



Ms Yaso Shan; Health Consultant

Vinings Natural Health Centre, Clover Court, Church Road,
Haywards Heath, West Sussex, RH16 3UF

Tel: +44(0)7817 420118 Email: info@yaso-shan.co.uk

Website: www.yaso-shan.co.uk

**Exploring herbal medicines as viable alternatives and/or
as adjunct therapy within mainstream medicine**

Main Goals and Learning Objectives:

At the end of the presentation, participants will be able to:

- have an understanding of the basic principles and practices that govern Western Herbal Medicine
- have an appreciation of the potential application of herbal medicine within a conventional medical context
- have an appreciation of herbal medicine as a viable alternative or as adjunct therapy to conventional drugs in the treatment and/or management of specific disorders
- have an understanding of the main preparation methods, extraction processes and routes of administration for herbal medicines & remedies
- have an understanding of the product quality of various commercial brands available for herbal medicine preparations and the most popular remedies sold OTC in relation to disease patterns in the UK and the Western world.

Introduction

Alternative and Complementary Therapies are fast becoming a popular choice and a mainstay within western medical practice. In the UK commercial interest has made this into a £350 million (approx. \$615 million USD) industry with herbal medicines seeing the largest profits of about £100 million (approx. \$176 million USD) each year. Amongst all the therapies, herbal remedies appear to be the first line treatment option for conditions as varied as skin problems to digestive complaints and from high blood pressure to reproductive disorders.

So what is herbal medicine and why is it so popular?

Herbal Medicine is an ancient worldwide practice of using plants to prevent and cure disease. Records dating as far back as 3000 BC suggest the use of healing plant remedies and some of the more traditional cultures in the world still practice herbal medicine as the main form of treatment in infection and disease. In more recent and scientific times, attempts have been made to recognise the true importance and value of medicinal plants, after all two thirds of all conventional drugs are from plant origin. Analysing chemical constituents of medicinal plants and conducting experimental trials has led to a better understanding of their actions. From such studies, it becomes clear that it is the synergistic action of their active ingredients that plays a crucial role in explaining their effectiveness.

Physicians and other healthcare practitioners are feeling the pressure to inform themselves about herbal medicines. Much of this pressure is from the barrage of information that is available on the internet, from patients, from the media and through informal discussions. However, some of this information can be confusing because it is based on incomplete or biased knowledge. Many clinicians are therefore uncertain whether to encourage, discourage or simply accept their patients' use of these traditional remedies, which are mostly unproven and sometimes controversial.

Despite the fact that much of the medical and popular literature on herbal medicines is difficult to interpret, scientific professionals should keep an open mind and accept that although a substance may lack evidence of efficacy, it does not imply that it is ineffective. Neither does it mean that it cannot be useful in any doctor-patient interaction. A lack of *evidence* of effect is not the same as lack of effect and an unproven herb can nevertheless be beneficial for many patients and for many disorders.

Although the overall evidence for many herbal medicines is often markedly deficient or of unacceptably poor quality, the efficacy and safety of an increasing number of potentially useful herbal products have been evaluated in well-designed clinical studies, including randomised controlled trials and systematic reviews.

Encouragingly, the trend for conducting large-scale trials is changing, particularly in the US where the National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes for Health (NIH) has dramatically increased their budget for research in recent years (estimated in the region of \$121.1million for the financial year 2005). The NCCAM now funds large-scale randomised controlled trials on:

- St. John's Wort
- Ginkgo
- Echinacea
- Saw palmetto

Botanical research is also being conducted on a host of other herbal supplements such as:

- Soy
- Red clover
- Black cohosh
- Ginger
- Turmeric
- Boswellia
- Grape polyphenols
- Green tea

The purpose of this seminar is to provide an opportunity for practitioners and healthcare professionals within conventional (mainstream) medicine to consider herbal alternatives in treatment rationales and to regard the possibility of adjunct therapy where patient progress is limited or has halted. It is hoped that the need for evidence-based information on the efficacy of herbal remedies can be balanced with success in treatment based on traditional usage. It is envisaged that this will create a better understanding of herbal remedies based on credible scientific data as well as evidential reporting of successful treatment outcomes.

