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THE HERBALIST



Just some of the featured articles in this issue include:

Native Medicinal Mushrooms • *Herbal First Aid* • *Benefits of Ghee*
Herbwatch • *Lyme Disease - A Hidden Epidemic* • *Fourth Radical*
Herbalism Gathering • *Coffee - Good or Bad?*

The Association of Master Herbalists and the
Unified Register of Herbal Practitioners Quarterly Journal

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LETTER FROM THE EDITOR

Early in 2016 my friend, the Vedic Astrologer Howard Hamsa Beckman, said "This is going to be a life-changing year for many. Have patience, practice mindfulness and seek to understand something about your inner spiritual nature."

Well, he was certainly correct, as we've seen over the last few months and particularly the last few weeks! Here in the UK, most people I talk to are uncertain about the direction their lives, businesses and relationships are heading.

So how can we, as Practitioners, help our patients through these troublesome times, especially when we are also uncertain about the future?

Howard's advice – to "Have patience, practice mindfulness and seek to understand something about your inner spiritual nature," may well be the best advice we could take, and offer to those around us.

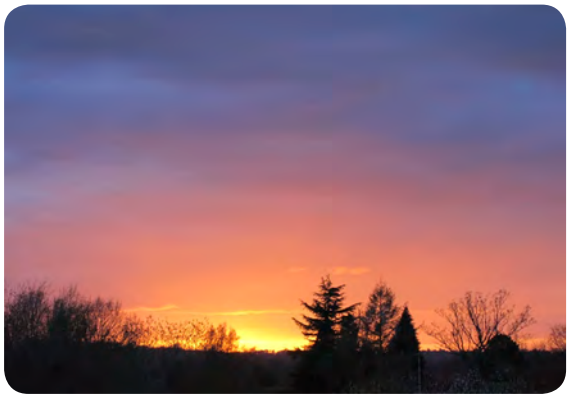
For myself, this will be my last editorial duties of The Herbalist, as my life too moves into other arenas, so I hope you will enjoy reading this, my "swan song".

Alicia and I recently attended the Radical Herbalism Gathering in Shropshire, where we met "Fred the Forager" – Fred Gillam – who has written a fascinating article on Medicinal Mushrooms for us. There's also a review of the Gathering from Alicia, and, if you've never been to it, I highly recommend putting it on your calendars for next year, or attending the Scottish Herbal Gathering in Perthshire in September – details on the back page under Diary Dates.

Our two speakers for the AMH AGM & Conference have written interesting articles for us inside and I hope to see lots of you at the Conference in the beautiful city of Bath in September, where you can hear and watch them live! In case you haven't booked yet, there's a flyer and booking form enclosed – it's free to AMH members, and the lectures are open to non-members too and earn you CPD points!

And so……for now……..every ending marks a new beginning.

Kelly Holden



THE HERBALIST TEAM - SPRING 2016
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Native Medicinal Mushrooms

An overview of their therapeutic potential

By Fred Gillam



Background: in November 2015, The Wild Side of Life hosted the First UK Medicinal Mushrooms Conference in Lincolnshire. The sell-out conference, opened by Roger Phillips, author of "Mushrooms and Other Fungi of Great Britain and Europe", was a great success and brought together medical herbalists, nutritional therapists, biochemists, mushroom growers, foragers and people with an avid interest in mushrooms and healing. Speakers gave presentations on materia medica, fungal biochemistry, the latest medical research, sustainable harvesting and how mushrooms influence the immune system. A clear picture emerged as a result of this unique meeting of disciplines, revealing that the way in which mushrooms can influence and benefit the human body is a function of their role in the wider ecosystem. Fred Gillam takes up the story.....

Fungal preparations are found in the folk materia medica of many traditional cultures and they hold a prominent position in both traditional and modern far-eastern medicine. Globally, a vast amount of money is being invested by the pharmaceutical industry to develop new drugs from mushrooms as discovery after discovery points to them being a treasure trove of new compounds and unchartered medicinal effects.



Turkey Tail Mushroom

True to form, the pharmaceutical industry is working towards the production of a new generation of mushroom medicines that I suspect will not have the word 'mushroom' anywhere near them by the time that they reach the shelves!

In the context of western natural medicine and herbalism, medicinal mushrooms are definitely establishing their place. These days it is common to find turkey tail mushroom in the dispensary of a herbalist in the UK, and like the herbs the mushrooms are treated as 'whole' material with many constituents that act together in symphony. With only a small number of exceptions, they are very safe, well tolerated and liked by patients. In fact many of them are also used as gourmet foods.

Perhaps one of the most surprising things about medicinal mushrooms is their availability. Many species with potent medicinal activity are native to the UK and based upon the fast pace of research the list is growing year-on-year. It is possible to forage for medicinal mushrooms and to wildcraft remedies from them.

Mushroom structural compounds (the key to immune health)



Chaga (*Inonotus obliquus*)

Many of the immunological effects of mushrooms are derived from cell wall structural components known as 1,3-beta-glucans. These compounds (polysaccharides) are built from chains of glucose molecules and they occur in a vast array of chain lengths. Uniquely in fungi they also occur with certain protein bound functional side units. The 'spectrum' of beta-glucan compounds present varies between mushroom species. Much of the pharmacological research taking place focuses on isolating one fraction of this spectrum from a particular mushroom and determining its effectiveness against particular pathogens or cancer cell lines. Mushroom beta-glucans can be difficult to extract from whole fungi as they are not soluble in ethanol and often require long decoction times in water.

Mushroom functional compounds – a range of aliphatic and aromatic compounds.

Many compounds present in mushrooms - for example the di, tri and sesquiterpenes, the neurotransmitters, statins, sterols and enzymes, possess a wide range of therapeutic actions in the different systems of the

A FEW EXAMPLES OF MEDICINAL MUSHROOMS NATIVE TO THE UK		
Species / Host	*Attributes*	*Possible Indications*
Reishi *(rare) Ganoderma lucidum / Oak	Regulates blood sugar, lowers cholesterol, circulatory tonic, anti-bacterial, anti-viral, hepatoprotective, blood thinning, immune modulating, anti-inflammatory, adaptogen, anti-cancer	Diabetes, hypercholesterolaemia, hepatitis, tuberculosis, HIV, rheumatoid arthritis, Herpes simplex, stress, auto-immune (unspecified), cancer
Chaga (common only in the far north & Scotland) Inonotus obliquus / Birch**	Regulates blood sugar, oxidative stress, anti-bacterial, anti-viral, immune modulating, anti-cancer, adaptogen, rich in anti-oxidants	Diabetes, infections, Herpes simplex, stress, recovery from radiotherapy, Herpes simplex, psoriasis, cancer (melanoma, brain, lung, stomach)
Turkey tail Trametes versicolor / dead wood	Immune modulating, source of Polysaccharide K – or 'Krestin'	Chronic infections – anecdotally for chest infections / pleurisy. Cancer of the stomach, colon, lung
Tinder hoof Fomes fomentarius / Birch	Anti-parasitic, anti-bacterial, anti-inflammatory, immune modulating	Chronic infections – anti-tubercular, arthritic inflammation, bacterial infections, intestinal parasites, helps to regulate blood sugar
Jelly ear Auricularia auricula-judae / Elder	Cooling and mucilaginous, anti-inflammatory, anti-cancer, blood thinning, lowers blood sugar	Peritonsillar abcess (quinsy), inflammation, hot conditions that call for lowering of metabolism and reduction of inflammation
Lion's mane* (rare) Hericium erinaceus / Beech	Promotes nerve growth factor production, source of vitamin A and lactase, immune modulating	Nerve damage, cognitive impairment, memory loss, dementia, immune modulating
Common oyster Pleurotus ostreatus / Beech	Source of lovastatin, immune modulating	As it is a source of statins it can be used in cholesterol management
Bay bolete Boletus badius / various	Source of GABA, theanine, serotonin, melatonin	High cholesterol, low grade chronic pain, low mood and depression, low cognitive function, lethargy and SAD
* REISHI AND LIONS MANE ARE RARE IN THE UK and should not be harvested from the wild. Excellent biodynamically grown mushrooms from UK native stock are available from Matthew Rooney at www.mushroomtable.com. Matthew's strain of reishi is named after him as var 'Rooney' by Kew. ** CHAGA IS ONLY LOCALLY COMMON IN THE UK and must be harvested sustainably. It can be harvested as a long rotation crop (typically 4 years) where the conks will grow back if cut correctly. Care should be taken over sources.		

body. Many of these compounds can be extracted well in ethanol. A double extraction process can be performed at home to utilise both the ethanol soluble functional compounds and the water soluble beta-glucans in one preparation. The resulting 'broad spectrum extract' offers wide ranging therapeutic benefit and is simple to make in the kitchen.

Double extraction procedure for making a broad spectrum extract - method

The mushrooms are first dried and then broken up or ground to increase surface area. They are tinctured for around 6 weeks in ethanol (minimum 40% abv but 65 to 75 abv is preferable) before filtering. Both the menstruum and the marc are retained. This stage of the process extracts the ethanol soluble compounds, many of which would be volatilised or de-natured by the next stage of the process.

Making turkey tail tincture in preparation for a broad spectrum extract

After obtaining measurement of the menstruum obtained and allowing a little extra to compensate for evaporation, measure out an equal amount of water. The marc is slowly decocted for at least an hour in this water before filtering once again. At this point the marc can be discarded or added to the kitchen compost. The menstruum from both processes is combined in a 1:1 ratio and bottled. It should remain useful for a very long time.

Do not overlook the humble white button mushroom



Turkey Tail Tincture

A 2009 case control study of 2,018 Chinese women correlated a large decrease of the incidence of breast cancer in women who consumed mushrooms. Daily consumption of mushrooms was associated with a 64% reduction in the incidence of breast cancer compared to the control group. Those who combined a mushroom diet with daily green tea consumption reduced their risk of breast cancer by almost 90%.

The humble white button mushroom, Agaricus bisporus, is full of therapeutic potential. It has been found to contain significant amounts of lovastatin which supports cholesterol regulation, and eating mushrooms is not associated with the range of side effects commonly reported by those who take synthetic statins. White buttons also contain gamma -aminobutyric acid (GABA). Regulating muscle tone and inhibiting over excitation in the CNS, this compound also helps to smooth out the pain response and improves relaxation.

Button mushrooms should not be consumed regularly when raw as they contain the carcinogen agaritine. It is not completely destroyed by heating but is reasonably well denatured. Because white button mushrooms are saprobes, i.e. part of the great army of composters in our world, they have evolved a range of enzymes that enable them to digest their food. They are a good source of phytases and proteases and therefore ideal for grain and seed allergy sufferers. Fungal proteases may also be a part of the regulatory mechanism that keeps the balance between fungi and bacteria in our gut. As a wheat allergy sufferer myself, I have found this mushroom to be very useful.

Conclusion

Animals and fungi share a common genetic ancestry (2.8 billion years ago) and there are some similarities in biochemistry between them. Fungi even synthesize Vitamin D2 in their skins from ergosterol, much as we synthesise D3 from the similar compound, cholesterol.

