#### Herbal Anti-Inflammatories

Numerous botanicals have anti-inflammatory activity and since all orally ingested herbs pass directly through the gut, many are useful for relieving gastrointestinal irritation and inflammation.

- Aloe vera\*
- Ashwagandha
  - Adaptogen, anxiolytic
- Boswellia
- Asthma, arthritis
- Calendula
- Oral inflammation
- Chamomile
  - Antispasmodic, calmative
- Licorice\*

- Marshmallow
  - Demulcent
- Meadowsweet
   Arthritis, ulcers
- Oregano
- Antimicrobial
- Slippery elm\*Turmeric\*
- Wild yam
- "colic root" antispasmodic

### Herbal Anti-Inflammatories

Aloe vera



### Herbal Anti-Inflammatories

# Ashwagandha

- Adaptogen
- Anxiolytic



### Herbal Anti-Inflammatories

### Boswellia

- Asthma
- Arthritis



### Herbal Anti-Inflammatories

#### Calendula

 Oral Inflammation



### Herbal Anti-Inflammatories

#### Chamomile

- Antispasmodic
- Calmative



# Herbal Anti-Inflammatories

Licorice



# Herbal Anti-Inflammatories

Marshmallow • Demulcent



# Herbal Anti-Inflammatories

# Meadowsweet

- Arthritis
- Ulcers



# Herbal Anti-Inflammatories

Oregano

Antimicrobial



# Herbal Anti-Inflammatories

Slippery elm



# Herbal Anti-Inflammatories

Turmeric



#### Herbal Anti-Inflammatories

# Wild yam

- "Colic root"
- Antispasmodic

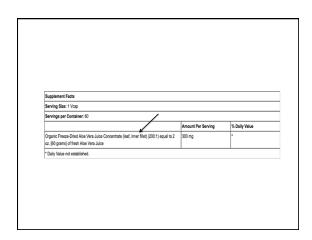


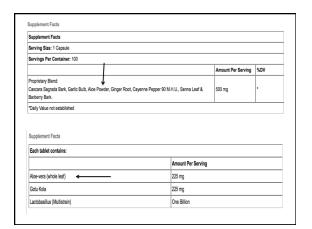


# Aloe Vera

- 44 out-patients with UC randomly given oral aloe vera gel or placebo, 100 mL twice daily for 4 weeks.
- 67% patients taking aloe had clinical remission or improvement, compared to 14% in placebo group.
- Simple Clinical Colitis Activity Index and histological scores decreased significantly with aloe vera (P = 0.01, P = 0.03, respectively), but not with placebo.
- Oral aloe vera taken for 4 weeks produced a clinical response more often than placebo; it also reduced the histological disease activity and appeared to be safe.

Langmead, et al. Aliment Pharmacol Ther. 2004 Apr 1;19(7):739-47.





# Turmeric (Curcuma longa)



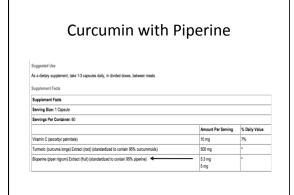
- Used as spice (curry) and medicinal agent at least 2000 years.
- Traditionally used for minor respiratory complaints, asthma and arthritis.
- Polyphenolic curcuminoids, collectively referred to as curcumin, considered primary actives.

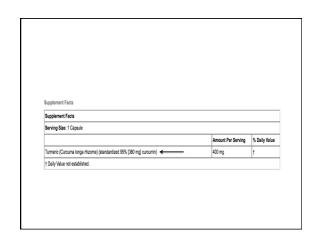


#### Curcumin

- Studies show that doses of 760 mg 2.0 g/d of curcumin are beneficial for improving symptoms or preventing relapse in patients with ulcerative colitis and Crohn's disease.
- Highly promising chemopreventive agent. The combination of 480 mg of curcumin and 20 mg of quercetin taken orally TID reduced the number and size of ileal and rectal adenomas in patients with

Holt PR, et al. Dig Dis Sci. 2005 Nov;50(11):2191-3. Hanai H,et al. Clin Gastroenterol Hepatol. 2006 Dec;4(12):1502-6. Cruz-Correa M, et al. Clin Gastroenterol Hepatol. 2006 Aug;4(8):1035-8.





# Licorice Root (Glycyrrhiza glabra; G. uralensis)



- Gastroprotectant effects of licorice root known for centuries.
- Licorice root 5 HT3 antagonist
- Research has shown licorice to be a useful anti-ulcer agent, similar efficacy as famotidine.
- Licorice often found in herbal formulations for cough, colds, sore throat, GERD, gastritis or IBD.
- Aly AM, et al. AAPS PharmSciTech. 2005; 20;6 (1):E74-82.



#### Licorice

- Licorice root likely safe in healthy adults when used at doses not exceeding 3 grams/d for periods up to 3-4 weeks.
- $\boldsymbol{-}$  Should limit licorice to 1 gram per day for longer periods.
- Glycyrrhizin is the compound responsible for symptoms of pseudoaldosteronism with excess or prolonged ingestion.
  - Symptoms include hypertension, edema, hypokalemia
- A special preparation, deglycyrrhizinated licorice (DGL), has had the glycyrrhizin removed/limited and may be taken without concern.

#### **DGL**

- DGL when taken <u>simultaneously</u> with aspirin dramatically reduces gastric mucosal damage, not prior to ASA ingestion.
- I find DGL to be very effective for managing GERD and for weaning patients off proton-pump inhibitors.
- Dose: GERD take 600-800 mg chewable tablets 20 minutes before meals for 4-6 weeks. 300-400 mg chewable tablet before meals PRN after.

Russell RI, et al. Scand J Gastroenterol Suppl. 1984;92:97-100

# Suggested Use Other to balded beerly minutes before each meal. Supplement Facts Supplement Facts Servings Size 2 Tablets Servings Per Container 50 Annount Per 2 Tablets Servings Per Container 50 Annount Per 2 Tablets Sodium 10 Sodium 1 foal Controllydrate Sugars 1 19 1 19 1 10 Sugars 1 19 Sugars 1 1



# Slippery Elm Ulmus fulva, U. rubra

- Slippery elm bark was official drug in USP from 1820-1936 and though there are no modern studies, FDA has approved as a safe nonprescription demulcent.
- Sore throat, heartburn, gastritis.
- Slippery elm lozenges, as well as medicinal teas readily available most natural grocers.