Advanced Herbal Training

Module Four: Herbs for the Nervous System

Stress

- Not all stress is bad!
- When we lift weights we are putting stress on our muscles, which makes them stronger
- However, when a stress goes beyond the point of the body’s ability to cope, it can cause damage that adversely affect our health, just like a muscle can be strained from overexertion
- How we cope with stress is an important factor in our health

Effects of Stress

- The physical effects of chronic stress can include:
  - Heart palpitations
  - Muscle weakness and tension
  - Fatigue
  - Indigestion and nausea
  - Chest pain
  - Shortness of breath
  - Headaches
  - Reduced resistance to infection
  - Insomnia

The Fight or Flight Response

- A real or perceived threat to our safety, triggers the stress reaction, also known as the fight or flight response. The body is primed for action by:
  - An increase in blood pressure and heart rate and blood flow to major muscle groups
  - A decrease in immune and digestive functions
- Once the threat is over, there is a recovery period, where the body is returns to normal.
- Constant “danger” whether real or imagined prevents the body from entering a recovery period and feelings of stress become chronic

Anxiety

- The root meaning of the word anxiety is “to vex or trouble.”
- Anxiety can occur in the presence of either psychological or physical stress
- Anxiety involves worry and feelings of fear, uneasiness and even dread
- Anxiety is the feeling we have when our fight or flight response is triggered
Anxiety versus Fear

- Fear is an emotional response to a perceived threat
- Chronic fear can lead to anxiety, which is a more generalized mood condition
- Anxiety can occur without an identifiable triggering stimulus or threat
- Anxiety is related to situations perceived as uncontrollable or unavoidable

Panic Attacks

- Panic attacks usually come without warning and the person perceives the danger as very real, even if there is no physical danger
- A person experiencing a panic attack will often feel as if he or she is about to die or pass out
- Panic attacks are not experienced by every person who has anxiety, however they are a common symptom of anxiety and are one example of an anxiety-related disorder

Anxiety Disorders

- When anxiety becomes chronic and excessive, it can interfere with our ability to function normally in life
- When this happens we have an anxiety disorder
- Anxiety disorders include:
  - Generalized Anxiety Disorder
  - Phobias
  - Panic Attacks
  - Post Traumatic Stress Disorder
  - Obsessive-Compulsive Disorder

An Opportunity to Help

- Recent surveys have found that as many as 18% of Americans may be affected by anxiety disorders
- Modern medicine treats these disorders primarily with anxiety-reducing drugs
- Little is done to address the specific issues causing a person’s anxiety
- This leaves a lot of room for herbalist to step in and help!
- The question become how?
- We can mix a bunch of nervines in a formula and hope for the best. Or we can learn more about the plants and use them with better results.

Differential Assessment

- How can we differentiate between herbs used for the nervous system?
- We need to look at three things:
  1. What part of the nervous system are you trying to affect?
     - Central or CNS
     - Autonomic or ANS
     - Sympathetic
     - Parasympathetic
  2. What action are you looking for:
     - Stimulating
     - Sedating
     - Balancing
  3. What constitution is the person?

Central Nervous System

- Consists of:
  - The brain and spinal column
  - Sensory and motor nerves
- Regulates:
  - Sensory input, perception and cognition
  - Movement
  - Pain
Nervines

- Herbs that affect the nervous system are called nervines.
- The term is commonly applied to herbs that relax or sedate the nervous system.
- However, remedies that stimulate the nervous system, such as coffee and coca, can also be considered “nervines.”

CNS Nervines

- Most herbs that strongly suppress or stimulate the CNS functions are illegal or hard to obtain.
- They include plants like:
  - Cannabis
  - Opium poppy
  - Gelsemium
  - Peyote
  - Coca leaf
- There are milder CNS nervines that are legal, however.

ANS Nervines

- Most nerve herbs affect the ANS.
- ANS nervines are legal and easy to obtain.
- They include plants like:
  - Chamomile
  - Valerian
  - Hops
  - Passion Flower
  - Skullcap
  - Milky oat seed
  - Black cohosh

Further Differentiation

- We can go even further than the basic categories by identifying which part of the nervous system is being affected.
- Relaxants/Sedatives
  - Parasympathetic stimulating (Parasympathomemetic)
  - Sympathetic suppressing (Sympatholytic)
- CNS depressant
- Stimulant
  - Sympathetic stimulating (sympathomemetic)
  - Parasympathetic suppressing (parasympatholytic)
  - CNS stimulant

