

Georgia College of  
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# *Extracting the Essence*

*A Holistic Approach to Restoring Digestive  
Health*

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## **Food for thought**

Foods are the bodies of living beings. We should always remember the sacredness of food.

Diet is one of the most important influences on health. It is basic for both preventing and treating illness, and for promoting long life, intelligence, and harmony in the world.

Chinese and Ayurvedic medicine agree: "the inferior physician treats diseases and symptoms, the superior physician educates patients how to take care of themselves."

Chinese medicine says: "One who waits to think of their health until they are sick is like one who waits until their house is on fire to dig a well."

Ayurveda says: "If you have a good diet you don't need doctors or drugs; if you don't have a good diet, you don't need doctors or drugs."

Ayurveda says "There are two types of doctors: those who remove disease and prolong life, and those who give disease and shorten life." Likewise, there are two kinds of foods: healthy and unhealthy.

Many foods which used to be healthy are now unhealthy.

We are now the second and third generation to be raised on a highly processed diet of devitalized foods.

Most diseases of our culture are directly related to eating habits. Degenerative diseases appear within one generation after a culture abandons traditional foods and adopts modern processed foods.

All health problems can be benefited by eating the right kind of food, in the right amounts, at the right time. Many digestive complaints can be eliminated simply through eating slowly.

Hippocrates saith: "Let food be thy medicine."

There is no diet which is good for everyone. The stomach is the doctor; learn how to listen to the body.

Obsessing about food, food combining, right and wrong diets, and colon cleansing is not healthy.

Hippocrates: "It is better to have a small amount of something which is not good for you if you enjoy it, than to have a large amount of something which is good for you if you don't enjoy it."

Exercise can help counteract some of the deficiencies and indiscretions of diet.

## **Ayus: Life, and the quality of life**

Goal of Ayurveda is to make known the qualities of life (happiness and suffering, beneficial and not beneficial) and the conditions which contribute to a happy and beneficial life.

Physician transforms unhappiness to happiness. Happiness allows one to accomplish the goals of life, unhappiness interferes.

Life is favorable or unfavorable, pleasant or unpleasant.

The conditions that make life favorable are: balanced pursuit of the three aims of life; careful consideration before action; mindfulness, self-restraint with urges such as love and anger; concern for others welfare; disinclination to appropriate the property of others; spiritual knowledge and practice; recognizing here and the hereafter. The unfavorable life is characterized by opposite traits.

Pleasant life is possible by: absence of bodily and mental ailments; strength; enthusiasm; courage; knowledge; efficiency of sense function; adequate wealth; enjoyment of normal pleasures; efforts toward and accomplishment of life's aims; opportunity to move about at will. Absence of these makes life unpleasant.

## **Health**

Two levels:

Svasthya: "abiding in oneself." The deeper meaning of health.

A state of positive wellbeing of body and mind, in which one is not dependent on others or drugs for physical and mental welfare. The foundation for vigor and strength expressed in wholesome living.

Arogya: diseaselessness. The concern of the physician.

Health is the essential requisite for accomplishing the three common aims of life (kama; fulfillment of desires; artha, pursuit of wealth; dharma, religious duties), and for spiritual liberation (moksha).

Health is the most precious gift the gods can bestow.

Ayurveda is the science of integrated and meaningful life, and is concerned as much with maintenance and promotion of health as with curing illness.

Charak defines health as 'the condition in which one abides well without any disturbances whatever.

The body must be

1. Nourished with good food and conduct, like pouring oil into a lamp and trimming the wick
2. Protected from internal and external disturbances, like protecting the flame from insects.

Health is a continuous process of integration (yoga), time, sensory objects, and actions (karma).

Time is seasonal variations; sense objects are sensory stimulation; actions are body, speech and mind.

Perfect integration of these three factors is the single causative condition of health. Imperfect association brings disease.

Life rests on the three pillars of food, sleep, sex. Disturbances are caused by deficient, excessive, or improper indulgence of these three.

The balanced functioning of mind and body is the basis of health, which is experienced as happiness and wellbeing.

Life is still worthwhile and enjoyable with the blessings of good health, even if there are deficiencies of wealth, comforts, occupation, family, etc.

**Disease:**

Disease is the obstacle to attaining the four goals of life (dharma, religious duties; artha, wealth; kama, desires; moksha, liberation). Health fulfills the purposes of life.

Health is equilibrium of the humors (doshas), tissues (dhatus), enzymatic transformations (agni), and waste products (malas). Disease is the disturbance of this balance by deficient, excessive, or improper organization of seasons, modes of consciousness, and objects of sensation. The aim of medicine is to restore the lost balance.

The main conditions which cause diseases are:

Unsatisfactory association of the sense organs with their objects

Errors of judgement resulting in improper activities of body, speech, and mind

Effects of seasons

These conditions can be excess, deficient, and improper. They are known collectively as 'improper food and conduct.'

The production of distress is the common quality of all diseases. Therefore, the disease is one, although its manifestations may be innumerable.

**Errors of judgement: Prajnaparadha**

Prajnaparadha (pragyaparad) is one of the three main factors that bring about diseases. It is insufficient, excessive, or improper organization of actions (karma).

Error in judgement: improper ascertainment, which manifests as impulses to improper conduct. Both aspects are functions of buddhi (intelligence, instrument of knowledge). This pathology works at the level of the mind; improper thoughts then lead to improper speech and actions.

Judgement (prajna) signifies the twin aspects of organizing sensory data and resolutions with regard to conduct.

Judgement has three modes: intelligence, will, and memory. Intelligence is the general ability to know things as they are and to discriminate between what is proper and what is not. To confuse the two is an error of judgement (the "straying of intelligence").

Will is the resolution to do the proper things, after intelligence has discriminated and ascertained the nature and effect of things. It is also to restrain the mind from temptation to do improper things and to strengthen its decision to do the right thing. Lack of will leading to indecision and consequent wrong conduct is the error of the will.

Inability to recall and profit from previous experience is error of the memory.

Error of judgement: improper action done when intelligence, will, and memory have strayed; it is conduct done without intelligence, perseverance, and mindfulness.

Error of judgement is primarily due to qualities of rajas (excessive activity, passion, strong desire and aversion, intoxication, pride, fear, sorrow, worry) and tamas (sloth, resistance, inertia, delusion, depression). Rajas and tamas are allowed to become dominant; the intelligence, will, and memory are therefor impaired.



Error of judgement may pertain to bodily actions, speech, or mental processes. These are categorized as deficient, excess, or improper.

Mental: greed, overwork, prolonged excitement, anger, pride

Speech: quarrelling, slander, lies, abusive speech, gossip

Body: over or under-indulgences

Actions done after, before, or when they are not to be done, executed excessively, deficiently, or improperly, become injurious to body and mind. This in turn leads to unwholesome conduct with the sense objects, which is the source of ailments and misery.

As a consequence or errors of judgement, the doshas are thrown out of balance.

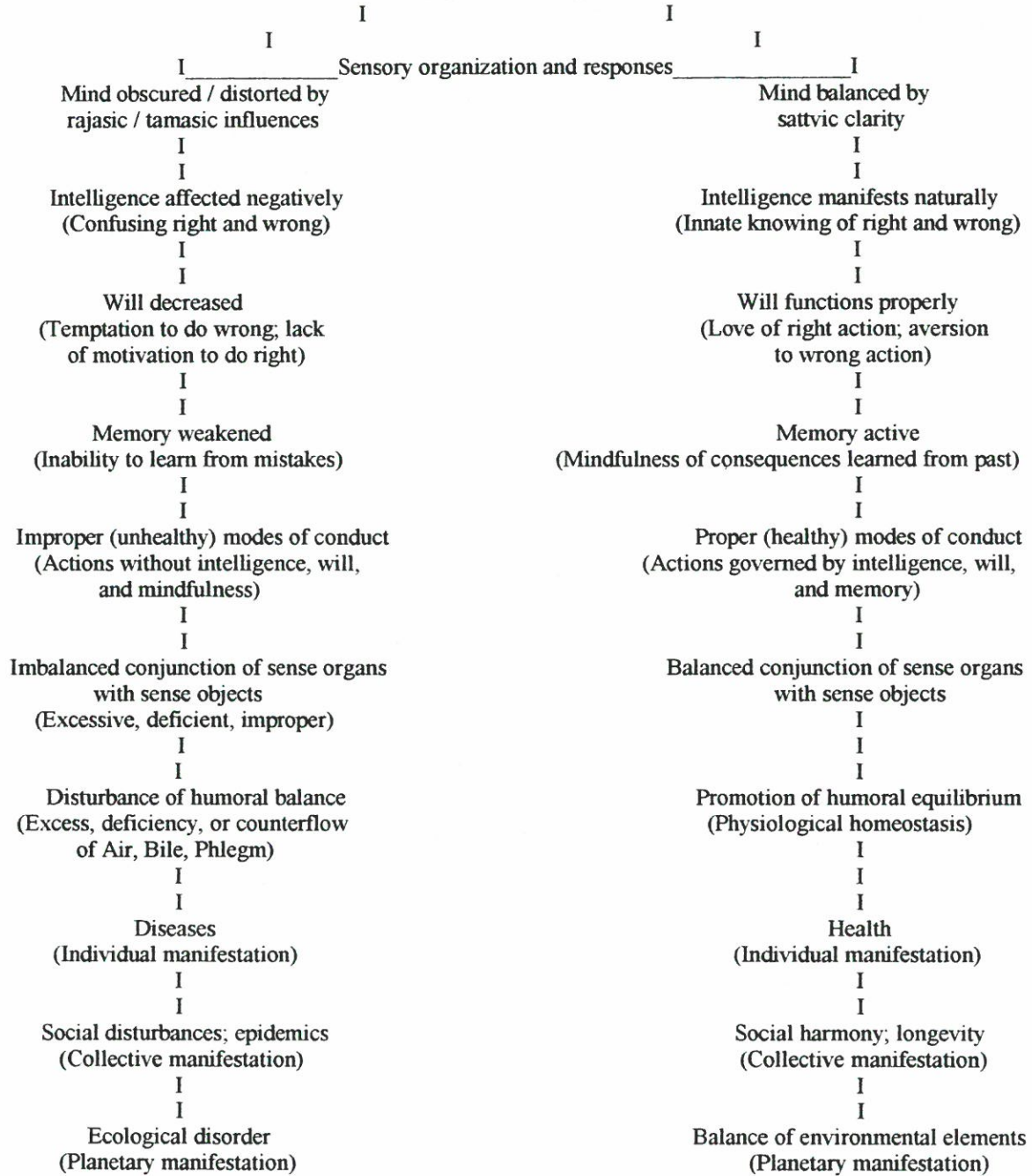
### **Papma**

Disease originating from transgression of normal laws of health and hygiene. Preservation of health is a duty (dharma, one of the four aims of life) of all citizens; to fall ill is a transgression of religious dharma.

## Prajnaparada vs. wisdom

Prajna (Wisdom; gnosis)  
(Organizing sensory information and responding with action)

I  
Buddhi (Instrument of intelligence)



## The Causes and Elimination of Epidemics, According to Charaka and Tantric Cosmology

### The causes:

Moral deterioration within government  
(leaders affected by greed and dishonesty)

I

Population follows and adopts corrupt behavior  
(spiritual degeneration leads to  
self-destructive behavior; breakdown of ceremonial  
balancing of society and nature)

I

Unhealthy collective lifestyle generates heat toxins  
(external forms of mental poisons;  
atmospheric contamination of etheric realms)

I

Weather patterns disturbed  
(Displeasure within devic realms;  
droughts, flooding)

I

Food production declines  
(natural resources decrease)

I

Population suffers from hunger,  
thirst, malnutrition

I

Collective health status declines;  
population becomes susceptible to  
infectious diseases.

