

BOTANICAL OPTIONS FOR PAIN MANAGEMENT

Dr Jillian Stansbury

Medical director - Battle ground healing arts

Assistant professor – national university of natural medicine

HERBS FOR PAIN IN VARIOUS ORGANS

- **Oral Mucosal Pain** *Baptisia, Glycyrrhiza, Aloe vera*
- **Ovarian Pain** *Cimicifuga, Bryonia, Phytolacca*
- **Renal Pain** *Phyllanthus, Hyoscyamus, Piper methsticum*
- **Breast Pain** *Phytolacca, Ceanothus, Vitex*
- **Edematous Pain** *Convallaria, Gingko, Digitalis, Aesculus, Trifolium, Angelica*
- **Skin Pain** *Calendula, Agrimonia, Oregano, Tea Tree, Conium Veratrum*
- **Joint Pain** *Boswellia, Bryonia dioica, Colchicum autumnalis*
- **RUQ Pain** *Chelidonium majusm Silybum marianum, Curcuma longa, Taraxacum, Arctium*
- **Chest Pain** *Foeniculum, Asclepius, Pulmonaria, Eucalyptus, Lobelia, Pulmonaria lobaria*
- **Intestinal Pain** *Matricaria, Foeniculum, Cinnamomum, Glycyrrhiza, Carum, Dioscorrea, Zingiber*

HERBS FOR SPECIFIC QUALITIES OF DISCOMFORT

- **Sore Bruised Sensation** *Hypericum, Arnica, Hamamelis, Calendula*
- **Bloated Distended Sensation** – *Syzygium, Rheum palmatum Mentha, Foeniculum, Carum, Dioscorrea Matricaria*
- **Stinging Sensation** *Baptisia/Indigifera, Apis millifera, Aloe vera, Lavendula, Picrorrhiza, Eucalyptus, Capsaicin, Menthol*
- **Burning Sensations** *Aloe vera, Butea monosperma, Apis millifera, Lavendula, Sanguinaria*
- **Throbbing Sensations** *Atropa belladonna, Gelsiumium sempervirens, Strynos nuxvomica, Veratrum species*
- **Shooting Sensations** *Hypericum perforatum, Aconitum Gelsiumium*
- **Stabbing Sensations** *Sanguinaria*
- **Cramping Sensations** *Dioscorea, Viburnum, Atropa belladonna, Hyoscyamus, Mentha, Melissa, Valeriana, Passiflora, Piper methysticum, Corydalis, Eschschoaltzia, Hypericum*
- **Choking Sensations** *Hyoscyamus, Drosera, Lobelia, Quercus rubra*
- **Heavy Full Aching Sensation** *Arnica, Hamamelis Angelica, Hamamelis, Aesculus, Collinsonia*
- **Tight Tense Sensations** *Piscidia, Valeriana officinalis, Actaea racemosa, Viburnum, Angelica Matricaria, Actaea, Glycyrrhiza, Salix, Dioscorrea, Hyoscyamus*
- **Bearing Down Sensation** *Viburnum opulus Chamelirium, Viburnum, Lobelia, Dioscorrea species, Achillea millefolium, Angelica sinensis, Caulophyllum thalictroides, Matricaria chamomilla*

ESSENTIAL OILS AND CAYENNE BASIC TOOLS FOR DIVERSE TYPES OF PAIN

Topical Essential Oils for Acute Head Pain

The essential oils are suspended in a vehicle aimed at being not too greasy on the hair. The aloe gel can act as an emulsifying agent to blend immiscible oils and hydrosols.

Mentha piperita essential oil 2 ml

- *Lavendula* essential oil 2 ml
- *Petroselinum* essential oil 2 ml
- *Pinus* essential oil 1 ml
- *Zingiber* essential oil 1 ml
- *Aloe vera* gel ¼ oz
- Rose of Lavender Hydrosol ¼ oz
- light oil, sesame, apricot ½ oz

Combine all ingredients in a 2 ounce bottle. At the onset of a headache, place a tsp of the blend in the palms of the hands. Use to massage the neck and scalp, possibly with trigger point therapy, and followed by a hot or cold pack, as desired, and ultimately a shower.



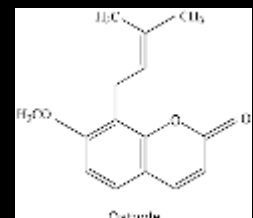
Fennel Oil for Smooth Muscle Spasms

Many Apiaceae (Umbell) family plants are used to relax respiratory, gastrointestinal, uterine, and ureteral spasms as well relax and reduce inflammation in the vasculature. Many Apiaceae family plants cause relaxation or urinary smooth muscles via effects on calcium channels.

Osthole, a well-studied coumarin in many umbels, has a vasodilating effect via calcium channel blockade in heart muscle fibers.

Fennel oil does not usually require diluting as it is well tolerated directly applied to the skin, however for infants with colic, or those with sensitive skin, 10-20 drops of fennel oil may be placed in a tsp of carrier oil such as olive oil.

- Fennel Essential Oil
- Apply directly to the painful area and cover with heat.



Topical Capsaicin Cream

- Capsaicin, a warming resin in *Capsicum* fruits was been identified in the early 1800s and is now known to allay pain via effects on TRPV1 receptor which play roles in inflammation, heat-sensing, acidification, as well as activation of nociceptive pain fibers.
- Capsaicin is available as a 10% or 20% cream and is mostly used to allay arthritic pain, but may also help neuropathic pain, TMJ, and provide temporary comfort following traumatic injuries. It is not so effective as to be a stand-alone treatment for such issues but may be a useful component of a broader protocol.
- Capsaicin 10% to 20%
- Apply topically to the affected area, repeating several times per day.



TOPICAL FORMULATIONS FOR HEAD,
EYES, EARS, NOSE, AND THROAT

Herbal Eye Wash

- Severe eye trauma requires immediate expert attention. Minor injuries such as grease splatters and corneal scratches may be treated with rose water washes, adding other herbs depending on the injury. Comfrey and *Calendula* can be prepared into teas and used in the eye, taking care to scrupulously strain the brew before using as an eyewash. Herbal tinctures can also be used in eye washes when diluted, using 20 drops of tincture in several TBL of other fluid such as rosewater.
Rosewater 2 TBL
- *Aloe vera* gel 2 TBL
- Herbal Tea 2 TBL
- Prepare the herbal tea of choice such *Symphytum*, *Calendula*, or *Euphrasia* by steeping 1 TBL in a cup of water and straining well to remove all particulate. Combine the herbal tea, rose water, and Aloe gel in a small dish and blend. Fill an eyecup with the solution halfway, and hold against the eyeball for at least 30 seconds, repeating frequently until pain subsides.
- *Aloe* gel is thick and will obscure vision but is very soothing when a person can rest quietly with the eyes closed.
- Comfrey, *Symphytum officinalis*, is used both homeopathically and herbally for eye trauma, especially for blows to the eye where there is swelling and bruising. *Calendula* is useful to speed the healing of scratches, such as when sand and dust are blow into the eye.
- *Euphrasia* may be used when allergies or the early phases of a respiratory virus promote severe burning, watering, itching and irritations.



NATURAL REMEDIES FOR EAR PAIN

Allergies and infections are the most common causes of pain in the middle ear or in the outer ear canal. **E**

* **Ear Pain** - Onion poultice, 2% cocaine, Black Pepper water all to instill in the ears

- **Itchy Ears canals** – Dilute *Eucalyptus* or *Mentha* essential oil, 5-10 drops in a TBL of water or herbal tea.
- **Chronic Suppurative Otitis Media** – Boric Acid wash, Astringent herbs such as *Hamamelis* or *Quercus* wash
- **Allergy-Induced Fluid in the Ears** – *Euphrasia*, *Picorrhiza*, Essential fatty acids



Earwash for Otitis Externa

Otitis externa, also known as “swimmer’s ear” is often due to allergic hypersensitivity and best remedied with systemic therapies to reduce allergic reactivity and calm atopic hypersensitivity.