Major Categories of Nervines

- Nerve Tonics – Remedies that nourish and rebuild a depleted nervous system (milky oat seed)
- Relaxants/Sedatives – Remedies that reduce nervousness and anxiety (chamomile)
- Stimulants – Remedies that stimulate the nervous system (coffee)
- Hypnotic/Soporific – Remedies that help people fall asleep (California poppy)
- Antispasmodics – Remedies that relax muscles and relieve spasms (black cohosh)
- Antidepressant – Remedies that relieve depression and sadness (lemon balm)
- Adaptogen – Remedies that reduce reactions to stress, calming and balancing the nervous system (ginseng)
- Analgesic – Remedies that ease pain (Jamaican dogwood)

ANS Functions

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<tr>
<th>Sympathetic</th>
<th>Parasympathetic</th>
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<tr>
<td>Dilates pupil</td>
<td>Constricts pupil</td>
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<tr>
<td>Decreases saliva</td>
<td>Increases saliva</td>
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<tr>
<td>Dilates bronchial</td>
<td>Contracts bronchial</td>
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<tr>
<td>Increases mucus</td>
<td>Decreases mucus</td>
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<tr>
<td>Increases heart rate</td>
<td>Decreases heart rate</td>
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<tr>
<td>Constricts blood vessels</td>
<td>Relaxes blood vessels</td>
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<td>Inhibits pancreatic secretions</td>
<td>Stimulates pancreatic secretions</td>
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<td>Inhibits peristalsis</td>
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ANS Functions, Cont.

<table>
<thead>
<tr>
<th>Sympathetic</th>
<th>Parasympathetic</th>
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<tr>
<td>Closes sphincter muscles</td>
<td>Inhibits sphincters</td>
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<tr>
<td>Decreases urinary output</td>
<td>muscles closing</td>
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<tr>
<td>Stimulates ejaculation (due to vasodilatation)</td>
<td>Stimulates bladder contraction</td>
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<td>Stimulates sweat</td>
<td>Stimulates erection</td>
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<tr>
<td>Increases mental activity</td>
<td>Stimulates tears</td>
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<tr>
<td>Increases blood sugar</td>
<td>Stimulates stomach and intestinal secretions</td>
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Solving a Mystery

- Why do some children (and adults) get more stressed when given calming nervines like lavender and hops and calm down when given stimulants like Ritalin®?
- The answer lies in the balance of their nervous systems.

**Sympathetic**

**Parasympathetic**

Stress and Anxiety

- When most people are stressed, their sympathetic neurotransmitters are elevated and their parasympathetic neurotransmitters are down.

**Sympathetic**

**Parasympathetic**

ADHD

- The ADHD person has the opposite imbalance, their parasympathetic nervous system is elevated and the sympathetic is depressed.

**Sympathetic**

**Parasympathetic**

ANS Balance

- Sympathetic Dilates Pupil
- Parasympathetic Contracts Pupil
Dilated Pupil (Mydriasis)

Nervines to Enhance

Sympathetic
- Caffeine (Gurana, coffee, tea, chocolate)
- Chinese ephedra (Ma Huang)
- Bitter orange
- Licorice

Parasympathetic
- Valerian
- Skullcap
- Lobelia
- Passion Flower
- Lavender
- Kava Kava

Other Balancing Aids

Stress and Anxiety
- Eleuthero root and other adaptagens
- Nervines like chamomile, passion flower, hops, valerian, skullcap, etc.
- B-Complex vitamins
- Magnesium

ADHD
- Sympathetic stimulants like ephedra, kola nuts, green tea
- Citrus essential oils (lemon, etc.)
- Adrenal supporting supplements
- Red meat for breakfast
- Iodine supplements

Sympathetic Symptoms

Excess
- Anxiety-like response
- Enlarged pupils
- High blood pressure
- Constipation
- Irritability
- Indigestion
- Muscle tension

Deficient
- Mental confusion
- Fatigue
- Restless sleep
- Emotional sensitivity
- Loss of muscle tone
- Difficulty concentrating
- Reduced libido

Sympathomimetic/Sympathotonic

- Mimics or enhances the effects of the sympathetic nervous system (catecholamines):
  - Epinephrine
  - Norepinephrine
  - Dopamine
- Can act by
  - Directly activating receptors
  - Stimulating neurotransmitter production
  - Blocking neurotransmitter breakdown
- Used in medicine to treat cardiac arrest, low blood pressure, asthma attacks, delay premature labor, promote weight loss
- Also used as "speed" or "uppers"
Sympathomimetic Drugs

- Amphetamines
  - Ritalin
  - Ephedrine
  - Pseudoephedrine
  - Cocaine
- Nicotine
- Digitalis
- Caffeine

Sympathomimetic Herbs

- Professional Strength
  - Chinese ephedra
  - Scotch broom
  - Lily of the valley
  - Belladonna
  - Datura
  - Foxglove
  - Nutmeg oil