A healthy gut biome has a fungal component that generates a reserve of our own beta-glucans, fungal enzymes and neurotransmitters and is a vital component not only of digestion but of health and resilience. As usual, nature offers us the best examples of symbiosis at work and when we have a dysfunctional process at work in our bodies, we can sometimes learn from similar interactions taking place elsewhere in the ecosystem. Hence, if the human biome is producing insufficient enzymes of a certain type we can work on ourselves to restore that biome, but we can also find remediation by introducing similar materials derived from similar fungal/bacterial processes elsewhere.



Changa Coffee

Fungi ought to cover practically every surface on earth. They are the unseen mediators of food chains, breaking down and re-distributing that which has been built up, and creating beneficial relationships with biological partners across the plant and animal kingdom assisted by helpful bacteria. We interact with them biologically at a very profound level and I believe that by studying their roles in nature, we can grow to understand their role within ourselves. We too are nature.

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Fred Gillam, as the young son of a head gardener on a country estate, developed an interest in edible and medicinal plants from an early age and he was already a keen mushroom forager at the age of 14.

After a career lecturing in and practising horticulture, forestry and conservation, his interest in herb-

alism deepened and he undertook a 3-year herbal apprenticeship with Sarah Head at the Springfield Herb Sanctuary.
Fred regularly appears on local and national radio talking about wild food and hedgerow medicine. He presented a series of three lectures to the Bath Royal Literary and Scientific Institution on ethnobotanical topics and with his partner he runs a voluntary herbal dispensary for a community of friends, family and villagers in Wiltshire.

Fred's business, The Wild Side of Life, (http://www.thewildsideoflife.co.uk/) is responsible for organising the UK Medicinal Mushroom Conference (see Diary Dates for more information) and for running herbal medicine wildcrafting weekends and food foraging courses that come recommended by BBC Countryfile Magazine. He is the author of ***Poisonous Plants in Great Britain***.

Herbal First Aid for the Home with 7Song

By Alicia Sawaya



The event was held as a two-day course on June 11th and 12th at Monkton Wyld Court, Dorset, a rural earthy setting perfect for a herbal event. 7Song's Herbal First Aid course was organised by the UK forager Robin Harford. The two days were packed with herb walks, lively humour and real hands-on Herbal wisdom from 7Song in the first aid sector. 7Song's unique approach to teaching left us hungry for more, and yet knowing we had digested a delicious meal of knowledge that we would take home with us and be able to use.

7Song is an internationally respected herbalist who rarely visits the UK so this was a quickly booked event. 7Song has been studying plants and their medicine for over 20 years which included his deep love for botany from his roots in Long Island, NY. His herbal education led him to the California School of Herbal Studies with Rosemary Gladstar in 1983 and later the Southwest School of Botanical Medicine with Michael Moore in 1994 & 95.

7Song teaches at many schools and conferences throughout the US. He is a herbal practitioner and Director of Holistic Medicine at the Ithaca Free Clinic which 7Song wholeheartedly champions… Free Medicine. He has also taught and directed The Northeast School of Botanical Medicine for 13 years.

If you were unfortunate not to attend this event do check out 7Song's website for very useful information and a calendar of events and training programs at www.7song.com

Also check out Robin Harford's website for details of upcoming courses, or to sign up to his newsletter https://www.eatweeds.co.uk or https://www.foragingcourses.com



Foundations of (WHM) Western Herbal Medicine The Dutch method

By Renée Koenders, MSc Herbal Medicine



It is commonly accepted that herbs have always been used to improve health and treat disease. However, to use the herbs effectively one needs to be very clear in how to define health and disease. According to allopathy, health is restored if the symptoms are not perceived anymore, even if you have to take drugs on a daily base to achieve this state of health. Most herbalist would agree that it will certainly be better for the environment to exchange allopathic drug for herbs - if you have to take drugs daily. But do you really achieve a state of health if patients still have to take your herbs on a daily base until the end of their lives?

I don't think so. Besides, in my experience, herbs can do so much more than only that. If you go back to the foundations of WHM you will often succeed in freeing the patient from taking any medicine at all. And for most herbalists it will be a simple step to achieve more effective and lasting results for your patients. The good thing is that you probably don't have to change your practice very much. The foundations of WHM are in our roots, in our language and in the way we see the world.

Traditional Chinese Medicine and Ayurveda are two other systems that evolved to elucidate and match the actions of the herbs to the patients. The most important difference from allopathy is that these systems agree that all people react in a different way, according to their type. TCM compares people to the 5 elements: Wood, Fire, Earth, Metal and Water. Ayurveda to the 3 doshas: Vata, Pitta and Kapha. And although these systems are perfect to allow for the best herbal prescriptions, in our culture they have the drawback that our patients - most often - don't think that way. Therefore, they will for example not tell you their symptoms in that 'language'. Also, they do not really understand the essence of their treatment. As a TCM practitioner I found this a handicap.

In WHM we use the 4 elements: Earth, Water, Air and Fire. Over the centuries they developed in accordance with herbal medicine. Until allopathy decided it did not need these typologies anymore, because their main reasoning is "everyone is the same". And there we do differ! Herbs don't work that way. Herbs are complex beings and no two people will react to a herb in exactly the same way! That is because a herb does what it does, but everybody will react differently. Used as we are to drugs, this is a very complicated fact to explain. And still it is very simple. For example: the information in this article will be exactly the same for every reader. However, everyone will have a different reaction to it. We will all take out of it, what we need at this moment. In the same way, a herb will do what it always has done and still affect everybody in a unique way!

So the main challenge for me and my WHM colleagues in The Netherlands was how can we really know what herb cures what disease, as it effects everybody in a different way? Of course we started with the books and compared the indication of the herbs throughout the ages, just like Tobyn et al. (2011). However, over the years we discovered that most books were copying each other and even if a mistake made in the 15th century was corrected in the 17th century, it still was (wrongly?) mentioned in a famous Dutch 'new' herbal in 1980. Imagine our trouble in deciding what to teach as the true actions of the herbs to our students….

Therefore, twenty years ago, we took another approach. For our students, we made our own herbal, with actions for every herb that we had really seen in our practices, at least a few times and by more than one herbalist. This way at least we knew that what we documented is a true action of the herb in our experiences. Over the years we discovered that our discussions about the action of herbs focused more and more on the type of patient and so we discovered how the same herb could have a different effect on different people. The true effects of the herb became more and more patient-specific and we discovered that the concepts or 'language' of the 4 elements hugely improved our understanding of the herbs.

Although, not really in the beginning… Because the descriptions of the 4 element types varied widely between astrology, anthroposophy, the Celtic tradition, Tarot etc. Sometimes the same words were used for very different concepts. And so the same problem popped up again: which one was true?
To solve this problem, we rediscovered the foundations of the 4 elements, namely the 4 natural qualities: Warm, Cold, Dry and Moist. Galen was the first to describe the differences and interactions between the 4 natural qualities and the 4 elements:



Figure 1 The movements of the 4 natural qualities.

Hot, cold, wet and dry are the obvious elemental components of the body, as of all matter. But Galen saw an ambiguity between 'the hot' and 'the hot thing' (both to thermon in Greek), that is between fire, the visible element which is the perfectly hot thing and the quality hot which characterizes things that are more hot than cold.
He finally realised that fire, water, earth and air must be the obvious, that is visible, primal elements and that they are characterized by the qualities hot, wet, cold and dry which inform the primal, undifferential matter.

W. D. Smith-The Hippocratic Tradition
The 4 natural qualities are ideas and thus not really real. Like the 4 points of the compass, they are 'invented' to help you find your way between all the possible differences between people, between herbs, and between people and herbs. The qualities Warm and Cold define the extremes of one axis, the qualities Dry and Moist the extremes of the other axis. If you observe what happens in nature when it gets warm or cold, dry or moist, then you see the analogy in people and herbs. This is of great assistance in understanding the true actions of herbs.

The keywords for the quality Warm are: an outward and upward movement, action, speed and extroverted expressions. In contrast the keywords for the quality Cold are: an inward and downward movement, delay, withdrawn, calm and introverted behaviour. Everybody moves continually between these two poles. For example, in the morning there is more movement towards Warm and in the evening we need the movement towards Cold to fall asleep. In summer we generally see more activity outdoors than in winter. In sports we have a warming up and a cooling down. In a living person we always see both the qualities back. They are polar opposites (see figure 1).

The keywords for the quality Dry are: a concentric movement, concentration, reduction, structure, logical reasoning, separation, and one sidedness: either/or. In contrast the keywords for the quality Moist are: an eccentric movement, expansion, inclusion, chaos, analogies and metaphors, reunion, and complexity: both/and. Everybody moves also continually between these two poles. Focusing and relaxing, thinking and feeling, zooming in and out, etc.

Although everybody needs to move between the poles, we are born with a preference for one of the two, that is our instinct and constitution. Half of the time this behaviour is effective, the other time it would have been better to use the opposite qualities and that is what we'll have to learn during our lifetime. In the end we'll ideally be moving effortlessly between the two poles of both axis, and thus become a broad (minded) person.

When prescribing herbs most effectively, we need to assess in which direction a patient should move on the axis Cold-Warm and Dry-Moist. We can imagine that if a person is very warm, many herbs will have a cooling effect and vice versa. To the less extreme person the real effects of herbs can be discerned with more subtlety. Thus we added these qualities to our description of the herbs in our own herbal.

It is hard to summarise 25 years of practicing and over 20 years of teaching Herbal Medicine at BSc level in The Netherlands. Still, that is what I have tried to do in this article, and I hope to share more at the AMH Conference in September.

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BOOK REVIEW
by Christine Herbert

Secret Medicines from Your Garden
by Ellen Evert Hopman
publishers Healing Arts Press 2016

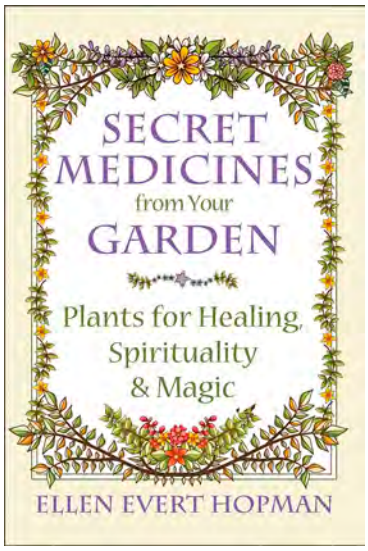
When I started to read this herbal I was a little disappointed, thinking that I had seen the same thing many times before. However it improved, and by the end I realised that this was something new and different, and definitely a worthwhile book to spend time on.

The section that is truly impressive is the largest part of the book, and focuses on herbal formula creation. She describes in detail a method taught to her by William le Sassier which involves determining the right building, cleansing and tonic herbs for an individual, and putting them together in a formula which can then be used long term. Following this is a long section where herbs are classified as builders, cleansers or tonics for different body systems and organs, as well as an indication of their energetics. This section has obviously been a labour of love to compile and the book is worth getting for this alone.

