**Plant Actions**

The term action refers to the specific therapeutic activity of a given food or herb, a

concept that resonates in all traditional systems of herbal medicine. Called ‘karma’ in

Ayurveda, the ‘action’ is a description of the specific effect that a food or herb has on the

doshas, bodily tissues (dhatus) or wastes (malas).

In Chinese medicine, an action is associated with the effect that a herb or food has on

components such as yin, yang, qi or blood, as well as organ systems and pathogenic

influences such as wind, dampness, fire, cold etc. In Western herbal medicine, an action

describes a specific effect on the physiology, such as purgative or diuretic, and is often

related to certain classes of chemical constituents, such as mucilage, which usually has a

demulcent effect, steroidal saponins, which tend to have an adaptogenic activity, or

flavanoids, which are often equated with anti-inflammatory and antioxidant effects. In

some cases however an action cannot be equated with a specific group of chemicals, but

represents the effect of the whole herb, with all of its various chemical constituents

working in a synergistic fashion.

Although the various terms used to describe herbal actions are helpful to attain a certain

level of understanding, they are also artificial, mechanistic and very generalized. A herbal

action does not describe what a herb “is,” only its observed effect in a particular

circumstance, which can change from person to person. Further, simply appending an

action to a particular herb doesn’t detail to what extent that action is displayed. For

example, many herbs have anti-inflammatory properties, but some have an

antiinflammatory effect that is stronger than another, or display an antiinflammatory effect

in a particular part of the body, such as the joints, urinary tract or lungs. Further,

most herbs have more than one action, and if we were to include all the possible actions

for a given herb based on traditional indications in very many cases it would be a very

long list. Thus, for teaching purposes we tend to focus on only a few “key” actions for

each herb, always remembering that the actual use of the herb may be much more

complex and sophisticated.

**Adaptogens**

Adaptogens are medications that regulate and balance the body's response to stress,

and can be equated with restoratives, and in Ayurveda with the class of medications

called rasayanas. Adaptogens are thought to function by supporting adrenal activity, as

well as modulating the immune and nervous responses. One of the most well known and

widely used adaptogenic herbs is Ginseng *(Panax ginseng)* but others include American

Ginseng *(Panax quinquefolium)*, Siberian Ginseng *(Eleuthrococcus senticosus),*

Ashwagandha *(Witnania somnifera),* Gotu Kola *(Centella asiatica),* Reishi mushroom

*(Ganoderma lucidum),* Milky Oats *(Avena sativa),* Vervain *(Verbena officinalis)* and

Licorice *(Glycyrrhiza glabra).* Although they have general indications as an adaptogen,

they should be used according to their specific attributes.

**Alteratives**

Alteratives are medications that act as stimulants to the basic processes of metabolism

so that all functions of the body are enhanced. They have a particular role to play in

stimulating the elimination of any morbid matter from the tissues and as such are often

referred to as blood cleansers, or raktashodhana in Ayurveda. Although there are

different alteratives for each system or area of the body, they are most commonly applied

to the skin, lymphatics, kidneys, and the digestive system, especially the liver and the

colon.

Alteratives used to purify the skin: Blue Flag *(Iris versicolor),* Figwort

*(Scrophularia nodosa),* Fumitory *(Fumaria officinalis),* Oregon Grape

*(Mahonia aquifolium),* Nettle *(Urtica dioica),* Red Clover *(Trifolium pratense)*

and Yellowdock *(Rumex crispus).*

Alteratives that act upon lymphatic function: Cleavers *(Galium aparine),* Poke

*(Phytolacca decandra),* and Red Cedar *(Thuja spp*.)

Alteratives that act upon the kidneys: Celery *(Apium graveolens)*, White Birch

*(Betula alba),* Nettle *(Urtica dioica)* Bearberry *(Arctostaphylos uva ursi),*

Dandelion leaf *(Taraxacum officinalis),* and Kelp *(Fucus vesiculosis)*

Alteratives that act upon the liver and colon: Burdock *(Arctium lappa),*

Fringetree *(Chionanthus virginicus),* Oregon Grape *(Mahonia aquifolium),*

Dandelion root *(Taraxacum officinalis)* and Bloodroot *(Sanguinaria*

*canadensis)*.

**Amphoterics**

These are medications that regulate the body and bring it back into a state of balance and

harmony, using the inherent healing power of nature to restore balance (vis medicatrix

naturae). They often seem to work in contradictory or paradoxical ways depending on the

requirements of the body. For example, Hawthorn *(Crataegus oxycanthoides)* will raise or

lower the blood pressure as needed; Milky Oats *(Avena sativa)* will stimulate or sedate

the nervous system as needed; Garlic *(Allium sativum)* will balance the proportions of the

different gut flora; and Ground Ivy *(Glechoma hederacea)* will regulate the production of

mucus in the lungs.