I

Onset of epidemics  
(Elevated environmental toxicity;  
decreased collective immunity)

### The solutions:

Restoration of dharmic principles  
among rulers  
(Justice, compassion, generosity)

I

Renewal of right livelihoods  
(Restoration of wholesome  
conduct; renewal of ceremonial  
offering Ways)

I

Decrease of environmental toxicity  
(Purification of etheric realms)

I

Normalizing of weather patterns  
(Auspicious conditions  
reveal happiness of devas)

I

Food production increases  
(Natural resources renewed)

I

Nutritional status of society  
improves

I

Collective health improves;  
resistance to illness increases

I

Decline of epidemics

## **Responsibilities of physicians as educators**

### **Raising patient awareness of the dangers of medications**

#### **Impact:**

- Supporting study and knowledge of information in PDR
- Making more informed choices about medications
- Greater honesty within medical establishment about iatrogenic dangers
- Less iatrogenic morbidity and fatality

### **Making knowledge of complimentary systems available**

#### **Impact:**

- Increased understanding how various therapies benefit various conditions
- Better and more appropriate treatment for specific conditions
- Increased integration and communication between medical systems

### **Promoting individual constitutional awareness**

#### **Impact:**

- Effective lifestyle modification
- Decreased need for medication

### **Nutritional education**

#### **Impact:**

- Greatly reduced incidence of common diet-based sicknesses
- Better outcome of treatments
- Effective immune enhancement and preventive therapy

#### **Prescription: eating organic foods only**

#### **Impact:**

- Direct health benefits individually
- Widespread environmental benefits through elimination of pesticide and hormone use
- Eliminating one of the primary roots of cancers

### **Biological dentistry**

#### **Impact:**

- Greater awareness of heavy metal toxicity
- Greater awareness of interconnections between mouth and body symptoms
- Greater awareness of mercury environmental issues

### **Raising awareness of environmental toxicity and roots of illness**

#### **Impact:**

- Increased patient participation in environmental restoration

#### **Replacing toxic household and body products**

#### **Impact:**

- Reductions of allergenic and carcinogenic substances in home and work space
- Reduction in environmental-based symptoms

#### **Discontinuing use of cell phones**

#### **Impact:**

- Higher awareness of dangers
- Decrease of individual and collective support for microwave pollution

### **Helping patients find right livelihood and healthy careers**

#### **Impact:**

- Encouraging change from toxic livelihood to self-actualization
- Transformation from disease-causing to life-enhancing industries



Encouraging voluntary simplicity:

Impact:

- Reduction of materialistic consumption habits
- Reducing stress
- Increasing harmony within family life
- Restoring spiritual values
- Reducing diseases of excess consumption
- Reducing environmental toxicity

## Medical, Social, and Environmental Impact of Prescribing Organic Foods

Patient education in clinic  
I  
I  
Increased patient awareness of nutrition and food toxicity  
I  
I  
Greater patient participation in healing process  
Patient empowerment for positive lifestyle transformation  
I  
I  
Dramatic reduction of diet-related morbidity / fatality  
I  
I  
Improved clinical results  
Better doctor-patient relationships  
I  
I  
Increased shopping from natural food grocers  
I  
I  
Greater economic support for expansion of organic markets  
I  
I  
Growth of organic farming and gardening  
I  
I  
Stronger community relations  
(farmers markets, community gardens)  
I  
I  
Decreased environmental toxicity  
Increased soil fertility  
Purification of water and air  
I  
I  
Decreased illness from environmental poisoning  
(Reduction of cancer rates from elimination of pesticides)

## Agni

According to Vedic philosophy, the entire universe is composed of two principles: agni (heat and light); soma (nourishment and growth). Solar energy originates from the sun, water energy from the ocean and clouds; these produce all life.

Agni is the 'inner controller' in water, trees, organisms (as digestive fire). It manifests as the sun in the upper region, lightning in the middle regions, and submarine fire (phosphorescence).

Three primary types of agni are described: physical fire from fuels, celestial fire as lightning, and digestive fire.

Agni is the "god of fire" which lives inside us as digestive and metabolic heat. In order to have good health we must give it the proper offerings.

Foods are vehicles for the universal elements. The solar energy stored in food is the agni that gives our body vitality, warmth, energy, complexion, etc.

In order to make external substances (food) homogenous with our body substances, they must be processed and transformed. This work is done by the activity of the fire element, agni. It means the 'transforming force'.

Agni is the source of the cooking processes within the body. These include combustion or burning, production of heat, transformation, transmutation.

Fire in nature transforms one substance to another, and leaves a residue of waste behind.

Agni is specifically associated with the small intestine. The small intestine is 'that which grasps'; it separates the pure from the impure. Agni and the small intestine support each other; if one is impaired, the other is impaired.

Agni is responsible for grasping the nutrients from food, and destroying toxins in the gut. If it is weak it cannot digest and assimilate, and toxins will increase.

These concepts can be correlated with TCM concepts of Spleen Yang.

All metabolism can be viewed as the liberation of solar energy from food and the removal of waste from the body. All diseases can be viewed as defects in this process.

Agni is responsible for the maintenance of health. If it is disordered, the equilibrium of doshas (humors), dhatus (tissues), and malas (wastes) is disrupted. All diseases, especially of the abdominal region, are described as associated with defects in agni, which interferes with digestion and increases the waste products in the body.

Agni is located primarily in the digestive tract; can be associated with bile secretion, digestive acids, enzymes, etc. Agni can be understood as enzymatic actions: that which causes catalization from one state to another.

There are thirteen agnis in the body: five bhutagnis, seven tissue agnis, and the principal digestive agni.

The five bhutagnis are the physical and chemical changes that occur in the five universal elements (pancha mahabhutas) that compose the body; these assimilate the universal elements into homogenous form into the body.

The seven agnis of the seven constituents are located at each of the tissue levels; they transform nutrients into body tissues. Nutrients flow from chyle, blood, muscle, fat, bone, marrow, to semen.

The principle agni is jatharagni; it is the primary digestive fire.

The principle agni (jatharagni) is the root of all the other agnis. It helps maintain the heat within the system, and is the source of energy synthesis, encourages growth, and mobilizes strength.

Four conditions of agni are recognized: too high, low, variable or balanced.

High or intense tends to be associated with pitta conditions, hypermetabolism, and inflammation. The agni is easily and excessively excited. One quickly digests large quantities of food, even frequently. The digestive process is quickly over.

Correlates with TCM concepts of "Stomach Fire," and aspects of "Liver Fire."

Low or slow agni means that even normal food cannot be properly digested, metabolic process are impeded due to excess of kapha. There is heaviness, phlegm, shortness of breath, congestion, and increased mucus. Correlates with TCM concepts of "Spleen Yang Deficiency" and "Spleen Chi Deficiency."

Variable or erratic agni is due to being fanned by vata. Sometimes digested, sometimes not. Produces distention, diarrhea, heaviness, dysentery, gurgling, loose bowels, etc. with vata types with gas and bloating.

Correlates with TCM concepts of "Liver Chi Stagnation" and "Wood Attacking Earth."

When agni is high, it is treated with cooling, bitter, anti-bile herbs and food. When agni is low it is treated with warming, spicy, aromatic anti-mucous herbs and foods. When agni is variable it is treated with warming, relaxing and salty herbs and foods. When agni is balanced it is supported with harmonizing herbs and foods.

Balanced agni means normal and regular appetite, easily satisfied, regular bowel movements, little gas or bloating. There is complete digestion, without hurry or delay, without disturbance. This is what gives health and happiness.

Agni is increased with exercise, pranayama, meditation, fasting, light eating, sleeping less. It is decreased by heavy, damp oily, sweet foods, sedentary lifestyle, excess sleep or sex.

The wise physician (and patient) cultivates the temperature of the field. This means that the digestive system is not too hot (hyperactive, inflammatory states), or too cold (hypoactive, sluggish, damp).

The root of good health is the fertility of the soil: the enzymatic power of foods must be strong to give vitality to the body. Without strong nutrients in the soil, the food is devitalized. Weak food produces weak bodies. Traditionally, Ayurvedic science included how to regenerate soil fertility, non-toxic pesticide control, how to feed cows so they produce super-nutritious milk, and countless other branches of knowledge needed by the world today.



Flow of Solar Agni

Fusion within sun

I

Radiant energy reaching earth's atmosphere  
(equivalent of 1 million Hiroshima-sized atomic bombs daily)

I

I  
One third deflected  
back into space

I  
Two thirds absorbed by earth  
and converted to heat

I

I

I  
Evaporation of oceans

I  
Movement of air

I

I

I  
Production on clouds  
Snow and rain

I  
Weather patterns

I

I

I

I

I  
Less than 1% of radiant solar  
energy transformed by photosynthesis  
into chemical and mechanical energy used by  
all living organisms

I

I

I

I

I

I

Radiant energy of sun captured by chloroplasts  
(Chlorophyll containing organelles within plants;  
site of photosynthesis)

I

H<sub>2</sub>O and CO<sub>2</sub> converted to carbohydrates  
using solar energy  
(photosynthesis)

I

O<sub>2</sub> released into atmosphere

I

Carbohydrates as glucose, starches, other foods  
consumed

I

Digestive Agni breaks down food for further processing

I

Mitochondria transform carbohydrates into ATP  
(Cellular respiration: consumption of O<sub>2</sub> and production of CO<sub>2</sub> and H<sub>2</sub>O)

I

Solar Agni stored in cells as ATP

I

Metabolism controlled by tissue Agnis

I

Energy in the form of heat produced by metabolism  
(release of solar Agni within body)

## Ama

“Unripe,” “uncooked,” “undigested.”

Pathogenic mucus. Correlates with TCM concepts of Phlegm.

Incompletely processed food material or abnormal metabolites due to hypofunctioning of agni. Can accumulate in the gi tract, and spread into other tissues / organs; it is a root cause of numerous diseases. It can mix with the bodily humors, and can cause them to be vitiated.

Amaya: disease in general; specifically diseases originating from disturbances of digestion, such as indigestion, constipation, dyspepsia. Most diseases are considered the result of putting stress on the digestive process.

Causes of ama: indigestion, overeating, irregular diet habits, cold foods, improper treatments (purgation, emesis, oleation), suppression of natural urges (excess fasting, bowel movements), eating substances which cause inflammation.

Local manifestations: diseases related to gi tract.

Mild and continuous ama formation: gastritis, malabsorption syndromes, etc.

Acute and toxic forms: food poisoning.

Ama mixes with the three doshas.

If it mixes with kapha it becomes toxic water, with symptoms of heavy congestion of thick phlegm, difficult expectoration, and indigestion (mucus conditions such as bronchitis, edemas).

With pitta it becomes toxic fire, with hyperacidity, diarrhea, toxic blood (amoebic dysentery, ulcers, boils - pus with infection).

With vata it causes indigestion, gas, bloating (ama vata - ama circulating in the blood which accumulates in the joints; ie arthritis).

One of the best ways to identify the presence of ama is by the presence of thick tongue fur, bad breath, strong body odor.

Foods which increase ama : heavy, greasy, stale, starchy, hard to digest, sweet.

Most sweet fruits increase ama.

Wheat increases allergies in ama cases.

Beans cause gas and increase of ama.

Nuts increase ama, especially when roasted and salted.

White sugar is the most ama producing of all foods.

Cold drinks, especially with ice, increase ama.

All dairy products increase ama.

Refined white flours.

Meats.

Ama diseases are widespread in modern society. Primary causes: heavy sweets and dairy in childhood, leading to infectious kapha / ama conditions, which are treated with antibiotics; damage to the nutritional quality of the food chain; non-nutritious fast foods and junk foods.

Antibiotics cause ama. Their bitter and cold nature weaken agni, lead to malabsorption syndromes; their toxicity and pungency inflame pitta. Derived from lower molds and fungi; contribute to overgrowth of candida, yeasts, and unhealthy bacteria.

