

# Herbs for Acute and »» Chronic Pain

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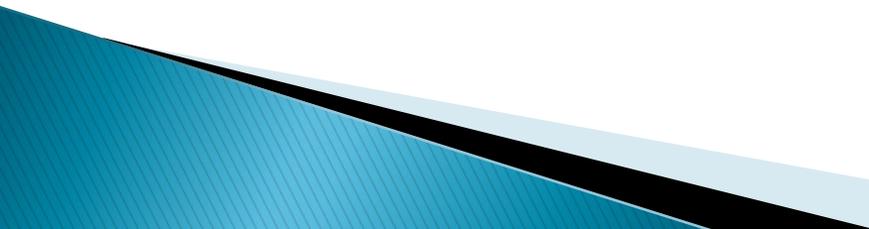
# Herbal treatments in context

- ▶ Bodywork, surgery, nutrition, and hydrotherapy may be important primary non-herbal treatments that remove the cause.
- ▶ Corrective bodywork (osteopathic, acupuncture, etc) is usually necessary to correct chronic post-traumatic pain. Osteopathic, chiropractic, myofascial release, etc.

# Nutrition and pain

- ▶ Micronutrient deficiencies and resulting loss of connective tissue integrity underlie many painful conditions, and some nutritive substances have potent effects against pain.
- ▶ Glucosamine sulfate vs chondroitin sulfate
- ▶ MSM (methylsulfonmethan)
- ▶ Trace elements and tissue integrity: Vit C, flavonoids, protein, sulfur, copper, silicon (herbal sources)
- ▶ Magnesium and inflammation
- ▶ EFA and inflammation
- ▶ Vitamin D and tissue integrity (junction proteins)

# The Pain Complex

- ▶ Injury or inflammation
  - ▶ Physical pain (chemical trigger)
  - ▶ Tension or spasm causing pain
  - ▶ Tension or spasm from guarding
  - ▶ Systemic tension
  - ▶ Psycho-spiritual response/emotional exhaustion
  - ▶ Nervous exhaustion and hypersensitivity
  - ▶ Chronic insomnia and fatigue
  - ▶ Depression with long term pain
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# Herbal actions and the pain complex

- ▶ Pain triggering chemical release
- ▶ Edema, swelling
- ▶ Muscle spasm
- ▶ Anodyne, Anti-inflammatory, counterirritant, circulatory stimulant (blood moving)
- ▶ Circulatory stimulant, diuretic (Typical European Phytotherapy for arthritis pain combines alterative, anodynes, diuretic)
- ▶ Antispasmodics, some specificity for smooth or skeletal muscle

- ▶ Compensatory guarding
- ▶ Compensatory systemic tension (tense pulse)
- ▶ Nervous excitability and hypersensitivity
- ▶ Psycho-spiritual reaction
- ▶ Sleep disturbance
- ▶ Depression
- ▶ Antispasmodic, relaxant, counterirritant
- ▶ Antispasmodic, Relaxant
- ▶ Nervines, Relaxants, Sedatives
- ▶ Flower essences
- ▶ Sedatives, hypnotics (AM/PM formulation)
- ▶ Nervine tonics, antidepressants

# Constitutional considerations

- ▶ The condition of the patient as hot, cold, damp, dry, tense, or relaxed may determine the appropriate herbs.
- ▶ In some conditions, merely addressing the constitutional imbalance, such as damp, or dry, alone may be curative.
- ▶ Example: *Salix* (willow) and *Lavandula* (lavender) may both be useful for headaches, but the “willow” patient is hot and damp with an ‘excess’ headache needing ‘draining.” the “lavender” patient is cold and tense. The inappropriate herb may be useless, or may aggravate the conditions. But likewise any herb that corrects the temperature or humidity might benefit the condition whether specifically a “headache” herb.