It is hoped that the talk will also give an insight into the work of a medical herbalist and the holistic approach that is adopted in the process of diagnosis and treatment. Examining important aspects of Western Herbal Medicine will consider the role of nutrition and its impact on recovery. Current

trends and patterns in health & lifestyle will be discussed in addition to issues that can arise from self-administration. In this regard, critical information on what the patient and practitioner need to know will be considered.

Basic Principles & Practice of Western Herbal Medicine

Western cultures have embraced traditional medical practices such as herbal medicine with fervour. The increasing acceptance of alternative therapies marks a profound change in attitude towards health and the body. This has resulted in a significant proliferation of alternative and complementary therapy practitioners as the disenchantment with modern drug therapy has increased. Moreover, the over-prescription of medication that can render drugs ineffective (eg. antibiotic resistance) has been a major contributory factor in the popularity of herbal remedies, as have the often numerous, unpleasant and undesirable side-effects experienced with large doses of synthetic drugs. Such trends in the West and other parts of the world, such as the Caribbean, parts of Africa, regions of South America, India and China, continue to use herbal remedies as an integral way of living. It is in fact conventional medicine and modern medical thinking that is regarded with scepticism amongst such traditional cultures.

The fundamental difference lies in how illness and disease is viewed. Modern medicine emphasises the symptoms whereas traditional therapists such as medical herbalists adopt a more holistic approach to diagnosis and treatment, considering aspects of the patient's circumstances and the context in which they have fallen ill. This has proved more successful than conventional medicine in cases where certain conditions are mere manifestations of an underlying or deep-rooted cause.

An examination of the state of health in Western societies, shows that despite the vast expenditure on health care, large numbers in the population remain relatively unhealthy. Chronic illnesses such as respiratory disorders, heart disease and diabetes are on the increase; approximately 50% of the population in Western countries are prescribed drugs for conditions as diverse as asthma, arthritis, depression and high blood pressure. Countries that practise Herbal Medicine (despite abject poverty, deprivation and limited resources for medical provision, not to mention climatic conditions that favour the spread of infection) remain relatively healthy by comparison. Physical ailments experienced so frequently in Western societies appear to be more symptomatic of age and decline in the poorer nations, rather than inherent health problems of a particular culture.

The preference for herbal alternatives over conventional medication in treating a wide variety of illnesses, either acute or chronic continues to remain a matter of choice in a culture of quick fixes and time constraints. Herbal treatments are more gentle remedies and usually take longer to have an effect than modern drugs. Often, herbs are used as a prophylactic or as a preventative measure to combat infection or illness, in addition to enhancing or maintaining optimum health and well-being. This is evidenced by the vast array of herbal proprietary brands and products ranging from toiletries to herb teas and foods. Even the cosmetic industry is slowly gaining insight into the traditional beauty secrets of Africa and the far-east and other cultures that value natural plant products in skin care regimes.

Exploring herbal treatments

A) Diabetes (type II)

- consider genetic predisposition, lifestyle factors and obesity link

- there is an overall sugar imbalance and disorder in sugar metabolism
- the symptomatic and holistic approach for non-insulin dependent (NIDDM) patients would consider: dietary interventions and herbal treatments
- complications of diabetes could also be competently addressed through herbal interventions
- key role of herbs is to improve blood sugar control and reduce the need for insulin or hypoglycaemic drugs

Herbs of Choice

- ***Gymnema sylvestre*** (Gymnema or (Karela (Ind)).
 - alters sweet cravings (v. bitter herb)
 - has to be given orally to taste the bitterness
 - very effective in mild cases

Pharmacological theories of *Gymnema* action

1. Anaesthetising the **sweet** taste buds (indirect action) lessens the chance of sweet cravings
2. Clinical Trials show that it can restore **pancreatic tissue** that has been **damaged** by:
 - ↓ insulin requirement (by approx 50%)
 - ↓ [cholesterol]
 - ↓ [triglycerides]
3. Used to treat:
 - reactive hypoglycaemia
 - sugar cravings
 - weight loss (probably partly due to its action in disrupting sugar absorption in the small intestine)
4. Active constituent = **Gymnemic Acid** (which blocks the sensation of sweetness **when applied to the tongue** (not effective if swallowed in capsule or tablet form)
5. Enhances the production of **endogenous insulin** (it regenerates the β -cells of the islets of Langerhans that have been damaged or by revitalising existing β -cells)
6. Gymnema enhances the action of **insulin** by:
 - ↓ insulin requirements
 - ↓ fasting blood [glucose]
 - ↑ blood sugar **control**

NB. Gymnema is **without** side effects and exerts its hypoglycaemic effect **only** in cases of diabetes. It does not exert any hypoglycaemic effect in healthy individuals.