Typical side effects of antibiotics are vaginal yeast, repeated infections, lowered immunity, chronic digestive weakness with constipation or diarrhea, gas and bloating, sensitivity to sugars and yeast foods, etc. Candida is a classic example of ama.

If ama is excessive, it should be purified before attempting other types of treatment, especially tonification and rejuvenation with nutritive herbs and foods. Removal of ama will naturally enhance vitality and bring about rejuvenation.

Ama is cleansed through fasting, eating lightly, detoxification diets which emphasize easily digestible foods, fragrant and aromatic herbs and spices, and avoiding amagenic foods.

Ama is the opposite of ojas.

## A Brief History Of Antibiotics And Bacteria

Pre-antibiotic era: Molds and fungi used for thousands of years in classical medicines.

1800's: Early research on antibiotic effects of molds.

1928: Penicillin discovered by Alexander Fleming.

1932: First sulfonamide (Prontosil) synthesized.

Early 30's: Sulfa drugs used in Japan for shigella dysentery.

1937: Sulfa drugs used in the US for bladder infections.

1938: only 7 insect species resistant to pesticides.

Late 30's: Sulfa resistant shigella appears in Japan.

Early 40's: Clinical use of penicillin begins.

1941: 10,000 units of penicillin for four days capable of curing respiratory streptococcus: most infections due to strep A.

1945: Cephalosporium (source of cephalosporins) isolated.

Mid 40's: Penicillin in widespread use.

1947: Chloromycetes (source of chloramphenicol) isolated.

50's: Sulfa drugs ineffective against shigella.

1950: Few if any strains of staphylococci resistant to antibiotics in widespread use.

1951: British hospitals find staph triply resistant to streptomycin, penicillin, and tetracycline after only brief use.

1952: Shigella discovered resistant to three antibiotics (streptomycin, tetracycline, sulfanilamide).

Mid 50's: almost every postoperative staph infection in England and Japan due to triply resistant strains.

Mid 50's: First reports of infections from previously unrecognized classes of bacteria (E. coli, pseudomonas pyocyanea, proteus).

1959: Genetic resistance shown transferable from Shigella to E. Coli.

60's: E. coli, pseudomonas pyocyanea, and proteus species become major new sources of hospital acquired infections.

1960: 80% of staph strains show resistance to penicillin, tetracycline, chloramphenicol.

Early 60's: increasingly virulent strains of staph resistant to all second generation antibiotics then in use proliferating in hospitals.

Shigella becomes first diarrheal bacterium to develop resistance to penicillin.

Introduction of second generation of penicillins (methicillin).

1963: Methicillin resistant staph becomes a prevalent problem in US hospitals.

Mid 60's: 80 - 90% of shigella multiply resistant in Japan.

Resistance to streptomycin and tetracycline reported in one third of pathogenic E. coli isolated in Chicago hospital.

Klebsiella resistance to ampicillin increases 50%, to cephalosporins 33%.

Resistance in pseudomonas to streptomycin and amakacin increases to 50%; three fourths are resistant to tetracycline and chloramphenicol.

1966: Reports of antibiotic resistant organisms recorded in every major US city.

1968: 100% of salmonella typhimurium resistant to one or more; 27% resistant to eight; 10% resistant to 9 in Iran.

Article in Journal of the American Medical Association warns of ignoring multiple antibiotic resistance.

1969: First outbreak of pathogenic (invasive) and antibiotic resistant (to four drugs) salmonella wien in Algeria.

Gentamicin introduced.

1970's: Hemophilus influenzae becomes resistant to ampicillin.

Rheumatic fever caused by pneumococcus almost non-existent in the Western world.

Gonorrhea acquires widespread penicillin resistance.

High doses of antibiotics routinely given to chickens found to cause resistant strains of salmonella in the meat and eggs.

Escherichia coli becomes increasingly resistant to antibiotics.

Early 70's: Resistance to gentamicin triples.

Erythromycin and penicillin universally effective against streptococcus.

1970: S. Wein outbreaks reported in France.



70% of shigella reported multiply resistant in England.

Mid 70's: Resistance to gentamicin in klebsiella, proteus, and pseudomonas doubles and triples.  
Half of gram-negative bacteria found capable of transferring resistance to other species of bacteria.  
Broad spectrum antibiotics routinely used for any condition suspected of being infectious.

1975: 78% of shigella resistant to one or more in New Zealand.

1976 First serious outbreak of gentamycin and methicillin resistant staph reported.  
Second outbreak reported in Georgia hospital involving sixteen infants contaminated by surgical staff.

1977: S. wein outbreaks with identical patterns of resistance reported in Yugoslavia, Iraq, India, Italy, Austria, England, Ireland.  
93% of staphylococcus resistant to one or more in Japan.  
Outbreak of pneumococcus 19A, resistant to 13 antibiotics.  
From 1975 to 1977 the number of resistant strains of haemophilus rises 35%

Late 70's: Strep B becomes most serious life threatening disease in neonatal units; 75% of all infections in babies under two months are fatal.

Early 80's: staph becomes resistant to methicillin and its relatives.

1980's: Methicillin resistant staph becomes increasingly common.  
Streptococcus pneumoniae (pneumococcus) causes increased ear infections in children.  
Continued increase of resistant strains of E. coli.

1980: 70% of shigella multiply resistant in Australia.  
Hospitals reporting overall resistance of Hemophilus up to 38%.  
Center For Disease Control admits that resistant Hemophilus is a serious problem.

1981: Salmonella typhimurium inherits resistance plasmid from S. Wein.

1981: Appearance of staph with enzymes capable of degrading the newest cephalosporins (Cephadrine, Cephalexin, Cefaclor).

1982: Penicillin can only control 10% of varieties of staph that it used to kill regularly.  
Appearance of virulent new strain of E. coli (O157:H7) due to contaminated meat.

1983: Appearance of shigella resistant to 7 antibiotics appears in US.  
Low level antibiotic use in livestock shown to cause bacterial mutation and emergence of subsequent diseases in humans.  
Outbreak of antibiotic resistant salmonella traced to hamburger which had been raised with chlortetracycline.

1984: 447 species of pesticide resistant insects, including most of the world's major pests.

Mid 80's: rheumatic fever increases eightyfold.  
Strains of gonorrhea become resistant to spectinomycin and tetracycline.

1987: First outbreaks of chlorine resistant cryptosporidium in public water supplies.

Late 80's: Return of mutant killer strain of staph A.

1988: Appearance of vancomycin resistant strains of enterococcus faecium and faecalis.

1989: Vancomycin resistant strains of enterococcus begin emerging in New York hospitals.

1990's: Appearance of pneumococcus strains resistant to almost all antibiotics.

1990: Strains of staph can resist up to thirty one drugs.  
One third of all ear infections in young children due to pneumococcus; half involve strains resistant to penicillins.  
Gonorrhea successfully treated with quinolone family of antibiotics.  
80% of shigella infections involve strains resistant to antibiotics; half of all shigella infections resistant to four or more antibiotics.  
Fluoroquinolone used for chicken and eggs found to create campylobactr strains resistant to medications in humans.  
CDC states that penicillin and tetracycline should be abandoned as a treatment for gonorrhea because of the sharp rise in resistant bacteria.

1992: Treatment of gonorrhea with quinolone becomes increasingly less effective.  
15% of all staph methicillin resistant, 40% of hospital strains resistant; outbreaks reported worldwide.  
Strep A requires 24 million units of penicillin per day, and may still be lethal.  
Spanish physicians report that half of all uncooked chicken in the country contained fluoroquinolone resistant strains of campylobactr.

Nearly every common pathogenic bacteria species has developed some degree of clinically significant drug resistance.

Salmonella becomes untreatable with antibiotics.

500 people become seriously ill from Jack-in-the-box hamburger contaminated with e. coli 0157:H7; fifty develop hemorrhagic syndrome, four children die.

400,000 residents of Milwaukee become ill from chlorine resistant cryptosporidium

Chlorine resistant e. coli 0157:H7 found in water systems of New York City.

Article in Science magazine states: "...doctors in hospitals and clinics around the world are losing the battle against an onslaught of new drug-resistant bacterial infections, including staph, pneumonia, strep, tuberculosis, dysentery, and other diseases that are costly and difficult, if not impossible, to treat."

CDC issues the warning: "Unless currently effective antimicrobial agents can be successfully preserved and the transmission of drug resistant organisms curtailed, the post antimicrobial era may be rapidly approaching..."

1993: Vancomycin remains only antibiotic capable of treating certain staph strains.

1994: Vancomycin (last resort antibiotic).

1999: Vancomycin resistant strains appear.

## Interpretation Of Possible Side-Effects of Antibiotics According To TCM and Ayurveda

Based on adverse reactions listed in PDR for: Bactrim (trimethoprim, sulfamethoxazole; Flagyl (Metronidazole); Erythromycin; Amoxicillin (Penicillin); Keflex, (Cephalosporin); Ceclor, (Cephalosporin); Achromycin, (Tetracycline)

**Extreme systemic aggravation of pitta and vata; heat toxins attacking organs and tissues:** anaphylaxis, drug fever, SLE (lupus), anaphylactoid purpura, Stevens-Johnson syndrome, generalized allergic reactions.

**Pitta spreading through the blood and affecting the skin; wind heat toxin of the blood:** erythema multiforme, exfoliative dermatitis, pruritis, urticaria, rash, skin eruptions, erythematous maculopapular rashes, toxic epidermal necrolysis.

**Pitta increasing in the liver; damp heat of the liver and gallbladder:** hepatitis, cholestatic jaundice, hepatic necrosis, hepatic toxicity, elevation of serum transaminase and bilirubin, abnormal liver function, irritability, headache, photosensitivity, conjunctival and scleral injection.

**Pitta spreading into the kidneys and bladder; dampness and heat of the kidneys and bladder:** renal failure, interstitial nephritis, renal toxicity, BUN and serum creatinine elevation, toxic nephrosis with oliguria and anuria, crystalluria, darkened urine, dysuria, cystitis, polyuria, incontinence.

**Pitta damaging the spleen, bone marrow, and blood, deficiency of spleen chi:** anemia, aplastic anemia, hemolytic anemia, megaloplastic anemia, leukopenia, neutropenia, hypoprothrombinemia, methemoglobinemia, eosinophilia, thrombocytopenia, eosinophilia, agranulocytosis.

**Rakta pitta; pitta attacking the platelets, spleen unable to hold blood:** thrombocytopenic purpura  
Pitta attacking the colon; damp heat toxin affecting the bowels; pseudomembranous enterocolitis, diarrhea, proctitis, anal pruritis.

**Pitta attacking the stomach; stomach fire:** stomatitis, pancreatitis, glossitis, gastritis, dysphagia, metallic taste, furry tongue.

**Pitta inflaming the heart and blood vessels; heart fire:** pericarditis, allergic myocarditis, periarteritis nodosa.

**Pitta and kapha affecting the reproductive channels; dampness and heat affecting the liver channel:** genital pruritis, genital moiliasis, vaginitis, vaginal discharge, vaginal candida, inflammatory lesions in the anogenital region.

**Pitta and vata attacking the nerves; liver wind and heat:** peripheral neuritis, peripheral neuropathy, ataxia, paresthesias.

**Pitta and vata attacking the brain; liver fire and wind rising to the brain:** aseptic meningitis, convulsions, convulsive seizures, bulging fontanelles, intracranial hypertension, dizziness, visual disturbances.

**Vata attacking the brain, liver wind rising:** vertigo, dizziness, tinnitus, incoordination, headache

**Disturbance of prana vata affecting consciousness; wind and fire attacking the heart and disturbing the spirit:** syncope, hallucinations, confusion, seizures, depression, apathy, nervousness, insomnia, hyperactivity, agitation, behavioural changes.