# Pain complex: acute formulation

Formulate 2–4 herbs in each of the following categories

- ▶ General relaxant portion
  - ▶ Anodyne portion
  - ▶ Antispasmodic portion
  - ▶ Correctives or modifiers to the formula
  - ▶ (Examples given later)
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## Pearl #2

# Relaxing nervine herbs

These address the  systemic tension and nervous exhaustion that accompanies pain

*Scutellaria lateriflora* – Scullcap

*Matricaria recutita* – Chamomile

Take as strong decoction (do not boil)



Scullcap



Chamomile

Both easy to garden, readily available as bulk herbs

# Other non-sedative relaxants

- ▶ *Leonurus cardiaca* – motherwort
- ▶ *Melissa officinalis* – Lemon Balm
- ▶ *Foeniculum vulgare* – Fennel

# Anodyne herbs

These herbs will dull the sensation of pain, relax the patient, and relax muscle tension



Jamaica dogwood

Available as tincture in herb marketplace



California poppy

Available as tincture; easy to garden

# *Piscidia* – Jamaica dogwood

- ▶ Significant anodyne in British/American colonial medicine in North America
  - ▶ Major anodyne in medical level herbalism in 1800s.
  - ▶ Anodyne, with antispasmodic properties, and mild sedative properties on the CNS.
  - ▶ Perhaps the single most useful anodyne you could have if you could have only one.
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# *Eschscholtzia* – California poppy

- ▶ Mild but persistent anodyne effects
- ▶ Mild anti-spasmodic effects
- ▶ Mild sedative effects

The combination of *Piscidia* and *Eschscholtzia* covers most of the bases of the pain complex.

# *Corydalis* species (Corydalis).



*Corydalis scouleri*



*Corydalis aurea*– golden smoke

- Chinese *Corydalis yanhusuo* readily available in herbal marketplace.
- Easy to make tincture.
- If used as herb of abuse, may have negative neurological effects.

# *Lactuca* species

- ▶ Many species of wild lettuce
- ▶ Medicine formerly prepared from the white latex of the plant = *lactarium*. Mild opium-like effect, but not opioid pharmaceutically.
- ▶ Tincture when the latex is running.
- ▶ Requires larger doses, 2 droppers to a teaspoonful. A useful addition to pain formula but not very strong as a simple.
- ▶ Dose as tea, ½ cup strong infusion, and add pain tincture.

# Salicylate containing herbs

- ▶ Most salicylate-containing herbs probably act through other constituents or through humoral effects.
- ▶ *Salix* (willow bark) itself has few salicylates, and it primarily acts as a bitter tonic. Traditional energetics “Cooling, drying, draining.”
- ▶ *Populus* species were greatly preferred to *Salix* by MD-herbalists of the 19<sup>th</sup> century. Contain *salicin* and *populin*
- ▶ *Filipendula* (Meadowsweet) contains medicinal amounts of aromatic methyl salicylate. Take 6–12 ounces of strong tea.

# Antispasmodic herbs

These may help with  spasm of smooth and/or skeletal muscle, and also help with the tension of guarding, and systemic tension.



Cramp bark



Wild Yam

Both available in bulk or tincture on herb marketplace

# *Viburnum opulus* – cramp bark

- ▶ Antispasmodic to either smooth or skeletal muscles.
- ▶ Prefer *V. opulus* to other viburnum species (> *V. prunifolium*, Black Haw).
- ▶ A good first herb to try as a simple for menstrual cramps.
- ▶ Useful for any cramping, intestinal colic, gall bladder or kidney colic, etc.
- ▶ Useful for rigid, guarded muscles, not just ones in spasm. Cervical syndrome.

# *Dioscorea villosa* – Wild Yam

- ▶ Specific for smooth muscles
- ▶ Useful for menstrual cramps.
- ▶ A classic use is for cramping in the gall ducts when a stone is passed.
- ▶ Equally useful for kidney stone spasm.
- ▶ The pair of *Viburnum opulus* and *Dioscorea* is a potent antispasmodic combination useful for the entire muscular system, for overt spasm, but also for chronic tension and guarding.