**Analgesic and anodynes**

These are medications that are applied internally or externally to reduce pain, and in

Ayurveda are referred to as vedanasthapana. Many of them work by depressing the

functions of the central nervous system, and as such, are potentially toxic and should

only be used under the supervision of an experienced herbalist, such as Yellow

Jessamine *(Gelsemium sempivirens)*, Poppy *(Papaver somniferum)* and Belladonna

*(Atropa belladonna)* are illegal for use. It is important to remember that pain isn’t simply a

symptom to be suppressed, but an indication of an underlying pathology, sometimes

physical but sometimes emotional. A properly trained practitioner would never administer

analgesics without first ascertaining the cause of the pain. Examples of effective

analgesics include Jamaican Dogwood *(Piscidia erythrina),* Pasqueflower *(Anenome*

*pulsatilla),* California Poppy *(Eschscholzia californica)*, Corydalis *(Corydalis yanghusuo)*

and Wild Lettuce *(Lactuca virosa)*. Topically, Aconite *(Aconitum napellus)* and Cayenne

*(Capsicum minimum)* are powerful anodynes.

**Antihelminthics**

Called krimaghna in Ayurveda, this class of medications destroys parasites and helps to

expel them from the system. Many of the more powerful antihelmintics are not permitted

for use by non-physicians, but those that we can use are still very effective and in many

ways preferable. Some antihelminthics may be applied directly into the bowel as a

suppository or enema. Used internally, antihelminthics should always be used with

laxatives to expel the parasites completely. Examples include Garlic *(Allium sativum)*,

Tansy *(Tanacetum vulgare),* Wormwood *(Artemisia absinthium)*, Rue *(Ruta graveolens),*

Betel *(Areca catechu),* Pumpkin seed *(Curcubita spp*.)*,* Malefern *(Dryopteris felix-mas)*

and Black Walnut *(Juglans nigra).*

**Anticatarrhals**

Called lekhana in Ayurveda, anticatarrhals are medications that assist the body in

removing excess catarrh or mucous. Mucus is a normal secretion of all the mucous

membranes, but in response to irritation or inflammation, it can be produced in excessive

quantities causing congestion in the affected tissues or organs, providing a breeding

ground for microbes. Anticatarrhals regulate and normalize the quantity and the quality of

the mucous and are used particularly to treat conditions of the respiratory, digestive and

urinary tracts. The astringent and toning effect of anticatarrhal herbs may derive from

tannins, volatile oils, flavones or other compounds. Examples includen Bayberry *(Myrica*

*cerifera),* Eyebright *(Euphrasia spp*.), Goldenseal *(Hydrastis canadensis)*, Goldenrod

*(Solidago virgaurea),* Mullein *(Verbascum thapsus)*, Pippali *(Piper longum),* and Avens

*(Geum spp.)*

**Antiemetics**

Antiemetics, or the class of medications known as chardinigrahana in Ayurveda, refer to

herbs that alleviate feelings of nausea. This may be achieved through an effect on the

stomach or on the central nervous system. Remember, as with the analgesics, you

should not use anti-emetics until you have determined the cause of the nausea because

it can act as a warning sign or signal for more serious conditions. Examples include

Fennel *(Foeniculum vulgare)*, Ginger *(Zingiber officinalis*) and Cayenne *(Capsicum*

*anuum).*

**Antihemorrhagics**

Antihemorrhagic refers to the ability to stem bleeding action, also called styptic and in

Ayurveda are called shonitasthapana. The effect is typically brought about by the

presence of astringent tannins, but the effect may be mediated by other constituents as

well. Antihemorrhagics can be applied internally or externally. Examples include Yarrow

*(Achillea millefolium),* Avens *(Geum urbanum),* Shepherd’ Purse *(Capsella bursapastoris),*

Potentilla *(Potentilla tormentilla),* Nagakeshara *(Mesua ferrea)* and Witch Hazel

*(Hamamelis virginiana).*

**Antihydrotics**

These are medications that inhibit perspiration and are therefore the opposite of

diaphoretics, which induce sweating. Their pharmacological mode of action is unclear but

they are best employed in the occasional cases of excessive perspiration such as may

occur in menopause or due to undue nervousness, and occasionally may be used to

reduce a very high fever. The alternate name for an antihydrotic herb is “refrigerant,”

which suggest a cooling action that can sometimes be useful for treating itching of the

skin. In Ayurveda this class of medications are best represented by the term

dahaprashamana. Examples include Sandalwood *(Santalum album),* Sage *(Salvia*

*officinalis)* and Astragalus *(Astragalus membranaceus)*.