**Disturbance of heart prana and blood; heart chi and blood stagnation and weakness:** cardiac arrhythmias, ventricular tachycardia, chest pain, dizziness, palpitations, angioedema, pulmonary infiltrates, edema of face and limbs, dyspnea, vasodilation.

**Damage to digestive vata and agni; damage of spleen and stomach chi:** nausea, vomiting, abdominal discomfort, anorexia, dyspepsia.

**Vata, pitta, and ama affecting the joints and muscles; wind and heat blocking meridians:** arthritis, myalgia, arthralgia, joint disorders.

**Depletion of prana and ojas; depletion of chi and jing:** weakness, fatigue, decrease of libido, asthenia.

## Common patterns of iatrogenic illness associated with antibiotic use

### Cycle #1 Vaccines and allergies

Childhood vaccines  
I  
Pitta toxins attack liver, spleen, and brain  
I  
Constitutional transformation  
I  
Onset of allergic constitution  
I  
Development of food and environmental sensitivities  
I  
Upper respiratory / ear infections  
I  
Antibiotics  
I  
Further development of allergic constitution

### Cycle #2 Development of asthma and steroid dependency

Continuation of cycle #1  
(Vaccines, antibiotics, kaphagenic foods)  
I  
Allergic phlegmatic constitution  
I  
Childhood colds and flus  
I  
Repeated antibiotics  
I  
Increasing allergic sensitivities of the respiratory system  
I  
Onset of asthmatic breathing  
I  
Steroid inhalers  
I  
Increasing allergic constitution  
I  
Prednisone  
I  
Declining adrenal function  
I  
Steroid dependency



**Cycle #3**  
**Viral infections and CFS**

Vaccinations  
I  
Increased immunological burden  
I  
Weakened and hypersensitive immune system  
I  
Repeated colds and flus  
I  
Repeated antibiotics  
I  
“Hiding fevers”  
(Dormant viral and bacterial toxins)  
I  
Lymphatic stagnation  
I  
Increased susceptibility to multiple opportunistic viral infections  
(Mono, EBV, Herpes, etc)  
I  
Chronic Fatigue Syndrome

**Cycle #4**  
**Sugar addiction, candida, and amalgam fillings**

Excess sweets and sugars in childhood diet  
I  
Phlegmatic obstruction of mucus membranes  
I  
Opportunistic infections  
I  
Antibiotics  
I  
Candidiasis  
I  
Sugar addiction  
I  
Antibiotic damage to healthy bacterial flora of mouth  
Loss of bone and tooth minerals  
I  
Dental cavities  
I  
Amalgam fillings  
I  
Mercuric enhancement of pathogenic bacteria and yeast  
I  
Candida syndrome with mercury toxicity

**Cycle #5**  
**Menstrual / hormonal disorders**

Repeated antibiotic use in childhood  
I  
Damage to intestinal bacterial ecology  
I  
Changes within hormone precursor production by bacteria  
I  
Liver toxicity  
I  
Hormonal disturbances  
I  
Early onset of puberty  
I  
Menstrual irregularities  
I  
Birth control pills  
I  
Liver stagnation syndromes with candidiasis

## About Parasites

Parasites are both an overly exaggerated and frequently overlooked source of digestive problems.

Liver flukes are not the cause of all diseases. However, they are very common in some parts of the world, and can cause symptoms that mimic other diseases, such as pulmonary TB.

Positive identification of parasites through stool samples and/or blood tests is necessary to determine course of treatment.

Multiple stool samples are frequently necessary to find some types of parasites.

Loose stools should be induced to get fecal material from higher in the intestinal tract. Some organisms such as giardia attach themselves to the upper small intestine, and are not easily found. Herbal laxatives can be used in place of saline solutions.

Some parasites, such as amoebas, can become isolated in organ systems and produce no visible diagnostic evidence.

Always suspect parasites in digestive problems after out-of-country travel. Always test for parasites even without symptoms after travel to countries where sanitation is poor.

Many inflammatory bowel conditions, such as IBS, colitis, and Crohn's disease, appear to have started with an initial intestinal infection of a bacterial or parasitic nature. The progression of the illness in some cases is as follows:

1. Initial infection with acute "damp heat" symptoms
2. Treatment of a known or unknown pathogen with antibiotics or antiparasitics
3. Alleviation of acute symptoms
4. Pathogens may be either eliminated or become dormant
5. Continuation of low-grade chronic symptoms
6. Repeated courses of medications may be given, even in the absence of confirmed pathogens
7. Gradual onset of IBS or colitis
8. Progressive deterioration with increasing involvement of medications.

The above scenario is understood and explained by Ayurvedic doctors as follows:

1. The initial infection produces a humoral reaction within the digestive tract (aggravation of pitta and ama).
2. Medications attack and remove the pathogens, but create their own toxicity and further weaken gut immunity (weakening of agni).
3. Initial inflammatory response, in conjunction with disturbance to gut flora and secondary side effects of medications, continue at low-grade levels (humoral disturbance pattern continues even after elimination of pathogens).
4. If humoral balance is not restored, it progresses to deeper levels.

In summary: parasites cause a pattern of humoral disruption, which persists after their elimination; this imbalance (usually aggravated pitta and increased ama) must be further treated to restore digestive health, i.e. elimination of "germs" is only the first stage of treatment.

Ayurveda places greater emphasis on humoral balance than on the presence of pathogens. This is due to the observation that:

1. If the body's humoral balance is strong, pathogens either do not enter the body, or if they do, the body can tolerate their presence.
2. If the humoral balance is disturbed, it will cause symptoms, whether there are pathogens present or not.

Most modern alternative and natural methods of treating parasites are insufficient, for two reasons:

1. Potency and quality of most products is deficient
2. Many important antiparasitic herbs are no longer available
3. Practitioners are poorly trained in the correct protocols
4. Products are used indiscriminately and symptomatically, without specific diagnosis of individual factors (constitution, digestive strength, condition of agni and ama, etc.)

Many so-called anti-parasite formulas produce one of two reactions:

1. General benefit. This is probably due to the formula having a positive humoral effect (i.e. aromatic herbs dispersing phlegm), and not to the actual removal of pathogens.
2. Aggravation of digestive symptoms. This is probably due to the formula not being used according to individual constitutional diagnosis (i.e. too many spicy herbs in an inflammatory condition)

In the past, indigenous and traditional medical systems dealt with parasitic infections more effectively; herbal medicines were highly potent, and practitioners routinely treated parasitic problems. In many cultures, seasonal de-worming and other purgative ceremonies were a regular part of life.

The best protocol for parasitic infections is:

1. Obtain positive diagnosis of pathogen
2. Refer patient to holistic MD who is familiar with using least toxic antimicrobial drugs
3. Use herbs and diet as a supportive adjunct treatment during course of medication
4. Use herbs and diet as primary treatment for restoration of humoral balance after medication
5. Retest periodically for presence of pathogens

## **Dentistry and Digestive Health**

Dental materials and infections in the mouth are the source of numerous systemic diseases, chronic degenerative conditions, and digestive disturbances.

Focal infections are localized and frequently hidden infections in teeth, under and around teeth, and in the bone.

Bacterial infections in teeth, gums, under fillings, and in the jaw create can chronic systemic poisoning through drainage of toxins into the gi tract.

Root canals frequently become the source of focal infections.

Focal infections can create chronic sinus problems, headaches, allergies, weakened immunity, frequent colds and flus, hyperacidity, malabsorption, and chronic digestive disorders, as well as contribute to degenerative diseases such as cancer. Conversely, degenerative diseases accelerate and aggravate focal infections.

Ayurvedic medicine and modern research describe a meridian connection between each tooth and a corresponding organ system.

The stomach meridian shows one of the major pathways that toxins follow as they drain from the mouth into the gut.

There is one mile of microtubules inside each tooth. It is extremely difficult to completely clean a dental cavity before placing fillings. It is therefore common for infection to develop and hide under fillings. This is released into the system as pus when the old fillings are removed.

There is a strong link between repeated antibiotic use, dental decay, mercury fillings, candida problems and digestive disorders, chronic fatigue, and sugar metabolism problems.

Antibiotics promote tooth decay by destroying the healthy flora of the mouth. Pathogenic bacteria of the gi tract utilize mercury draining from fillings to become more resistant to antibiotics. Mercury from fillings is know to promote the growth of candida in the gut. Candida in turn causes sugar cravings and sugar metabolism disorders, which leads to more fillings.

100,000 pounds of mercury per year is placed in people's mouths in the US alone. Over the last 15 years, 2,000,000 pounds of mercury has been released into the environment from dental sources, including improper disposal, fecal excretion, and cremations.

Immunological reactions to dental materials can occur both immediately after dental work and over a long period. Toxic dental materials include binders, coloring agents, metals, plastics, etc.

A complete and detailed patient intake should include dental history. Frequently, a pattern of systemic symptoms following dental procedures can be found.



## **Principles of Biological Dentistry**

### **Biological dentistry**

An emerging new field which has been developing in Germany over the last 40 years

Taught and practiced in the US, Europe, Australia, and Asia

### **Relationship between mouth and body**

Dental problems, materials, therapies, and procedures can affect the entire body negatively

Dental infections and dental disturbances can cause:

Pain and dysfunction throughout the body; limited motion; loose tendons, ligaments, and muscles; structural and physiological dysfunction; impairment of organs and glands

Many acute, chronic, and degenerative conditions are benefited and cured by resolving dental problems

European researchers estimate that as much as half of all chronic degenerative illness can be traced to dental problems and traditional dental treatment techniques.

### **Advanced diagnostic methods**

Thermographic, physiologic, electronic:

Blood tests, applied kinesiology, electro-acupuncture biofeedback

Better diagnostic capability to locate hiding infections

### **Integrated therapies**

Utilizes traditional healing modalities (homeopathy, acupuncture, nutrition, physical therapy, herbology), as well as modern science (neural therapy, hematology, immunology, electro-acupuncture).

### **Working with the immune system**

Biological testing of immunologic reactions to materials before they are used

Supporting immune function before, during, and after treatment

Using materials and procedures that will not trigger immune sensitivities

### **Reducing iatrogenic stress**

Providing dental treatments that are less harmful and toxic

Remove the stress burden that conventional dental treatment may induce

### **Detoxification**

Detoxification of metallic poisons after treatment

Toxins stored in nerves, organs, muscles, connective tissues, fat

Chelation

Traditional therapeutics

### **Bio-compatibility of dental materials**

Testing of individual immune reactions and compatibility to materials

Clifford Materials Reactivity Test

Muscle testing

Electro-acupuncture feedback

Use of relatively nontoxic materials

**Focal infections**

Chronic and hiding infections of the teeth, gums, and jaw  
Areas of necrosis and chronic inflammation  
Impact of focal infections on entire body

**Root Canals**

Sites of chronic infections

**Cavitations**

NICO's - Neuralgia Inducing Cavitational Osteonecrosis

**Metal toxicity**

Removing mercury amalgams  
Replacing with less toxic materials

**Oral Galvanism**

Electrical currents generated by the disassociation of dissimilar metals in an electrolyte media (the human body).

