Top 10 Indian/Turkey Rhubarb Root Benefits

Rhubarb root is among the most important traditional Chinese medicine herbs. It's believed to encourage the cleansing and purging of toxins from the body. Western medicine is interested in its antioxidant, laxative, and anti-diarrheal compounds. What are its health benefits?

What is Rhubarb Root?

Rhubarb is a culinary and medicinal herb native to Asia. Its tart-flavored, pink-green stalks are a popular ingredient in pies and jams. In fact, the roots and underground stalks (rhizome) are the only edible part of rhubarb, while its leaves are toxic due to extremely high oxalate levels (Barceloux, 2009).

Rhubarb thrives in colder climates. It was likely brought to North America in the 18th century. Rhubarb was introduced to Europe a bit earlier and became a health fad of the time, being called the "All Bran of the Age of Reason" (Barceloux, 2009).

In Traditional Chinese Medicine (TCM), the stalks and roots of rhubarb are described as purging and cleansing. Rhubarb is traditionally used to help the body flush accumulated toxins, clear heat, cool the blood, unblock meridians, and drain dampness (China Pharmacopoeia Committee, 2010; Wen et al., 2018).

These concepts may sound alien to Western medicine, but modern science confirms its purgative, anti-inflammatory, antioxidant, antimicrobial, and liver-protective potential (Yang et al., 2012; Gao et al., 2013).

Rhubarb Root Uses

All in all, people use rhubarb for:

- Digestive complaints (constipation, diarrhea, heartburn, stomach pain, gastrointestinal bleeding)
- Symptoms of menopause
- Menstrual cramps (dysmenorrhea)
- Inflammation of the pancreas and other inflammatory conditions
- Cold sores and canker sores (applied to the skin)
- Immunosuppression (to boost the immune response)
- High blood pressure
- Fever
- Complementing cancer treatment

Rhubarb is also a minor component of Essiac (about 2% of the original Essiac formula is rhubarb root).

This post will focus on the potential antioxidant and anti-inflammatory whole-body health benefits of using rhubarb root by mouth. It won't cover the research on topical rhubarb formulations.

There is a decent amount of clinical studies on rhubarb but with major limitations. Some study findings have been mixed. Most studies were low-quality or published only in Chinese. Some studies had a small sample and used multi-ingredient supplements.

For this reason, more quality research is needed before rhubarb can be recommended for these uses.

Indian Rhubarb, Turkey Rhubarb, Chinese Rhubarb: What's the Difference?

Botanical Classification

The two main types of medicinal rhubarb, which this article goes over, are (Barceloux, 2009):

- Indian rhubarb (Rheum officinale Baillon), and
- Turkey rhubarb (Rheum palmatum L.)

Indian and Turkey rhubarb are closely related. *Both* seem to be referred to as Chinese rhubarb, which can cause confusion. Plus, Turkey rhubarb is sometimes called East Indian rhubarb or Russian rhubarb (<u>Zhang et al., 2019</u>).

The confusion doesn't end there. In Chinese medicinal material markets, dried roots and rhizomes of *R. officinale* are called "south rhubarb" and of *R. palmatum* "north rhubarb" (Wang et al., 2012).

Aside from Indian and Turkey rhubarb, rhubarb's plant genus (*Rheum*) also includes garden rhubarb and false rhubarb. Garden rhubarb doesn't have medicinal value. False rhubarb root extract (ERr 731) is used for menopausal symptoms (<u>Barceloux</u>, 2009; <u>Heger et al.</u>, 2006).

Which Is Better?

Indian and Turkey rhubarb *may* differ in active compounds. Even the same type of rhubarb grown in Asia, Europe, and North America may have different active compounds (<u>Barceloux</u>, 2009).

Few studies have investigated these differences. But keep in mind that the study findings using Indian rhubarb from southern China *might* not apply to Turkey rhubarb grown in northern Canada, and vice versa.

Despite this, both Turkey and Indian rhubarb seem to have similar (if not identical) health properties, as testified by the widespread traditional use of both rhubarb types in Asia.

Both Indian and Turkey rhubarb have been used in traditional Chinese medicine since the third millennium BC. Some even mention rhubarb as **the most important Chinese medicinal herb** (<u>Barceloux, 2009</u>; <u>Zhang et al., 2019</u>).

Essiac usually contains Indian rhubarb, although some products use Turkey rhubarb. **There is no evidence to claim that Indian rhubarb is superior to Turkey rhubarb or the other way around**. As with all high-quality plant supplements, the most important factors revolve around well-defined and ethical cultivation, harvesting, processing, testing, and packaging practices.