One issue for UK readers is that many of the herbs are not seen here, being native to the USA. Some of the common names she uses are also not known to the British reader, however she is very good at ensuring that Latin binomials are used, and the indices provide an excellent cross reference for plant names.

The chapter on animal spirit medicine is fascinating, and provides a whole new perspective on making herb choices. It describes a way of looking at herbs that was used by native Americans. Snake medicine plants, for example, are those that teach us to shed our skin and renew ourselves - blood cleansers, alteratives, that strengthen the metabolism. Examples of snake medicine include *Eupatorium perfoliatum*, Echinacea spp, Baptisia and Hypericum. Elk and deer medicines are stamina building herbs, and include Angelica spp, Monarda spp, and Galiums.

Another impressive thing about this book is the number of varieties of a plant she considers. Hypericum, for example, has eight varieties, all with common and Latin names, and all with their uses. The Quercus section contains no less than twenty two different oaks, again all with their various uses. A truly impressive array.



The chapter on herbal astrology is interesting, and is obviously close to her heart. Herbs are classified according to their ruling planets, for example she tells us that Saturn ruled plants are grounding and focusing, and Mercury ruled plants enhance mental acuity - examples of the former include *Scutellaria laterifolia* and Verbascum, and Mercury ruled plants include Apium and Inula.

I like her use of botanical illustrations from old herbals, the detail is beautiful, although it would have been good to have known their sources and dates.

This is full of little gems of information - one I loved was that she tells us that a herbal formula taken with food it is more tonic, after food is for digestive problems, before food it can benefit nervous conditions, tone intestines or aid weight loss.
Ellen Evert Hopman has written a herbal book with an absolute plethora of information, an ideal dipping into type of herbal when you want to know more about a particular plant and it's uses; but also a book to teach other ways of using herbs.

Christine Herbert

Ghee - The Universal Healer

by Andrew Mason



Over the last few decades the use of ghee in the west has begun to gain some footing with those who've acquired a taste for South Asian/Arabic foods, experimenting with this time-honoured (flavoursome) and nutritious oil.

Ghee (also Ghī) is butter which has been clarified. Simply put that's butter heated over a low flame for long periods, gently cooking out its heavier milk solids and evaporating any residual water content. The end result is a golden-coloured oil which retains a semi-solid structure at room temperature. Ghee has excellent stability when re-heated at higher temperatures and is noted for its longevity[1] if stored in a cool environment[2] away from direct sunlight.

Ghee is particularly favoured in Āyurvedic medicine, noted for its ability to preserve and stabilise herbal infusions, indeed the use of Gṛtha (medicated ghee) forms an important mainstay of its pharmacopeia. Ghee, as already stated - was noted to have a natural stability and longevity and it was these very properties that were thought to impress themselves upon infused herbal contents. This mutual interchange between herb and oil doubly enhanced the end result of their synergy, delivering not only enhanced therapeutic charge but additionally improved its medicinal power to penetrate into the deeper bodily tissues, aided also by its prescribed anupana (see section on Anupana).

Traditionally, ghee was understood to embody the 'special' properties of the cow[3], an animal held in high regard by Hindus. It was noted that a cows' abundance of milk (given unconditionally and lovingly) promoted rapid growth and strength to its offspring. Additionally, milk (later churned into butter and clarified) promoted the power of the body's digestive fire (called Agni). Agni (when balanced and efficient) becomes the seat of health in the body. Undigested or unassimilated foods in Āyurveda are believed to be at the root of many internal degenerative diseases. If the body's digestive power is strong – foods are assimilated with ease, whilst toxins are burnt up and expelled in the form of the various Malas (bodily wastes).

Ayurveda advises that all products of the cow (except for its flesh) are to be revered for their healing properties. This extends not only to fermented dairy products but also to the dung and urine of the animal – the former ironically used as the primary fuel source for cooking fires in traditional households. As an aside, ghee is still symbolically cast into the flames during Pooja (Hindu prayer ritual) to aid in the conversion of other foodstuffs immolated during the ceremony. The inclusion of ghee is said to appease the fire god (also named Agni) aiding His digestion of these offerings before conveying them toward the heavens and the gods. Ghee is also prominent in all religious ceremonies as the principle fuel of lamps, burning with a bright unwavering flame, producing surprisingly little smoke or soot.

Rasāyana

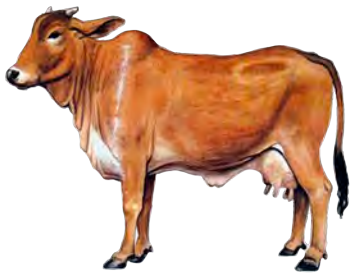
Āyurveda considers ghee a Rasāyana, a word taken to mean 'path of longevity' or that which is able to restore youth and vigour'. Herbal components infused into ghee are especially prominent in a branch of Āyurvedic treatment known as Rasāyana Chikitsa (therapy) dealing exclusively in rejuvenation, longevity and convalescence. On a more simplistic and symptomatic level, ghee may also be prescribed to soothe duodenal and gastric ulcers; reduce heart palpitations, calm fevers and disorders of the central nervous system. Ghee is noted also to promote menstruation whilst reducing itching and/or burning sensations of the skin.

Dhatu

Āyurveda views the body as a series of interlocked and interdependent tissues – each nourished by its predecessor and nourishing its subsequent tissue. These layers are known as Dhatu meaning 'that which sustains'.

As food moves through these layers its content is sifted and apportioned as required, the remaining

DHATU TABLE				
Dhatu	*Primary Tissue*	*Controlling Organs*	*Secondary Tissue*	*Waste Material*
Rasa	Chyle	Stomach	Plasma	Phlegm (Kapha)
Rakta	Blood	Heart	Blood vessels and tendons	Bile (Pitta)
Mamsa	Muscle tissue	Liver / Spleen	Ligaments and skin	Waxy secretions (Kapha)
Medas	Fat	Pancreas / Kidney	Peritoneal fat in the abdomen	Sweat (Kapha)
Asthi	Bone	Colon / Kidney	Teeth	Nails and hair (Vata)
Majja	Nervous system	Brain / Colon	Sclerotic fluid (eyes)	Eye, stool, skin secretions (Kapha)
Shukra	Sperm and Ovum	Testes, Ovaries	Ojas / immunity	Smegma (Kapha)
Ojas	Para-Ojas	Prana	Immune system	Plasma (Kapha)
It takes approximately 30 days to refine food into Ojas (comparable to a Synodic Lunar Month)				



rarefied portion moves onward to the subsequent dhatu level while its indigestible part goes on to form other tissues or secretions (see Dhatu Table). Ghee has a unique property in being able to slip 'unobtrusively' between the dhatu – arriving expressly to the most refined tissues without the need of prior transformation. This inherent quality makes ghee the excellent companion oil to cooked foods.

Ghee and Ojas

The culmination of all bodily tissues produces a rarefied substance known as Ojas. This supportive essence might be thought of life-force, upholding health and vitality as well as supporting our immune systems. A loss of Ojas weakens the body - depletion invariably leads to the loss of life altogether. There is no quantifiable substance (in western science) known to circulate or coalesce within the body which might correspond to this élan vital, however, but its presence was intuited by the ancient seers of the Vedic Sciences and deemed fundamental to health and longevity. The physical properties of Ojas were described as being pale golden yellow yet slightly reddish in hue; it was unctus, cooling, stable, soft, unadulterated and above all penetrating. Many of these same properties are to be found in ghee. Clarified butter in combination with locally sourced (and non-heat-treated honey) was known to be particularly useful in building Ojas; however, the two were never to be combined 'equally' by weight. As ghee is mildly cooling, honey is mildly heating and so mutually contradictive. Their combination may however be weighted in either direction ie: honey dominant generally warms and is a little astringent. Vice-versa, a ghee predominating mixture adds a cooling, sweet and more nourishing effect.

Medicated Grtha (internal)

One particularly popular (internal) Gṛtha formula in Āyurveda is Bṛāhmi Gṛtha, ghee infused with following ingredients[4] ie:

Bṛāhmi - *Bacopa monnieri*
Śuṇṭhi - *Zingiber officinale*
Marica - *Piper nigrum*
Pippali - *Piper longum*
Trivṛt - *Operculina turpethum*
Danti - *Baliospermum montanum*
Śaṇkapuṣphi - *Convolvulus pluricaulis*
Āragvādha – *Cassia fistula*
Saptalā – *Acacia sinuata*
Viḍaṅga – *Embelia ribes*

Bṛāhmi Gṛtha is an important formula for general mind-health and brain functionality. It's also useful in the following conditions: epilepsy, mania/psychosis, infertility, diseases of the skin, toxic blood, loss of voice, memory loss, learning difficulties or low self-esteem. In recent years (in India) Bṛāhmi Gṛtha has become popular with students cramming for exams. This time honoured formulation has a history of being prescribed by teachers for their students, helping them to maximise their learning potential.

For best results, Bṛāhmi Gṛtha is usually administered with warm milk or warm water 2-3 times daily and taken over a period of about 3 months (to obtain full benefit). Ayurveda recognises that a regular intake of healthy lipids (obtained from such common sources as milk, seeds, nuts, vegetables and eggs) were

essential for memory retention, circulation, lubrication of joints and cardiovascular strength etc. In keeping with this tradition many of the Hindu wisdom gods are associated with corpulent deities such as Brihaspati (instructor to the gods) or Ganesha (elephant headed deity).

Medicated Grtha (external)
External applications of ghee are used to bathe and sooth the skin, particularly the eyes and nose. As mentioned previously, ghee greatly enkindles the body's digestive fire, likewise our eyes are also perceived as incorporating a type of digestive fire, one that perceives and translates visual impressions. As ghee taken into our diet helps promote (or regulate) digestive fire, so does direct application of ghee into the eyes soothe Tejas (the fire of intelligence) which partially resides in the eye.

An important procedure for eye rasāyana is called Akshi-tarpana (a word meaning 'eye satiation'). This technique literally immerses the eye and its surrounding tissue with liquefied medicated[5] ghee. This delicate procedure requires the patient first have their head gently fomented (steamed) to open its channels of circulation. This is done by lightly tamping a bolus (filled with a warm herbal paste) about the face, neck, forehead and ears; this is repeated until the patient shows signs of sweating. Next, a macerated ring of gram flour and water is rolled into short lengths and pressed about the periphery of the eye sockets. From here the compacted paste is smoothed down - forming a sticky oil-tight seal on the skin. The inside and outside of this retaining ring are paid special attention - making sure their contact with the skin is consistent all the way around. These retainers are then filled with warm ghee, dripped firstly onto the skin furthest from the eye, testing the patient's reaction to heated ghee. Temperature should be just above body temperature and not 'HOT' for obvious reasons. Additionally, it should be noted that ghee cools quickly once poured, so the treatment is relatively swift, something close to 7 minutes by comparative Vedic reckoning.