**Antiinflammatories**

Inflammation is a normal bodily response to injury or irritation and by simply suppressing

the body’s healing response we can end up doing more harm than good. Herbal

antiinflammatories however do not simply inhibit inflammation but actually nourish and

support the body in its attempt to deal with the problem. There are a broad diversity of

activities among herbal antiinflammatories, some working to directly inhibiting the

production of inflammatory mediators (e.g. arachidonic acid peroxidation), others that

facilitating the production of anti-inflammatory compounds (e.g. prostaglandin E3 series),

some that modify the production of endogenous steroids and opioids, and others, by

virtue of their mucilage, exert an anti-inflammatory effect upon the mucus membranes.

Examples of antiinflammatories include Willow *(Salix spp*.), Meadowsweet *(Filipendula*

*ulmaria)*, Black Haw *(Viburnum prunifolium)*, Licorice *(Glycyrrhiza glabra),* Wild Yam

*(Dioscorea villosa),* Black Cohosh *(Cimicifuga racemosa)*, Chamomile *(Matricaria*

*recutita),* Devil’s Claw *(Harpagophytum procumbens),* Bogbean *(Menyanthes trifoliata)*,

Turmeric *(Curcuma longa),* Buplerum *(Bupleurum falcatum),* Marshmallow *(Althaea*

*officinalis)* and Slippery Elm *(Ulmus fulva).*

**Antilithics and lithotriptics**

These are medications that assist in the removal of calculi and stones from the kidneys or

bladder, or prevent their development. A herb that has a demulcent or diuretic activity,

used to ease the passage of the calculus, as opposed to actually disintegrating it, are

sometimes lumped in this category but cannot be thought of as antilithics per se. In

Ayurveda, this class of medications is identified by the term ashmaribhedhana. Examples

include Madder *(Rubia tinctoria)*, Gravel root *(Eupatorium purpureum),* Pashanabheda

*(Bergenia ligulata*), Hydrangea *(Hydrangea arborescens),* Jin Qian Cao *(Desmodium*

*styracifolium*), Gokshura *(Tribulus terrestris),* Agnimantha *(Premna integrifolia)* and Stone

root *(Collinsonia canadensis)*.

**Antimicrobials**

These are medications that act against bacteria, viruses, fungi and other invading

organisms to inactivate or destroy them. This may be a direct effect on the microbe or it

may be indirect, by way of stimulating or modifying the immune response. Antimicrobials

can be applied both internally and externally, and some have a propensity to certain

tissues, such as Bearberry *(Arctostaphylos uva-ursi)* in the urinary tract, or Biscuit root

*(Lomatium dissectum)* in the respiratory tract, whereas others have a general

antimicrobial effect, such as Garlic *(Allium sativum)* or Neem *(Azadirachta indica).* Other

antimicrobial herbs include Marigold *(Calendula officinalis),* Purple Coneflower

*(Echinacea spp*.*)*, Myrrh *(Commiphora myrrha),* Old Man’s Beard *(Usnea spp*.*),* Pau

D’Arco *(Tabebuia spp*.*)*, Osha *(Ligusticum spp.),* Thyme *(Thymus vulgaris)*, Red Cedar

*(Thuja plicata),* and Wild Indigo *(Baptisia tinctoria)*.

**Antispasmodics and spasmolytics**

These are medications that ease spasm or tension in hypertonic (spastic) muscle groups.

Generally they work via the autonomic and the central nervous systems and permit

physical relaxation without adversely affecting consciousness. Examples include Angelica

*(Angelica archangelica),* Black Cohosh *(Cimcifuga racemosa),* Wild Yam *(Dioscorea*

*villosa),* Cramp bark *(Viburnum prunifolium)*, Chamomile *(Matricaria recutita),* Hops

*(Humulus lupulus),* Lobelia *(Lobelia inflata)* and Lavender *(Lavandula officinalis)*.

**Astringents**

This class of medications contains tannins that act to precipitate proteins and draw

tissues together, tightening and toning them. In mucus membranes the effect is to reduce

secretions and discharge, and thus many of these remedies have a similar effect to

anticatarrhals. Astringents also tend to antihemorrhagic and will help form an eschar

(scab) over a wound thereby preventing the entry of bacteria. Sometimes they will act on

tissues with which there is no direct contact, as is the case with Raspberry *(Rubus*

*ideaus)*, which acts to tone the uterus, even when taken orally. Examples include Lady’s

Mantle *(Alchemilla vulgaris),* Agrimony *(Agrimonia eupatoria),* Beth root *(Trillium spp*.*)*,

Bistort *(Polygonum bistorta)*, Shepherd’s Purse *(Capsella bursa-pastoris),* Oak *(Quercus*

*spp*.*)*, Witch Hazel *(Hamamelis virginiana)* and Yarrow *(Achillea millefolium).*

**Bitter tonics**

When taken in small amounts before meals, a bitter tonic stimulates all aspects of

digestive function, enhancing digestive secretion and peristaltic movements of the gut.