**Temporomandibular Joint Syndrome (TMJ)****Acupuncture meridians**

Problems with specific teeth related to the acupuncture meridians and the autonomic nervous system

**Conservation of all possible tooth structure**

Avoiding loss of viable teeth during preparation for crowns and bridges

## Biochemistry of Lactose Digestion

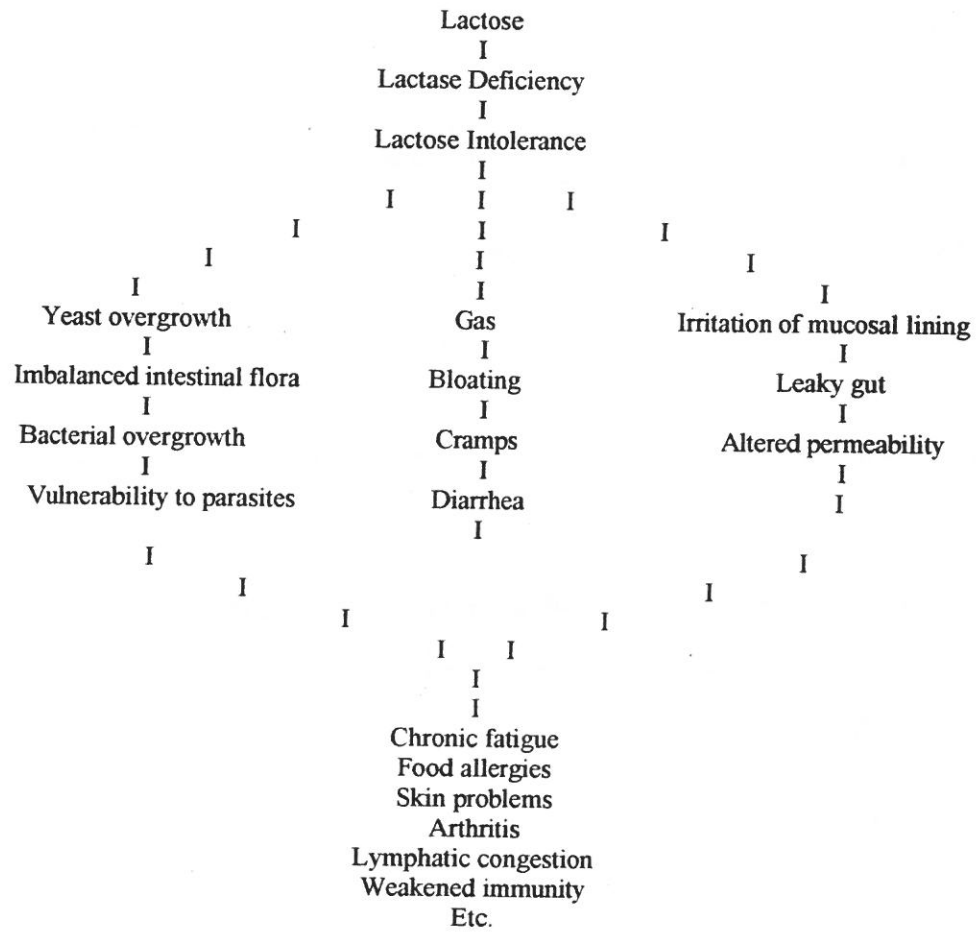
### Normal Digestion

Lactose Ingested  
I  
I  
Travels to Small Intestine  
I  
I  
Lactase Enzymes Digest Lactose  
Into Glucose And Galactose  
I  
I  
I  
Glucose And Galactose Are  
Absorbed In The Small Intestine  
I  
I  
Normal Digestion Completed

### Abnormal Digestion

Lactose Ingested  
I  
I  
Travels to Small Intestine  
I  
I  
Insufficient Lactase Causes  
Lactose To Pass Undigested  
To Large Intestine  
I  
I  
I  
Bacteria Ferment Lactose  
I  
I  
I  
Fermentation Produces Hydrogen  
And Methane  
I  
Gas, Bloating, Diarrhea  
I  
Absorption of Fermentation  
Gases Into Blood  
I  
Systemic Symptoms

## Systemic Effects Of Lactose Intolerance



**Who Needs Milk?**

Organic, high quality

I  
I  
I  
I  
I

Commercial

I  
I

Should be avoided by all

Lactose tolerant

I  
I  
I  
I  
I  
I

Lactose intolerant

I  
I  
Avoid

Body types---Vata

I  
I

Sour, aromatic

I

(buttermilk, kefir, warm & spiced)

I

I-----Health condition

I

Pitta

I  
I

Sweet

I

(milk, cream cheese, cottage cheese)

I

Kapha

I  
I

Soy milk

No excess phlegm

I  
I

In appropriate time, amount,  
and proper food combining

Excess phlegm

I  
I

Avoid



## **Improving Digestion of Dairy Products**

Many people have chronic symptoms caused by dairy intolerance with both simple and complex allergic and mucogenic manifestations, which are not attributed to dairy consumption. Without removing dairy from the diet for a period of time, and then reintroducing it, a person doesn't recognize its effects. For those who find nutritional and constitutional benefits from consuming dairy, or simply wish to include dairy in their diet, the following suggestions can help reduce dairy's amagenic tendency.

The best way to avoid problems stemming from dairy in the diet is to avoid it. The next best way is to consume only high quality organic products, in small amounts, properly prepared with spices.

Dosage and frequency of consumed dairy products determines a person's level of ama production. Some people can easily tolerate small amounts of dairy infrequently, but don't do well with regular intake.

Whole, raw, organic milk products digest more completely than pasteurized commercial milk products. Pasteurization destroys the enzymatic agni of the milk, making it more amagenic. Commercial dairy products are contaminated with antibiotics, pesticides, hormones (BgH), etc.

Cold milk is more amagenic than warm milk.

Spices frequently used to enhance the digestibility of dairy: cardamon, ginger, turmeric, clover, black pepper.

High quality homemade yogurt with live cultures is significantly more digestible, beneficial, and less amagenic than most commercial yogurts.

Cheese is the hardest of all dairy products to digest; commercial cheeses used in fast foods are indigestible. Small amounts of organic cheese or high quality European cheeses are tolerated by those with strong agni. Soy cheese is relatively indigestible; almond cheese is easier to digest.

Ice cream is the most mucous-forming and lymph-congesting of the dairy products. Frozen soy creams damage agni also.

## Ojas

“Vigor”, “vitality,” “bodily strength.”

Most refined essence of nutrients. The final level of refinement of the seven tissue levels, especially the reproductive fluids. It is the essence of all the dhatus (chyle, blood, muscle, fat, bone, marrow, semen). Similar in nature to kapha.

As honey is collected from flowers, ojas is collected from the tissues. Its nature is nectar. It is white in color, with a touch of red and yellow, since it is made of sun and moon. Its predominant qualities are soft, cool, tranquil, mobile. Ojas smells like fresh rice ghee, and is sweet to the taste.

Ojas pervades the entire body; its principle seat is the heart. Its flow starts from the heart and permeates every part of the body.

The heart is said to contain 8 drops of pure ojas, which support the strength of the whole body. Each of the seven drops correspond to one of the tissues; the eighth corresponds to the super-refined essence of the reproductive fluids. The eight drops in the heart are called the “lifegiving ojas.” It is the superior ojas.

The total amount of circulating ojas is said to be a half anguli, one handful. If the circulating ojas becomes excessive, it produces diseases. Diabetes is a disease of excess ojas.

It is associated with the luminosity of the body. It is strongly connected to semen, reproductive vitality, and the immune system.

Tibetan medicine describes ojas as ‘kua’ – sap, or the essence of slowly boiled milk. It is said to have its physical aspect in the semen, stored spiritually in the heart, and shines from the eyes and complexion.

A source fluid underlying all tissue functions. It gives stability and support to the body. Gives the body warmth and supports its activities. Supports functioning of the sense organs, formation and growth of the flesh, physical strength, and nourishment.

Ojas prevents decay and degeneration of the body, and protects against diseases. Ojas decreases with age; as it decreases aging increases. Disease manifests where ojas is weak. When ojas is exhausted, life ends.

It maintains inborn immunity, acquired immunity, and induces immunity. Every organ produces ojas as its own immune system.

Ojas is rich in albumin and globulins, and is high proteinous in nature. Related to the Chinese concepts of Jing.

Depleted by excess physical work or exercise; emotional strains, especially worry and anxiety; chronic diseases; stress; traveling; overwork; over-exposure to the elements; environmental pollution; devitalized food, overstimulation of the senses and mind.

Hot and spicy foods dry ojas; non-nutritious foods lead to poor quality ojas.

Desire and attachment depletes ojas. Ojas is lost through excess sexual activity and sexual fantasies.

Decreased ojas causes chronic degenerative diseases, infections, and neurological disorders. Cancer, AIDS, chronic fatigue, mercury toxicity, EBV, chronic hepatitis. Diabetes is considered a disease of excess unrefined ojas.

Ojas increasing foods are dairy products, especially milk and ghee; natural sugars; seeds and nuts, especially almonds and black sesame; whole grains, especially rice; root vegetables; sesame oil.

Ojas herbs are sweet and nutritive. Ginseng, codonopsis, dong quai, cordiceps, lotus seed, ashwagandha, asparagus root. Chavanprash: based on amla. **Royal jelly.**

Massage with oil increases ojas.

The deepest levels of rejuvenation of ojas come from within, rather than external sources. Contentment, patience, love, equanimity increase ojas. Deep sleep and meditation develop ojas.

The function of ojas within the mind is clarity. Ojas makes the mind happy. Sattvic mind glows with the luminosity of ojas.

## **The Seven Dhatus and Ahamkara** (Tissue Levels and Sense of Self)

**Dhatu:** "that which gives firmness." The body's tissues.

**Ahamkara:** "sense of "I-ness." The ego.

The seven tissue levels represent seven stages of nourishing the ahamkara. Each dhatu confirms ahamkara's self identity with the body. Immunity is based on the integration of the personality into the body. The sense of self is derived from the condition of the tissues. Healthy tissues produce a sense of well being; inadequate nutrition and excess waste in any tissue level produces sense of dissatisfaction within consciousness.

**Rasa**

"Sap" or "juice." Tissue fluids, chyle, lymph, blood plasma.

Accessory tissues: breast milk, menstrual blood.

Waste: mucus.

Function: nourishment. The sense of satisfaction felt when nourishment enters the body. When rasa is disturbed it leads to lack of self confidence, lack of desire for food, lack of enjoyment in living.

**Rakta**

Blood. Red blood cells.

Accessory tissues: blood vessels, tendons.

Waste: Bile.

Function: invigoration.

**Mamsa**

Muscle. Skeletal muscle.

Accessory tissues: ligaments, skin.

Wastes: those that accumulate in body orifices.

Function: "plastering" of the skeleton. The barrier between inner and outer worlds. Sense of security.

**Medha**

Fat. Fat in limbs and torso.

Accessory tissue: omentum.

Waste: sweat.

Function: lubrication. Bonding, security, love, providing warmth.

**Asthi**

Bone.

Accessory tissue: teeth.

Waste: hair, beard, nails.

Function: support. Ability to move, ability of the mind to express itself through movement. Stabilizes internal strength, ability to project the personality outward.

**Majja**

Marrow. Bone marrow, brain, spinal cord.

Accessory tissue: head hair.

Waste: lachrymal secretions.

Function: "Filling" the bones. Fills the mind and personality with substance. Energy storage. Gives clarity and strength to the spiritual luminosity of the eyes.

**Shukra**

Reproductive fluids.

Accessory tissue: none.

Waste: none.

Function: reproduction, production of ojas. The matrix of creativity in the outer world. That which gives shape to new forms. Weakness of creativity.

## **Basic Healing Diet**

### **Percentages:**

50% of diet should be vegetables and fruits; of this, 75% should be dark greens, root vegetables, roots (potatoes, sweet potatoes, yams, etc), squashes, medicinal vegetables, medicinal fungi, and aromatic culinary herbs.

25% of diet should be whole grains.

25% of diet should be proteins. Of this, at least 50% should come from plant sources.

### **Quality:**

Fresh and organic

## **Vegetables**

### **Dark green vegetables:**

Kale, broccoli, chard, spinach, bok choy, etc.

Use generously, steamed, in soups, raw, juiced.

### **Root vegetables:**

Carrots, beets, sweet potatoes, yams, etc.

Use generously, baked, boiled, steamed.