Ref: Bone, K. Modern Phytotherapist 2002; 7(1):7-11

- ***Trigonella foenum-graecum*** (fenugreek - seeds)
 - seeds can be soaked and taken as a liquid prep
 - also decreases cholesterol levels

- demulcent action so internally indicated for IBD, gastritis and duodenal ulcer, plus other inflammatory conditions of GIT
 - research: decreases fasting and post-prandial blood [glucose] as well as decreasing levels of : glucagon
 - somatostatin
 - insulin
 - total [cholesterol]
 - triglycerides
 - increases [HDL] and decreases [LDL]
 - AC are contained in the defatted portion of the seed which contains:
 - Trigonelline (an alkaloid)
 - Coumarin
 - Nicotinic Acid
- ***Mormordica charantia*** (Bitter melon, Bitter gourd)
 - S.Indian vegetable, v.bitter taste
 - Fresh juice administered (50/60ml/day)
 - Good results in clinical trials
 - Reduces sweet cravings
 - The hypoglycaemic action of the fresh juice /extract of the unripe fruit has been clearly established in human trials (as well as experimental models)
 - AC: **Charantin** (a mixture of steroids) and **Polypeptide P** (an insulin-like polypeptide shown to decrease blood [sugar] when injected subcutaneously into IDDM (type I) patients)
 - ***Galega officinalis*** (Goat's Rue)
 - Directly hypoglycaemic
 - Also hypolipidaemic so is good for patients exhibiting CHD risk

The main use of herbs in IDDM is to prevent the long term complications:

- ❖ **Diabetic retinopathy** - extracts of *Vaccinium myrtillus*, *Ginkgo biloba* or *Vitis vinifera* (grapeseed). All contain significant levels of FLAVONOIDS (anthocyanidins and proanthocyanidins). Flavonoids are noted for their beneficial effects on capillaries
- ❖ **Infections** – *Echinacea* or *Astragalus* to boost non-specific immunity as well as to combat infection directly
- ❖ **Risk of CHD** – *Curcuma* (turmeric), *Crataegus* (hawthorn) or *Tilia* (lime tree) are all indicated where there is accompanying hypertension
- ❖ **Boost pancreatic health** – *Taraxacum officinale* (dandelion), *Silybum marianum* (milk thistle) are also good liver herbs that have a positive effect on the pancreas
- ❖ **Dietary interventions**
 - ↑ complex carbohydrates
 - ↑ fibre
 - ↓ trans fatty acids, saturated fats & salt
- ❖ **Increase intake of foods that ↑ insulin production:**

Banana
Barley,
Cabbage
Lettuce
Oats
Olive
Papaya (AC= papain, ext= juice of fresh plant as vulnerary, Int= digestive aid)
Turnip
Sweet potato

B) Hypertension

- Must examine the cause first as it can be symptomatic of age.
- Examine diet and lifestyle factors in some detail

The treatment rationale for **essential hypertension** (where it is not associated with any other disease) consider:

- ❖ The direct approach – herbal hypotensives such as *Olea europea* (olive leaves) or *Tilia europaea* (lime tree flowers)
- ❖ The indirect approach using herbal diuretics such as *Apium graveolens* (celery), *Taraxacum* (dandelion) or *Juniperus communis* (juniper berries)
- ❖ Consider anxiety states by using herbal anxiolytics such as *Melissa officinalis* (lemon balm), *Chamomilla recutita* (chamomile), *Tilia* (lime tree), *Passiflora incarnata* (passion flower)
- ❖ Consider thyroid activity and adrenal activity
- ❖ Consider cardiac activity and use cardiac tonics such as *Crataegus oxycanthoides* (hawthorn) or *Leonurus cardiaca* (motherwort)
- ❖ Consider the holistic approach:
 - Lifestyle factors
 - Stress
 - Work
 - Exercise
 - Diet
 - Alcohol
 - Smoking