* *Achillea millefolium*

- *Symphytum officinalis*
- *Hamamelis virginica*
- *Calendula officinale*
- Blend 1 ounce of each herb and gently simmer 1 TBL per cup of water for 10 minutes. Strain and use to swab or lavage the ear canals 3 or more times per day.

- Sometimes called a lavage, washes for itching, discharge, swelling, or discomfort of the external ear canals, should include astringent herbs where there is watery discharge present, and soothing demulcent herbs when there is dryness and flaking. The resulting fluid can be pumped into the ears with the aid of a syringe by a physician or can be prepared at home and used with Q-tips by the patient.

Onion Poultice for Ear Pain

This folkloric classic for pain may due in a pinch. Onions thin mucous when there is fluid behind the tympanic eardrum as with acute otitis media and modern research shows the hot spicy qualities of onions and garlic to treat underlying microbial infections as well as activate TRP channels to provide antinociceptive effects.

- *Allium cepa*, 1 whole onion, chopped

Coarsely chop a small or medium onion and place in a small fry pan with 1-2 TBL of water. Gently water saute until the onion just starts to soften and become translucent.

Enclose the entire mass within a thin washcloth and hold in place on top of the ear, preferably with the child or person lying comfortably on their side.



TOPICAL FORMULAS FOR SKIN PAIN

Hypericum Spray for Acute Shingles

Herpes zoster is often too painful to rub oil or salve into, or lay compresses on, but may be soothed by a topical spray such as this. *Hamamelis* hydrosol is a product similar to rosewater, and commercially available. If it is not on hand when needed *Hamamelis* tea may be substituted, or it can be omitted and the formula simplified. For severe pain, 1 ml of *Conium maculatum* may be added to the formula, as described above.

- *Aloe vera* juice 20 ml
- *Hypericum perforatum* tincture 18 ml
- *Hamamelis virginiana* hydrosol 18 ml
- Mint essential oil 4 ml
- Combine all and place in a spray bottle, to spray on the affected area as often as every 15 minutes for pain relief.



Stings from Venomous Insects

Apis is the Honey Bee and is available as a diluted tincture, traditionally used to treat venomous stings. *Echinacea* is a hyaluronidase inhibitor that can help prevent venom from spreading, and mint oil helps allay burning, stinging and itching sensations. Vinegar is included as it will often antidote venom, reduce swelling, and alleviate pain.

- *Echinacea purpureum* 20 ml
- *Apis mellifica* 20 ml
- Vinegar 20 ml
- *Mentha piperita* essential oil 4 ml
- Shake well with each use and apply topically refreshing every 10 to 20 minutes.



Honey Papaya Poultice for Burns

Wound dressings using honey and papaya have been developed to treat severe burns in hospital burn wards, but homemade preparations may be effective for less serious burns. Honey has antimicrobial effects, reduces edema, and helps limit scarring. Honey creates an anaerobic environment and shields against microbial invasion. Papaya promotes healing and granulation of lost tissue, helps to recruit fibroblasts, and has anti-inflammatory and vulnerary properties.

- *Carica papaya*, unripe, or still firm is best, and highest in papain.
- Honey
- Chop the papaya finely, or mash with a fork. Blend in a sufficient quantity of honey to fully coat the papaya and let stand 10 minutes. Apply directly to the affected area and leave in place for 30 to 60 minutes, while preparing another batch. Serious burns may be kept covered with such a poultice for the first 24 hours, and then used intermittently the 2nd and 3rd day, allowing to wound to air dry between applications and encouraging scab formation. Take vulnerary, wound healing herbs orally.



TOPICAL FORMULATIONS FOR LUNG AND CHEST PAIN



Lobelia Vinegar Compress

Lobelia has a relaxing effect on vascular, bronchial and uterine smooth muscle, and may be helpful topically to alleviate pain in all of these organs. *Lobelia* compresses may help to allay pain and spasms in the chest, renal passages, or uterus.

- * *Lobelia* 1 ounce
- Apple cider vinegar ¼ cup
- Place the *Lobelia* in the bottom of a small pan and saturate with vinegar and let stand for 15 minutes. Pour 2 cups of boiling water over the *Lobelia* and let soak for 10 minutes. Strain and soak a cloth in the liquid. Oil the affected area with castor oil and apply when a comfortable temperature. Cover with an additional heat pack.

Lobelia Liniment for Lung Pain

Acute lung pain due to pneumonia, pleurisy, or other lung pathology may respond to *Lobelia*. This quantity is sufficient for 3 or 4 applications of 15-20 ml each and may be doubled if needed. Used twice a day, along with systemic therapy, pain may be significantly lessened, such that just the 2 ounce bottle is sufficient.

- Castor Oil 30 ml
- *Lobelia inflata* tincture 29 ml
- Fennel Essential oil 30 drops
- *Aconitum napellus* tincture 5 drops

Use 15-20 mls and have a caregiver or family member rub between the palms of the hands and massage into the chest and back.



TOPICAL FORMULAS FOR
PELVIC AND ABDOMINAL PAIN

QUALITIES OF GI PAIN AND HERBAL SPECIFICS

GI Pain with Nausea -
Mustard Paste over the
bowels, Mint oil of the
bowels

**GI Pain with Cramps
and Diarrhea –**
Matricaria, Mentha,
Diosorrea, Foeniculum,
Carum

Peritonitis – Hot hops
over the abdomen,
Bupleurum, Rheum and
Castor oil topically

Splenic Pain –
Ceanothus

**Twisting pain worse
bending forward and
better standing erect –**
Dioscorrea

**RUQ Pain that radiates
to R shoulder -** *Silybum,*
Chelidonium, Curcuma

Acute Biliary Colic –
Raphanus, Mentha,
Dioscorrea

Topical Formula for Dysmenorrhea

This topical application is comforting for menstrual cramps. It combines well with the above tea, and a *Viburnum* tincture for severe dysmenorrhea. Dysmenorrhea is related to painful uterine contractions during menstruation believed to be caused by the release of prostaglandins in the menstrual fluid. Menthol in peppermint oil capsule may help treat dysmenorrhea, and may also be topically applied for analgesic effects.

- Wintergreen Essential oil ¼ ounce
- Fennel Essential oil ¼ ounce
- Peppermint Essential oil ½ ounce
- *Hypericum perforatum* oil 1 ounce

Combine equal parts of the essential oils in the *Hypericum* oil and shake well. Massage into lower abdomen and cover with heat for an analgesic, antispasmodic effect. Make more dilute for sensitive individuals. To insure safe application, put a single drop of essential oil on the inner wrist and wait 5 minutes before applying essential oils to larger skin surfaces.



Topical Application for Hemorrhoidal Pain

Topical applications are sometimes needed when hemorrhoids are acutely painful.

- * *Aesculus* oil 1 tsp
- Nutmeg, freshly grated 1 tsp
- Mint essential oil 10 drops

Prepare a strong brew of *Aesculus* or use previously prepared oil if available. Grate several tsp of whole nutmeg, saturate with *Aesculus* oil or filtered tea, and add 10 drops of mint essential oil and blend into a paste. Apply the nutmeg/mint pulp to a gauze pad moistened with additional *Aesculus* and apply topically.