### **Squashes:**

Zucchini, acorn, spaghetti, kabocha, etc

### **Medicinal vegetables:**

Parsley, cilantro, fennel greens, dandelion greens, arugula, burdock root, watercress

Strong blood and liver cleansing functions. Use generously in soups, steamed with other vegetables.

Juiced:  $\frac{1}{4}$  cup juice of any combination of the above, with  $\frac{3}{4}$  cup milder juice, such as carrot, celery, cucumber. Drink slowly.

Use watercress sparingly, as it is spicy hot. Always use it cooked, since it can carry bacteria from being grown in water.

### **Aromatic culinary herbs:**

Oregano, thyme, marjoram, sage, basil, tarragon, rosemary, bay, etc.

Strong antibacterial and antiviral properties. Help increase resistance of mucous membranes to external pathogens. Excellent for digestion.

Use generously, in fresh form. Steam lightly at the end of preparing soups, steamed vegetables, pastas, congee, kichari.

Can be used to make aromatic tea: one handful fresh herbs, chopped fine, steeped in 2 – 4 cups hot water, with lid. Take  $\frac{1}{2}$  cup 2 – 3 times per day.

### **Fruits:**

Avoid fruit juices, especially cold, when there is mucus congestion.

Use fruits and fruit juices mostly during warm weather, when there is thirst and dehydration.

Use fruits mostly in morning, in hot cereals and congees. Especially good are dark fruits: cherries, berries, raisins, figs, prunes, etc.



## **Grains**

Amaranth, quinoa, kamut, all types of rice (wild, brown, basmati, sweet, etc), teff  
Use as whole grain dishes, hot cereals, pastas, breads.

### **Grain preparations:**

Congee (gruel): one cup grain, six cups water, simmer with lid on low heat 1 – 2 hours. All grains can be used, individually or in combination; most easily digestible is white basmati rice.

Sweet congee (breakfast): add dry or fresh fruits (other than citrus or melons), nuts (walnuts, almonds, pine nuts), honey, ghee, milk, ginger

Vegetable congee (lunch and dinner): add fresh vegetables, including dark green leafy, root vegetables, aromatic herbs, ginger, seaweed

Kichari: half and half grain and lentil, prepared same as congee. Classic recipe is basmati rice with yellow, red, or green (mung) dahl.

### **Proteins:**

Plant based: tofu, tempeh, seitan, kichari, nuts, seeds

Animal based: Use meats only as needed for strengthening purposes. Use organic whenever possible. Be well-educated about dangers of GMO and mercury toxicity in fish.

### **Dairy:**

Use only as needed for strengthening. Use only organic. Avoid if lactose intolerant, or if mucus is excessive.

Ghee

### **Oils:**

Fresh (unheated) olive, flax

### **Sweeteners:**

Honey, maple syrup

## Congee (gruel)

A thin rice soup, with many health benefits. It is easy to digest and assimilate, strengthens the vitality and blood, balances the digestive organs, and promotes urination. It can be prepared with a variety of different herbal or food ingredients.

To prepare congee, use one part rice (white basmati works well), to five or six parts water. Simmer on low heat two to six hours. Stir occasionally. Crockpots work well.

For people who are very weak or seriously ill, or for supplementing mother's milk, the liquid can be strained off from the gruel, and taken alone.

### Additions:

Wheat congee: cooling, calming, sedating.

Sweet rice: strengthening to the digestive organs and chi; good for vomiting and indigestion.

Mung bean congee: cooling.

Azuki bean congee: removes dampness, good for edema, gout, retention of urine and other kidney and bladder problems.

Water chestnut congee: cooling.

Carrot congee: carminative, good for indigestion and chronic dysentery.

Spinach congee: harmonizes and moistens organs.

Celery congee: cooling and relaxing to the liver.

Leek congee: warming and strengthening, good for chronic diarrhea.

Pinenut congee: moistens heart and lungs, harmonizes large intestine, good for constipation.

Ginger congee: warms cold digestive problems, such as vomiting, indigestion.

Fennel congee: carminative.

### Other delicious and nutritious congees:

Milk and honey congee. Date, ginger, walnut, and honey congee.

Chinese medicine uses numerous herbs in congee:

Wild yam, astragalus, asparagus, codonopsis, leichi berries, jujube, dong quai, longan fruit, ginseng, etc; also organ meats.

Kichari: half and half basmati rice and dahl, prepared as congee. This is considered to be the finest nutritive and detox food in Ayurveda. It is given during cleansing treatments, and after yogic purification. It is excellent as a monodiet for a week, with ghee, to cleanse the intestinal system, increase assimilation, and as part of an elimination diet to determine causes of food reactions.

## **Constitutional Diets**

### **Vata**

For those who are thin, dry, nervous, with erratic appetite and power of digestion, tending to constipation and constipation.

Fruits: eat moderately; better if cooked or warmed. Avoid melons.

Vegetables: cooked or warm. Beets, bell peppers, carrots, cilantro, hot peppers, mustard greens, Jerusalem artichokes, okra, parsley, radish, sweet potatoes, winter squash, yams. Avoid raw vegetables, mushrooms, and lettuce.

Grains: basmati rice, brown rice, oats, wheat. Avoid dry grains, granola, corn chips.

Beans: mung. Most other beans may be difficult to digest.

Nuts and seeds: all nuts and seeds are good, especially almonds and sesame.

Oils: all oils are good, especially sesame, almond, and ghee.

Dairy: all are good, especially buttermilk and kefir.

Sweeteners: all sweeteners are good in moderation.

Condiments: all are good, including spices, salt, pickles, and vinegar.

Animal products: all are generally good.

### **Pitta**

For those who are strong, robust, with good appetite and digestion, who tend towards heat, inflammation, and acidity.

Fruit: sweet and astringent fruits are best: apples, cranberries, dates, figs, grapes, mango, melons, pears, persimmons, pineapple, plums, pomegranate, prunes. Sour fruits may cause difficulty.

Vegetables: asparagus, alfalfa sprouts, bell peppers, broccoli, cabbage, cauliflower, celery, cilantro, cucumber, green beans, lettuce, mushrooms, okra, peas, potatoes, squash. Tomatoes may cause difficulty.

Avoid hot peppers, garlic, onions, pickles, radishes.

Grains: basmati rice, oats, wheat, corn, granola.

Beans: most beans are ok, especially tofu, mung, aduki.

Nuts and seeds: Avoid in general, except sunflower and coconut.

Dairy: sweet dairy is good, especially milk, cream cheese, cottage cheese. Avoid sour dairy.

Sweeteners: most are good, except honey and molasses in excess.

Condiments: avoid most condiments and spices, salt, and vinegar. In moderation: coriander, cumin, fennel, mint, turmeric, and soy sauce.

Animal products: avoid. White chicken meat is best.

## **Kapha**

For those who are heavy, cold, with slow metabolism, low digestive fire, prone to gaining weight easily, with a tendency to excess phlegm.

**Fruit:** Most fruits should be avoided. Dry fruits as raisins and prunes are ok.

**Vegetables:** astringent and pungent vegetables are best, as alfalfa sprouts, asparagus, artichokes, beans, beets, bell peppers, broccoli, brussel sprouts, cabbage, carrots, celery, chilies, cilantro, lettuce, mushrooms, mustard greens, parsley, peas, potatoes, radish, turnips. Tomatoes, eggplant, okra, and sweet potatoes should be avoided.

**Grains:** barley, buckwheat, corn, rye. Avoid oats, wheat.

**Beans:** most are good, but avoid excess tofu.

**Nuts and seeds:** avoid most kinds, except pumpkin and sunflower.

**Oils:** only in small quantity, corn, safflower, soy, sunflower, or a little ghee.

**Dairy products:** avoid in general. Soy milk is better.

**Sweeteners:** avoid all sweets except uncooked honey.

**Condiments:** all spices are good, especially cayenne, black pepper, garlic, and ginger. Avoid salt, vinegar, and pickles.

**Animal products:** best to avoid. Chicken and eggs in small amounts.

### **Timing and amounts:**

**Vata:** can tolerate the most food; should eat more frequently in smaller amounts.

**Pitta:** should have their heavier meal in the mid day.

**Kapha:** should eat less and less often; avoid overeating.

## **Aromatic Culinary Herbs**

### **Basil**

Pungent, warm.

Stimulant, diaphoretic, febrifuge, nervine, carminative.

Colds, flus, with body aches. Lowers fevers. Cleanses colon. Benefits menstruation. Clears head and sinuses.

Assists digestion of heavy foods.

Ayurvedic: tulsi (holy basil)

### **Bay leaves**

Pungent, warm, aromatic

Stimulant, carminative.

Cleansing and antiseptic. Clear headaches, open channels. Relieves cough and congestion. Good for diarrhea.

Assist digestion of heavy, damp, sticky foods.

### **Caraway**

Pungent, warm. Stimulant, carminative.

Assists digestion of breads.

### **Cardamon**

Pungent, sweet, slightly warm, pungent.

Stimulant, stomachic, carminative.

Light, cleansing.

Stimulates spleen and pancreas. Regulates sugar and water metabolism. Prevents mucus; aids digestion of milk products. For nausea, vomiting. Promotes circulation. Opens senses.

Antidotes cold and sweet foods. Antidotes coffee.

### **Coriander**

Pungent, sweet, slightly cool.

Balances all humors. Stimulant, diaphoretic, diuretic, alterative.

Colds, flus, allergies, swollen glands. Burning urination. Decongests the liver. Good for nervous digestion and hyperacidity.

Counteracts hot foods and spices.

### **Cumin**

Pungent, warm.

Stimulant, carminative, diuretic.

Counters gas, aids digestion.

Assists digestion of heavy food. Good for abdominal pain and distention.

### **Dill**

Pungent, slightly warm.

Balanced action on the humors. Leaves cooler, seeds warmer.

Stimulant, carminative, antispasmodic, lactagogue.

Colic, cramps, diarrhea in children. Similar to fennel.

### **Fennel**

Pungent, sweet, slightly warm.

Balances the three humors. Most balanced of spices.

Stimulant, diuretic, carminative, antispasmodic, lactagogue.

Abdominal pain, gas, indigestion. Menstrual cramping. Diarrhea, vomiting, morning sickness, nausea, anorexia. Cough. Increases vision.



#### Fenugreek

Bitter, warm, pungent.

Stimulant, demulcent

Promotes longevity, strengthens nerves, aids rejuvenation. Good for allergies.

#### Ginger

Pungent, sweet, hot

Stimulant, diaphoretic, expectorant, carminative, antiemetic

Dry: stimulant, expectorant

Fresh: diaphoretic

Improves digestion and circulation. Sinus headache, arthritis. Diarrhea, constipation.

#### Hyssop

Pungent, astringent, warm.

Stimulant, diaphoretic, expectorant, astringent.

Similar to sage.

Swollen gums, sore throat, colds, cough, bronchitis, asthma.

#### Marjoram

Pungent, warm.

Stimulant, diaphoretic, expectorant.

Colds, flus, weak digestion. Promotes menstruation

#### Mustard

Pungent, hot

Stimulant, analgesic, expectorant.

Clears head and sinuses. Chronic cold and cough. Arthritis, edema. Headache, abdominal pain.

Antidotes cold and heavy foods.

#### Oregano

Pungent, warm

Stimulant, diaphoretic, carminative, analgesic, antiseptic

Colds, cough, nausea, morning sickness, dysmenorrhea. Alleviates gas, indigestion.

#### Peppermint

Pungent, cool

Balances three humors.

Stimulant, diaphoretic, carminative, analgesic.

Colds, flus, fever, sore throat. Clears head, sinus and allergic headaches, hay fever. Abdominal pain, nausea, vomiting, cramping.

#### Rosemary

Pungent, bitter, warm

Stimulant, diaphoretic. excellent emmenagogue.

Eases menstruation, good for headaches. Harmonizes heart and emotions.