They act via a reflex from the taste buds to the brain then through the vagus nerve to the

entire gut. Note that the bitterness must be tasted to have the best effect. In Ayurveda

this class of remedies is carefully used for this purpose, as large doses of bitters tends to

inhibit rather than stimulate digestion. Often these herbs are combined with others that

balance this effect, such as stimulants, digestives and stomachics. Examples include

Gentian *(Gentiana lutea),* Wormwood *(Artemisia absinthium),* Oregon Grape *(Mahonia*

*aquifolium),* Bhunimba *(Andrographis paniculata),* Chiretta *(Swerta chirata),* Devil’s Claw

*(Harpagophytum procumbens),* Artichoke *(Cynara scolymus),* Trembling Aspen *(Populus*

*canadensis),* Hops *(Humulus lupus),* and Goldenseal *(Hydrastis canadensis)*

**Cardiac tonics**

Also known as cardiotonics, and in Ayurveda as hrdaya, these are herbs that promote a

regular rate and force of heart contractions. In this sense they are amphoteric in that they

will speed up or slow down the heart as needed. They are typically reserved in patients

that have weak hearts, and find useful application in the elderly. Examples include

Hawthorn *(Crataegus oxycanthoides),* Lily of the Valley *(Convalleria majalis),* Garlic

*(Allium sativum),* Arjuna *(Terminalia arjuna),* Coleus *(Coleus forskohli),* Olive *(Olea*

*europea),* Linden *(Tilia spp.),* Mistletoe *(Viscum album),* and Motherwort *(Leonurus*

*cardiaca)*

**Carminatives**

These are medications rich in volatile oils that regulate digestiom, and promote the

smooth contraction of the peristaltic muscles of the digestive tract. Thus they act to dispel

gas, ease griping, and relieve gastrointestinal spasm. In Ayurveda this class of remedies

is called shulaprashamana. Examples include Anise *(Pimpinella anisum),* Caraway

*(Carum carvi),* Cardamom *(Elettaria cardamomum),* Cinnamon *(Cinnamonum spp.),*

Fennel *(Foeniculum vulgare),* Ginger *(Zingiber officinalis),* Chamomile *(Matricaria*

*recutita)* and Peppermint *(Mentha piperita)*.

**Cholagogues and choleretics**

These are medications that promote the production of bile in the liver. A choleretic is a

type of cholagogue that promotes the release of bile from the gall bladder into the

duodenum. Herbs that stimulate the production and flow of bile often considered

alteratives, and because bile promotes peristalsis, the net effect of a cholagogue is

usually a laxative effect. Cholagogues are contra-indicated if there is acute liver failure,

obstructive jaundice, painful gallstones or cholecystitis. Examples include Celandine

*(Chelidonium majus),* Baical Skullcap *(Scutellaria baicalensis),* Fringetree *(Chionanthus*

*virginica),* Barberry *(Berberis vulgaris),* Dandelion *(Taraxacum officinalis* root), and Blue

Flag *(Iris versicolor).*

**Demulcents**

These are medications that by virtue of their mucilage content soothe and protect irritated

or inflamed tissues. Although the primary action is in the gut, there appears to be a reflex

action in embryologically related tissues such as the lining of the lungs and urinary tract.

Demulcents should always be given as powders or cold infusions, not tinctures,

decoctions or hot infusions. Examples include Marshmallow *(Althea officinalis),*

Couchgrass *(Agropyron repens),* Slippery Elm *(Ulmus fulva),* Corn Silk *(Zea mays)* and

Oats *(Avena sativa).*

**Diaphoretics**

These are medications that promote sweating by acting as peripheral vasodilators. They

are usually most effective when the body is already in a feverish state, which is an

important aspect of the body's system of defense. Bacteria and viruses are most active at

lower body temperatures while the immune system is most active at higher temperatures,

so by developing a fever the body inhibits microbes and activates its immune

components. Thus, using a diaphoretic herb naturally enhances non-specific

mechanisms of immunity. Examples include Yarrow *(Achillea millefolium),* Catnip *(Nepeta*

*cataria),* Elder *(Sambucus niger),* Ginger *(Zingiber officinalis),* Hyssop *(Hyssopus*

*officinalis),* Mints *(Mentha spp*.*)*, Thyme *(Thymus vulgaris),* and Boneset *(Eupatorium*

*perfoliatum).*

**Diuretics**

These are medications that promote the flow of urine, called mutravirechana in Ayurveda.