FORMULATIONS FOR PAIN IN
THE URINARY PASSAGES

QUALITIES OF URINARY PAIN AND HERBAL SPECIFICS

Cystitis Pain – *Aconitum*
and *Gelsemium* 10 drops
each in 4 ounces water,
Mannose powder

**Irritated Urinary
Mucosa** – *Althea*,
Asparagus, Fresh *Zea
mays*, *Aloe vera*,
Calendula

Urinary Retention –
Onion Poultice over
pubic region, *Solidago*
tea, *Petroselinum*

Urinary Gravel –
Capsella, *Equisetum*,
Urtica, *Hydrangea*,
Eupatorium

Acute Renal Colic –
Kava, *Ammi visnaga*,
Lobelia, *Hyoscyamus*

**Shooting Knife like
pains** – *Aesculus
hippocastanum*,

Acute Prostatitis –
Staphysagria ,
Gelsimium

Acute Renal Colic

Passing a kidney stone is acutely painful, and while nothing makes the process pain free, this formula can help to relax the ureters, reduce inflammation and edema, and help a stone to pass. Taking with a separate *Althea* tea may offer further pain relief.

- *Piper methysticum* 26 ml
- *Ammi visnaga* 20 ml
- *Lobelia inflata* 10 ml
- *Atropa belladonna* 4 ml

Combine the tinctures in a 2 ounce bottle. Take by the dropperfull every 10 to 15 minutes reducing as symptoms improve.



urinary pain

PAINFUL URINARY CONDITIONS

- BPH and Prostatitis
- Renal Colic
- Urinary Tract Infection
- Interstitial Cystitis

BOTANICAL ACTIONS

- UroEpithelial Restoratives
- Urinary Smooth Muscle Relaxants
- Ureteral Anti-Spasmodics
- Urinary AntiMicrobials
- Hormonal Regulators
 - Alpha Reductase Inhibitors...
 - Dehydrogenase

Urinary tract infections

URINARY ANTIMICROBIALS

- *Arctostaphylos uva ursi*
- *Chimaphila umbellata*
- *Juniperis communis*
- *Calendula officinalis*
- *Vaccinium macrocarpa*
- Purified Mannose powder

Teas are more effective than capsules or tinctures in treating UTIs.



Lued & chronic prostatitis

- LUED involves inflammation of the smooth muscle of the bladder and urethra.
- Pollen may have anti-inflammatory and antiproliferative effects on the prostate and LUED.

Urol Clin North Am. 2011 Aug;38(3):285-92. *Pollen extract for chronic prostatitis-chronic pelvic pain syndrome.* Wagenlehner FM1, Bschleipfer T, Pilatz A, Weidner W.



Agrimonia eupatoria

- Used especially as mucosal astringent and normalizer.
- *Agrimonia* is specific for deep, colicky lumbar pain, with foul, muddy



Agrimonia eupatoria

- *Agrimonia* is said to be specific for elderly men with dribbling of urine.
- Modern research suggests some anti-cancer effects.

Felter, *Materia Medica*

Webster, *Dynamical Therapeutics*



Agropyron repens (Couch grass)

- A weak diuretic to improve urinary irritation, frequency, and dysuria.
- Indicated for incontinence due to urinary irritation, purulent cystitis, hematuria, and strangury, as well as pyletis and kidney irritation.
- Used for prostatitis, prostatic adenoma, prostatic enlargement, and gonorrhoea.



Allium cepa and sativa

- Included in formulas for urinary infections including prostatitis, particularly in those with cold constitutions
- *Allium* has displayed some anti-cancer properties it might also be included in prostate and bladder cancer formulas



<p>Leaves prepared to an oil and administered topically</p> <ul style="list-style-type: none"> • Mito sp. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 	<p>Medication of RCT</p> <ul style="list-style-type: none"> • Medication of RCT
TREATMENT OPTIONS	
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Apium graveolans

- Celery juice and seed extracts are used as urinary relaxants.
- High in the volatile oil *Apiol*.
- Specific for urinary retention and edema.



Chimaphilla umbellatum

- Said to restore the urinary mucosa
- For albuminuria, “brick dust” and scanty, ropy urine
- Contains Arbutin and is an effective urinary antiseptic.
- Include in formulas for BPH, retention, and the sensation of a ball in the perineum.



Eupatorium purpureum Gravel root

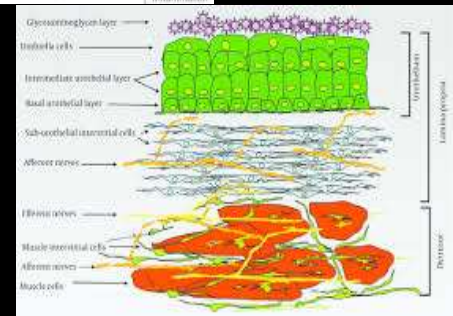
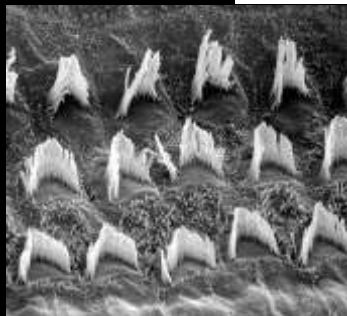
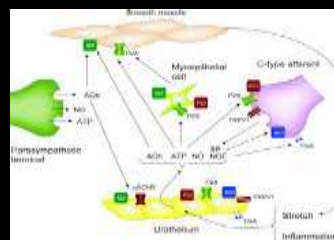
- Traditional for Hematuria, chyluria, increased urinary sediment, urates
- Specific for dysuria, and irritable bladder with a deep aching or shooting sensation in the pelvis.



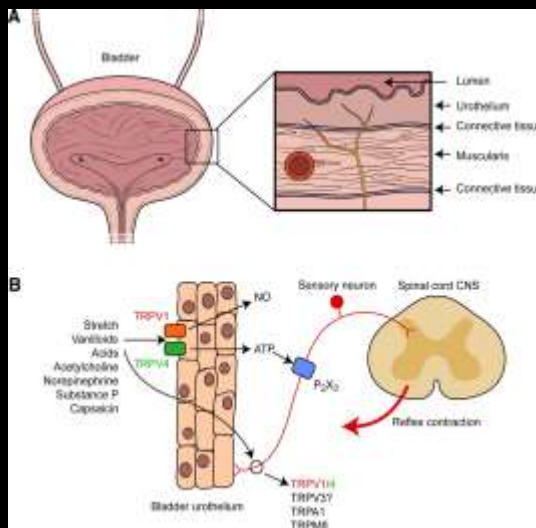
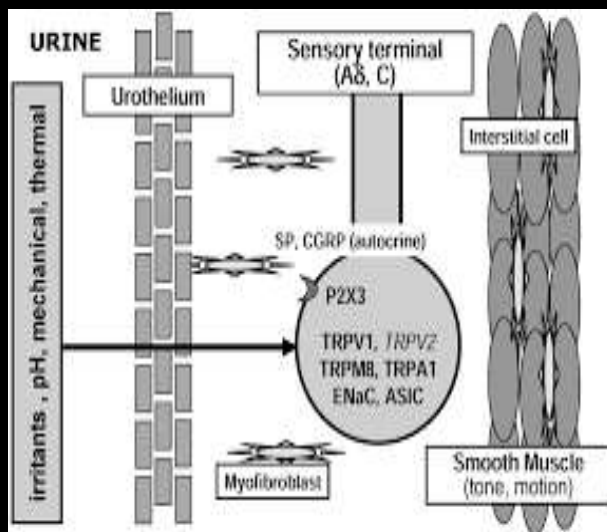
BOTANICAL ION CHANNEL AFFECTORS FOR URINARY PAIN

MECHANICAL TRIGGERS OF EXCITABLE CELLS

- Mammalian inner ear hair cells of the mammalian are mechanically triggered.
- Touch receptor cells of Venus fly traps.
- Touch Receptor that transmit tactile sensations.
- Bladder cells possess mechanosensors that release ATP upon being stretched and open ion channels in the urothelium

