HPA Axis
Herbal Essentials
Part 2

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*Kerry’s recommendations for Standard Process and MediHerb product dosages are sometimes different than the doses that appear on the product labels. Please refer to the product labels or to the product descriptions found in the product catalogs or on the website for Standard Process and MediHerb dosage recommendations.*
Kerry Bone co-founded MediHerb and is the company’s Director of Research and Development. A practicing herbalist of 30 years, he is Principal of the Australian College of Phytotherapy and was appointed as an Adjunct Professor at New York Chiropractic College.

Kerry is a respected author of more than 30 scientific papers on herbal research. He has also written and co-written six popular books on herbal medicine, including his latest, the second edition of *Principles and Practice of Phytotherapy*, published in 2013 and recipient of the 2013 James A. Duke Botanical Literature Award.

Kerry was appointed to the American Botanical Council (ABC) Advisory Board in 2011 for his long-term support and contribution to the council’s nonprofit educational mission. This appointment is well-earned recognition of Kerry’s long-term commitment and outstanding contribution to herbal therapy.
Key HPA Herbal Actions

• Adaptogens **conserve** adaptation energy
  • Eleuthero
  • Ashwagandha
  • Rhodiola
  • Schisandra

• Tonics increase or **release** adaptation energy
  • Korean Ginseng

Key HPA Herbal Actions

- Adrenal herbs **support and restore** the adrenal cortex under stress
  - Licorice
  - Rehmannia
A Fresh Look at Tonics

- ‘Tonic’ has a long history in herbal therapy
- Definitions vary remarkably
- ‘Tonic’ is commonly misunderstood, including confusion with “adaptogen”
- Restores and/or maintains physiological functioning of an organ system leading to a feeling of well-being

Key Herbs

- Ashwagandha
- Korean Ginseng
- Rhodiola
- Schisandra
- Eleutherococcus (indirectly)
Ashwagandha

- An impressive clinical portfolio demonstrating tonic activity, benefits in anxiety and for male sexual function and enhancing mental performance
- Key trial of Ashwagandha in stressed people: reduced anxiety, morning serum cortisol, CRP
- Boosted DHEA
- High doses (at least 4 g/day) used in most trials

Ashwagandha and Agitation

- 2014 systematic review located five clinical trials
- All trials gave positive results and used varying methods of assessment (against placebo mainly)
- Authors concluded Ashwagandha improved agitation and stress in all studies undertaken to date

Ashwagandha: Male Tonic

- Ashwagandha, 5 g/day, improved testosterone levels in infertile men\(^1,\)\(^2\)
- Ashwagandha, 4 g/day, significantly boosted DHEA-S levels by 32.5% in a RCT of 130 stressed patients\(^3\)

Korean Ginseng

- A highly valued Chinese tonic herb now widely consumed in the west
- Subject of numerous clinical trials
- Improved performance and well being, especially under stress
- Improved cognitive performance
Korean Ginseng

- Improved immune system function
- Helped support heart health
- Supported healthy male sexual function
- Helped support healthy blood sugar metabolism

Rhodiola

- Rhodiola root used in the traditional medicine of many countries including Russia, Scandinavia and Middle Asia
- Since 1969 has been included in official Russian medicine
- Regarded as a tonic and adaptogen and used to increase physical endurance, attention span, memory and work productivity, resistance to high altitude

Rhodiola: Key Constituents

- Rosavins (rosarin, rosavin and rosin) and salidroside
- Salidroside in a variety of species, some outside the Rhodiola genus (eg Salix or Willow)
- Rhodiola extracts are best standardized for both rosavins and salidroside
- Naturally occurring ratio of rosavins to salidroside in authentic root is approximately 3:1
- Other species with salidroside (but not rosavins) have been substituted for *R. rosea*\(^1,2\)

2. Brown RP et al. *HerbalGram* 2002; **56**: 40
Rhodiola: Indications

- Fatigue
- Physical stress
- Debility
- Improve mental performance
- Concentration
- Memory
- Failure to thrive

- Sexual function
- Support immune system health
- Recovery from challenge
- Tonic for the elderly
- Low mood
Clinical Studies

- Improved physical and mental performance
- Improved physical performance in the tired and low mood
- Relieved fatigue
Clinical Studies

- Improved symptoms and mental function in low mood
- Relieved symptoms of generalized anxiety
- Improved sexual function in men
Ultra-weak Biophoton Emission

- Rhodiola vs Rhodiola/Eleuthero/Schisandra
- Ultra-weak photon emission measured on the dorsal side on their hand before and after 1 week
- Rhodiola group: significant decrease \( (p=0.027) \) in photon emission in comparison with the other groups
- Significant decrease in fatigue in the Rhodiola group
- Placebo controlled, RCT, \( n=30 \)

Schisandra

- Schisandra (Schisandra chinensis) fruit is indicated in traditional Chinese medicine (TCM) for a wide variety of conditions
- Quiets the spirit while calming and containing the Heart qi
Schisandra Key Constituents

- Dibenzocyclooctene lignans (about 2% by weight) including schisandrins A to C and gomisin A
- Essential oil (about 3%)
- Fruit acids (malic, citric, tartaric)
Schisandra Indications

- Enhance phase I/II detoxification by liver
- Support healthy hepatic function
- Fatigue, physical stress
Schisandra Indications

- To improve physical, exercise and mental performance and concentration
- Night sweats

Morgan M. Phytotherapist Perspective No. 202, April 2015
Early Russian Studies

- Demonstrated tonic and adaptogenic effects in nervous workers and patients
- Improved mental performance in healthy volunteers and workers
- Increased endurance and physical efficiency in volunteers