Active Compounds

Scientists have discovered about 200 compounds in rhubarb root and rhizome. Some actives that both *Rheum palmatum* and *Rheum officinale* likely contain include (<u>Tang et al., 2007</u>; <u>Song et al., 2019</u>; <u>Wen et al., 2018</u>; <u>Aichner & Ganzera, 2015</u>; <u>Yang et al., 2012</u>; <u>Gao et al., 2013</u>; <u>Cao et al., 2017</u>):

- Emodin a potential anti-tumor, antimicrobial, and anti-inflammatory compound (also found in sheep sorrel)
- Chrysophanol an anti-inflammatory and antiviral active
- Rhein another possible antitumor compound; also a laxative
- Tannins astringents or "shrinking" plant actives that help with bleeding and diarrhea
- Sennosides A and B actives with strong laxative and colon-cleansing action
- Flavanols and flavans like kaempferol antioxidants that help guard the body against oxidative stress
- Stilbenes liver-protectants that may also help balance cholesterol

Rhubarb is also a herbal bitter, which explains its use as a stomach tonic. Indian rhubarb is typically described as more bitter than Turkey rhubarb. Herbal bitters help jumpstart digestion by stimulating the body's own production of stomach acid and digestive enzymes. Burdock root is another well-known herbal bitter (McMullen et al., 2015).

Health Benefits of Rhubarb Root

1) Rich In Antioxidants & Beneficial Active Compounds

Rhubarb is packed with polyphenol antioxidants like anthocyanins and proanthocyanidins, which give it its reddish-pink color. These antioxidants have potential

anti-bacterial, anti-inflammatory, and antioxidant properties. Rhubarb also contains other anti-inflammatory compounds (<u>Gao et al., 2013</u>).

Scientists believe that antioxidants in rhubarb may help scavenge harmful free radicals and reduce inflammatory molecules that are thought to be involved in aging and many chronic diseases including cancer, heart disease, and diabetes (<u>Cai et al., 2004</u>; <u>Zhang et al., 2015</u>).

This might explain why some people think rhubarb root has a role in cancer prevention, though this hasn't been proven. Head over to this article to understand the science behind using Essiac, which contains rhubarb, as part of a cancer prevention strategy.

2) Source of Nutrients

According to the **USDA** database, rhubarb contains:

- Vitamin K important for blood clotting and bone health
- Beta carotene provitamin A, has antioxidant effects and supports immunity and eye health
- Calcium supports bone health
- Vitamin C key for strong immunity
- Potassium supports heart health
- Folate helps the body produce white and red blood cells and DNA
- Magnesium contributes to muscle and nerve health
- Fiber aids digestion and feeds good gut bacteria

3) May Improve & Prevent Pancreas Inflammation

According to 16 small clinical studies, rhubarb reduced hospital and ICU stay and overall symptoms in patients with pancreas inflammation (<u>Hu et al., 2018</u>; <u>Wan et al., 2014</u>).

Rhubarb also reduced disease severity, inflammation, and complications like sepsis, liver damage, and kidney failure in these patients. It was given via a gastric tube or enema, alongside conventional treatment (<u>Hu et al., 2018</u>; <u>Wan et al., 2014</u>).

In another clinical study, rhubarb helped prevent pancreas inflammation in high-risk patients undergoing a medical procedure (endoscopy) on the pancreas. More research is needed (<u>Wang et al., 2017</u>).

4) May Help Sick Patients Tolerate Food Better

Limited studies reveal that rhubarb may help protect the intestinal barrier, prevent gut bacteria from entering the bloodstream, and promote regular bowel movements (Zhang et al., 2018).

Most critically ill patients struggle to keep any food down. They usually already have a damaged stomach and gut lining from chemotherapy, other medications, radiation, or the disease itself and suffer poor nutrient status. Altogether, these factors increase the risk of death (Gungabissoon et al., 2014).

According to one clinical study on 368 patients, **rhubarb might help critically ill patients with gastrointestinal injury tolerate food better**, without serious adverse reactions. Rhubarb also lowered CRP, an inflammatory marker, and reduced ICU stay in these patients (<u>Zhang et al.</u>, <u>2018</u>).

This article goes over the use of Essiac in addition to chemotherapy.