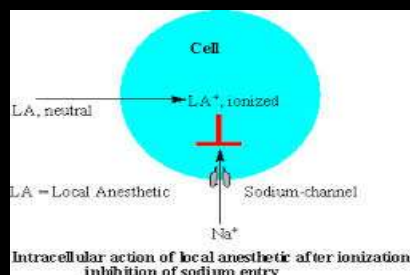


MECHANISMS OF BLADDER PAIN



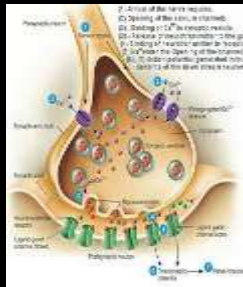
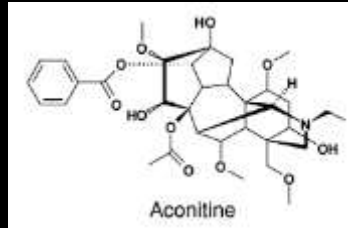
NA⁺ - SODIUM CHANNELS

- Sodium is a primary cation.
- This family contains at least 9 members and is largely responsible for action potential creation and propagation.
- Lidocaine and Novocaine belong to a class of local anesthetics which block sodium ion channels.
- Sodium channels defects are involved in the epithelia of the lungs cystic fibrosis, pulmonary edema, hypertension, pseudohypoaldosteronism, and mucosal epithelia in intestinal disorders.



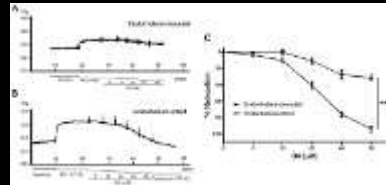
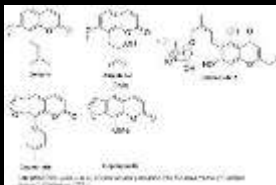
ACONITUM AND SODIUM CHANNELS

- Aconite is a deadly poison but “prepared” aconite has been used for neuralgia, panic attacks and other situations of neuronal hyperexcitability.
- *Aconitum napellus* may block sodium channels and suppress nerve firing, the mechanism by which it may be fatal when overdosed.



OSTHOLE AND APIACEA FAMILY PLANTS

- Osthole, a well-studied coumarin in many umbels has a vasodilating effect via calcium channel blockade in heart muscle fibers.
- Many Apiacea (Umbell) family plants are used to relax respiratory, gastrointestinal, and ureteral spasms as well relax and reduce inflammation in the vasculature.



PIPER METHYSTICUM FOR URINARY PAIN

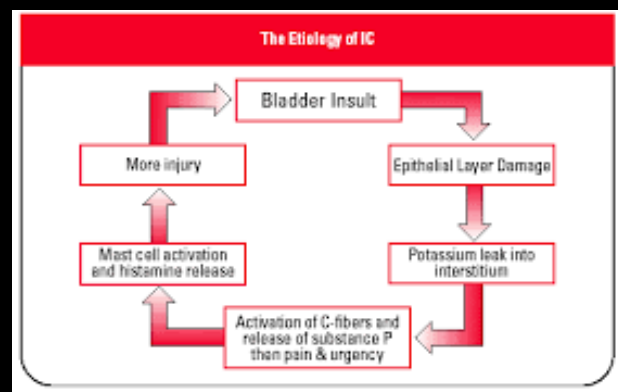
- Early American eclectic physicians recommended Kava for tooth, nerve, stomach, intestinal, ureteral, bladder, and prostatic pain.
- Kava is useful for pain in the urinary tract, even renal colic due to its ability to relax spasm.
- Kava is antimicrobial to urinary pathogens, and has an anesthetic effect on the bladder improving dysuria and the ability to completely empty the bladder.
- Kava may help the passage of kidney stones due to quieting spasms in the ureters.



Piper methysticum for urinary pain

Kavalactones are presently being synthesized to create novel, non-opioid analgesics with numerous pain relieving effects, including against nociceptive pain.

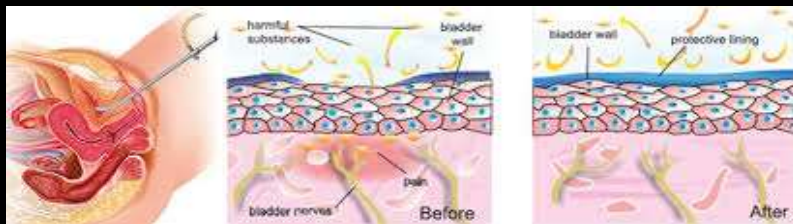
Pharmacol Rep. 2012;64(6):1419-26. Kavain analogues as potential analgesic agents. Kormann EC1, Amaral Pde A, David M, Eifler-Lima VL, Cechinel Filho V, Campos Buzzi F.



ELMIRON & GLUCOSAMINE FOR INTERSTITIAL CYSTITIS

- Elmiron (pentosan polysulfate sodium) is a synthetic analog of heparin that helps restore mucosal integrity in the bladder when used long-term.
- Glucosamine sulfate, and other sulphates used locally such as DMSO can be helpful when instilled in the bladder during cystoscopy, acting as a methyl donors, and assisting mucosal repair, and GAGs restoration.

Holm-Bentzen M, et al, "A Prospective double blinded clinically controlled multicenter trial of sodium pentosanpolysulfate in the treatment of interstitial cystitis and related painful bladder disease" *J Urology*,1987:138503-507



TOPICAL FORMULATIONS FOR VASCULAR PAIN

QUALITIES OF VASCULAR PAIN AND HERBAL SPECIFICS



Pins and Needles Sensation – *Angelica, Ginkgo, Hypericum, Picrorrhiza*



Aching Varicose Veins – Elevate legs and use topical compresses, Oral *Hamamelis, Collinsonia Caulophyllum*



Varicose ulcers – *Hydrastis, Calendula, Hamamelis, Quercus, Baptisia, Echinacea*



Portal Congestion – *Chelidonium, Aesculus, Rheum*



Acute Angina – *Lobelia, Rauwolfia, Angelica*



Throbbing or Hyperemic Pain – *Atropa belladonna, Veratrum species*

Witch Hazel Compress for Aching Veins

Hamamelis has been said to be the “*Arnica* of the veins” meaning that it is the single, most indicated herb for trauma to the veins. *Hamamelis* is mentioned in numerous folkloric herbals to take internally as well as use topically for inflammation of the soft tissue and trauma to the vasculatures, and as a leading treatment for varicosities.

- *Hamamelis virginiana* 2 TBL
- Water 4 cups
- Gently simmer the witch hazel in water for 15 to 20 minutes over low heat, simmering gentle down to 3 cups. Strain and use to saturate compresses used topically over aching leg veins.