Early Russian Studies

- Beneficial for patients with fatigue, exhaustion and reduced physical and mental performance
- Beneficial effect in patients with stress-induced, mild depression
- Provided a stimulant effect and improved mood

Key Products

- Rhodiola & Schisandra
- Rhodiola & Ginseng Complex
- Withania Complex
- Eleuthero
- Adrenal Complex
- Nevaton®
- Kava Forte
- Astragalus Complex
Rhodiola + Schisandra

- Maintain feelings of general well-being when experiencing temporary stress
- Help the body adapt to the changes of everyday life
- Support the body’s natural defenses against emotional and environmental stressors
- Support healthy liver function
- Support healthy nervous system function

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.
Rhodiola + Schisandra

- Support healthy cognitive function
- Help maintain proper energy
- Help support healthy physical performance
- Help maintain healthy emotional balance
- Work as a tonic to benefit the entire body

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Rhodiola + Schisandra

- HPA axis regulation
- Cortisol regulation
- Improvement in cortisol feedback mechanisms at the hypothalamus, anterior pituitary and perhaps the hippocampus

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Rhodiola + Schisandra

- Upregulation of cellular defenses, including:
  - Heat shock protein 70
  - Phase I and II enzymes
- Cells in the body function more efficiently and effectively

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Rhodiola & Schisandra

Rhodiola root 20:1 extract 150 mg
from *Rhodiola rosea* root 3.0 g
containing salidroside 1.5 mg
and rosavins 4.5 mg

Schisandra fruit 6:1 extract 110 mg
from *Schisandra chinensis*
fruit 660 mg

Suggested Use: 1 tablet 2 – 4 times daily
Rhodiola + Korean Ginseng

- Enhance mental clarity and support cognitive function
- Promote vitality and stamina
- Maintain proper energy
- Support physical endurance
- Maintain feelings of general well-being when experiencing temporary stress

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Rhodiola + Korean Ginseng

- Help the body adapt to the changes of everyday life
- Support and maintain the body as it ages
- Support the body's natural defenses against emotional and environmental stressors

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Rhodiola + Korean Ginseng

- HPA axis regulation
- Cortisol regulation
- Improvement in cortisol feedback mechanisms at the hypothalamus, anterior pituitary and perhaps the hippocampus

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Rhodiola & Ginseng Complex

Rhodiola root 20:1 extract  150mg
from *Rhodiola rosea* root 3.0 g
Containing rosavins 4.5 mg and salidroside 1.5 mg

Korean Ginseng root 5:1 extract  100 mg
from *Panax ginseng* root 500 mg
Containing ginsenosides 8.4 mg

*Suggested Use:* 1 tablet 2 - 4 times daily
An interesting study by Berdyshev in 1995 compared the effects of Schisandra and *Eleutheroococcus* in 357 sailors working under stress. Eleuthero increased the tone of parasympathetic nervous system, whereas Schisandra increased the tone of the sympathetic nervous system.

Prescribing Differentials

Depleted energy

- Suggested combinations: Rhodiola & Ginseng Complex or Rhodiola & Schisandra
- Most suited to parasympathetic dominance or where the person is sleeping long hours

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Depleted energy

- Good support for those with busy lives and who are under constant stress
- Best used with Adrenal Complex, (Licorice and Rehmannia)

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Prescribing Differentials

Immune system support

- Suggested combination: Astragalus Complex and possibly Ashwagandha 1:1 or Withania Complex

- For those under constant stress

- For long-term immune system stress, not acute (in which case Andrographis Complex is used along with formulas that treat the system involved)

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Better adaptation to stress

- **Eleuthero** is the archetypal adaptogen
- Also has immune effects
- Can be recommended to the patient before they get to the stage of energy and immune depletion

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Prescribing Differentials

Better adaptation to stress

- **Eleuthero** is the healthy person’s herb, for someone who is well and wants to stay well
- Combines well with **Echinacea Premium**
- Alternative option: **Rhodiola & Schisandra** where a more tonic action is needed

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Prescribing Differentials

Tired and wired

- Sympathetic dominance
- The key herb here is Ashwagandha
- Withania Complex
- Ashwagandha 1:1

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Prescribing Differentials

Tired and wired

- But it is well supported by Eleuthero and Hawthorn (especially if there are cardiovascular issues)
- Best combined with Adrenal Complex (Licorice and Rehmannia) (or just Rehmannia if hypertension is present)

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Prescribing Differentials

Fatigue

- Treat for **depleted energy** as outlined
- Adrenal support is a must
- If sustained stress is present treat as outlined

Fatigue

- Ginkgo Forte and Hawthorn to improve cardiovascular dynamics (and even Horsechestnut Complex)
- Support the nervous system with Kava Forte, Valerian Complex, St John’s Wort 1.8g and others

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Prescribing Differentials

General Fatigue and Associated Minor Pain

- Generally more a “tired and wired” approach, but be guided by the case
- Again emphasize adrenal support
- Nervine tonics are important Nevaton, Bacopa Complex, St John’s Wort 1.8g


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Prescribing Differentials

General Fatigue and Associated Minor Pain

- Nervous system calming herbs as well: Kava Forte, Valerian Complex
- Inflammatory response function and minor pain herbs: Rehmannia Complex, Boswellia Complex, Nervagesic
- The 5-point microcirculation protocol

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Thank You

And special thanks to Lee Carroll and Michelle Morgan
Questions