# *Paeonia lactiflora* – Peony root.

- ▶ A chief herb in Western medicine from Greek medicine history until the 1920s.
- ▶ A chief herb for spasm in Chinese medicine
- ▶ Properties are antispasmodic and mild sedative, calming to the “spiritual heart.”
- ▶ A simple tincture of the root is effective.



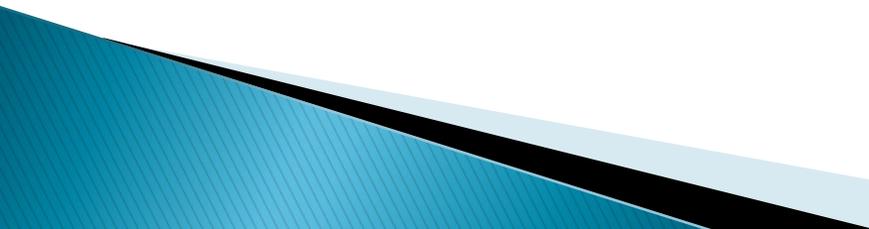
# Sample acute pain formula

- ▶ Relaxant
  - ▶ Scullcap 3
  - ▶ parts
- ▶ Anodyne
  - ▶ Jamaica dogwood 1
  - ▶ California poppy 1
  - ▶ Corydalis 1
- ▶ Antispasmodic
  - ▶ Cramp bark 1
  - ▶ Wild yam 1
  - ▶ Peony root 1
- ▶ Other
  - ▶ Ginger, Rosemary, or Cayenne 1

# Sample acute pain formula

- ▶ Relaxant
  - ▶ Scullcap 2 parts
  - ▶ Chamomile 2 parts
- ▶ Anodyne
  - ▶ Jamaica dogwood 1
  - ▶ California poppy 1
- ▶ Antispasmodic
  - ▶ Peony root 1
  - ▶ Cramp bark 1
- ▶ Other
  - ▶ Rosemary 1

# Add sedatives, hypnotics for bedtime

- ▶ Scullcap tea. Decoction. *Never boil*. Coffee hotplate for 20–40 minutes. Reliable sedative without hangover.
  - ▶ Valerian. Warm in energy may be overstimulating to some. May cause hangover.
  - ▶ Hops. Cold in energy, may cause or aggravate depression
  - ▶ Combination of Valerian/Hops may be better than either one alone.
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# Chronic pain and anti-inflammatory



# *Urtica* – Stinging nettle

- ▶ Traditional use in Europe for arthritis, internally, and externally via its sting.
- ▶ Substantial in vitro and in vivo research on mechanisms.
- ▶ Some clinical trials with very significant results on systemic inflammation
- ▶ Substantial empirical success, one of the best herbs to give with first onset of arthritis, as tea. Combines well with *Filipendula* for this purpose. Add a portion of *Althaea* to counter dryness.

# Chamomile and Yarrow

- ▶ Azulenes, chamazulenes, in both, other constituents specific to each.
  - ▶ The combination is more antiinflammatory than either one alone.
  - ▶ Topical, intestinal, hepatic inflammation
  - ▶ Substantial research in vitro, in vivo, and clinical research
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# “Blood moving” herbs

A Chinese term for a category of anti-inflammatory herbs, all are hot and dry.

- ▶ Turmeric
- ▶ Ginger
- ▶ Boswellia (Frankincense)



Turmeric



Ginger

Both readily available and inexpensive as bulk spices

# *Turmeric and Glycyrrhiza*

- ▶ In animal trials, turmeric has efficacy in various panels comparable to steroids. There is no evidence of suppressive side effect in humans in doses that significantly decrease inflammation.
- ▶ Licorice may support anti-inflammatory strategies by extending the half-life of cortisol, an endogenous anti-inflammatory steroid
- ▶ In empirical usage, the combination can help wean patients off NSAID, and in some cases is more effective than NSAID for chronic inflammatory pain.
- ▶ Caution with long term or high dose licorice, for side effects. Also potential drug-herb interactions.

# *Zingiber* – ginger

- ▶ Eight published trials demonstrating effectiveness (481 participants), were included in a systematic review.