FOUNDATIONAL HERBS FOR NEURALGIA

PARTICULAR QUALITIES OF PAIN

Neuralgia with Shooting sharp or stabbing Pain –
Gelsimium, Aconite, Conium, Hypericum

Facial Neuralgia – Mint or Citrus essential oils topically or to inhale, oral use of *Armoracia*

Traumatic Neuralgia –
Hypericum, Arnica, Symphytum, Piper methysticum

Neuritis with restlessness and fear –
Aconitum, Hypericum

Neuralgia worse motion or least touch - *Bryonia*

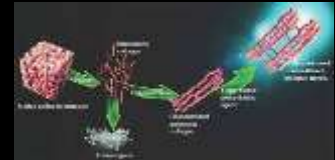
Hypersensitive neurasthenia –
Cannabis, B Vitamins

Tics and twitching –
Scutellaria, Passiflora and iron carbonate

Paralysis agitans –
Gelsemium, Macuna, Withania, magnesium salts

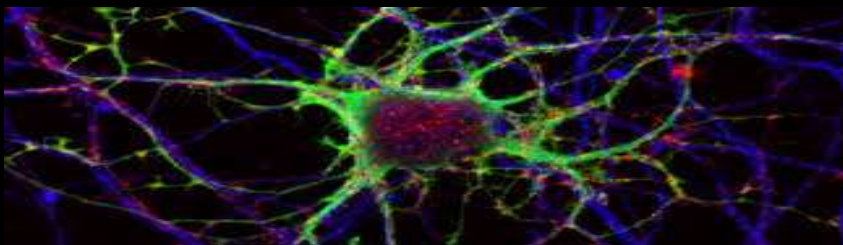
HYPERICUM IS SPECIFIC FOR SHOOTING PAIN

- *Hypericum* is specific for shooting pain along nerve roots, herpetic neuralgia, and tingling and lancinating pains in the nerves.
- *Hypericum* is high in bioflavonoids which contribute to its antiinflammatory and tissue stabilizing capability, helping to stabilize vascular and muscular inflammations as well as prevent free radical damage and enzymatic cleavage of collagen cross-linkage.
- Use *Hypericum* in formulas for carpal tunnel, post surgical neuralgias, and topically over painful nerves, and herpetic lesions to support tissue repair, improve capillary and collagen integrity, and help with the assimilation of Vitamin C.
- *Hypericum* oil may be used as a carrier oil for other volatile oils in topical applications for neuralgia.



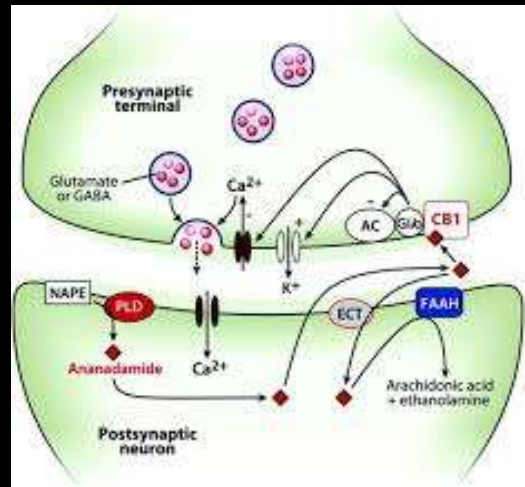
PIPER METHYSTICUM FOR NEURALGIA

- *Piper methysticum* is a general anodyne agent that reduces nerve hyperexcitability via ion channel effects.
- *Piper methysticum* has sedating effects with large and frequent dosages, and the effects may wear off quickly when discontinued.



PIPER METHYSTICUM FOR NEURALGIA

- *Piper methysticum* contains kavalactones including kavain, methysticin, yangonin, and others, which bind GABA receptors and inhibit endocannabinoid metabolizing enzymes, both of which offer some pain relief, and yangonin binds endocannabinoid receptors itself, contributing to Kava's anodyne effects.



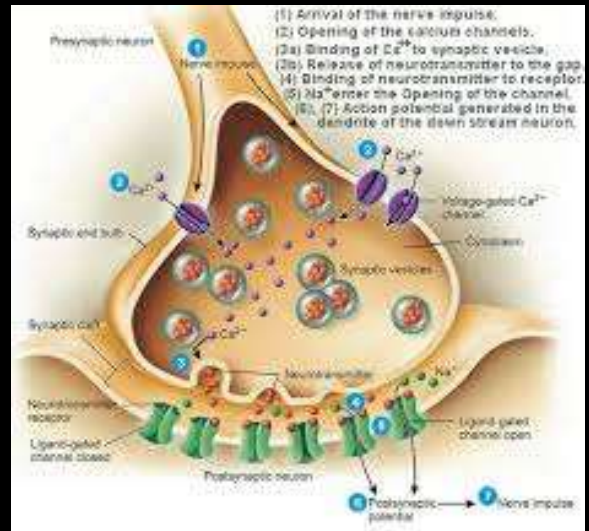
Conium Tincture as a Nerve Suppressant

- Advanced cancer, metastatic disease or severe degenerative arthritic pain may require palliative anodynes. *Conium* is a peripheral motor nerve suppressant that is most specific for neuralgic pain and can be safely dosed at 1 to 3 drops at any one time, thus 1 or 2 mls may be used in a 2 oz tincture formula. Slowing of the pulse rate may be the first sign of toxicity progressing to numbness and muscular incoordination with repeated dosing. *Conium* may allay pain of cancer, arthritic joints, and glandular swellings. Extreme restlessness and nervous agitation due to pain may also respond to *Conium*. Do not exceed the dosages recommended as *Conium* can lead to circulatory and respiratory collapse.
- *Conium maculatum* Tincture 2 ml
- Water 58 ml
- Place 1 dropper in a small shot glass of water and take as often as every 3 or 4 hours.



GELSIMIUM AND ACONITUM FOR NEURALGIA

Gelsimium and *Aconitum napellus* are potent nerve poisons, for skilled herbalists only, and drop dosages were used by early American herbalist to treat neuralgia.



Cannabis for Neuropathic Pain

- Spinal cord injury and disease can promote difficult to manage, itching and burning sensations and deep, chronic pain. THC and non-psychoactive cannabinoids may be helpful pain management tools. Spinal glial cells also play a significant role in the development and maintenance of neuropathic pain in addition to the involvement of neurons. Cannabinoid receptors have cross reactivity at opioid receptors. Pharmaceutical cannabinoids include nabilone, dronabinol, and nabiximols
- *Cannabis* or Cannabidiol (CBD) products.
- Use packaging directions, typically 1 capsule 3 times a day. Topical products are also available and applied to the affected area 3 times a day or more.

ESSENTIAL FATTY ACIDS FOR NEURALGIA

Essential fatty acids *Linum ussitatissimum* (Flax Oil), *Borago officinalis* (Borage Seed Oil), *Ribes* (Currant Oil) and *Oenothera biennis* (Evening Primrose Oil) help modulate prostaglandin pathways and are indicated for multiple sclerosis and other autoimmune-related neuropathy.



NIGELLA SEED OIL FOR NEUROPATHIC PAIN

- *Nigella sativa* seeds may also be pressed into a strong-tasting oil available in herb shops and has been emphasized in middle eastern healing traditions for memory impairment, epilepsy, neurotoxicity, and pain.
- Modern research reveals that thymoquinone in *Nigella* seed oil has central nervous system effects.



Avicenna J Phytomed. 2016 Jan-Feb; 6(1): 104–116. *Neuropharmacological effects of Nigella sativa* Farimah Beheshti, Majid Khazaei, Mahmoud Hosseini

NIGELLA SEED OIL FOR NEUROPATHIC PAIN

- ***Nigella sativa***) *Nigella* is mentioned in traditional Islamic literature.
- The seeds have a long history of use in food and in medicine and have been widely used to treat nervous system diseases such as memory impairment, epilepsy, neurotoxicity, and pain.
- Thymoquinone in the seed oil as having neuroprotective, anticonvulsant and antioxidant activities.
- *Nigella* oil decreases oxidative injury in kindled mice via inhibition of reactive oxygen species.