As the ghee cools, it looses its transparency, giving the patient an initial feeling of looking out through golden coloured glasses which slowly become foggy.



Akshi-tarpana (eye satiation)

During the initial part of the treatment, toxins are thought to be expelled both through the channels of circulation (now dilated) as well as moving directly outward from the eyes into the ghee bath. The lens of the eye has been noted to benefit from this immersion, regaining some of its elasticity 'during the soak'. At the close of treatment all excess oil is removed by cotton pads and the retaining wall of gram flower removed. The face is washed with warm water to remove surface oils before one final procedure known as Nasya (nasal lubrication). Here, medicated oil is dripped into each nostril and allowed to deeply penetrate. This stimulates the sinuses and produces large amounts of mucus to be expelled. Finally, the patient is advised to avoid intense or focused light for 12 hours, ie: sunlight, car headlights, television etc. This procedure is often preferred in the evening, whereby patients may retire to the bedroom and subdued light immediately after treatment.

Anupana (Vehicle)
This is perhaps one of the most interesting aspects of Āyurveda though not exclusive to Asian medicines. Here a particular vehicle is selected - which is known to enhance the therapeutics of a drug, specifically targeting ailments. This idea is very much predicated on Dhatu theory and the properties of each anupana. In this capacity ghee is frequently favoured. On the occasion where ghee is itself the medicinal compound, it's often recommended to be consumed with warmed milk. This combination slightly liquefies and lubricates ghee during pre-digestion. Milk-like ghee has an affinity with the rarefied tissue layers, particularly Shukra (a tissue dealing with procreation and overall immunity). Derangements to this tissue level often indicate serious imbalances in dhatu functionality.

In conclusion, other important anupana include the use of honey, butter, cream, milk, triphala decoction or warm water, each having its own individual therapeutic charge. Anupana used correctly can in some cases double the efficacy of drugs, not only allowing it to target specific tissues, but also aid in the reduction of inherent toxicity, native to some plants or mineral components present in highly potent formulations.

Preparing Ghee

For those not acquainted with make ghee I have given the method below. The volume of end product varies from butter to butter. Generally, eight/nine 250g bars of butter will net a cache of about 1.5kg. Always use unsalted butter.

To prepare about 1.5ltrs of ghee you'll need about 2kg of organic, unsalted butter. It's worth spending a little more on a good or trusted brand, as the final quantity can vary widely depending upon producer.

1. Slowly melt butter in a large stainless steel vessel; gas is preferable to electric and low temperatures are better – it should not be a race to make ghee!
2. When bars have melted, stir well – mixing thoroughly.
3. Allow butter to cook for about 30 minutes, stirring occasionally.
4. As melted butter begins to develop whitish foam on the surface, this can be scraped off and disposed of. At this point butter will still appear opaque.
5. As processing continues, heavier milk solids will sink and adhere to the base of the pan while foam formation should slowly disperse. Stirring at this point becomes redundant.
6. Within several hours, the remaining ghee should become transparent and smell slightly caramelised / sweet. As processing nears completion, it's important not to overcook. There are several methods to determine pāka: first a single droplet of water is allowed to fall into the oil, an 'immediate reaction' ie: crackling/spitting indicates ghee is now devoid of water and ready to be removed from heat. The second method (recommended) is to make a small wick from cotton and dip it into the heated oil. Remove wick and ignite it. If cracking/spitting is heard or seen - the heating process should be discontinued.
7. Ghee is now allowed to cool before being decanted into jars - kilner type is best. It's advisable to sieve oil while decanting to ensure loose debris (milk solids) do not end up in the jar. Allow ghee to stand at room temperature for 24 hours before use.

Note: ghee should never be refrigerated – as this will dampen or kill its inherent Agni. After all this intensive preparation – many people are still tempted to annihilate its digestive stimulating properties by storing it in the fridge, still likening it to butter.



Testing ghee for water content

Benefits of Ghee

Ghee contains higher levels of significant vitamins such as A, E and D as well as monounsaturated fats (Omega 3). Ghee also contains a number of important short-chain fatty acids such as Butyric acid, as well as important medium-chain fatty acids - all of which stimulate liver function without contributing to excess adipose tissue. Although fats and oils are largely perceived to contribute to health conditions involving high cholesterol ie: atherosclerosis and heart disease, omega 3 oils present in ghee actually help decrease levels of unhealthy cholesterol, aiding greatly in the reduction of inflammation (particularly in areas such as the stomach, liver and small intestine). The implementation of ghee into the diets of those suffering from ulcerative colitis appears now to have become a mainstay dietary recommendation.

Finally; ghee is known to have excellent antioxidant properties, making it a great free radical scavenger. The combined actions of its conjugated acids (Linoleic and Butyric acid) combined with the carotenoids present; help stimulate the immune system. This has the effect of lowering oxidative stresses in the body, whilst boosting T-cell production, supercharging the immune system and overall vitality.

1. It's reputed that some medicinal reserves of ghee in India are in excess of 100 years, aged ghee displaying a greater potency and medicinal benefit.
2. In hot climates (India) ghee is stored in earthen pits, lined with granite.
3. Some medical texts also recommend ghee obtained from buffalo, elephants and even humans!
4. There are a number of variations on this theme. This particular example is taken from the Indian Formulary of Āyurvedic Medicine.
5. Triphala ghee is often the most favoured, although oils obtained from the meat of a peacock are also highly recommended in ancient classics (but this is unusal).

Andrew is one of our keynote speakers at the AMH AGM and Conference on Saturday 17th September 2016 in the beautiful city of Bath in Somerset. See enclosed flyer and booking form for more details."

HERBWATCH

by Christine Herbert

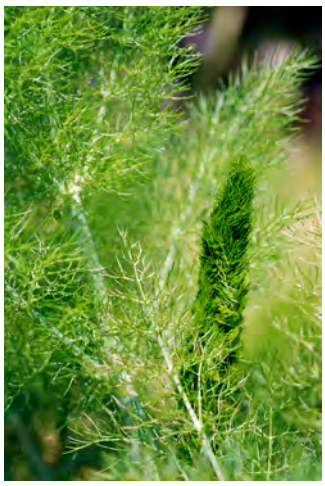


Aqueous Lemon Balm Extract Alleviates Benign Heart Palpitations: a double blind, randomized, placebo controlled trial of efficacy and safety. In traditional Iranian medicine, lemon balm *Melissa officinalis* leaf extract is used as a heart tonic and to help ease tension, restlessness, and irritability. Adults (n = 71, aged 18-60 years) with an "unpleasant sensation in the heart or awareness of heartbeat" were recruited in Iran. Included patients had palpitations as their main complaint for ≥ 3 months. Patients received placebo or 1000 mg lemon balm extract/day for 2 weeks. Only 5 patients were diagnosed with a cardiac disorder as the cause of palpitations. Panic disorder, which can cause palpitations, occurred in 66.6% of the placebo group and 71.4% of the lemon balm group. Tea (*Camellia sinensis, Theaceae*), coffee (*Coffea arabica, Rubiaceae*), and cigarette consumption, which can cause heart palpitations, were used at a similar rate in both groups. In both groups, 85% of the patients had moderate to much distress about the palpitations. After treatment, the lemon balm group had 36.8% fewer palpitation episodes compared to baseline, while no significant change was seen in the placebo-treated patients; anxiety and insomnia after treatment were significantly decreased in the lemon balm group compared to baseline, but not in the placebo group.

The authors conclude that 2 weeks of treatment with lemon balm safely and significantly decreased frequency of episodes and anxiety in patients with benign heart palpitations likely caused by psychological factors. Larger trials of longer duration are warranted to confirm these findings and to further evaluate the effect on heart rate, as well as to determine whether treatment effect varies with the clinical presence and severity of panic disorder or anxiety. J Ethnopharmacol. 2015;164:378-384



Cancer prevention and bealth benefits of traditionally consumed *Borago officinalis* plants.
Borage leaf and petioles were tested on drosophila and leukaemic cell lines and found to be anti carcinogenic, protect against DNA damage, and also cytotoxic to cancer cells. The study says that the current caution on borage regarding pyrollizidine alkaloids is insignificant compared to the anti cancer effects. We should be eating it as a vegetable....
Nutrients. 2016 Jan; 8(1): 48. Published online 2016 Jan 18. doi: 10.3390/nu8010048



Effect of *Foeniculum vulgare* (fennel) vaginal cream on vaginal atrophy in postmenopausal women: A double-blind randomized placebo-controlled trial of 60 postmenopausal women. Half of them used a 5% fennel vaginal cream for 8 weeks. Results were assessed using vaginal pH and maturation vaginal index which looks at the numbers of superficial vaginal cells as a measure of vaginal tissue atrophy. The vaginal pH decreased significantly at the 8-week follow-up in the fennel group compared to the control group. All women in the fennel group had an MVI of 65-100 at the 8-week follow-up, whereas almost half (40.7%) of the women in the control group had an MVI of 50-64. The authors concluded that fennel is an effective means to manage the symptoms of vaginal atrophy in postmenopausal women and is devoid of side effects. Larger studies are necessary to confirm the positive impact of fennel for vaginal conditions occurring among postmenopausal women.
2016 Feb;84:75-80. doi: 10.1016/j.maturitas.2015.11.005. Epub 2015 Nov 12



Evaluation of the efficacy of a polyherbal mouthwash containing *Zingiber officinale*, *Rosmarinus officinalis* and *Calendula officinalis* extracts in patients with gingivitis: A randomized double-blind placebo-controlled trial comparing the herbal mouthwash to chlorhexidine. The conclusion was that the herbal mouthwash was equally effective to chlorhexidine and both improved the gingivitis in all subjects. Thanks to Mediherb review: Mahyari S, Mahyari B, Emami SA et al. Complement Ther Clin Pract 2016; 22: 93-98

Lyme Disease ~ A Hidden Epidemic Part.1

by Michelle Boudin



There is currently a serious problem with undiagnosed Lyme disease in the UK due to the lack of awareness of Lyme amongst GPs and the current form of testing by the NHS. The UK official estimate puts the number of new cases per annum at around 3,000. However this figure is disputed by Lyme disease charities which say the true figure could be as high as 15,000 annually. In 2013 the Worldwide Lyme Protest UK group highlighted the devastating impact of Lyme and other tick-borne diseases on the lives of individuals and urged the government to re-examine the current NHS test for Lyme. The group claims the test misses as many as two-thirds of genuine cases but the necessary changes they called for have yet to be made.

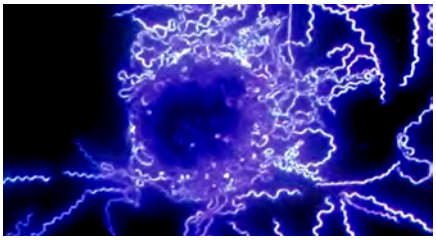
After the initial infection, the disease can lie dormant or give non-specific symptoms only to resurface years later where it can mimic illnesses such as Fibromyalgia, CFS/ME, Arthritis, MS, ALS, Alzheimers, dementia to name a few, yet the connection is not being made to past Borrelia infections.