Terry R, Posadzki P, Watson LK, Ernst E. The use of ginger (*Zingiber officinale*) for the treatment of pain: a systematic review of clinical trials. *Pain Med*. 2011 Dec;12(12):1808–18. doi: 10.1111/j.1526-4637.2011.01261.x. Epub 2011 Nov 4.

- ▶ Example trial with effective dose (2 grams per day)

Black CD, Herring MP, Hurley DJ, O'Connor PJ. Ginger (*Zingiber officinale*) reduces muscle pain caused by eccentric exercise. *J Pain*. 2010 Sep;11(9):894–903. Epub 2010 Apr 24.

- ▶ Combines well with turmeric and licorice. Modify curcumin:zingiber:glycyrrhiza proportions for patient depending on presenting pattern. Corrigent is honey or almond oil.

# *Boswellia* – Frankinsence

- ▶ Significant clinical research for various inflammatory conditions. See ernst E. [Frankincense: systematic review.](#) BMJ. 2008 Dec 17;337:a2813.
- ▶ Most research in on standardized extract.
- ▶ Simple powder may be effective at 300 mg three times a day.
- ▶ Combines well with equal parts of turmeric and/or ginger for systemic anti-inflammatory effects.

# Chronic anti-inflammatory formula

May be used to wean from NSAID

- ▶ Turmeric
- ▶ *Boswellia*
- ▶ *Zingiber*
- ▶ Licorice (caution long term)
- ▶ Equal parts as powder.
- ▶ May take with a demulcent tea to counter dryness
- ▶ Dose: level teaspoon (about 2 grams) b.i.d. to q.i.d

# Topical treatments for pain



# Topical applications

- ▶ Counter-irritation. Hot irritating substances applied to the skin over the surface of an area of *congestive* pain.
- ▶ Cayenne, nettle stings, bee stings are traditional.
- ▶ German research shows that increased circulation to the surface (redness) causes increases circulation and opening of the capillaries in the deeper tissues.
- ▶ Some topical applications are antispasmodic. *Lobelia inflata*.

# Applications to the skin

- ▶ Plant constituents readily enter the system and have medicinal effect.
  - ▶ Plants such as rosemary, wintergreen, and others produce systemic pharmacological effects against pain through these constituents.
  - ▶ Concentrated essential oils containing these substances are essentially pharmaceutical drugs.
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# Aspirin-like essential oil

- ▶ The chemical is *methyl salicylate*.
- ▶ Contained in essential oils of wintergreen and sweet birch.
- ▶ Dangerous for those with salicylate allergy.
- ▶ This essential oil, and not willow bark, was the “aspirin” of the late 1800s before invention of acetyl salicylic acid (aspirin)
- ▶ Readily passes through skin; Absorption is enhanced by applying heat.
- ▶ May readily hit the salicylate overdose range with topical application (first sign: ringing in the ears)
- ▶ May damage underlying tissues with high dosage or habitual use.
- ▶ High doses or habitual use damage the kidneys.

# Counter irritation

- ▶ May apply tinctures directly to the skin, or put them in a carrier
  - ▶ Tinctures such as prickly ash, lobelia, rosemary, Monarda, or spearmint may have mild effect.
  - ▶ Add a portion of cayenne to the above for a more effective application.
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# Soap liniment

1 ounce of lobelia tincture

1 ounce of cayenne tincture

3–4 teaspoons of liquid castille soap.

Mix or shake until well blended. Warm the mixture in a hot water bath if necessary.

Adjust amount of soap as necessary.

## **Add:**

8 drops rosemary essential oil

8 drops spearmint essential oil

Optional: 8 drops wintergreen essential oil  
(contains salicylates)

# Quick Lobelia oil

- ▶ Put ½ ounce of olive oil in an empty tincture bottle or other small jar.
  - ▶ Add 2–4 droppers of lobelia tincture.
  - ▶ Shake vigorously.
  - ▶ The tincture and oil will separate if you let it stand.
  - ▶ Use quickly and apply over any areas of tension, spasm, or cramping.
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