C) Asthma

2 key herbs are indicated: ***Ephedra sinica*** (ephedra) and ***Lobelia inflata*** (lobelia). Both herbs are effective although they have differing modes of action. Ephedra is an effective bronchodilator through direct action, Lobelia is a respiratory stimulant and relieves bronchial spasms. The following compares the two herbs:

	Ephedra	Lobelia
AC:	Alkaloids: Ephedrine Pseudoephedrine Methylephedrine	Alkaloids: Lobeline Lobelamine Lobelanidine
Actions:	Bronchodilator Decongestant Anti-allergic Anti-asthmatic	Respiratory stimulant Reflex expectorant Antispasmodic Emetic (at high doses)
Indications:	Asthma Hayfever Whooping cough Allergies	Asthma Bronchitis Pneumonia Cough
Comments:	Schedule III herb (not available on general sale). Restricted use	Schedule III herb (not available on general sale). Restricted use

Additionally, other herbs of choice include:

- Antitussives such as *Thymus vulgaris* (thymus) and *Inula helenium* (inula)
- Demulcents (to soothe irritated bronchial linings) such as *Verbascum thapsus* (mullein) or *Plantago lanceolata* (plantago)

Also, consider the holistic approach:

- Identify the allergen(s)
- Improve the immune status of the patient in cases of complications with infections:
Echinacea purpurea (cone flower)
Eleutherococcus senticosus (Siberian ginseng)
Allium sativum (garlic) – also good for the circulation
Baptisia tinctoria (wild indigo) – antimicrobial, immunostimulant & expectorant

Monitor changes quite simply with peak flow meter readings.

D) Skin disorders (Eczema, psoriasis)

Skin disorders are one of the hardest conditions to treat. The symptomatic treatment using herbs can offer much in terms of relieving discomfort and restoring skin integrity. The treatment rationale for all dry conditions should consider the following:

- Symtomatic approach requires moisturisation and peripheral circulatory stimulants to bring blood to the surface
- Allergic conditions require soothing herbs with some vulnerary action
- Always consider open skin with any treatment rationale

- Consider immune status of the patient in any allergic predisposition/atopic states
- Consider the 'healing crisis' which can often occur in skin treatments ie. the condition gets worse before it gets better because of the release of toxins from the cells which often exacerbate symptoms. If using depuratives to release toxins from the cells, it must also be given with effective circulatory stimulants to remove them from the body.
- Consider dietary causes esp food intolerances & allergies. Dietary supplements should include sufficient amounts of essential fatty acids esp Omega 3,6 and 9 preferably in the ratio of 2:1:1 respectively.
- Consider stress component in psoriasis

Herbs of Choice for Psoriasis	Herbs of Choice for Eczema
<i>Berberis aquifolium</i> (mahonia)	<i>Chamomilla recutita</i> (chamomile)
<i>Smilax ornata</i> (sarsaparilla)	<i>Stellaria media</i> (chickweed)
<i>Arctium lappa</i> (burdock)	<i>Centella asiatica</i> (Centella or hydrocotyl)
<i>Taraxacum officinale</i> (dandelion)	<i>Calendula</i> (marigold) or <i>Glycyrrhiza</i>
<i>Ginkgo biloba</i> (ginkgo)	(licorice)
<i>Scrophularia nodosa</i> (figwort)	<i>Aloe vera</i> (aloe vera)
	Hemp seed oil

Range of herbal actions in skin conditions:

- ❖ Anti-inflammatory eg. *Calendula officinalis* (marigold)
- ❖ Anti-pruritic eg. *Stellaria media* (chickweed)
- ❖ Vulnerary eg. *Symphytum officinale* (comfrey) – Allantoin (AC) shown to be more effective in its anti-inflammatory action than conventional drugs such as ibuprofen and diclofenac
- ❖ Demulcent eg. *Glycyrrhiza glabra* (licorice)
- ❖ Circulatory stimulant eg. *Ginkgo biloba* (ginkgo)
- ❖ Emollient eg. *Althaea officinalis* (marshmallow)
- ❖ Astringent eg. *Hamamelis virginiana* (witch hazel)
- ❖ Depurative eg. *Galium aparine* (cleavers)

E) Arthritis (management)