This article will look at the reason the NHS test fails to give accurate results. It will discuss the new more sensitive tests that practitioners should be aware of that are currently available direct to the public through Armin Labs in Germany. Finally it will look at one of the herbal treatment protocols available as described in Stephen Harrod Buhner's book Healing Lyme (second edition Dec 2015).

What is Lyme Disease?

Lyme disease was first recognized in the United States in 1975, after a mysterious outbreak of arthritis near Lyme, Connecticut. In 1982 the spirochete that causes Lyme was identified and named Borrelia burgdorferi (Bb), in honor of pioneer researcher Willy Burgdorfer, Ph.D. Since then many species have been identified around the world with outbreaks in rural areas of Asia, north-western, central and eastern Europe, and even Australia. Lyme is now the most common tick-borne disease in the Northern Hemisphere, and in the USA, according to CDC (Centre for Disease Control) more than 300,000 people are diagnosed every year which is more than invasive and non-invasive breast cancer combined.

Borrelia burgdorferi is transmitted by a tick, or the tick larvae which is the size of a pin head so the bite often goes unnoticed. Other biting insects eg mosquitos can also transmit the bacteria and there is mounting evidence that it can also be transferred from human to human through sexual contact, to the foetus in utero and via breast milk. All mammals can be infected but dogs and horses appear particularly vulnerable. Recent



Borrelia burgdorferi

news reports in the UK say vets are seeing high infection rates of Babesia, a coinfection of Lyme, in dogs and that dog owners should be aware of any tick bite and seek early treatment. Th news stories failed to mention the increased human infection rates.

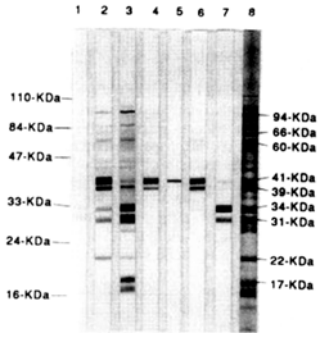
Some early signs and symptoms of Lyme disease include the characteristic "bulls-eye" rash (erythema migrans) that spreads from the site of the bite. However the rash occurs in only 30% of patients. Some people may not even remember a tick bite so questioning them about a summer flu episode and they may recall experiencing fever, chills, headache, fatigue, muscle and joint aches and swollen lymph nodes. Facial palsy and fever is common in children.

Studies show that less than a week after being infected, the Lyme spirochete can be deeply embedded inside tendons, muscle, heart, and brain where the damage causes an array of symptoms. It invades tissue, replicates, and then destroys the host cell as it emerges. If left untreated, Lyme disease may cause intermittent muscle and joint pain, neck stiffness, severe headaches, facial weakness and paralysis (Bell's palsy), weakness and pain in the arms and legs, arthritis with joint pain and swelling, especially in larger joints like the knees, spells of dizziness or being short of breath, shooting pains, numbness or tingling in the hands or feet, memory loss, difficulty concentrating, and changes in sleep patterns. Less commonly, eye inflammation or heart problems such as irregular heartbeat. These symptoms mimic other diseases and so frequently lead to a mis-diagnosis which may include MS, meningitis, neuritis, mania, depression, OCD, anorexia dementia, Alzheimers, cardiovascular disease, arrhythmia, heart block, sciatica, chronic TMJ problems, osteoarthritis, fibromyalgia, adrenal and chronic fatigue, GERD, ALS/Lou Gerigs disease. Dr Lee Cowden, cardiologist and lyme literate doctor (LLMD as they say in the Lyme world), reports that 90% of chronic fatigue patients he tested were positive for Lyme. Since 1986 Dr Alan MacDonald at the Harvard Brain Bank has been culturing spirochetes from the brains of deceased Alzheimers patients. Dr Judy Miklossy has also found spirochetes in the amyloid plaques of the Alzheimers brain! Both doctors have published their research in peer reviewed journals but this potential ground breaking link between Alzheimer's and Lyme has not yet entered mainstream awareness.

Diagnosis: Where Lyme is suspected, the NHS follows the CDC guidelines using the combined ELISA and Western Blot tests, the so called two tier testing. The ELISA looks for IgM and IgG antibodies to the Lyme spirochete. IgM antibodies are usually detectable about two to three weeks after onset of infection. IgM levels increase to maximum concentrations at about six weeks and then begin to decline. IgG antibodies are detectable several weeks after onset of infection. IgG antibodies are not detectable until several weeks after exposure, increase to maximum levels at about four to six months, and may remain at high levels for several years.

If the ELISA test is positive the diagnosis must be confirmed using the Western Blot test which detects antigens to several proteins of B. burgdorferi. If the ELISA is negative no further testing is performed and the patient is considered negative. This seems illogical given that the Western Blot is more sensitive and reliable. One research paper showed 52% of patients with chronic Lyme disease are negative by ELISA but positive by Western blot (Donta 2002).

For the Western Blot test labs use electricity to separate proteins called antigens into bands and result looks like a



Blot test result

bar code. The lab compares the pattern produced to a template pattern representing known cases of Lyme disease. If the blot has bands in the right places, and the right number of bands typically 5 out of 10 bands, it is considered positive for Lyme. Antibody ELISA tests very often fail to detect Lyme in individuals who have not produced antibodies to the spirochete because they were too recently infected, infected for a long period of time so that the infection has modulated their



Bulls-eye rash of a tick bite

immune system in a way that disrupts antibody production; or they may be in the group of people who due to genetics will never test positive for Lyme. Fortunately other more sensitive tests are now available through private clinics but sadly none are yet 100% accurate.

Polymerase Chain Reaction – this test looks for the presence of Borrelia burgdorferi DNA, of which there are many species. Polymerase Chain Reaction (PCR) is a molecular biology technique which amplifies a few DNA molecules into thousands to millions of copies of a special DNA sequence.

ELISPOT LTT - The enzyme-linked immunospot lymphocyte transformation assay is considered one of the most sensitive cellular assays available since the limit of detection typically achieved can be 1 in 100,000 cells. The Elispot combines two techniques, ELISA and a spot test. The "spot" technique improves sensitivity by measuring lymphocyte T-cell response, which reflects the actual activity of chronic and recent infections. The half life of an active T-cell is a few weeks, as opposed to antibodies produced by B-cells, which can occur for months or years in chronic Lyme disease. So, a T-cell test is most sensitive to what is actually going on in the body at the time the test is administered and therefore reflects the current Bb activity of chronic and recent Borrelia burgdorferi infections. The EliSpot can be helpful when monitoring therapies as the EliSpot should become negative about 4 to 8 weeks after the completion of an effective therapy.

SERASPOT - has a higher sensitivity and specificity in detecting Borrelia IgG and IgM antibodies compared to the ELISA. It tests for many different strains of the bacteria. CD57 – this test looks at the functioning of the immune system, particularly a decreased absolute number of the activated NK-cells (CD3-CD56+CD57+). While acute Bb infections and other diseases show normal CD57-levels, chronic Lyme patients often have less than 100 CD57-cells/µl. A result of between 100 and 130 CD57-cells/µl is a grey area, and other tests and observations should be taken into account to confirm diagnosis. Above 130 CD57-cells/µl the patient is unlikely to have Lyme. According to scientific studies, a suppressed absolute number of CD57-cells has been mainly observed in patients whose nervous system has been affected ie have neuroborreliosis, rather than in patients whose tissue or skeleton system has been affected. During treatment ongoing CD57 monitoring can be used as an indicator for successful therapy since CD57 levels will rise.

Other: Dark Field Microscopy, lumbar puncture, and aspirated knee fluid are all tests looking for physical existence of spirochetes, though this is rarely successful as the spirochetes prefer to live intracellularly and are generally not floating about in blood plasma.

Kinesiology, in particular Dr Klinghardt's Autonomic Response Testing (ART), and various radionics machines also have a place in confirming the diagnosis when blood tests are negative though unlikely to be recognised as a legitimate diagnosis by a GP.

Testing in the UK: Private testing can be arranged through the Academy of Nutritional Medicine who deal with Armin Labs in Germany. They recommend the Elispot, CD57 and Seraspot. They can also test for coinfections. See www.aonm.org and www.arminlabs.co.uk
If you suspect a patient or yourself has Lyme you can quickly do a free online questionnaire on Dr Richard Horowitz's (author of Why Can't I Get Better) website to evaluate symptoms:-
http://areyoutakingtoomanydrugs.com/horowitz/

Treatment:
Anti-biotics are most likely to be effective if taken within the first week or two of the infection. After this time anti-biotics cause the spirochete to transform into a dormant cyst form that hides from the body's immune system and becomes impenetrable to anti-biotics. If treatment is not given or antibiotics fail to work the lyme disease becomes chronic with new symptoms appearing which are often not linked to the past Bb infection. Alternative therapies must be explored if treatment at this later chronic stage is to be successful.

A Lyme treatment protocol should consist of the following:

- Healing the gut and balancing the physiology (eg thyroid, adrenals, sleep disturbance, de-stress etc)

- Improving liver detoxification pathways, detoxifying heavy metals, moulds etc
- Healing emotional traumas (EFT, CBT, family constellation, counselling, homeopathy, healing etc)
- Removing the bugs. Start with the large and work down to the small: Parasites, bacteria (eg lyme), coinfections, viruses (EBV, CMV, Herpes).
- Remember treatment must address all forms of Lyme – spirochetes, cysts /round bodies and biofilm.

Treatment must always be slow to prevent Herxheimer reactions (die-off that releases toxins too quickly for the body to deal with them) so expect the treatment to last between 9 to 12 months on average or even longer. It is Dr Lee Cowden's opinion that it takes at least 18 weeks for the herbal antimicrobials to penetrate the intracellular parts of the body such as the brain, liver and joints.

Stephen Harrod Buhner – Lyme Core Protocol
Stephen has written several books on the topic of Lyme disease and its co-infections. His second edition of Healing Lyme, published in December 2015 should be the first port of call for all herbalists wishing to understand Lyme and its co-infections. It provides an indepth look at Lyme, how it affects the body, modifies the immune system, and changes form (spirochete, granular, cystic/round body and biofilm). The book also includes a complete materia medica for dealing with all aspects of Lyme, and discusses several co-infections not covered elsewhere (chlamydia, rickettsia).

He also discusses the rarer relapsing fever type of lyme which can be harder to treat and more prone to severe herxheimer reactions. Buhner also covers beneficial supplements, and homeopathy. Stephen adopts a no-nonsense approach to treating Lyme and dismisses many of his contemporaries claims. Eg Cat's Claw does not need to be TOA free and pulsing does not work as he feels many patients relapse when the herbs are stopped. His core protocol consists of just 3 herbs Japanese Knotweed (Polygonum cuspidatum), Cats Claw (Uncaria tomentosa) and Siberian Ginseng (Eleutherococcus senticosus). Astragalus membranaceus can be used for recent tick bites but should never be used in chronic lyme patients. All doses are available on his website http://buhnerhealinglyme.com



Japanese Knotweed can be taken as a tincture or capsules. Capsules are often sold as Resveratrol and should be extracted from the Japanese Knotweed plant and not grape seed extract which does not work.