- Common Herbs
  - Brigham tea
  - Caffeine-bearing plants
    - Coffee
    - Tea
    - Kola nut
    - Yerba Mate
  - Licorice
  - Yarrow
  - Rosemary
  - Chocolate

Sympatholytic

- Inhibits sympathetic nervous system (epinephrine and norepinephrine)
- Also known as antiadrenergic
- Act by:
  - Inhibiting adrenergic receptors
  - Inhibiting neurotransmitter synthesis
- Often used in medicine as antihypertensives

Sympatholytic Drugs

- Propranolol
- Reserpine
- Ergot
- Peyote
- Opium
- Rauwolfia

Sympatholytic Herbs

- Professional
  - Periwinkle
  - Mistletoe
- Other
  - Eleuthero
  - Passion flower
  - Valerian
  - Hops
  - White willow
  - Lavender
  - Lovage
  - Lemon Balm
  - Cramp bark
  - Hawthorn
  - Horehound

Parasympathetic Symptoms

Excess
- Small pupils
- Good digestion
- Low blood pressure
- Rapid colon transit time
- Sensitive to noises and touch
- Difficulty concentrating (ADHD)

Deficient
- Poor coordination
- Reduced mucus secretion, dry mouth
- Tachycardia
- Easily startled
- Glaucoma
- Shaking
- Confusion and disorientation
- Urinary retention
- Hallucinations
- Visual disturbances
Parasympathetic
- Stimulates or mimics the parasympathetic nervous system (acetylcholine)
- Also known as cholinergics
- Act by:
  - Directly stimulating cholinergic receptors
  - Inhibiting cholinesterase
  - Promoting acetylcholine release

Parasympathomimetic Drugs
- Muscarine
- Pilocarpine (antiglaucoma drug)
- Tear gas

Parasympathomimetic Herbs
- Gelsemium
- Mistletoe
- Hellebore (Veratrum album and Veratrum viride)
- Tobacco
- Pulsatilla

Parasympatholytic
- Reduces activity of the parasympathetic nervous system
- Also known as anticholinergics
- Used in medicine to treat asthma, bradycardic heart rhythms and reduce mucus secretions

Parasympatholytic Drugs
- Atropine
- Hyoscyamine
- Scopolamine

Parasympatholytic Herbs
- Professional
  - Datura
  - Belladonna
  - Opium
  - Henbane
- Other
  - Valerian
  - Yarrow
  - Licorice
  - Gentian
  - Shepherd’s purse
  - Calendula
Considering Constitution

- The last and most important question to consider is what constitution the person has.
- Different people need different nervines.
- There is not one size fits all!

Needs Something Different Than

For Instance

This Person

Is Different Than

But That’s Good, Because
Is Different Than

Blue Vervain Type, cont.

- Has an emotional/bodily tension that's built up and has nowhere to go.
- The kind of tension that ties your neck and shoulders in knots.
- So intense that it can leave you shaking and have people looking at you like your a crazed animal.
- Dorothy Halls says:
  - They tend to be workaholics, and feel uncomfortable when there is nothing to do.
  - They have trouble sitting still, pick at themselves, scratch, tap their feet, rub something, etc.
  - They are detail people
  - Suffer from surface and peripheral nervous system problems and may have neuralgias and skin problems

Blue Vervain’s Tension

- The Blue Vervain person holds tension in their neck and shoulders (often associated with suppressed anger), that can extend down in extreme circumstances.
- When it reaches the lungs it may cause pulmonary hypertension
- Thomas has seen six cases of “incurable” pulmonary hypertension reversed in a matter of weeks with blue vervain

Use Blue Vervain

- When it's indicated it has the ability to empty the head of all thought and stress.
- Blue Vervain can effect people in different ways.
  - Some people find it a mild sedative.
  - Some think of it as a strong mind-altering herb.
- It's best to be sitting down the first time you try it. Small doses are all that is necessary. If it doesn't work in 10 drops or less it probably won't work for you. Large doses can cause nausea.
- Blue Vervain combines well with motherwort and pulsatilla for generalized anxiety.

The “Blue Vervain” Person

- Hard driving, stiff necked, overachiever.
- Fanatical, driven to a cause
- Gets burned out, frazzled and overwhelmed
- Needs to not be so fanatically driven

Blue Vervain and Irritability

- Kiva Rose says that it works “when you're so irate and uptight you could dismember the nearest living creature”
- Beneficial for PMS in women that have tension and anger with their luteal phase (2nd half) that's dominated by progesterone. It helps to quell the intense food cravings that some women get during this phase.
- Also great for post delivery stress, tension and hormone balance.
The Skullcap Person

➤ Feels as if every sound, touch and bit of light is personally attacking them
➤ The are oversensitive to any stimulation.
➤ The are twitchy, even in sleep.
➤ Their nervousness manifesting itself in muscular action.