#### Saffron

Pungent, slightly warm.

Balances three humors. Stimulant, aphrodisiac, emmenagogue, carminative.

Strengthens heart, improves circulation, builds blood. Dissolves blood clots, improves healing of sores and wounds. Promotes menstruation, relieves menstrual cramps. Uterine tumors. Cancer. Strengthens liver and spleen. One of the best aphrodisiacs.

### Sage

Pungent, astringent, warm.

Stimulant, diaphoretic, nervine.

Opens lungs and sinuses, clears channels.

Good for sore throat. Helps digestion of meat and dairy. Stops flow of milk in nursing mothers.

### Thyme

Pungent, warm.

Stimulant, diaphoretic, anticough, antiseptic.

Severe cough. Counters bad breath, good for indigestion and gas. Menstrual disorders.

### Turmeric

Bitter, pungent, astringent, slightly warm

Balances the three humors. Stimulant, alterative, antiseptic, analgesic.

Cleanses the blood and lymphatics, helps dissolve tumors and blood clots. Improves circulation, promotes menstruation. Swollen breasts, breast or uterine tumors, cancer. Clears and decongests the liver. Aids digestion of sugar, fats, and oils. Helpful in diabetes and hypoglycemia.

## Culinary herbs which can be grown in the continental United States

### **Apiaceae (Umbelliferae)**

Angelica; *Angelica archangelica*  
Anise; *Pimpinella anisum*  
Caraway; *Carum carvi*  
Chervil; *Anthriscus cerefolium*  
Cilantro; *Coriandrum sativum*  
Coriander; *Coriandrum sativum*  
Cumin; *Cuminum cyminum*  
Dill; *Anethum graveolens*  
Fennel; *Foeniculum vulgare*  
Lovage; *Levisticum officinale*  
Mitsuba; *Cryptotaenia japonica*  
Parsley; *Petroselinum crispum*

### **Asteraceae (Compositae)**

Chamomile; *Chamaemelum nobile* (Roman); *Chamomilla recutita* (German)  
Chicory; *Cichorium intybus*  
Chrysanthemum (edible); *Chrysanthemum coronarium*  
Costmary; *Balsamita major*  
Curry Plant; *Helichrysum angustifolium*  
Dandelion; *Taraxacum officinale*  
French Tarragon; *Artemisia dracunculus*

### **Boraginaceae**

Borage; *Borago officinalis*

### **Brassicaceae (Cruciferae)**

Arrugula; *Eruca vesicaria*  
Horseradish American; *Armoracia rusticana*  
Japanese; *Wasabia japonica*  
Mustard; *Brassica* spp.  
Black; *Brassica juncea*  
Brown; *Brassica nigra*  
White; *Sinapsis alba*  
Pepper grass or garden cress; *Lepidium sativum*  
Watercress; *Nasturtium officinale*

### **Capparaceae**

Capers; *Capparis spinosa*

### **Iridaceae**

Saffron; *Crocus sativus*

### **Lamiaceae (Labiatae)**

Anise-hyssop; *Agastache foeniculum*  
Basil; *Ocimum* spp.  
Beebalm; *Monarda* spp.  
Hyssop; *Hyssopus officinalis*  
Korean mint; *Agastache rugosa*  
Lavender; *Lavendula* spp.  
Lemon balm; *Melissa officinalis*

Mint; *Mentha* spp.  
Peppermint; *Mentha piperita*  
Native spearmint; *Mentha spicata*  
Scotch spearmint; *Mentha gracilis*  
Marjoram; *Origanum marjorana*  
Oregano; *Origanum vulgare*  
Perilla; *Perilla frutescens*  
Rosemary; *Rosmarinus officinalis*  
Sage; *Salvia officinalis*  
Savory; *Satureja hortensis* (summer savory); *Satureja montana* (winter savory)  
Thyme; *Thymus* spp.

#### **Lauraceae**

Bay Laurel; *Laurus nobilis*

#### **Liliaceae**

Chives; *Allium schoenoprasum*  
Chinese chives; *Allium tuberosum*  
Garlic; *Allium sativum*  
Kurrat; *Allium kurrat*  
Leeks; *Allium ampeloprasum*  
Shallots; *Allium cepa*

#### **Polygonaceae**

Sorrel; *Rumex acetosa*

#### **Ranunculaceae**

Black cumin; *Nigella sativa*

#### **Rosaceae**

Burnet; *Sanguisorba minor*

#### **Verbenaceae**

Lemon verbena; *Aloysia triphylla*  
Mexican oregano; *Lippia* spp.

## **Bitter**

### **Biochemical:**

The bitter taste is usually due to 'bitter principles' such as volatile oils, monoterpene iridoids, sesquiterpenes, and alkaloids (especially in the yellow colored plants; berberine alkaloids).

### **About alkaloids:**

Alkaloids are not widespread in the plant realm. They are easily isolated compounds; these were the earliest major drugs obtained from plants. One of the first was morphine from opium poppy in 1806. This method of extraction was then used for numerous other plants, such as strychnine from nux vomica, caffeine from coffee, quinine from chinchona, atropine from belladonna, cocaine from coca, and ephedrine from ephedra. These discoveries led to the development of the modern pharmaceutical companies (Merck). This work gave rise to the modern view of plant medicines. Because alkaloids are so potent, researchers developed the view that the isolated active principle is just as useful as the whole herb (or better, because it can be quantified more accurately). Secondly, these plants were not used as foods (except for coffee and coca), and their toxicity made them distinct from foods. Therefore, a separation arose between foods and drugs. This distinction was generally lacking in tradition cultures.

Alkaloids generally have a very fast action on the body, being quickly absorbed by the digestive system, and quickly eliminated. They generally affect the body through the central nervous system. Most have a biphasic action: at low doses they stimulate the heart and respiratory system, and improve their functioning. At higher doses, they become sedatives, with a calming effect, which continues as the dose increases, until toxic doses are reached. Side effects of alkaloids are commonly nausea and vomiting (which is sometimes used, as in ipecac or lobelia). Some alkaloids are relatively nontoxic, and others are highly toxic.

### **Effects of alkaloids:**

Cholagogue: stimulate bile secretion

Antibacterial: strong antibacterial effects. Alkaloids have a wide range of antibacterial effectiveness; however, resistance can develop to isolated alkaloids, as with antibiotics, so it is best to use the whole plant.

Fluid detoxifying: promote elimination of uric acid (responsible for some pain conditions in the body, and can create gout if it accumulates).

Anti-inflammatory, analgesic: especially for joint swelling; arthritis

Immune stimulating: promote activity of white blood cells.

Anti-cancer: inhibit tumor cells. Western medicine recognizes the antitumor properties of alkaloids; several of the original chemotherapeutic agents were derived from plants.

Vasodilating: hypotensive

Antitussive

Examples of high alkaloid plants: golden seal, coptis, scutellaria

### **Ayurvedic & Chinese:**

The bitter flavor is composed of air and space elements. Of all the flavors, is coldest in nature, lightest, and moderately dry. Strongly increases vata, strongly decreases pitta, moderately decreases kapha. It is needed in small quantities for each humor, more for pitta, moderate for kapha, and less for vata.

Bitter herbs are necessary for detoxification, but are also depleting. Bitter is the least nutritive flavor, but the most commonly used medicinally.

Chinese medicine considers bitter to be yin, cooling, clearing. The Nei Ching says that bitter substances drain and dry.

**Primary bitter herbs for the digestive system:**

Gentian, aloe, Oregon grape root, chaparral, wormwood, greater celandine, barberry, balmony, boldo, golden seal, chicory, hops, mugwort, blessed thistle.  
Bitters range from mild (yarrow, dandelion leaf) to intense (gentian, wormwood).

**Medicinal effects of bitter herbs:**

Bitter herbs produce a wide range of physiological effects.

**Digestive stimulant:**

Bitters are of major importance to the digestive system and illnesses rooted in poor digestion. Many digestive conditions of sluggish elimination and poor absorption of nutrients are due to weak secretions from the digestive organs. Bitter herbs are used traditionally to activate digestive secretions and improve glandular function.

Bitters work in the digestive system by stimulating sensory responses in the mouth. The sensation of bitterness is conveyed to the central nervous system, which then activates the digestive hormone gastrin. Gastrin in turn leads to a variety of reactions, including:

**Stimulation of flow of digestive juices from pancreas, duodenum, and liver** (pancreatic enzymes, bile). By stimulating the flow of digestive juices, bitters assist in breaking down foods, and increase the flow of peristalsis. This is beneficial for a wide range of conditions arising from weakness or allergic conditions rooted in maldigestion and malabsorption.

**Stimulation of appetite** (beneficial for a wide range of conditions). Restores digestive agni, awakens sense of taste.

**Regulatory action on pancreatic secretions** (which regulate blood sugar, insulin, glucagon). May upset blood sugar balance in diabetics.

**Assist liver in detoxification** (by promoting flow of bile)

**Assist gut wall repair damage** through stimulating self-repair.

**Tonic:**

In small amounts it is a digestive tonic (but can damage the digestive power in large amounts).

Many overlapping areas or therapeutics between bitters and tonics.

Some bitters have a marked antidepressant effect as a result of tonic effect on consciousness, such as gentian and mugwort.

**Antibiotic, antiviral, antiparasitic****Immune enhancing:**

Bitters stimulate the release of antibodies (activates immunity). Recent studies show bitter herbs stimulate immune function.

**Circulatory cleanser:**

Systemically, bitters support healthy activity of the heart and circulation in general.

Bitter herbs clear the veins and arteries of cholesterol, easing the heart and benefiting circulation.

Most of the powerful heart medicines are bitter, such as digitalis and lily of the valley.

**Respiratory stimulant:**

Bitter herbs dispel obstruction and increases the flow of air in the lungs.

**Alterative (blood purifying), detoxifying:**

Bitters are cleansing and detoxifying. They relieve itching, inflammatory skin conditions, and thirst.

Bitter herbs promote digestion of toxins, remove pus, and treat skin diseases. They scrape away fat, remove toxic accumulations in the fat, marrow, lymph, sweat, urine, feces, pitta, and kapha.

**Antipyretic, febrifuge:**

Bitters clear fevers and infections, relieve burning sensations.



**Excess bitter:**

When used in excess, because of its dry and rough qualities, bitter causes a wasting away of all the tissue elements of the body. It produces roughness in the vessels, takes away strength, causes emaciation, fatigue, dizziness, dryness of the mouth and other vata diseases.

**Contraindications:**

It is contraindicated in nervous (vata) diseases.

**Combining:**

Pungent and bitter combine well (as in golden seal and cayenne) for a drying and cleansing action.

**Sweetish Bitters (Gaia Herbs)**

Contains amla, tumeric, milk thistle, calamus, wild yam, gentian, fennel, cardamon, anise, orange oil, ginger, algae, seaweed.

Revitalizes digestive functions by stimulating secretions of the liver, pancreas, stomach, and small intestines. It improves nutrient absorption, protects the liver from toxins, and helps normalize intestinal flora. It benefits flatulence, constipation, abdominal bloating, digestive discomfort, and sluggish peristalsis.

This formula contains amla and tumeric, which are traditional Ayurvedic herbs for strengthening and protecting the liver from toxins. The other herbs of the formula protect and tonify the liver, gall bladder, and pancreas, and help normalize the stomach function. The aromatic substances help dispel gas and normalize peristalsis.

Dose:  $\frac{1}{4}$  to  $\frac{1}{2}$  teaspoon in warm water, two to three times a day, about ten to fifteen minutes before meals.

**Triphala**  
"Three Fruits"

Ingredients: Terminalia Chebula; Terminalia Belerica; Emblica Officinalis;

Preparation: Equal parts, or mixed according to the need of the patient. Grind to powder.

Dose: One half to one teaspoon, with warm water or milk, before bed. Can be soaked in cup hot water overnight and taken first in morning.