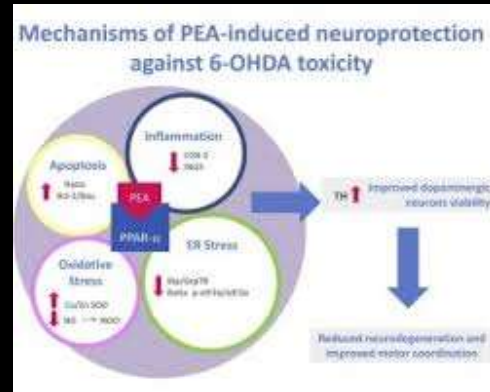


- Epileptic Disord. 2013 Sep;15(3):295-301. The clinical outcome of adjuvant therapy with black seed oil on intractable paediatric seizures: a pilot study. Shawki M1, El Wakeel L, Shatla R, et al.
- Neuropharmacology. 2005 Sep;49(4):456-64. Antiepileptogenic and antioxidant effects of *Nigella sativa* oil against pentylenetetrazol-induced kindling in mice. Ilhan A1, Gurel A, Armutcu F, Kamisli S, Iraz M.

TOPICAL FORMULAS FOR NEUROPATHIC PAIN

PEA OINTMENT FOR NEUROPATHIC PAIN

- Palmitoylethanolamide (PEA), an endogenous fatty acid amide, where it has numerous anti-inflammatory roles, and may improve neuropathic pain when topically applied.
- PEA occurs naturally in egg yolks, milk, and leguminous plants including soybeans, peas, beans, peanuts and legume family herb *Medicago*.
- Soy lecithin is an abundant source.



TOPICAL ANODYNE OIL FOR NEUROPATHY

Sesame oil may be a useful base carrier oil in neuralgia formulas as anodyne effects have been shown in extremity trauma in human subjects reducing the needs for anti-inflammatory drugs. Eugenol in clove essential oil has anesthetic and antinociceptive effects due to inhibitory effects on peripheral Na⁺ channels. Cayenne oil is commercially available but can also be prepared for oneself.

- *Hypericum perforatum* Oil 30 ml
- Sesame Oil 30 ml
- Capsicum Oil 30 ml
- Mint Essential Oil 10 ml
- Wintergreen Essential Oil 10 ml
- Clove Essential Oil 5 ml
- Nutmeg Essential Oil 5 ml
- This 4 ounce formula is intended to be used hourly for acute pain, reducing as symptoms improve. It can simply be rubbed into the affected areas, taking care to wash the hands before touching the face, especially eyes.



- *Anesth Pain Med.* 2015 Jun; 5(3): e25085. *The Effects of Topical Sesame (Sesamum indicum) Oil on Pain Severity and Amount of Received Non-Steroid Anti-Inflammatory Drugs in Patients With Upper or Lower Extremities Trauma* Marzieh Beigom Bigdeli Shamloo, Morteza Nasiri, Aazam Dabirian, et al
- *Acta Pharmacol Sin.* 2015 Jul; 36(7): 791–799. *Inhibition of Nav1.7 channels by methyl eugenol as a mechanism underlying its antinociceptive and anesthetic actions* Ze-Jun Wang, Boris Tabakoff, Simon R Levinson, Thomas Heinbockel

TINCTURE FOR DIABETIC PERIPHERAL NEUROPATHY

Diabetes is also discussed in the metabolic endocrinology chapter of Volume III of this series where the metabolic support herb *Gymnema* is further discussed. *Ginkgo* and *Angelica* are used here as some of the best herb tools to enhance perfusion to distal extremities.



- *Hypericum perforatum*
- *Ginkgo biloba*
- *Angelica sinensis*
- *Gymnema sylvestre*

Combine equal parts of the tincture and take 1 tsp 3-6 times daily.



LINIMENT FOR PERIPHERAL NEUROPATHY

A liniment combines an alcohol and oil and must be shaken at each use. Opiate agonist pharmaceuticals such as fentanyl and buprenorphine are used to treat cancer-related and neuropathic pain and this formula uses *Corydalis* as a weak opiate agonist. *Harpagophytum*, Devils Claw is This formula can not be taken by mouth due to the high amount of juniper essential oil.

- *Harpagophytum procumbens* 30 ml
- *Corydalis cava* tincture 30 ml
- Castor Oil 45 ml
- Juniper essential oil 15 ml

• This 4 ounce formula can be massaged into the affected limb 3 or 4 times a day, as a complement to oral medications.



HOT HOPS BAG AND CAYENNE-ESSENTIAL OILS FOR NEURALGIA

Dried hops are traditional to take orally for stress, tension, insomnia, and pain, and in this case, use topically. Hops are in the same family as marijuana, and the resin lupulin, may act in a manner similar to THC to alleviate pain.

- Castor oil 1 oz
- Cayenne Oil ½ oz
- Lavendar essential oil 1/8 oz
- Pine essential oil 1/8 oz
- Mint essential oil 1/8 oz
- Nutmeg essential oil 1/8 oz
- Combine and shake well, rub into painful tissue and cover with a “hot hop bag”, prepared like a rice or flax seed bag. Dried hops are used to fill a 6 by 6 thin cotton bag, heat via steam or slightly moisten and microwave and apply over the painful area.



BOTANICAL INFLUENCES ON
MUSCULOSKELETAL PAIN

FIX DETRIMENTS TO INTESTINAL BARRIERS AS ONE OF PRONG OF TREATING CHRONIC M/S PAIN



Steroids



NSAIDS (Aspirin, ibuprofen, acetaminophen, etc.)



Methotrexate



Alcohol



Malnutrition



Autoimmune Dz (Chicken and Egg)



Cholera Toxins



REPAIRING DAMAGED TIGHT JUNCTIONS

- Toxic *E. coli* strains and other pathogenic bacteria damage intestinal tight junctions and allow pathogens to spread through paracellular spaces.
- Daidzein, bromelain and allicin have all been shown to inhibit the ability of *E. coli* to cause excessive intestinal cell permeability and allow the spread of pathogens.
- Bromelain and allicin both contain sulfur.

SULPHUR CONTAINING POLYSACCHARIDES

Allantoin, a sulfur containing polysaccharide may promote repair of burned and ulcerated skin, but injured intestinal epithelial cells as well.

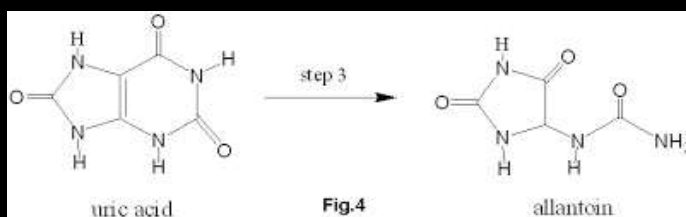
Allantoin is found in:

- *Aloe vera*
- *Symphytum officinalis*
- Human Breast Milk



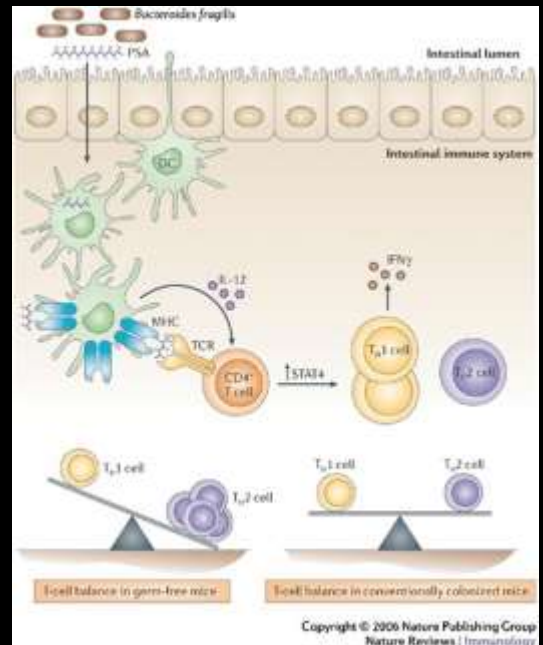
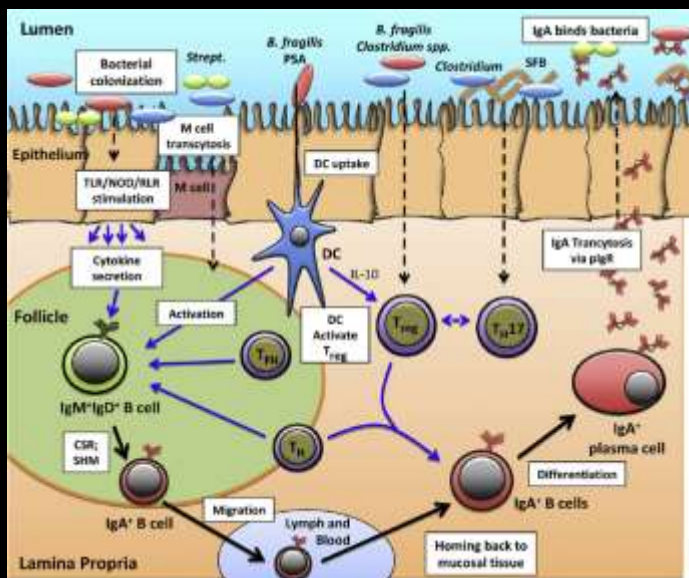
SULPHUR CONTAINING POLYSACCHARIDES