Skullcap

➤ Skullcap is a more general nerve sedative. It probably has the most broad range of use of any nerve. It isn't bossy, and plays well with other herbs.
➤ However it too has a well defined personality (possibly a water personality), and a more narrow range of use that it excels at.
➤ It beneficial for people “at the end of their rope” or people so frazzled they’re about to snap. In fact its good for people that do snap or flip out over small stuff.

The Black Cohosh Person

➤ Feels entangled, ensnared and trapped
➤ Feels like they are wrestling with darkness and can’t find their way to the light
➤ Feels tension and pain in their body
➤ May feel depressed like a black cloud hangs over them
➤ Black cohosh is releases tension and helps one find the route to freedom and relaxation

Skullcap Person, cont.

➤ Dorothy Hall says:
  • Classic skullcaps are tall, and often very thin at some stages of their life
  • Intellectually bright and creative, but may be too smart for their own good
  • May tend to burn the candle at both ends and wind up with depleted adrenal glands
  • May suffer from nervous fatigue, shaking hands and need to lean on things a lot
  • Prone to headaches
  • Often don't get enough sleep
  • Great for prima donnas, highly strung creative people who burn themselves out chasing the spotlight

➤ Skullcapis most useful for people that are oversensitive to stimulation because of burned out adrenals.
➤ Skullcap seems to not only help with tension, but it also has a tonic action. It gives people a bigger capacity for stress.
➤ If your stress is like a cup full of water, Blue Vervain can empty your cup when indicated. However Skullcap not only empties your cup, it give you a bigger cup!

The Untangling Remedy

➤ Helps women who are brooding, withdrawn and melancholic
➤ Helps women who have experienced abusive, possessive, manipulative relationships
➤ Helps children and adults stand up to bullying, intimidation and abuse
➤ Helps people free themselves from people and situations where they feel trapped
➤ Black cohosh “unwinds” and “untangles” and sets people free
The Chamomile Person
- Peevish, complains about small aches and pains, easily irritable
- Matthew Wood says “Babies of any age…”
- Their anxiety adversely affects their digestive function
- The chamomile person needs to become more centered within themselves
- Chamomile helps people feel more warm and “sunny”

The Hops Person
- Hops is a powerful sedative and soporific, related to marijuana
- The hops person spends too much time thinking and planning
- They may even get depressed when life spoils their well-made plans
- They need to unwind in the evening, get some good rest so they can face the day well rested
- Small doses of hops (or even a natural hop beer) can help a person relax and be less irritable and cranky

Other Nervines for Stress
- Milk Oat Seed (for nervous system depletion from chronic stress, a tonic that rebuilds the nerves)
- Lavender (for frayed and frazzled nerves)
- Passion Flower (when you’re feeling stressed to the point that it feels like you’re being persecuted, helps quiet your mind and make the mental chatter go away)
- Rosemary (stimulating nerve, for forgetfulness, difficulty learning, feeling cold and numb, restores warmth and memory)
- Corydalis (helps sedate a person who is burned out by stress and can’t sleep)

Course Content

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<th>Class Two: Nervines and Sedatives, Part Two</th>
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<td>&gt; Passion Flower</td>
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<td>&gt; Chamomile</td>
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<td>&gt; Motherwort</td>
<td>&gt; Jujube dates</td>
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<td>&gt; Linden Flower</td>
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<td>&gt; Kava Kava</td>
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<td>&gt; Skunk Cabbage</td>
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<td>&gt; Black cohosh</td>
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<td>&gt; Cramp bark</td>
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<td>&gt; Khella</td>
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<td>&gt; Datura (Angel’s Trumpet)</td>
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<td>&gt; Belladonna</td>
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<td>&gt; Chinese club moss</td>
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<td>&gt; Holy Basil</td>
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Upcoming Class
- Module Four: Herbs for the Nervous System
- Aug 16, 30, Sept 6, 20, 27 from 6:30 PM to 8:30 PM MT
- Five 2+ hour long webinars, over 10 hours of quality instruction
- Webinars are recorded for later viewing
- Cost is $127, if you register by Friday, Aug 6 at 800-416-2887, or by Sunday, Aug 8 online (www.treelite.com). $157 thereafter.
- Members of Tree of Light’s Share the Sunshine program get an additional $30 off. If you are not a member you can ask to join when you register by phone.
Course Content

Class Five: Analgesics

- California poppy
- Corydalis
- Indian pipe
- Jamaican dogwood
- Meadowsweet
- Gelsemium
- Wild lettuce
- Willow bark
- Feverfew
- Cannabis

Register by calling 800-416-2887 OR
Register online at www.treelite.com

Question and Answer Time