

# Artemesia – Artesunate – Wormwood

**Artemisia vulgaris** is a traditional medicine for parasites, including malaria.

- Wormwood herb relieves constipation, particularly moving the upper GI tract. It also rebalances flora (probiotic organisms).
- Increases bile flow, detoxifying the liver
- Removes many intestinal worms and parasites
- Reduces the inflammatory cytokine growth promoters

**Artemisia annua or "sweet" wormwood** – Artemisinin is the form taken orally for cancer treatment, and water-soluble Artesunate is delivered by intravenous infusion.

## **Artemisinin:**

- Is a hormone balancer, particularly reducing excess estrogen and prolactin in breast cancer
- Artemisinin is activated by ionic ferrous iron, which cancer cells accumulate.
- Iron is an essential cofactor for cancer cell proliferation.
- Most cancer cells have high rates of iron intake and express a high concentration of transferrin receptors on the cell surface.
- Rapid growth of abnormal cells sequesters relatively large amounts of iron.
- This free radical of oxygen stresses cancer cells, which are always deficient in catalase enzyme.
- Normal cells use catalase to harmlessly dissipate the peroxides.
- It has a very short period of action, clearing the bloodstream in about 2 hours.
- Cancer cells are about 100 times more susceptible to dying from artemisinin than healthy cells.
- Inhibits angiogenesis (new blood vessel growth), disrupting the blood supply to tumours
- Induces apoptosis and slows growth in cancers such as fibrosarcoma, lymphoma, breast, pancreatic, esophageal, prostate, and ovarian.

## **Contraindications:**

- Sedentary lifestyle - works best in those more physically active
- Smokers - must be off tobacco at least 6 months
- Radiation therapy or surgery - wait until 2 months after Mild and transient symptoms can occur, but tend to clear with continues use: cold extremities, numbness, tinnitus, dizziness, headache, GI discomfort, anorexia, nausea, vomiting, diarrhea. If these are severe or persistent, lower the daily dose

