healing of broken bones specifically in the Arab countries. Many other studies have shown cress seeds to have properties that reduce inflammation and remove pain. According to a review of Birzeit University in 2014 (26).

Ginger is one of the plants that may decrease blood pressure, as several studies indicated significantly reduces systolic and diastolic blood pressure. A trial study in 2005 also showed that raw ginger extract could reduce arterial blood pressure in a group of rats, on a dose of 0.3 to 3 milligrams per kilogram (25). On the other hand, ginger may help reduce water and sodium retention, which helps lower blood pressure, it can be considered as a natural diuretic (18).

The use of spices in small quantities to give a distinctive flavor to food during preparation is

generally safe for health. Using spices in a scientifically and practically recommended dose is not harmful in temporary state until usual medical treatment is exists. It is mentioned that most studies had reviewed the consumption of spice in large amounts as some available nutritional supplements, it may be unsafe and unsuitable for children, pregnant and lactating women, as well as may interfere with the treatment of people with chronic diseases such as diabetes, hypertension, and cancer (21).

## Conclusion and Recommendations

Herbs can interact with other pharmaceutical medications and should be taken with care. There is no problem if used home herbs in temporary situations. Consultation with a doctor is very necessary about herbal medicines. The person should never stop taking the prescribed medication and replace it with herbs without discussing with the specialist. Care must be taken about buying herbal formula online. Unregulated herbal medicines, like some traditional folk medicines, may not be manufactured to the same quality and standards as regulated medicines.

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## Conflict of Interest

The author declares that she has no conflict of interest.

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