They are used to treat conditions where there is water retention in the body (shotahara in

Ayurveda), as well as to treat urinary tract infections where they can aid in flushing out

the invading organisms. Diuretics work in three basic ways: by increasing renal circulation

and therefore the glomerular filtration rate (e.g. Hawthorn *[Crataegus oxycanthoides],*

Broom *[Cytisus scoparius]*), by decreasing reabsorption of salts or sugars (e.g.

Couchgrass *[Agropyron repens]* or Cornsilk *[Zea mays]*) or by irritating the kidneys so

that they try to flush the offending substance away (e.g. Horseradish *[Armoracea*

*rusticana],* Juniper *[Juniperus communis]*).

**Emetics**

These are medications that cause vomiting, called vamana in Ayurveda. Although still

used in India as part of the pancha karma system, they were at one time used

extensively by the Thomsonian and physiomedical practitioners of the 19th century, but

have now largely fallen from favor. Today their use is mostly reserved in certain kinds of

poisoning, but their benefit in restoring digestion and proper respiration should be reexamined.

Examples include Lobelia *(Lobelia inflata),* Ipecac *(Ipecachuana caphealis),*

Squill *(Urginea maritime),* and Madanaphala *(Randia dumetorium).*

**Emmenagogues**

These are medications that stimulate and promote menstrual flow, called artavajanana in

Ayurveda. If used in higher doses they can act as abortifacients (i.e. abortion), and are

often in the same class as antihelminthics. Note that while their use to induce abortion is

probably very unwise, they can be used to induce a stalled labor. Examples include

Kumari *(Aloe vera),* Wormwood *(Artemisia absinthium),* Pennyroyal *(Mentha pulegium),*

Rue *(Ruta graveolens),* Tansy *(Tanacetum vulgare)*, Patridgeberry *(Mitchella repens),*

and Liferoot *(Senecio aureus).*

**Emollients**

These are medications that act in the same soothing way as demulcents but are applied

externally to reduce inflammation and allay irritation. Examples include Chickweed

*(Stellaria media),* Marshmallow *(Althea officinalis),* Plantain *( Plantago lanceolata),* Oats

*(Avena sativa)* and Comfrey *(Symphytum officina1is)*.

**Expectorants**

These are medications that assist the lungs in the removal of excess mucus, called

chedana in Ayurveda. If they contain mucilage they are said to be relaxing expectorants

because of their demulcent effect upon the respiratory system. Such herbs would be

appropriate for dry, irritable or hot conditions where they will stimulate the production of a

thin loose mucus and ease bronchial spasm. Examples include Coltsfoot *(Tussilago*

*farfara),* Marshmallow *(Althea officinalis),* Slippery Elm *(Ulmus fulva),* and Plantain

*(Plantago lanceolata)*. If the expectorant contains saponins, volatile oils, or alkaloids, they

are generally said to be stimulating, via their irritant effect upon the digestive tract. These

herbs stimulate the microscopic hair-like projections on the mucosal surface called the

mucociliary escalator and are therefore useful in the treatment of lung congestion.

Examples include Elecampane *(Inula helenium),* Heartsease *(Viola odorata),* Horehound

*(Marrubium vulgare),* and Thyme *(Thymus vulgaris).*

**Galactagogues**

These are medications that promote the flow of milk in nursing mothers, called

stanyajanana in Ayurveda. Although their exact mode of action is unclear and probably

diverse, some, like Fennel are known to act by inhibiting dopamine release, allowing for

the unopposed secretion of prolactin, the hormone responsible for milk production in the

breast. Examples include Hops *(Humulus lupulus), Yav?n?* fruit *(Trachyspermum ammi),*

Holythistle *(Carduus benedictus),* Goat’s Rue *(Galega officinalis),* Fennel *(Foeniculum*

*vulgare),* and Celery *(Apium graveolens).*

**Hepatics**

This is a non-specific term used to denote herbs that correct liver function in general.

Although many hepatics are also cholagogues and choleretics, they have a wider

application than simply promoting bile synthesis and excretion. Hepatics are often liver

trophorestoratives, acting to strengthen the liver, aid in pelvic decongestion, and generally

improve digestion and elimination. Examples include Barberry *(Berberis vulgaris),*

Turmeric *(Curcuma longa),* Bogbean *(Menyanthes trifoliata),* Dandelion *(Taraxacum*

*officinalis),* Goldenseal *(Hydrastis canadensis),* Yellowdock *(Rumex crispus),* Milk Thistle

*(Silybum marianus)* and Andrographis *(Andrographis paniculata)*

**Hypnotics and sedatives**

These are medications that promote a deep and relaxing sleep, called nidrajanana in