5) May Reduce Stomach Bleeding

One analysis of 14 preliminary clinical trials concluded that **rhubarb powder and extract may help reduce stomach bleeding**. In one trial, rhubarb reduced stomach bleeding and lowered the risk of recurrent bleeding by about 58% over 2 days (<u>Liu et al., 2020</u>).

In another trial of 312 patients, Indian rhubarb (*Rheum officinale*) extract reduced bleeding from duodenal ulcers by ~91%, and Turkey rhubarb (*Rheum palmatum*) extract by ~94%. The authors concluded that both types of rhubarb were effective, but more research is needed (<u>Zhou & Jiao, 1990</u>).

6) May Be Helpful in Kidney Failure

Several small, low-quality clinical studies suggest that taking rhubarb as part of traditional Chinese medicine may improve kidney function in people with kidney failure. This was the case when rhubarb was used alone or in addition to the standard medication (captopril) (Zhang & Zhang, 1990; Song et al., 2000; Wang & Cheng, 1996; Sun et al., 2000; Sheng & Ge., 1994).

However, the studies had a risk of bias, some used multi-ingredient supplements, and all were limited to the Chinese population.

7) May Help Detox Pesticides

According to 12 small studies on nearly 900 people, **crude rhubarb may reduce the symptoms and toxic effects of pesticide poisoning**. Plus, two studies used rhubarb in combination with other herbs and holistic strategies to detox and reduce the effects of herbicide and pesticide poisoning (<u>Wang & Pan, 2015</u>; <u>Wang et al., 2015</u>; <u>Yu et al., 2012</u>).

All studies were low-quality. Additional research is needed to verify their findings.

8) May Support Digestion, Constipation & Diarrhea

Rhubarb contains both laxative and antidiarrheal active compounds. However, few clinical studies have tested the digestive effects of Turkey or Indian rhubarb (Cao et al., 2017).

Rhubarb improved gut health in one trial of 30 patients with severe burns. It likely encourages bowel movements by making the body release more digestive hormones and enzymes (Meng et al., 2011).

A Chinese formulation with rhubarb improved gut function and recovery in another small trial of 89 critically ill children. Larger trials are required (Yu et al., 2002).

9) May Help Fight Obesity & High Cholesterol

Rhubarb stalks are high in fiber, which supports balanced cholesterol levels. In one study, powder from rhubarb stalks reduced high levels of total and "bad" LDL cholesterol (Goel et al., 1997).

Rhubarb reduced weight and belly fat in two studies, used as part of Chinese herbal medicine. However, it didn't have an effect on weight in two studies using different multi-ingredient herbal supplements (Zhou et al., 2014; Tong et al., 2013; Roberts et al., 2007; Greenway et al., 2006).

10) May Reduce the Risk of Sepsis

An analysis of 15 small, low-quality clinical studies on close to 900 patients concluded that rhubarb may reduce the risk of dying from sepsis when added to standard treatment. Sepsis or blood poisoning is a life-threatening reaction to infection (Zhang et al., 2015).

Animal studies reveal that rhubarb may also help prevent organ damage from sepsis thanks to its antioxidant and anti-inflammatory active compounds. This has yet to be tested clinically (<u>Lai</u> et al., 2015).

Precautions & Side Effects

The roots and stalks (rhizome) of rhubarb are safe when used in food amounts or as recommended by the supplement manufacturer.

In clinical studies, rhubarb has been reported to cause cramping, gut discomfort, stomach pain, watery diarrhea, nausea, vomiting, and uterine contractions. Serious adverse effects were rare.

Some people may be allergic to rhubarb and develop a skin rash or severe allergic reaction.

Chronic rhubarb use at high doses is not recommended as it might cause electrolyte and hormone imbalances (McGuffin, 1997).

Due to its vitamin K content, rhubarb may interact with blood-thinning medication. Talk to your doctor before supplementing.

Rhubarb leaves should not be used due to their high oxalate content, which can cause severe poisoning. The stalks and roots contain some oxalates, though far less than the leaves. People with kidney problems use rhubarb with caution and only in small amounts after consulting a healthcare professional.

In Summary

Many of the benefits of rhubarb are still uncertain due to a lack of high-quality studies.

Rhubarb root and stalk are rich in antioxidants, nutrients, and anti-inflammatory compounds that may help reduce pancreas inflammation, stomach bleeding, and pesticide poisoning. Rhubarb may even improve symptoms and outcomes of serious illness.

It's likely safe when used as recommended. However, more research is needed to determine its health effects.