- Must establish type (RA vs OA).
- Establish hot vs cold, swelling & pain
- Symptomatic approach is to alleviate pain and improve mobility
- Holistic approach will consider:
 - Diet
 - Lifestyle (eg. repetitive movements in OA)
 - Exercise (despite limited joint mobility, exercise is beneficial)
 - Nutrition (for joint regeneration)
 - Supplementation (for joint regeneration)

Herbs of Choice

- ***Urtica dioica*** (nettle)
 - Anti-rheumatic
 - Anti-arthritis
 - Breaks down uric acid crystals so esp useful in gouty arthritis
- ***Harpagophytum procumbens*** (devil's claw)
 - 3 to 6g capsules of dried herb/day (can be enteric-coated)
 - Anti-inflammatory
 - Analgesic
- ***Curcuma longa*** (turmeric)
 - Anti-inflammatory
 - Best as adjunct therapy (250-500mg/day standardised capsules. Can go up to 2-3g/day)
- ***Filipendula ulmaria*** (meadowsweet) or ***Salix alba*** (white willow)
 - Anti-inflammatory
 - Analgesic
 - Anti-rheumatic
- ***Ginkgo biloba*** or ***Zingiber officinale*** (ginger) – both good circulatory stimulants
- Topical applications of:
 - Gaultheria procumbens*** (wintergreen) – as liniment of EO
 - Zanthoxylum americanum*** (prickly ash) – circulatory stimulant, anti-rheumatic
- Supplementation:
 - Glucosamine sulphate** (up to 1500mg/day)
 - Chondroitin sulphate** (up to 300mg/day)
 - Fish oils esp **Omega 3, 6 and 9**
 - MSM (methylsulfonylmethane)** a sulphur-based compound shown to have some benefit

F) GIT Disorders (Irritable Bowel Syndrome)

- Almost always a psychogenic element to the presentation
- Examine stress, anxiety, and personality
- Management of the condition is a careful balance of the symptomatic & holistic approach
- Lifestyle factors
- Dietary factors esp food allergies and/or intolerances
- Emotional factors, psychological factors & counselling should also be considered

Symptomatic Approach (Herbs of Choice)

- Antispasmodics (GIT spasms)
 - Atropa belladonna* (deadly nightshade)
 - Chamomilla recutita* (chamomile)
 - Viburnum opulus* (cramp bark)
- Carminatives (flatulence, bloating & abdominal distension)

Zingiber officinale (ginger)
Capsicum minimum (cayenne pepper)
Mentha piperita (peppermint)
Foeniculum vulgare (fennel)

- Nervines (anxiety, tension)
Melissa officinalis (lemon balm)
Chamomilla recutita
Scutellaria lateriflora (skullcap)
- Choleric (impaired bile production leading to poor fat digestion)
Cynara scolymus (artichoke)
Taraxacum officinale (dandelion root)

Holistic Approach

- Address diet esp food intolerances
- Address psychological factors esp stress
- Consider relaxation techniques (eg. yoga, pilates, meditation) and/or counselling where indicated

Important aspects of Western Herbal Medicine

Diet & Lifestyle

The importance of good nutrition cannot be sufficiently emphasised. Many of the disorders, illnesses and diseases witnessed today in modern society can be directly linked to poor dietary practices, often prolonged or in severe cases, malnutrition.

The herbalists' approach to treatment or management of any condition will invariably consider aspects of the patient's diet, very often in some detail. Nutritional Therapy is fast gaining value as an important tool in tackling symptoms of modern living, in addition to ensuring optimum nutrition for all individuals.

Lifestyle choices can have a significant impact on health and well-being. In aiming to address symptoms within a holistic framework, herbalists invariably consider the lifestyle choices of the patient in addition to suggesting changes or areas for improvement. Factors such as smoking, alcohol consumption, lack of exercise, work patterns, stress management, recreational pursuits etc.... are all aspects of lifestyle that is considered in some detail. In advising patients of a work-life balance, herbalists often consider the lifestyle choices of their patients and try to advise of modifications, particularly where it has been shown to be inexorably linked to their symptoms.

Herbs for Detox

Much has been written about and publicised on the subject of detox and detox diets, particularly post-festive season. Commercial interest must be viewed with some caution and much of what passes for 'detox' is simply good nutrition, sensible eating combined with a healthy lifestyle.