Ayurveda. They may work through muscle relaxant properties, through the action of

volatile oils on the limbic system, or through the presence of alkaloids that affect the

central nervous system. In their mildest form they are called relaxants. The following list

is arranged from the mildest to the strongest, among those botanicals legally permitted

for use by herbalists: Lemonbalm *(Melissa officinalis),* Chamomile *(Matricaria recutita),*

Linden *(Tilia europeus),* Wood Betony *(Stachys betonica),* Vervain *(Verbena officinalis),*

Wild Lettuce *(Lactuca virosa),* Passionflower *(Passiflora incarnata),* Skullcap *(Scutelleria*

*lateriflora),* Valerian *(Valeriana officinalis),* Corydalis *(Corydalis yanhusuo),* California

Poppy *(Eschscholzia californica)*, Sarpagandha root *(Rauwolfia serpentina)* and Tibetan

Poppy *(Meconopsis grandis).*

**Hypolipidemic**

These are medications that act to reduce serum lipids, including triglycerides and

cholesterol. In most cases they only achieve a modest impact, to improve blood flow and

viscosity. They should not be relied upon without making appropriate changes to the diet,

increasing exercise and losing weight. Examples include Hawthorn *(Crataegus*

*oxycanthoides),* Arjuna *(Termilania arjuna),* Turmeric *(Curcuma longa),* Guggulu

*(Commiphora mukul),* Garlic *(Allium sativum),* and Cayenne *(Capsicum annuum).*

**Hypotensives**

These are medications that act to reduce a high blood pressure. This may be achieved

through a muscle relaxing action or through a calming effect upon the central nervous

system. They should not be relied upon with making appropriate changes to the diet,

increasing exercise and losing weight, and usually don’t promote more than a 10%

change in blood pressure readings, although some people can have a dramatic

response. Examples include Hawthorn *(Crataegus oxycanthoides),* Garlic *(Allium*

*sativum),* Linden *(Tilia spp*.*),* Cramp bark *(Viburnum opulus),* Valerian *(Valeriana*

*officinalis),* Motherwort *(Leonorus cardiaca),* Mistletoe *(Viscum album)* and Sarpagandha

root

**Immunomodulants**

These are medications that ‘modulate’ the immune system, working to balance and

restore a dysfunctional immune response. These are often used in chronic conditions in

which the immune system has gone ‘haywire,’ attacking the very tissues it is there to

protect. Immunomodulants are most often used in autoimmune disorders, such as

Crohn’s and multiple sclerosis. Many immunomodulants are adaptogens, and vice versa.

Examples include Reishi mushroom *(Ganoderma lucidum),* Ashwagandha *(Withania*

*somnifera),* Astragalus *(Astragalus membranaceus),* Licorice *(Glycyrrhiza glabra),*

Siberian Ginseng *(Eleuthrococcus senticosus),* and Cordyceps *(Cordyceps sinensis).*

**Immunostimulants**

These are medications that stimulate the immune system, enhancing bodily mechanisms

involved against infection, including non-specific mechanisms, and the specific

mechanisms of humoral and cell-mediated immunity. Many immunostimulants are

antimicrobials and vice versa, and are used in both acute and chronic infection. They are

typically contraindicated in autoimmune disorders. Examples include Coneflower

*(Echinacea spp*.*)*, Garlic *(Allium sativum),* Myrrh *(Commiphora myrrha),* Old Man’s Beard

*(Usnea spp*.*),* Biscuit root *(Lomatium spp*.*),* Pau D’Arco *(Tabebuia spp*.*)*, Osha

*(Ligusticum spp.),* Thyme *(Thymus vulgaris)*, Red Cedar *(Thuja plicata),* and Wild Indigo

*(Baptisia tinctoria)*.

**Laxatives**

These are herbs that promote the evacuation of the bowels, and in Ayurveda are

classified according to the strength of their effect. They may be used in certain cases of

constipation, with antihelminthics to rid the body of worms or parasites, or as part of a

cleansing and detoxification program. Many of them contain anthraquinone glycosides

and bitter constituents. Like Ayurveda, laxatives can be classified into four groups, from

the mild aperients to the powerful hydrogogues. Since giving a laxative is a somewhat

symptomatic treatment the cause should be properly determined (e.g. hepatic

insufficiency, nervous stress, dehydration, intestinal dysbiosis), as many laxatives will

eventually create dependency.