Depending on symptoms other herbs/supplements are added to tailor the treatment to the patient for example:
Neuroborreliosis – Uncaria rhynchophylla, Tryptophan.
Biofilm breakdown – *Andrographis paniculata*, *Polygonum cuspidatum, Rhodiola spp*, *Scutellaria baicalensis*, *Houttuynia cordata*, N-acetyl cysteine (NAC),piperine, curcumin
For remyelination of nerves ie: MS type symptoms– *Salvia miltiorrhiza*, *Uncaria rhynchophylla, Withania somnifera*, *Eupatorium perfoliatum*
Memory/cognitive difficulties – *Ginkgo biloba, Centella asiatica*, Taurine, phosphatidyl-serine
Bell's palsy – Stephania spp, *Pueria lobata*, Vit B12
Anxiety/Fear – Pulsatilla, *Leonorus Cardiaca, Scutellaria baicalensis, Corallorhiza maculata, Verbena officinalis*, Tryptophan
Lyme arthritis – *Boswellia serrata, Apium graveolons, Dipsacus sylvestris, Harpagophytum procumbens*
Pain – Curcumin, Bromelain, Capsicum, *Salix alba, Valeriana officinalis*
Swollen lymph nodes - Ceanothus (Red root), *Salvia miltiorrhiza, Galium aparine, Phytolacca decandra*

Summary
Private testing using Serraspot, CD57 and Elispot should be considered but still no test is 100% conclusive. Lyme is the great imitator and should be suspected in cases of chronic illness which is resistant to treatment. Treatment aims should not be solely about killing the bacteria but a total mind, body, spirit approach is required. There are several established treatment protocols designed by Stephen Buhner, Fred Kuiper, Dr Lee Cowden, and Dr Klinghardt.

Richard Gere, Ben Stiller, Avril Levigne, Selena Gomez, John Cauldwell (Phones 4 U founder) are some of the famous people diagnosed with Lyme who have come forward to raise awareness of the

disease but there are still too few Lyme literate doctors so this is a great opportunity for herbalists to really make a difference in this field.

It is my belief that in the next 10 years the true scale of Lyme infection will become apparent. Hopefully during this time, testing methods will continue to improve and herbal protocols refined even further so that the needless suffering of so many will come to an end.

Michelle Boudin

Japanese Knotweed

by Michelle Boudin

Parts Used: Root/Rhizome

Constituents:

Ethanone, dihydroxybenzoic acid, aloe-emodin, astringin, catechin, chrysophanol, citrerosein, emodin, 2-methoxy-6-acteyl-7-methyljuglone, gallic acid, fallacinol, glucofragulin, courmarin, glucosides, polygonin, napthoquinone, quercetin, questin, rehic acid, rhein, tachioside, tryptophan, reseveratrol, numerous flavonoids, tannins, polysaccharides, dicaffeoyl quinic acids (DCQAS), Vitamin-C

Dosage:

Powder: 1 tablespoon 3 times daily
Tincture: 1:5 60%: 2ml to 5ml
three to six times daily
Standardised Tablets: often called resveratrol.
1 to 4 tablets 3 to 4 times daily.
Dried Herb: As a tea 4oz (32 grams) to 32 oz of water (1 litre). Simmer for 20 minutes then let cool and drink throughout the day

Actions:

Anti-bacterial, anti-viral, anti-spirochetal, anti-fungal, immunomodulating, anti-inflammatory, CNS relaxant and protector, vasodilator, antioxidant, anti-carcinogenic, cardioprotective, anti-pyretic, anti-atherosclerotic, anti-hyperlipidemic, astringent, hemostatic.
In Chinese medicine the herb is said to invigorate and clear the blood, reduces heat in the blood, cough due to lung heat, clears damp heat in gut, liver and skin.

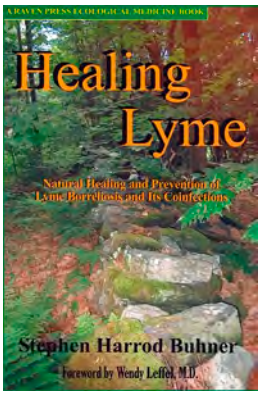
Indications:

Borrelia burgdorferi, Bartonella, Staphylococcus aureus, S. alba, Neiserria cattarrhalis, N. gonorrhea, N. meningitidis, Streptococcus A and B, E Coli, Proteus vulgaris, Pseudomonas aeruginosa, Salmonella typhi, Shigella flexneri, Candida albicans, Influenza, Adenoviruses, Coxsackie, HIV, Encephalitis B, Epstein barr, Poliomyelitis type II, ECHO viruses, Herpes simplex, Biofilms

In Lyme Disease:

- Stimulates micro-circulation and takes the active constituents into the eye, knees, heart, brain (crosses the blood brain barrier), and skin.
- Reduces inflammation in tissues such as brain, central nervous system, skin and joints
- Protects and corrects heart function, reducing lyme carditis, light-headedness, shortness of breath, palpitations and chest pain.
- Wide-spectrum anti-biotic and anti-viral so can also treat Lyme co-infections.
- Enhances immune functioning.
- Synergistic affects with other herbs and drugs in treatment of Lyme disease.
- Protects and maintains endothelial integrity.
- Gentle anti-biofilm agent.

Side Effects



One percent of people seem to lose their sense of taste though more often associated with the fresh plant. Also dry mouth, bitter taste in the mouth, nausea, vomiting, abdominal pain, diarrhea.Fresh plant contains oxalic acid so avoid in gout, kidney disease, arthritis. Contraindicated in pregnancy. Do not use with blood-thinning agents eg Warfarin and discontinue use ten days prior to any surgeries.

Extracted from Healing Lyme (second edition) by Stephen Harrod Buhner.

'Of all the flowers in the mede':

a reconsideration of daisy (*Bellis perennis*)

by Julie Bruton-Seal and Matthew Seal



The daisy is universally known in temperate climes, but is sometimes specified as the English, common or lawn daisy. It is a close relative of the ox-eye daisy and has similar medicinal uses, but unlike its cousin the little daisy closes up and sleeps at night or on cloudy days.

Anne Pratt, the Victorian botanical writer and illustrator, explains the popularity of the daisy in Haunts of the Wildflowers (1866): 'How thoroughly the little wild flower is loved is told by the fact that never a poet, either of old or modern times, who has written of Nature, has forgotten to give it a line of praise.'

There's something in this. Daisy was the dæges eage (day's eye) to the Anglo-Saxons, and Chaucer in 1386 set the standard of affection – and confirmed daisy's status as a meadow plant – in writing: 'Of all the floures in the mede, / Thanne love I most these floures white and rede, / Swiche as men call daysyes in our towne.'

Milton wrote of 'Meadows trim with daisies pied' in 1645. Shelley in 1822 called daisies 'those pearled Arcturi of the earth / The constellated flower that never sets', while a year earlier John Clare recalled where daisies' 'silver studs / Like sheets of snow on every pasture spread'.

Mrs Pratt also had a thought about why it was so easy to love the common daisy: 'Perhaps there is scarcely another [flower] which has power to awaken so fully the memories of early life. For the daisy is truly the bairnwort, the child's flower.'

The daisy is the right size for a child, and making daisy chains remains a familiar part of country children's experience. In the adult world, daisy is a plant that needs the grass around it to be short, hence its appearance in grazed meadows and of course in lawns. Despite concerted uprooting, poisoning and beheading it always returns, shining brightly, through most of the year, available to us as a forgotten but readily available healing plant.

It seems ironic that people try and kill the wild tiny aster or chrysanthemum in the lawn while working hard to keep its garden cousins flowering in the borders. But we have noticed that daisy seems to be spreading out from the garden and college lawn and back into the meadow. A decade ago we spotted wild daisies in Dartmoor and remarked how unusual that was. Nowadays we see them far more widely, and expect you do too.

As a modern woman of a hundred and fifty years ago, Mrs Pratt says of the older medicinal uses of the plant – she mentions for oils, ointments and internal medicines – 'that the men of our days have done wisely in rejecting them'. We could not disagree more.

Let's go back first to Roman times, when it is said that army surgeons organized the collection of daisies by slaves to extract the juice. Bandages were soaked in this juice and applied to sword and spear wounds. Daisy maintained a strong reputation as a wound-healing herb, often as an ointment or salve. Parkinson wrote (1640) 'that an ointment made thereof doth wonderfully helpe all wounds, that have inflammations about them, or by reason of moist humours having accesse unto them, are kept long from healing'.

Parkinson here draws our attention to daisy's cooling and drying nature, and this applies too for its renown as 'bruisewort' when used for easing the heat and pain of bruises, ulcers, skin swellings and burns. We made a daisy and mugwort ointment for an inflamed cyst on Matthew's neck, with excellent results. Daisy is a close relative of arnica (Arnica montana), and is sometimes called 'poor man's arnica' as a pain reliever and to treat and prevent bruising. Irish herbalist Nikki Darrell finds that daisy is the more effective of the two. We have had



Daisy© Julie Bruton-Seal

occasion to use our daisy and mugwort ointment for bruising, with great effect. A heavy bottle fell on Julie's mother's foot when she was 83, leaving her breathless with pain and with a visible dent in her foot. We were worried because she has very fragile skin and suffers readily from bleeding under the skin. We immediately applied the daisy and mugwort ointment, with a second application later in the day, and no bruising ever appeared. Even better, she was able to go for a long walk that evening, without any pain in her foot.

As a result we now use daisy exclusively in place of arnica externally. It makes sense: several times we have tried to grow arnica without success, yet daisy is local, free and abundant – all over our lawn, as well as in our flower beds. Arnica also has some toxicity, while daisy does not.

Daisy is traditionally an expectorant, which taken as an infusion relaxes spasms in the form of coughs and catarrh or colic. It is also a mild diuretic, which helps relieve the pain of gout and arthritis. Daisy tea is gently relaxing, with a similar effect to chamomile.



Michael collecting daisy

Daisy leaves can be used direct on the skin as a poultice for tired muscles, or added to a hot bath for generic pain relief. Gerard (1633) advocated daisies 'stamped [pressed] with new butter unsalted' for painful joints and gout, while Parkinson proposed a tea from daisies, dwarf elder and agrimony for the same purpose.