Considering the amount of 'invisible' toxins in the environment, common medications, lifestyle habits and toxins consumed in food, it is perhaps easy to see how almost everyone in Western society can expect to suffer from some degree of toxicity. In the worse case scenario, the toxic burden on these vital organs has been known to be a major contributing factor for some forms of cancer, particularly cancer of the bowel.

The body has its own natural detoxifying organs: the liver, the kidneys, the digestive system in addition to the skin and the lungs. The elimination of toxins from our environment, including those from foods must consider the efficient functioning of all these organs in addition to a good circulatory system. Proper nutrition, a well-balanced diet and a healthy lifestyle are all factors that will assist this process and prevent toxic overload on these vital organs.

Therapeutic agents in the biotransformation of toxins

Schisandra chinensis (schisandra) ↑ glutathione status ie. induces GST activity

- Schisandrin B - ↑ microsomal cytochrome P₄₅₀ enzymes
- ↑ GST activity
- Gomasin A - ↑ bile acid synthesis & metabolism
- stimulates liver regeneration
- ↑ GST activity

Curcuma longa (turmeric)

- Chemopreventive of carcinogenesis (alters the activation/detoxification of carcinogen metabolism)

Silybum marianum (milk thistle)

- Protects intact hepatocytes (liver cells) that have not yet been irreversibly damaged by preventing the entry of toxins through their cell membranes (acts on the cell membranes themselves)
- Stimulates protein synthesis thereby accelerating the process of hepatocyte regeneration and production of new cells

Culinary Herbs and Foods

Rosemary and **Sage** contain CARNOSOL which has antioxidant properties ie. it induces important Phase II enzymes (Glutathione S-transferase (GST) and NADPH-quinone reductase)

Garlic - chemoprotective against carcinogenesis
- induces Phase I and Phase II liver activity (biotransformation)

Parsley leaf oil contains MYRISTICIN which induces GST activity

Citrus fruit oil increases GST activity

Green tea - contains POLYPHENOLS which are chemoprotective against carcinogenesis
- ↑ Phase I and Phase II enzyme activity
- blocks cigarette-induced ↑ in sister chromatid exchange (SCE) frequency. An ↑ in frequency indicates chromosomal/genetic damage which can result in abnormal cell proliferation & differentiation – a classic hallmark of malignant change

The Brassicas

eg. brussel sprouts, cabbage, broccoli, horse radish
Contain GLUCOSINOLATES (S-glycosides)

upon cooking releases

ISOTHIOCYNATES
(contain sulphur)

1. cancer-preventing properties
2. anti-cancer properties
3. ↑ GST (liver & small intestine) in ♂ only
4. specifically protective against colon cancer

Some herbs are particularly useful for the 3 key organs involved in detoxification:

The Liver: Dandelion (*Taraxacum officinale*) – root & leaf
Milk Thistle (*Silybum marianum*)
Beetroot
Red clover
Fennel
Green tea
Lemon and Lime
Carrots
Tomatoes

The Gut (esp colon): Green leafy vegetables
Bio-yoghurt
Figs, Prunes, Dates
Olive Oil
Porridge

The Kidneys: Water (and plenty of it!!)
Grapefruit
Flaxseeds
Walnuts
Blueberries
Soy beans

Weight Loss regimes and Herbal Medicine

There is no substitute for a well-balanced diet combined with adequate exercise and a healthy lifestyle. There are no wonder drugs or herbs for reducing weight. The popularity of some herbal supplements as slimming aids has some basis if viewed in context with a broader and sensible weight loss regime. However, some of the herbs are extremely potent and can have adverse reactions and SE. They must be taken with caution.

***Ephedra sinica* (Ephedra or ma huang)**

Ephedra, also known as ma huang, is a strong stimulant and found in some popular weight loss supplements. Despite its widespread use in over-the-counter weight loss pills, there is no firm evidence that it promotes weight loss. Ephedra reduces appetite and stimulates fat metabolism, making it very effective as a weight-loss supplement. The active compound in Ephedra (*Ma Huang*) is ephedrine. Ephedrine increases the metabolic rate, so that your body burns fats and sugar more efficiently. By mobilizing stored fat and carbohydrate reserves, ephedrine reduces appetite.