Aperients (anulomana): gentle or mild effect, producing a normal bowel

movement. Examples include Dandelion root *(Taraxacum officinale)*, Oregon

Grape root *(Mahonia aquifolium),* Triphala *(Terminalia chebula, Terminalia*

*belerica, Phyllanthus emblica),* and Yellowdock *(Rumex crispus)*

Bulk Laxatives: gentle effect, fibers absorb water, stimulate intestinal stretch

receptors to promote peristalsis. Examples include Flax *(Linum usitatissimum*

seed), Psyllium *(Plantago psyllium* seed), and Hemp *(Cannabis sativa* seed)

Laxatives (sramsana): strong effect, bowel movement is normal to soft,

additional symptoms may include colic and gas. Examples include Turmeric

*(Curcuma longa)*, Black radish seed *(Raphnus sativus)*, Cape aloe gel *(Aloe*

*barbadensis)*, Trivrit *(Operculina turpethum),* Buckthorn *(Rhamnus frangula)*

and Cascara *(Rhamnus purshianus)*

Cathartics or purgatives (bhedana): stronger effect, bowel movement is soft

to liquid, usually accompanied by gas, colic and sometimes undigested food.

Examples include Turkey Rhubarb *(Rheum palmatum)*, Senna *(Cassia*

*angustifolia)*, Wahoo *(Euonymus atropurpureus),* Buckthorn *(Rhamnus*

*frangula)* and Cascara *(Rhamnus purshianus)*.

Hydrogogues (rechana): very strong effect, bowel movement is liquid,

explosive, with much colic and gas; almost a toxic response. Examples

include Aloe resin *(Aloe barbadensis*), Black Trivrit *(Croton tiglium),* Poke

*(Phytolacca decandra),* and Mayapple *(Podophyllum peltatum).*

**Nervines**

This is general term loosely applied to any medication that has an effect on the nervous

system. As such, nervines may be either stimulating or relaxing. Stimulating nervines

include Damiana *(Turnera diffusa),* Ginseng *(Panax ginseng),* Rosemary *(Rosmarinus*

*officinalis),* and Gotu Kola *(Centella asiatica),* as well as herbs that contain caffeine and

other related methylxanthines including coffee, tea, maté, and Guarana *(Paullinia*

*cupana)*. Relaxing nervines include Lavender *(Lavandula officinalis),* Milky Oats *(Avena*

*sativa),* Skullcap *(Scutellaria lateriflora),* Vervain *(Verbena officinalis),* Pasqueflower

*(Anemone pulsatilla),* Reishi *(Ganoderma lucidum),* Skullcap *(Scutellaria lateriflora),* and

St. John’s Wort *(Hypericum perforatum).*

**Oxytocics**

These are medications that stimulate the contractions of the uterus, or rather, promote

and enhance the release of the hormone oxytocin. They are typically used during labor to

hasten or rekindle a stalled delivery, or as a post-parturient to promote involution of the

uterus, expel the placenta, and enhance the milk-let down reflex. They are

contraindicated at all times during pregnancy, used only after the due date. Many

oxytocic herbs are synonymous with emmenagogues. Examples include Blue Cohosh

*(Caulophyllum thalictroides),* Pennyroyal *(Mentha pulegium),* Patridgeberry *(Mitchella*

*repens),* Black Cohosh *(Cimcifuga racemosa),* Cotton root *(Gossypium herbaceum),*

Liferoot *(Senecio aureus),* and Angelica *(Angelica archangelica).*

**Restoratives**

These are medications that support the health and vitality of weakened and damaged

tissues, usually undertaken as a long term measure to restore health. Originally called

trophorestoratives in Physiomedicalism, the term is equivalent to ‘rasayana’ in Ayurveda,

and ‘fu zheng’ in Traditional Chinese medicine. Restoratives can be classified according

to the organ system they act upon.

Nervous restoratives: Milk Oats *(Avena sativa),* Skullcap *(Scutellaria*

*lateriflora),* Vervain *(Verbena officinalis),* Damiana *(Turnera diffusa),* Reishi

*(Ganoderma lucidum),* Ginseng *(Panax spp)*, Gotu Kola *(Centella asiatica),*

and Ashwagandha *(Withania somnifera)*

Cardiovascular restoratives: Hawthorn (*Crataegus oxycanthoides*),

Motherwort (*Leonurus cardiaca*), Yarrow (*Achillea millefolium*), Rosemary

(*Rosmarinus officinalis*), Arjuna (*Terminalia arjuna*), *Bilberry* (*Vaccinium*

*spp.*)*,* Dan Shen (*Salvia miltorrhiza*), and He Shou Wu (*Polygonum*

*multiflorum*)

Liver restoratives: Milk Thistle *(Carduus marianum),* Bhunimba *(Andrographis*

*paniculata),*Wu Wei Zi *(Schizandra chinensis),* Turmeric *(Curcuma longa),*

Chai Hu *(Bupleurum falcatum)*

Reproductive restoratives: Damiana *(Turnera diffusa),* Saw Palmetto

*(Serenoa serrulata),* Yin Yang Huo *(Epimedium macranthum),* Ashwagandha

*(Withania somnifera),* American Ginseng *(Panax quinquefolium),* Dang Gui

*(Angelica sinensis),* Shatavari *(Asparagus racemosa),* and False Unicorn root

*(Chamaelirium luteum)*

Kidney restoratives: Gokshura *(Tribulus terrestris),* Punarnava *(Boerhavia*

*diffusa),* Shilajit, Du Zhong *(Eucommia ulmoides),* Shu Di Huang *(Rehmannia*

*glutinosa)*, Nettle seed *(Urtica dioica)*, Horsetail *(Equisetum arvense),*

Parsley Piert *(Aphanes arvensis)*, and Pellitory-of-the-wall *(Parietaria diffusa)*