Basic combinations:

With ginger: for colds, cough, mucus congestion.

With aloe vera gel or juice: for liver and uterus detoxification and tonification.

With turmeric: for diabetes.

With ghee or honey: for the eyes.

This is one of the most famous formulas in Ayurveda. It is considered to be a Rasayan, or 'life promoting' medicine, which functions by gently cleansing toxins from the body and promoting the regeneration of the organs and tissues. Its functions are primarily alterative, astringent, laxative, and aperient. It treats a wide variety of symptoms in a balanced manner, so as to not aggravate any of the bodily humors. It enters into the composition of a great number of other herbal compounds.

Its primary use is as a mild laxative and bowel tonic. It gently cleanses the large intestine, and treats constipation. Since it has a strengthening effect it will promote a return to normal bowel functioning, rather than creating a dependency. Because of its overall balancing function on the bowels, it also treats diarrhea, colitis, and hemorrhoids.

This medicine has the power to remove toxins from the digestive tract, and treats such symptoms as gastritis, vomiting, malabsorption, abdominal distention, and parasites.

It has a beneficial effect on removing toxins from the Liver and the blood. It is used to treat hepatitis, jaundice, biliousness, skin diseases and itching arising from impure blood conditions, and weakness or enlargement of the liver and spleen.

Triphala helps to increase the power and regularity of digestion, and balances digestive functions. It is therefore beneficial in treating loss of appetite and dyspepsia. It is also used for treating the long term effects of digestive weakness, such as anemia and general debility.

Triphala has a healing and soothing effect on the lungs and respiratory system. It treats cough, asthma, hoarseness, sore throat, laryngitis, and bronchitis. Use with ginger and honey.

It cleanses and regulates the kidneys and bladder, and is used to treat edema, diabetes, and stones in these organs. It has a specific action on urinary disorders.

Chinese interpretation: The primary tastes of this formula are sour, astringent, and sweet. It has an overall slightly cooling effect. It regulates and strengthens the chi of the stomach, spleen, large and small intestines. It nourishes and cleanses the liver and blood, and benefits the eyes. It clears both excess and deficient heat of the liver, kidneys, and bladder. It removes pathogenic dampness and turbidity, and regenerates healthy Yin fluids.

## **Herbs acting on the digestive system**

### **Anti-inflammatories:**

Carminatives, chamomile, licorice, wild yam, calendula, peppermint

### **Anti-microbials:**

Aromatic carminatives, bitters, garlic, sage, gentian, myrrh, wormwood

### **Anti-mucous:**

Boneset, cayenne, cranesbill, garlic, golden seal, iceland moss, irish moss, peppermint, sage, thyme

### **Anti-spasmodics:**

Carminatives, chamomile, valerian, cramp bark, ops, peppermint, sage, thyme, dill, fennel, barberry, wild yam

### **Astringents:**

White oak bark, myrobalans, agrimony, cranesbill, meadowsweet, witch hazel, comfrey, golden seal, sage, shepherd's purse

### **Bitters:**

Mugwort, gentian, boldo, wormwood, golden seal, yarrow, centaury, greater celandine, barberry, hops, mugwort, blessed thistle

### **Carminatives:**

Aromatics, chamomile, celery seed, fennel, ginger, caraway, peppermint, lavender, lemon balm, anise seed, cardamon, cinnamon, dill, mustard, parsley, sage, thyme, valerian, wormwood

### **Chologogues:**

Bitters, dandelion, milk thistle, golden seal, artichoke, barberry, boldo, gentian, wild yam

### **Demulcents:**

Marshmallow, slippery elm, comfrey, licorice, calendula, iceland moss, irish moss, flax seed, fenugreek, psyllium,

### **Hepatics:**

Agrimony, barberry, dandelion root, gentian, wild yam

### **Laxatives:**

#### **Bulking laxatives:**

Psyllium, oat husks, flax seed, hemp seed

#### **Stimulant laxatives:**

Rhubarb, senna, dry aloe vera, turpeth, cascara

### **Nervines:**

Chamomile, Lavender, Valerian, Rosemary, Mugwort

### **Stimulants:**

Bitters, bayberry, caraway, cardamon, cinnamon, dandelion root, garlic, gentian, horseradish, mustard, peppermint, rosemary, wormwood

### **Vulneraries:**

Comfrey

## Times of administering herbs

Taking herbs at the wrong time in the digestive cycle, too soon after food or other herbs, or with the wrong accompanying vehicle can reduce their effectiveness or cause digestive problems.

**Before meals** (one half to one hour): herbs pass more rapidly into the lower gi tract, and activate Apana Vata 'downward clearing current.' of the colon and pelvic organs. Herbs for the lower body, such as purgatives, diuretics, and emmenagogues are administered for the colon, kidneys, and reproductive organs; for menstruation, bowels, and urination.

**With meals:** spicy, aromatic, stimulant, and carminative herbs, which work primarily in the stomach and intestines, to enhance and increase digestive power.

**Immediately before** (five to ten minutes): bitter herbs for activating secretion of digestive enzymes. Work primarily on the secretion of hydrochloric acid, bile salts, pancreatic enzymes.

**After meals:** Diaphoretic, expectorant, and nervine herbs, which tend to work on the lungs, heart, brain, and central nervous system. Stay in the stomach longer, and are assimilated slowly. Spicy, aromatic, carminative herbs used with meals for enhancing digestion can also be continued afterward.

**First in morning:** Spicy aromatics such as ginger tea, for reducing mucus. Also, mild bitters such as fresh aloe vera, or sour, such as lemon juice; for liver detoxification and stimulation of digestive secretions.

**Before dawn:** Mild diuretics, such as corn silk, to flush kidneys. For toxins which have accumulated overnight, which give rise to symptoms that are worse on arising.

**Laxatives:** can be taken either first in morning, or just before sleep.

**During the evening and before bed:** sedative, nervine, and calmative herbs for relaxation and insomnia.

**With or between meals:** nutritive tonic herbs.

**Moment to moment:** for acute conditions, such as asthma, vomiting, hiccup.

**Tibetan system:** medications for kapha in the morning, pitta in the afternoon, and vata in the evening; to bring the three humors into balance during their daily cycle.

Herbs in pill form should be chewed for best results; they can accumulate undigested in the gi tract and become suddenly active in high doses.

## Wild foods

### Acorn

The most important food of the California coastal Indians; families tended groves of oaks, using controlled burns to enhance their food production. Seasonal and ceremonial life revolved around the numerous nutritional, medicinal, and spiritual aspects of the oak trees, especially the acorns. It was considered a holy food and medicine.

### Manzanita (*Arctostaphylos Glauca*)

Forty three species in California, most of which were used as food. Green and ripe berries are highly nutritious food; dried and prepared into mush and cakes. Fresh fruits used for tea and jelly.

### Watercress

Traditionally used in many cultures around the world for strengthening: building nutrition in children, for mental weakness, liver and kidney problems.

### Chia (*Salvia Columbariae*)

One of the most important seed plants of the West coast Indians. Highly nutritious, fatty, and mucilaginous.

### Pinole

Traditional food made from blue or red corn, chia, and mesquite.

### Mesquite (*Prosopis Glandulosa*)

One of the most important food trees of the Arizona and California desert. Pods with seeds ground into flour for bread and gruel. Blossoms roasted for tea and food. Source of numerous medicines.

### Malva (*Malva Parviflora*)

Cultivated by ancient Greeks as a symbol of nourishment. Numerous species around the world used as potherbs.

### Iceplant (*Gasoul Crystallinum*)

Invasive plant imported from Africa. Boiled like spinach, or used fresh like cucumber.

### Arrowroot (*Sagittaria Latifolia*)

Baked, dried, ground to flour; used like potatoes. Promotes flow of urine, removes toxins form tissues, restores strength.

### Yucca (*Yucca Baccata*)

Ripe fruit eaten raw or roasted, made into flour. Roots and shoots baked and used like agave.

### Jojoba (*Simmondsia Chinensis*)

Important traditional food. Nuts eaten raw or roasted.

### Acacia (*Acacia Greggi*)

Pods eaten fresh, or dried and ground to flour. Seeds high in protein and oil.

### Boxthorn (*Lycium Fremontii*)

Berries were important item of Southwest diet, eaten fresh or dried as raisins. Used today like tomato.

### Prickly pear; beavertail (*Opuntia Basilaris*)

Staple food; whole plant used. Fruits used in various ways: syrups, fresh or dried, paste. Preparations of fruit used for a diuretic, for diarrhea, asthma. Leaves cooked in used medicinally, mostly for external application.

Yampa (*Perideridia Gairdneri*)

Important tuber used as food. Used fresh as vegetable, dried and ground to flour. Used similarly to parsnip and potato.

Agave (*Agave Deserti*)

Young flowering stalks roasted for food. Flowers boiled or dried.

Other wild foods with medicinal value:

Wild onion

Mustard

Pine nuts

Fan Palm

Chickory

Narsturtium

Purslane

Mustard

Lamb's Quarters

Storksbill (*Erodium*)

Nettles

Milk Thistle



**Chu Len**  
**(Extracting the Essence)**  
Purification and Rejuvenation Practices From Tibetan Medicine

**Metok Chulen "Extracting the Essence of Flowers"**

A fasting practice using medicinal pills prepared from flowers.

One of many "extracting essence" practices performed by yogis and lay people to improve health, promote longevity, and produce higher consciousness. Other essences were produced from herbs, minerals, waters, etc.

Text written by the 2<sup>nd</sup> Dalai Lama (born 1475).

This practice was reputedly brought to Tibet by the yogi Padampa Sangye, who is said to have lived to the age of 572. It is still practiced to this day.

Disciples of this practice are of three levels:

Superior: those of strong worldly renunciation who had no desires except to go beyond all suffering.

Mediocre: those in need of food or clothing.

Inferior: those who merely wish to cure a disease.

Making the pills:

Begin on an auspicious day when flowers are blooming.

Bathe and put on clean clothes.

Recite the six syllable mantra and visualize Avalokiteshvara.

Collect flowers appropriate for one's constitutional imbalances.

Dry in shady place.

Grind to powder. Add roasted barley flour, myrobalans, gymnadenia, nutmeg. If available, also add aquilaria wood. Mix together with honey or molasses, make into pills the size of sheep droppings. Place in a skull cup or jeweled container.

Consecrating the pills:

Perform the preliminary practices (refuge prayer, generation of bodhichitta, etc).

Purify the pills with the mantra of emptiness.

Visualize yourself transformed into the goddess White Vajra Yogini.

Consecrate the pills with the essence of the five elements, the essence of merit of all beings, majestic qualities of the three realms, and the excellent glories of the world, which are absorbed into the pills as rays of light, transforming them into ambrosia of uncontaminated wisdom.

Recite the Yogini's mantra 1000 times and blow on the pills.

Taking the pills:

Pills are taken two or three times a day, at dawn, noon, and dusk.

Transform yourself into Vajra Yogini.

Recite her mantra.

Take pills with hot water or tea.

While swallowing, visualize the body becoming filled with nectar which gives rise to bliss.

Length of practice:

The practice should last 21 days.

During the first week one becomes detached from food.

During the second week diseases are removed.

During the third week lost strength is restored.

**While practicing:**

Continue meditation and devotional practices.

Engage in practices which clear circulation of vital energy, but do not overexert.

Avoid taking gross food.

**Ending the practice:**

For one week afterward, take only one bowl of dilute porridge daily. Gradually increase the amount until accustomed to normal diet. Nutritious foods like meat and dairy should not be taken immediately after this practice.

**The benefits:**

This practice cures numerous diseases, prolongs life, brightens appearance, restores youthfulness, lessens wrinkles and white hair, increases immunity, increases wisdom and intellect, frees one from improper livelihood, aids the attainment of spiritual paths.