However, the Food and Drug Administration (FDA) has received over 800 reports linking ephedra with dizziness, headaches, chest pain, psychosis, seizures and strokes. Previously banned by the FDA in some states and restricted for sale in the UK. This is because when ephedra is taken regularly in weight loss supplements, your body stays in an unnaturally high gear and there is risk for heart palpitations and heart attacks.

In the UK, the sale of ephedra is already restricted so products containing less than 1,800 milligrams can only be sold following a consultation with a herbal medicine practitioner.

Products containing higher doses of ephedra can only be sold in pharmacies.

***Yerbe Maté* (*Ilex paraguariensis*)**

Yerbe Maté is a tea derived from the South American holly tree (*Ilex paraguariensis*) with a long tradition of use in Native America. It has only recently been marketed commercially in the West as a stimulant, dietary supplement and as an aid to weight loss owing to its reputed property as an appetite suppressant. The dried leaves are brewed and taken as a daily stimulant to invigorate the mind and body as well as a promoter of optimum health.

Yerbe Maté possesses a plethora of health benefits from being a rich source of important nutrients to its effects on the immune system, cardiovascular system, nervous system and gut. It contains polyphenolic compounds that exert very powerful antioxidant properties thus conferring protection against disease and cancer. Its most popular use is as a stimulant in weight loss by promoting thermogenesis (generating heat through the breakdown of fat stores) and as an appetite suppressant. It is taken as a suitable alternative to coffee and ordinary tea, and like them, is a diuretic.

The most notable active constituent in Yerbe Maté is mateine, a xanthine compound of which caffeine is another. The effects of mateine are more desirable than any of the related compounds since it exhibits the best combination of xanthine properties without side effects. It is an effective bronchodilator and therefore very useful in asthma. It stimulates the CNS (central nervous system) without being addictive and induces better attributes of sleep. It also relaxes peripheral blood vessels being clinically beneficial in reducing blood pressure.

As an alternative to coffee, Yerbe Maté is the preferred choice since observational studies show that it produces similar, if not, better clinical effects without the undesirable side effects that accompany most natural stimulants. Limited clinical trials have been conducted on this herb, and therefore its effectiveness is unclear but there has been much interest shown in North America in the last decade since its commercial marketing. Exceeding recommended doses can increase the risk of oesophageal cancer due to the high binding capacity of the tannins and polyphenols in the tea.

***Hoodia gordonii* (Asclepiadaceae family)**

Hoodia gordonii has been used by the South African San tribe for thousands of years. The San used *Hoodia* when they went on hunting expeditions. *Hoodia* helped to prolong their hunting trips by suppressing hunger, and increasing their energy levels.

There are various species of *Hoodia* but the *gordonii* variation is the only one that contains the natural appetite suppressant. *Hoodia* pills kills the appetite and attacks obesity, is organic with no synthetic or artificial appetite control agents and has no side effects. Researchers have identified the active ingredient as P57, which suppresses the appetite. P57 is currently being considered for marketing as a commercial slimming pill.

Hoodia is a natural substance that literally takes your appetite away. Aside from using it to stop hunger, it provides unperturbed energy and combats stress. The San also use it to treat diabetes and hypertension. It's even said to cure hangovers and upset stomachs too.

Some manufacturers claim that when *Hoodia* is combined with a healthy eating plan and exercise, it can help to bring about tremendous changes in body fat, and can greatly improve a person's health.

Double blind clinical trials have not yet been completed with *Hoodia*. Even those interested in trying *Hoodia* without waiting for clinical trials to be completed may have difficulties, since Phytopharm[®], the only licensed producer of *Hoodia* as a weight loss aid, does not yet market the product. Any other brands need to be viewed with caution since the relative scarcity of *Hoodia* means that the ingredient is hard for manufacturers to acquire. It is therefore hard to imagine how dozens of firms now claim to sell weight loss supplements containing *Hoodia*. There is as yet no conclusive evidence that *Hoodia* is a safe and effective appetite suppressant.

Administration

Preparation types

Herbs in the US are classified as dietary supplements, not as drugs. This broad category also includes vitamins, minerals, enzymes and other nutritional products. There are many ways in which herbs are marketed and administered, much the same way as conventional drugs. However, commercial brands can vary enormously and product quality is critical in ensuring efficacy of herbal remedies. It is best to get advice from practitioners before purchase.