Respiratorv restoratives: Horsetail (*Equisetum arvense*), Elecampane (*Inula*

*helenium*), Licorice (*Glycyrrhiza glabra*), Plantain (*Plantago lanceolata*),

Astragalus (*Astragalus membranaceus*), Vasaka (*Adhatoda vasica*), and

Arjuna (*Terminalia arjuna*)

**Rubefacients**

These are medications which, when applied externally, will cause a mild local irritation

and draw blood to the area through capillary dilation. Rubefacients are used to enhance

blood supply to localized areas to remove congestion and promote healing. For example,

rubefacients are used to relieve lung congestion (e.g. a mustard plaster on the chest) or

disperse congestion in arthritis or muscle pain (e.g. a cayenne or sea weed plaster over

the affected joint or muscle group). Some rubefacients contain menthol and methyl

salicylate which have an additional analgesic property. Examples include Cayenne

*(Capsicum minimum),* Mustard *(Brassica spp*.*),* Ginger *(Zingiber officinalis)*, and

Peppermint *(Mentha piperita* oil)

**Sialogogues**

These are medications that stimulate production of saliva, called asyasravana in

Ayurveda. All bitters will work this way to some extent when used in small doses, but

other herbs that have a unique sialogogue activity including Betel *(Areca catechu),*

Prickly Ash *(Zanthoxylum americanum),* Coneflower *(Echinacea spp)* and Toothache

plant *(Spilanthes acmella)*. Sialogogues are used to treat dry mouth, digestive

insufficiency, receding gums, dental or gum infection, and mumps.

**Stimulants**

These are medications that activate and speed up normal physiological functions, and

are generally associated with an effect upon the vasculature and heart, to promote blood

flow to the periphery. Examples include Cayenne *(Capsicum minimum),* Ginger *(Zingiber*

*officinalis),* Cinnamon *(Cinnamomum cassia)* and Prickly Ash *(Zanthoxylum*

*americanum*).

**Tonics**

The term tonic is a precise term that specifically refers to a medication that increases the

‘tone’ of a tissue or an organ, reducing it from a flaccid, flabby and unresponsive state to

a firm, toned and responsive state. Often people confuse this term with herbs that have a

nourishing and supportive effect, or what is more properly called a restorative. Generally

speaking, tonics act upon mucus membranes and the underlying musculature, and are

sometimes specific to a particular region of the body. Sometimes they are bitter (as in a

‘bitter tonic’, whereas other times they have a more astringent effect. Examples include

Goldenseal *(Hydrastis canadensis),* Oregon Grape *(Mahonia aquifolium),*Bayberry

*(Myrica cerifera),* Ground Ivy *(Glechoma hederacea),* Agrimony *(Agrimonia eupatoria),*

Oregon Grape *(Mahonia aquifolium)*, and Cranesbill Geranium *(Geum macrophyllum)*

**Vulneraries**

These are medications that assist in wound healing, called sandhaniya in Ayurveda. This

action may be brought about by a number of different constituents, including tannins,

mucilage, vitamins and minerals, as well as special chemicals like allantoin. Astringent

herbs such as Witch Hazel *(Hamamelis virginiana)* and Oak *(Quercus spp.)* are

vulneraries because of their ability to stop bleeding and to promote the formation of an

eschar (scab). Herbs such as Plantain *(Plantago lanceolata)* and Selfheal *(Prunella*

*vulgaris)* contain soothing mucilaginous constituents, as well as astringing tannins, and

vitamin C and zinc, both of which are necessary for tissue healing. Herbs such as

Comfrey *(Symphytum officinalis)* contain allantoin, which is cell proliferant and therefore

speeds healing. If, however, Comfrey is applied over a deep wound, or too soon after

injury, there is a danger of the surface tissues knitting together too fast and trapping

bacteria inside. The correct use of Comfrey is thus after the formation of the eschar,

which also limits the transdermal absorption of its potentially toxic pyrrolizidine

constituents. Some vulneraries are used internally to speed tissue healing, including

Marigold *(Calendula officinalis),* Plantain *(Plantago lanceolata)*, Selfheal *(Prunella*

*vulgaris),* and Marshmallow *(Althaea officinalis)*.