Allantoin is found in Comfrey (*Symphytum officinalis*), a plant long credited with healing broken bones, ulcers, and traumatized tissue.



USING ALLANTOIN FOR LEAKY GUT

- Allantoin will most help the GI mucosa when direct surface contact with the intestinal lumen occurs.
- Place *Aloe vera* gel or fresh comfrey, or comfrey powder in juices, smoothies, medicinal “bon bons”, to consume as often as possible.



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ACUTE MUSCLE SPASMS

BOTANICALS AFFECTING GABA (Benzodiazepine) RECEPTORS

- *Melissa officinalis* – Lemon Balm
- *Valeriana stichensis* - Valerian
- *Passiflora incarnata* – Passion Flower
- *Piper methysticum* – Kava
- *Corydalis cava* – Bleeding Heart
- *Eschscholtzia californica* –California Poppy
- *Hypericum perforatum* – St Johnswort



PISCIDIA FOR PAIN

Piscidia was sometimes used by Eclectic physicians as a morphine substitute to promote restful sleep in cases of pain and nervous tension as was thought to not suppress normal digestion and peristalsis, nor become addictive or have numerous side effects as is the case with morphine.



PISCIDIA FOR PAIN

- *Piscidia* has powerful effects on respiratory centers, nerve conduction and the vascular system and is traditionally used in small physiologically appropriate dosages.
- *Piscidia* has not yet been extensively researched in terms of its chemical constituents, but is known to contain the resins piscidin, jamaicin, and ichthyone.
- The isoflavonoid sumatrol and a variety of rotenones credited with the fish toxicity have been identified.





DEGENERATIVE JOINT DISEASE AND ARTHRITIC PAIN



BONE BASICS

CONNECTIVE TISSUE

- Connective tissue includes cells such as cartilage and bone cells, and extracellular matrix.
- Extracellular material is also referred to as ground substance, and includes:
 - Glycosaminoglycans (GAGs)
 - Collagen
 - Elastin and other fibers,
 - Structural Glycoproteins.



Centella



Equisetum

Folkloric Connective Tissue Tonics

THERAPIES FOR TO REPAIR BONES, JOINTS, AND CONNECTIVE TISSUE

DIETARY CONSIDERATIONS

- Absorption
- Mineral Intake
- Protein
- Caffeine

NUTRITIONAL SUPPLEMENTS

- Vitamins
- Minerals
- Herbs as Sources of Organic Mineral Complexes
- Hyaluronic acid, Glutamine, Glucosamine

PHARMACEUTICAL CONSIDERATIONS

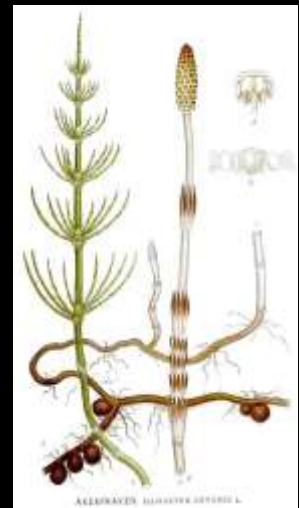
- Reproductive Hormones
 - Estrogen
 - DHEA
- Parathyroid Hormones
- Bisphosphonates

HERBAL SUPPLEMENTS

- Adaptogens and Anabolic Agents
- Anti-Inflammatories
- *Pueraria* and Many Legumes
- Mineral and Connective Tissue Tonics

MINERALS TO SUPPORT BONES AND JOINTS

- CALCIUM
- MAGNESIUM
- PHOSPHORUS
- SILICA
- FLUORIDE
- BORON
- ZINC
- COPPER
- MANGANESE
- STRONTIUM



Equisetum may be long macerated in vinegar and citrus juice to extract the most minerals.

DON'T FORGET DIGESTIVE SUPPORT FOR OSTEOPOROSIS

DIGESTIVE WEAKNESS IMPAIRS MINERAL AND ABSORPTION OF ALL NUTRIENTS

Optimize Digestion & Assimilation

BITTER ALTERATIVE HERBS:

Rumex, Mahonia, Humulus, Commiphora mukul

HOT STIMULANT HERBS:

Piper nigrum, Capsicum, Zingiber, Curcuma.



HIGH CALCIUM HERBS AND FOODS

- *Ephedra nevadensis* Mormon Tea Plant 6 mg/gm
- *Amaranthus sp.* Pigweed Leaf 6 mg/gm
- *Valeriana officinalis* Valerian Root 4 mg/gm
- *Paeonia lactiflora* Peony Root 4 mg/gm
- *Chenopodium album* Lambsquarter Leaf 3 mg/gm
- *Urtica dioica* Stinging Nettle Leaf 3 mg/gm
- *Arachis hypogaea* Peanut Plant 3 mg/gm
- *Vicia faba* Fava Beans 3 mg/gm
- *Calendula officinalis* Pot-Marigold Leaf 3 mg/gm
- *Fucus vesiculosus* Kelp Plant 3 mg/gm
- *Morus alba* White Mulberry Leaf 2.5mg/gm
- Leafy Greens 1-15 mg/gm
- Nuts and Seeds 1-10mg/gm
- Yogurt and Cheese 8 mg/gm
- Fish, Mussels, Oysters 7-10mg/gm
- Eggs 10 mg/gm
- Beans 4-5 mg/gm
- Butter 2 mg/gm
- Herbs 2-5 mg/gm



HIGH MINERAL PLANTS FOR HERBAL TEAS

- *Avena sativa*, – Oat straw, and groats
- *Centella asiatica* - Gotu Kola leaves
- *Equisetum* – Horsetail
- *Foeniculum vulgare* – Fennel Seeds
- *Medicago farfara* – Alfalfa leaves
- *Rubus ideaus, spp* – Raspberry leaves and relatives
- *Symphytum officianlis* – Comfrey leaves
- *Taraxicum officinalis* – Dandelion Greens
- *Ulmus fulvus* – Slippery elm
- *Urtica species*, – Nettle leaves



High Mineral Vinegar

- Powdered *Medicago sativa* (Alfalfa)
- Powdered *Symphytum officinale* (Comfrey)
- Powdered *Urtica urens* (Nettles)
- Powdered *Fucus* species (Bladderwrack)
- Powdered *Foeniculum vulgare* (Fennel Seeds)
- Powdered *Piper nigrum* (Black Pepper)
- Finely Cut *Avena sativa* (Oat straw)

Macerate equal parts of the freshly powdered herbs in Basalmic or organic apple cider vinegar depending on price, availability or taste preferences. Add Ginger, Cayenne, Horseradish, Citrus zest, fresh berries etc. as desired.