Preparation type	Comment
Capsules	80% of all herbal supplements are sold in this form. Convenient, palatable & portable. Disadvantage that it

	contains dried, ground herbs which may lose their potency more quickly. Need to take more of the whole herb extract unlike the concentrated extract.
Teas	Most familiar & traditional form of preparation. Dried leaves and flowers are particularly suited to infusions as it releases important volatile oils (eg. mint, sage, chamomile) but bark, roots, seeds and berries are also used.
Decoctions	Barks, roots, seeds and berries require a little more heat and time to release their medicinal compounds. They need to be simmered on low heat for approx. 10-30 mins depending on the herb.
Tinctures and Glycerites	Fresh or dried herbs are soaked (macerated) in a solvent – alcohol for tinctures and glycerine for glycerites in order to release the active compounds. The process takes a few days and the mixture is filtered to produce the liquid preparation. Concentrations vary depending on the herb:solvent ratio ie. Fluid Extract (1:1) being the most concentrated and 1:5 tincture being the least concentrated. Using fresh herbs yield lower concentrations of active constituents than using dried herbs.
Standardised Extracts	Preparations that have a known quantity of a key compound or ingredient that is the designated marker of the herb's potency. This gives the assurance of potency & medicinal benefit. Standardised products are available in capsules, tablets & liquid form. There is some argument over the actual benefit of standardisation over whole herb preparations and the synergy of active ingredients.
Tablets	A controlled quantity of finely milled herbal material is compressed and given a thin coating. Some are enteric-coated to prevent stomach acids from altering the active ingredients. These allow absorption of the herb in its original form and concentration in the small intestine without change in its chemical composition.
Infused Oils	Infused oils are base oils in which herbs have been steeped, usually for several weeks, over low heat or at room temperature eg. St.John's Wort FO or Arnica FO.
Essential Oils	Essential Oils are chemical concentrations of a plant's volatile oils. Often produced by distillation, EO's are extremely strong and require the supervision of a qualified practitioner before use for medicinal purposes.
Creams, Emollients, Salves & Lotions	Topical preparations which are made in a similar manner to conventional preps except with the addition of herbs in various forms.

The Consultation process

Medical herbalists are trained in the same way as conventional doctors regarding diagnosis. The first consultation involves the taking of a case history which examines the presenting complaint, symptoms, the past medical history, the family history and a systematic enquiry. In the holistic

context, the family and social history is considered in addition to a thorough review of diet and lifestyle.

Sometimes a physical examination may be necessary in order to make or confirm a diagnosis. Follow up consultations are usually shorter and will monitor the progress of the treatment.

Self-Administration

With the increasing popularity and availability of herbal products, especially via the internet, it becomes ever more pressing to educate and inform on the dangers of indiscriminate self-administration. By far the most problematic is the issue of herb-drug interactions as many patients are unaware that taking herbal supplements whilst on conventional drugs could have potential adverse reactions. Equally, doctors and health care practitioners need to be aware of these dangers and whilst literature on the subject is not exhaustive, there is information on the dangers of widely prescribed drugs with concomitant self-administration of herbal supplements. All practitioners of health care, whether conventional or alternative need to familiarise themselves with the adverse effects of herb-drug interactions in the interest of their patients and for their own professional practice.

Additionally, not all patients are informed about contra-indications and may self-administer without realising the dangers of taking herbal supplements when they have an existing medical condition or disorder. Many people think that all herbs are safe because it is a natural product and think that it will be harmless at any dose. This is not always the case and there is a danger of overdosing. Herbal products should be viewed in the same manner as any conventional drug giving due regard to side effects, maximum dosage and contra-indications.

Conclusions

The treatment and management of disease can benefit enormously from a closer alliance between conventional doctors and practitioners of herbal medicine. A better understanding of the efficacy of herbal remedies and the role of a medical herbalist will go some way towards giving patients a wider choice of treatment options and alleviate some of the concerns that they may have over conventional drugs. This will require greater support from medical and other related organisations and bodies such as hospitals.

There is a clear remit for research into existing herbal medicines for a number of major diseases of global concern. There is also potential for research into the development of new drugs from the plethora of medicinal plants that remain undiscovered. Much of what is dictated by traditional use could be used as a guideline for setting a research protocol using scientific principles and methodologies in order to prove the true effectiveness of herbal medicines and gain credibility within conventional medical practice.