Another time-honoured use of daisy was to treat eye inflammations. John Wesley, better known as the founder of Methodism, was also a naturopath. In his Primitive Physic or, an easy and natural method of curing most diseases (1765) Wesley has a recipe that claims efficacy even 'tho' the Sight were almost gone'. This is: *Stamp [press] and strain Ground-Ivy, Celandine, and Daisies an equal Quantity: Add a little Rose-Water and Loaf-Sugar [ordinary sugar will do]. Drop a Drop or two at a Time into the Eye, and it takes away all Manner of Inflammation, smarting, itching, Spots, Webs, or any other Disorder whatsoever; yea, tho' the Sight were almost gone. [Wesley, p67: 93.345]*

Former internal uses for daisy in treating inflamed liver and bruising in pregnancy have dropped away, and indeed modern advice is against taking daisy internally in pregnancy. On the other hand there are exciting other findings in modern daisy studies, demonstrating an anti-tumour and antioxidant potential:

- Daisy ointment healed wounds without scarring in 12 rats, the first scientific verification of the plant's traditional wound-healing activity (2012).
- Flavonoids isolated from daisy flowers showed strong in vitro antioxidant potential (2013).
- Antimicrobial activity of daisy essential oils was demonstrated (1997).
- Anti-tumour activity from saponins in daisy was shown for the first time (2014).
- Homeopathic Arnica montana and Bellis perennis may reduce postpartum blood loss (2005).

We believe daisy is an overlooked plant that deserves to be reconsidered for modern herbal practice.
Julie Bruton-Seal and her husband Matthew Seal are currently writing a new book, *Wayside Medicine: The Forgotten Plants*, a successor volume to Hedgerow Medicine (2008). Publication is expected to be avaibale in the Spring of 2017.

The Fourth Radical Herbalism Gathering

By Alicia Sawaya

The Fourth Radical Herbalism Gathering took place from Friday 3rd to Sunday 5th June 2016, at Crabapple Community in Shrewsbury. The weather was warm and sunny with many camping on site. The turnout each year grows and this year's estimate was about 300.

It was also announced that a Scottish Radical Herbalism Gathering had also been formed and will have their first gathering in September, so if you missed this one do check out their website for the Scottish one.

There was such a variety of topics to choose from again this year that it was difficult to decide which talk to go to. Below is an overview of some of the topics. As you will see this gathering isn't just about herbalists and like-minded individuals getting together, but a very proactive creative community.

This year four strands of ideas were woven together: The first strand focused on workshops that offered radical approaches to health in general, specifically looking at psycho-emotional health around trauma, women's health, trans health, men's health, alternative approaches to the herbal consultation, and exploring what was meant by 'sacred 'spaces.

- The second strand focused on workshops that discussed ideas around ecological justice and the sustainability of conventional medicine and herbal medicine, including the history and present day land struggles of the UK.

- The third strand focused on workshops that talk about health and social justice issues, for example, herbalists organising around the migrant crisis, free clinics, global corporate violence to indigenous land and medicine, community organising and popular education and more showcasing of community health projects.

- The fourth strand focused specifically on herbal medicine in practice including use of native medicinal mushrooms, herbal first aid, using distillation and the energetics of plant constituents. Alongside all of these, there were herb and foraging walks in the surrounding countryside.

Herbalists without Borders

Migration to Europe has been steadily increasing over the years, with more than a million migrants and refugees crossing into Europe in 2015, sparking a crisis as countries responded in different ways. The conflict in Syria is one of the main reasons for this increase alongside the ongoing violence in Afghanistan and Iraq. Herbalists have a lot to contribute towards this global humanitarian crisis, and discussions were set up around this topic.



Chris Gambatese

Already they have started to respond in a variety of ways including setting up free migrant support clinics in the UK, volunteering in Calais and strategizing on how best to give herbal support in France and other countries with laws around herbal medicine that are more complicated than in the UK. A UK chapter of Herbalists without Borders was set up this year and hopes to encompass all these responses and more.

Acute Care Herbal Medicine with 7Song

This class covered some common herbal medicines for use in specific first aid situations including pain, trauma, infections (internal and external), and respiratory disorders. The goal was to offer practical treatment suggestions for commonly seen maladies.

7Song is a herbalist who works and teaches in Ithaca, New York. He has been studying plants, people, and herbal medicine for over 20 years, and has run The Northeast School of Botanical Medicine for over 13 years. He sees being a herbalist as a political path, meaning a way to encourage community, and



change some of the status quo, especially the ways medicine is currently practiced.

Using Native Medicinal Mushrooms with Fred Gillam and Natascha Kenyon
A practical demo of full-spectrum extract making, including some notes to be given out covering the theory and some of the commoner native mushrooms and their uses.

Fred Gillam is an experienced forager who teaches courses and walks all year round. He has had a particular interest in mushrooms since he was a teenager. Fred and Natasha organised the first Medicinal Mushroom conference in the UK last year.

Making Hydrosols: A Practical Workshop with Chris Gambatese
A practical demonstration and talk on producing your own vibrant and vital hydrosols. The workshop aim was to familiarize the participants with the tools and techniques required for manufacturing hydrosols for home use or for stocking their herbal dispensary.

Chris Gambatese is a community herbalist based in Cork City. He is passionate about making all his own medicines from seed to bottle and incorporates some innovative processes using some principles of Alchemy. In the past few years, he has also become certified as a brewer and distiller and regularly teaches classes in both fields. His latest project is organising guided tours specialising in the native plants and fungi (especially medicinal), archaeological and sacred sites, and places of cultural significance in Ireland, led by local herbalists and naturalists.

Alicia Sawaya

Coffee - Good or Bad?

By Kelly Holden

According to the Daily Mail, outside the home Britons are now drinking twice as much coffee as tea – 2.1 billion versus 874 million annually. However, the Mirror says the opposite is true – they quote more than 165 million cups of tea per day, as opposed to an estimated 70 million cups of coffee. Whichever is nearer the true values, one thing's for certain - we're not likely to be giving up our favourite beverages anytime soon!

Coffee is not usually thought of as health food, but a number of recent studies suggest that it can be a highly beneficial drink. Researchers have found strong evidence that coffee reduces the risk of several serious ailments, including diabetes, heart disease and cirrhosis of the liver.

Among them is a systematic review of studies published last year in The Journal of the American Medical Association, which concluded that habitual coffee consumption was consistently associated with a lower risk of Type 2 diabetes.

Still, some experts believe that coffee drinking, and particularly caffeine consumption, can have negative health consequences. A study published in January in The Journal of the American College of Cardiology, for example, suggests that the amount of caffeine in two cups of coffee significantly decreases blood flow to the heart, particularly during exercise at high altitude.

So the debate goes on. But what about looking at how we brew our coffee, and what difference that might make? I've recently been experimenting with cold "brewing", which decreases its natural acidity by about 75%, and has less caffeine than hot brewing it. It's very easy to make, but requires several hours' preparation time.

When drinking hot coffee, the temperature changes the taste, but because cold-brewed coffee eliminates that temperature change, flavor is locked in, resulting in a smooth coffee concentrate. It'll keep fresh in the fridge for up to 14 days. In other words, your day-old cold-



brew won't taste stale like day-old coffee!

I use organic small batch roasted whole coffee beans, such as from Equal Exchange or Café Direct, and grind them myself as needed. There are several different ways to make it, but here's mine:

1. Grind ½ cup of coffee beans to a medium grind in a coffee mill.
2. Place in a cafétiere and add ½ litre of cold filtered or bottled still water, stir well and leave in the fridge for 10-12 hours.
3. When "brewed", press the plunger and pour coffee through an unbleached coffee filter paper, which has been dampened with cold water, into a glass bottle or jug and store in the fridge. It can also be frozen in a suitable container.
4. Label the storage bottle or container with the mix (i.e. type of coffee and water, plus the date brewed – this helps you to note which brands you like best or least, and what date you need to use the coffee by.

The cold-brew is versatile and can be used in many different ways – here are just a few ideas - add some to hot water for a delicious cup of coffee, add milk if you like it creamier; drink it cold with water and/or milk (I use home-made almond milk); freeze it in ice cube trays to add to an iced coffee drink; use it in any coffee-flavoured recipe; add to hot chocolate to make a delicious mocha; add some to a chocolate smoothie for a richer flavour, and here's my favourite way for a Coffee Superfood Smoothie:

Ingredients:

- 1 cup Almond Milk (preferably home-made for a much better flavour)
- ¼ cup Cold-Brewed Coffee
- ¼ cup Coconut Water
- ¼ cup Cashew Nuts
- ¼ cup Dried White Mulberries
- 2 teaspoons Coconut Oil
- 2 teaspoons Lucuma Powder
- 2 teaspoons Maca Powder
- 1 teaspoon Vanilla Powder or Vanilla Extract
- ¼ cup Baby Leaf Spinach or Romaine (Cos) Lettuce
- Pinch of Himalayan Salt

Method:

1. Place all ingredients in a high speed blender and blend for 30-45 seconds, until all the ingredients are broken down and you have a very smooth drink.
2. Pour into your favourite glass or coffee cup and enjoy the delicious flavour!
3. or an extra treat you could sprinkle some bee pollen on top.
4. For a really cold drink, try chilling the liquid ingredients in the fridge or freezer for a while before blending (of course, taking care to use freezer-proof containers if placing in the freezer – I speak from experience!)

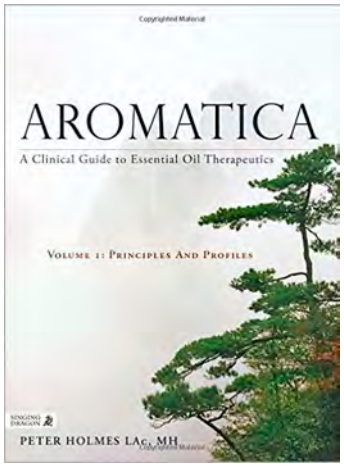
BOOK REVIEW

by Christine Herbert

Aromatica – A Clinical Guide to Essential Oil Therapeutics
Volume 1: Principles and Profiles
Peter Holmes Lac, MH
published by Singing Dragon 2016

Holmes describes essential oils as being "delicately poised between serving as a perfume and remedy, between a source of inhaled olfactory inspiration and a source of internal physical treatment. Moreover, in their role of perfume and their activation of limbic system and peptide responses in the brain, aromatics have more recently opened yet a third pathway to healing: their effect on the psyche and the soul."

He describes Aromatica as his "attempt to clearly differentiate between essential oils as physical and psychological remedies; between acting as agents for internal and topical use in the case of physical conditions, and acting as agents for internal and topical use in the case of mental and emotional conditions."



For those who know their plant remedies we are told not to assume the action of the essential oil is the same as the decoction or the infusion, we need to learn the use of the essential oil separately.

Holmes looks at each essential oil in the materia medica from three perspectives, or three lenses as he puts it – "each is important and speaks its own clinical truth", and together they give a good overview. There is the psychological lens "perhaps the oils' most precious gift" which looks at mental, emotional and spiritual actions; the physiological lens to determine action on endocrine, tissue and organ functioning; and the Chinese medicine lens so we can learn to use essential oils as "modulators of energy, allowing us to scoop up issues of body and soul in a single gesture through its unitary description of energetic syndromes of disharmony". He prefers to call it "essential oil therapy "rather than aromatherapy, as it is not simply the aroma that is acting in the therapy - and sees it as a natural extension of herbal medicine.

In order to use essential oils accurately it is very important to know that it is the right oil – four criteria are given that need to be considered – the biological identity, genus, species and sometimes chemotype, as well as the geographical specificity which will have a bearing on the chemical makeup of the plant; the purity, it must not be contaminated with any other oil, examples of possible natural and industrial adulteration are given; integrity of the source material and the manufacturing process.