SPONTANEOUS FRACTURES IN THE ELDERLY

Spontaneous Fractures in the Elderly, Fractures Secondary to Osteoporosis

This is a formula for acute use as the *Cimicifuga* is included for pain. *Angelica* and *Gingko* are circulatory enhancing herbs and may help promote healing in the elderly by helping deliver blood and oxygen to the bones. *Symphytum* is a specific for all fractures. Use a mineral-rich tea described in this chapter to complement, and follow with a convalescent and preventative approach to continue building bone strength and supporting circulation.

- *Cimicifuga*
- *Angelica*
- *Symphytum*
- *Gingko*

Combine equal parts tincture and take 1 tsp 4 times a day for prevention and take 6 to 8 times daily for acute issues.



Symphytum officinale



Ginkgo biloba



Angelica

BONE BUILDING TEA

Tea for Osteoporosis

While coffee promotes the loss of calcium and minerals, herbal teas can provide important minerals. The tea should be combined with herbal capsules as above, and other supplements for the most effective approach.

- *Medicago*
- *Pueraria*
- *Mentha*
- *Rubus*
- *Avena*
- *Trifolium*
- *Equisetum*
- *Centella*
- *Glycyrrhiza*



Mentha



Equisetum

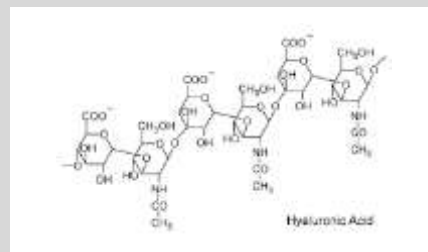
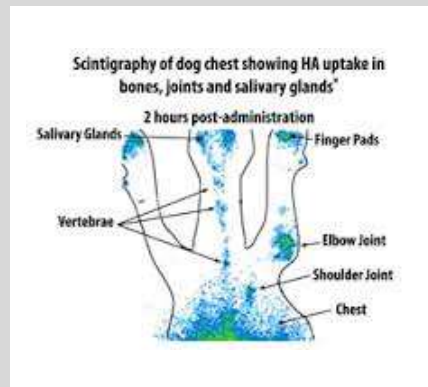


Glycyrrhiza

Combine equal parts of the dry herbs or use more mint and licorice for flavor if desired. Blend well and steep 1 Tbl per cup of water, bring to a gentle simmer for just one minute, cover the pan and allow it to steep 10-15

ENHANCING HYALURONIC ACID

- Hyaluronic acid is a component of “ground substance” upon which cells are synthesized.
- Agents that promote Hyaluronic acid may enhance the repair of intestinal cells.



Not all size of hyaluronic acid has the ability of stimulating keratinocytes. Only around 100 thousand Dalton size of hyaluronic acids.



The reason why only this size has the ability is explained in the above figure. CD44 is a receptor which signal only when two molecules get close to each other. Hyaluronic acid has a size of 100,000 Dalton which is not the size of CD44. If the size of hyaluronic acid is small, it can't reach another CD44. If the size of hyaluronic acid is large, it can't reach another CD44. If the size of hyaluronic acid is around 100 thousand Dalton,

ENHANCING HYALURONIC ACID

- Hyaluronic acid itself has been shown to hold mineral ions in the intracellular matrix, which in turn may help bind amino acids to create the GAGs matrix.
- Agents that promote hyaluronic acid help to enable the electromagnetic properties of the cytoskeleton.
- Bone broth may provide Hyaluronic acid and nutrients needed to repair the intestinal barriers and the joints themselves.



LEGUMES AND HYALURONIC ACID

- *Astragalus* and *Pueraria* have been shown to promote hyaluronic acid in the skin when topically applied.
- *Astragalus* also reduces excessive hyaluronic acid associated with fibrosis.
- *Astragalus* and *Pueraria* may be included in medicinal teas.



PALLIATING ACUTE
MUSCULOSKELETAL PAIN

TRANSIENT RECEPTOR POTENTIAL TRP CHANNELS

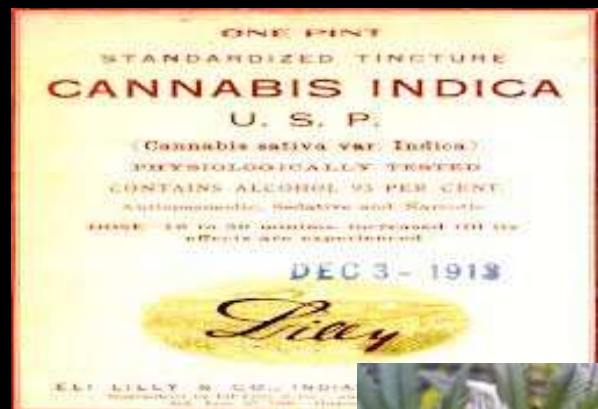
- There are 6 families of TRP receptors with highly varied methods of opening.
- TRP channels may be gated by voltage, intracellular Ca²⁺, pH, redox state, osmolarity, mechanical stretch, and other triggers.
- Some TRP receptors are selective for Ca²⁺ while others are less selective, acting as cation channels.

THERE ARE AT LEAST 6 SUB-FAMILIES OF TRP RECEPTORS:

- Classical (TRPC)
- Vanilloid receptors (TRPV)
- Melastatin (TRPM)
- Polycystins (TRPP)
- Mucolipins (TRPML)
- Ankyrin (TRPA)

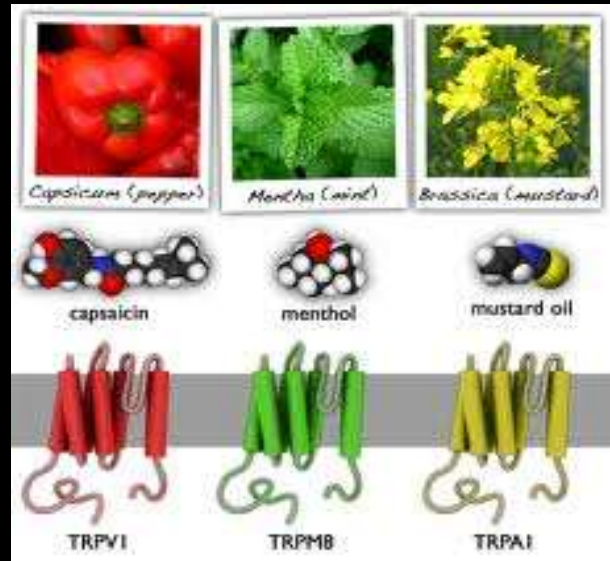
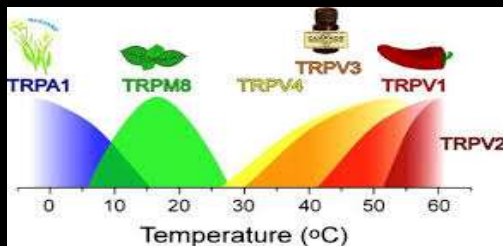
TRANSIENT RECEPTOR POTENTIAL TRP CHANNELS

- Certain TRP channels can be activated by chemotherapy and be involved with chemo-induced peripheral neuropathy.
- *Cannabis* and cannabinoids are active at TRPs contributing to the analgesic, anti-inflammatory and anti-cancer effects.
- α -lipoic acid may antagonize TRP receptors and both prevent and treat this types of neuropathy.



VANILLOID TRANSIENT RECEPTOR POTENTIAL

- Capsaicin is a potent agonist of the transient receptor potential vanilloid receptors.
- Capsaicin bind vanilloid TRPs.



THANK YOU!!!