Safety considerations are looked at – with regards to cumulative toxicity, acute toxicity, skin irritation and sensitisation and so on.

Interestingly he says that most essential oils are fairly neutral regarding heating/cooling effects on the body, and suggests that this might be because they interact mainly with the neuroendocrine system rather than the systems related to warmth (thyroid, circulation, liver).

When volume 2 of Aromatica is published – which should be around April 2017, and will contain a repertory to make looking up oils and uses much easier, then this book will be much more useful as a reference. It is a fascinating read, and is a subject that very much needed covering in English (it is well covered in French already) and Peter Holmes has done it with his customary thoroughness and attention to detail.

Christine Herbert

Marjoram or Oregano

by Cathy Skipper

These two plants are among those that I use often in herbal teas, as essential oils and hydrosols, grow in my garden or harvest wild. However, I have noticed that there is often confusion between the two, it is not uncommon to read about *Origanum majorana* commonly known as Marjoram and see a photo or drawing of *Origanum vulgare*, commonly known as oregano, next to the text. Nor is it uncommon to go on a guided tour around a herb garden and hear the guide calling marjoram, oregano… but why and what makes it so difficult to get these two plant's identities clearly sorted out?

Well for one, they are both from the Origanum genus (belonging to the Lamiaceae family), a large genus containing several different sections and a huge number of species, subspecies and hybrids, and a complicated taxonomic history. Linnaeus first classified it as a single genus and then over the years the plants were ordered under various botanical names including Amaracus, Origanum and Marjorana.

For the purpose of this article I will be concentrating on the two aforementioned plants and their



Origanum majorana

differences botanically, ecologically and medicinally. The genus Origanum contains plants that are rich in essential oils and have been used for thousands of years as condiments and medicines. The word origanum comes from oros in Greek, meaning mountain and perhaps ganousthai meaning 'delight in', which probably refers to the fact that the origanum species that have the highest essence content grow wild in the mountains.

Let us begin by looking at the botanical differences in the two plants; Origanum vulgare is a thermophile, woody perennial, which grows to an average of between 20 to 60 cms high but can grow higher in certain conditions. It has a woody rhizome and quadrangular, reddy-purplish stems; the simple, oval, dark green leaves are arranged opposite each other and have short stalks; the upper leaves are sometimes sessile; the whole plant is covered with soft hairs and has a pleasant, recognizable odour. It flowers between July and September and the inflorescences are densely inserted at the extremities of the plant's stems on small branches. The flowers (typical of this family) have an upper and lower lip, and a bell shaped calyx with more or less equally sized teeth. They are purple, pink or white, the buds being a deeper colour than the flowers themselves. Here where I live they are always purple. I have in fact never seen them in another colour and they are also most commonly depicted in books with purple flowers. The stamens are prominent and the oval, leaf-like bracts are often tinted a reddish purple.

Origanum majorana is a perennial but often considered an annual when grown in Northern climates, as it is indigenous to Mediterranean areas and does not survive harsh winters (half hardy). It grows to a maximum height of 60cms and tends to be bushier than the *Origanum vulgare*. The stems are woody and greeny-brown rather than purple and not as rigid as the former, meaning that rather than growing completely upright, marjoram has a tendency to grow in low mounds. Its pubescent leaves are arranged opposite each other and are grey-green, the flowers appear at the extremities as in the *Origanum vulgare* but are much smaller and white (sometimes slightly pinky). It is the flower buds in this genre that are very noticeable as they look like neat knots; this is where the name knotted marjoram came from. The fruit are brown, tear-shaped nutlets.

Native to the Mediterranean Eurasia, both plants like warm, sunny environments. Origanum vulgare, which grows wild next to my home here in Southwest France, quite happily gets through the harsh sometimes snowy winters, and the *Origanum majorana*, which is not found wild here as it prefers a warmer climate - growing wild for example in Cyprus and Turkey, did actually survive as a perennial in my medicinal plantation.

Although *Origanum vulgare* prefers slightly alkaline soil, it can quite easily be found living happily along the roadsides on more acid terrains as long as they are well drained. It grows in most of Europe, and to north and western Asia up to 1500 to 2000m altitude.



Origanum vulgare

So as we have seen, these two plants have similarities but are NOT in any way the same plant; they are visually different, have different requirements in terms of where they grow and although some of their medicinal uses overlap, they have very different properties and constituents. What is certain is that they are both great allies to the herbalist.

Some of the earliest records of origanum use date back to 1600-1200BC when images of the plants were inscribed on tablets by the Hittites of Asia Minor/Syria. (1) As the two plants in question have so often over history been called by the same name, it is necessary to view any historical descriptions in a broad sense. Origanum (probably marjoranum) was a symbol of love for the Greeks and Romans. It was woven into the floral headband that couples wore for their marriage and was also one of the ingredients in the many available love elixirs and balms. One of the warming herbs used to heal broken hearts,



Origanum majorana

it was also planted on tombs to help the dead find peace. Both the plants in question were considered to be protective against magic spells and bad spirits, marjoram scattered in doorways kept the devil away from the house.

Origanum majoranum and *Origanum vulgare* have both been used historically and are still used in different parts of the world for cooking. In my experience both plants taste better in cooking when used young, that is to say before flowering, where I find their taste becomes a little more bitter. Oregano is known as the 'Pizza' herb and it does marry very well with tomatoes and Italian style dishes. I use it as one of the ingredients in my herby salt, where it adds a certain peppery sharpness and retains its flavour. Marjoram has a milder, sweeter flavour and is considered as the 'meat' herb. It is better to use fresh, as being milder, it tends to lose its depth of flavour when dried.

I dry both plants and use them regularly in my herbal tea mixes but not for the same reasons, although as I said they can overlap. I use Origanum vulgare in digestive blends, especially when digestion is slow and difficult, like thyme it has an anti-putrefying action on the digestion helping to relieve gas and abdominal swelling. I also use it in respiratory blends for its strong antiseptic qualities when there is infection.

I look at Origanum majoranum's principal quality as being its ability to help bring balance and healing, through its action on the nervous system, by both relaxing and toning at the same time. Its antispasmodic and toning/relaxing action helps relieve anxiety and stress without making the person sleepy. It also has an important role to play in respiratory tract problems where its calming action helps with the uncomfortable spasms linked to coughs and asthma for example and its toning qualities help strengthen the respiratory system as well as having an expectorant action on mucus. Its terrific calming capacity also helps with problems such as spasms and colitis in the digestive system and, like its cousin oregano, helps eliminate putrefaction.

Both plants are high in essences and their essential oils provide valuable tools to the herbalist and aromatherapist. Although some of their virtues may cross over, they are generally used very differently. O. vulgare is great to have on hand at the first signs of flu or bacterial infection - a drop or two taken internally in a teaspoon of honey or in aromatic capsules can actually stop the bacteria in their footsteps, so to speak. It has yielded one of the most potent antibacterial agents on its activity, against a wide range of microorganisms, including E.coli, Streptococcus and Salmonella, thanks to its high thymol and carvacrol content (2). This coupled with an immune stimulating and antiviral action make it an excellent flu deterrent. It is also a powerful antifungal and anti-parasite, useful in Candida albicans, amongst other fungal infections. It is used in agriculture and gardening, pulverised in a dispersant against parasites.

Due to its high phenol content however, this oil is irritant to the skin and should not be used externally; dilute carefully and respect the doses for internal use, as it is also irritant to mucous membranes. Avoid its use in young children and pregnant women.

Marjoram's soothing action is very evident in its essential oil, helping one release negative feelings and tension and get back into balance. Linked to these calming, re-balancing virtues is a hypotensive action, making it a great oil for stressed, overworked business people with high blood pressure – 'a wind down at the end of a busy day oil'. Its calming effect can also be handy with children, who have worked themselves into a tantrum and are bordering on hysterical. In these cases, Patrice's homeopathic granules of essential oil of Marjoram are very practical, combining both the safety of a homeopathic dilution with the power of an essential oil. Use a 20% dilution when using the essential oil externally and avoid its use with pregnant women.

(1) Kitiki, Ayse. 1997. Status of cultivation and use of oregano in turkey. in oregano: proceedings of the iPGri international workshop on oregano 8-12 May 1996, CIHEAM, Valenzano (Bari), Italy. edited by s. Padulosi. rome: international Plant Genetic resources institute.
(2) The biological/pharmacological activity of the origanum Genus dea bari˘cevi˘c and toma˘z bartol

Cathy Skipper: Herbalist, gardener, aromatherapist, teacher of herbalism, aromatherapy, field botany, gardening and organic agriculture in the UK, France and the United States.

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DIARY DATES

Thursday 8th to Sunday 11th September. First Ever Scottish Radical Herbal Gathering
The Big Shed, Tombreck, Perthshire, Scotland. Visit: http://radicalherbalscotland.co.uk
or http://tinyurl.com/zfhdhap

Association of Master Herbalists Conference and AGM, 17th September 2016 from 9:30am to 5:30pm
YMCA Broad Street Place, Bath, BA1 5LH. For more information contact: aliciasawaya.uk@gmail.com

The 152nd Annual NIMH Conference, 14th - 15th October, 2016, Crewe Hall, Crewe, Cheshire.
Visit: www.nimh-conference.com

The Plant Consciousness 2016 event will demonstrate in dynamic ways the intelligence of the hedgerows and fields outside of the forest, before venturing ever deeper into the Enchanted Woodland where we will learn how to cultivate and nurture our own 'Inner Forest' and why it is essential for the development of consciousness and the well-being of the planet that we do. Speakers include John Perkins, Robin Harford, Michael Dunning and more.
Regents College, London, 1-2 October 2016. http://plantconsciousness.com

The 2nd UK Medicinal Mushrooms Conference, 12th & 13th November, Marlborough College, Wiltshire.
Speakers:
Roger Phillips - mycologist and author of "Mushrooms and Other Fungi of Great Britain and Europe."
Martin Powell - biochemist, TCM practitioner and author of "Medicinal Mushrooms, a Clinical Guide."
Cristina Cromer - medical herbalist with a special interest in the immune system.
Matthew Rooney - mycologist and the UK's only Demeter certified biodynamic mushroom farmer.
Jesper Launder - medical herbalist specialising in the use of medicinal mushrooms.
Fred Gillam - forager, herbalist and author of "Poisonous Plants in Great Britain."
Andrew Brooke - founder of the Greenside Mushroom Project specialising in mycoremediation techniques.

The conference will include a Sunday morning field trip to identify medicinal mushrooms led by the speakers. There will also be a mini market with books, medicinal mushrooms and mushroom growing kits for sale. Tickets cost £140.00 / £100.00 unwaged or student. Delegates will be able to access the speakers' presentations (for research purposes only) after the event.

For further information visit: www.thewildsideoflife.co.uk/page9.htm
To secure a place please contact: fred@thewildsideoflife.co.uk

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