

# Seasonal changes are always amazing!

It brings in so much wonderful transformations in our daily lives

- When we tune in with seasonal changes we can gain a lot of positive things from nature and
- When we get dissociated with these changes with our modern lifestyle away from Nature;
- We, sometimes suffer the effects on our Mind and Body, by making us more prone to some ailments

Out of Fall and Winter season , (Oct-Feb) many people dread Winter more and it is also looked as cold season, flu season and season limiting our activity level in general.

Ayurveda looks at this seasonal change in very elaborate and positive manner.

Normally, how we change our wardrobe as season changes same way we make changes in our Daily Routines and Lifestyle

- (Dincharya) based upon seasonal change.
  - We also adopt to the seasons better when we are more mindful about these changes in environment and reciprocate to them in positive and affirmative manner.

The aim of this write up is to provide some time-tested tools and resources which are based on teachings of Maharishi Ayurveda.

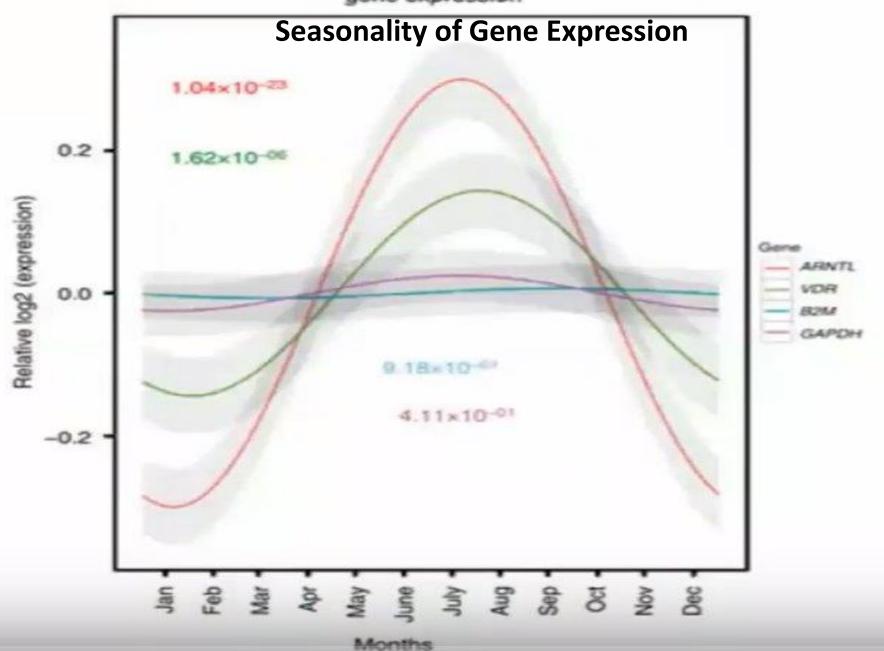
Winter is a more inward season, when nature is at rest, so you can take advantage of this natural tendency by giving the mind and body extra nourishment in winter.

Come October, change is in the air!

Leaves turn color and fall. The air feels cool--and dry.
Inside your body, Vata dosha, the Dominant Dosha of the season, tends to increase, often commanding Pitta and Kapha doshas to play second, and third, fiddle.

This is how it is likely to be till February, when the season both outside and within you will change once again

Seasonality of ARNTL, VDR, B2M and GAPDH gene expression



## **Seasonal Gene Expressions 2**

# Nature Communications May 12, 2015

NATURE COMMUNICATIONS | ARTICLE OPEN

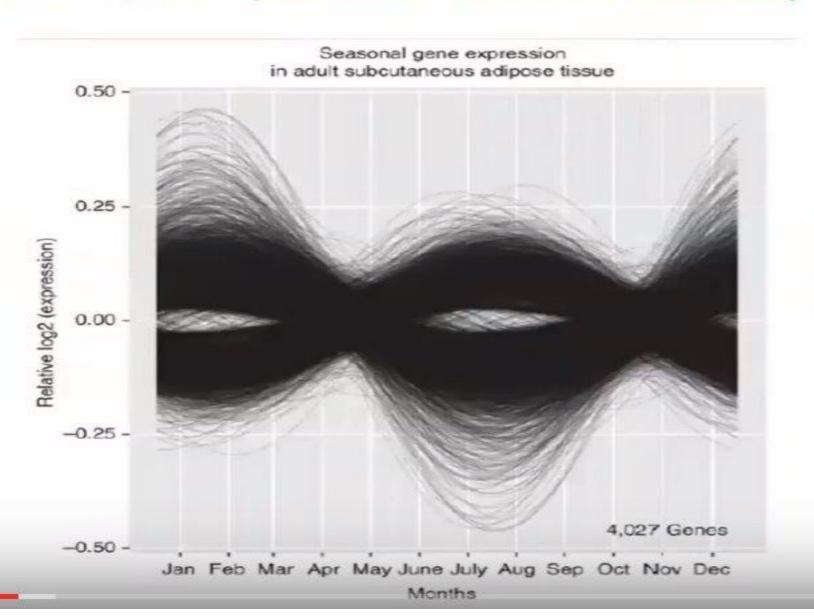
# Widespread seasonal gene expression reveals annual differences in human immunity and physiology

Xaquin Castro Dopico, Marina Evangelou, Ricardo C. Ferreira, Hui Guo, Marcin L. Pekalski, Deborah J. Smyth, Nicholas Cooper, Oliver S. Burren, Anthony J. Fulford, Branwen J. Hennig, Andrew M. Prentice, Anette-G. Ziegler, Ezio Bonifacio, Chris Wallace & John A. Todd

Nature Communications 6, Article number: 7000 doi:10.1038/ncomms8000 Received 09 September 2014 Accepted 23 March 2015 Published 12 May 2015

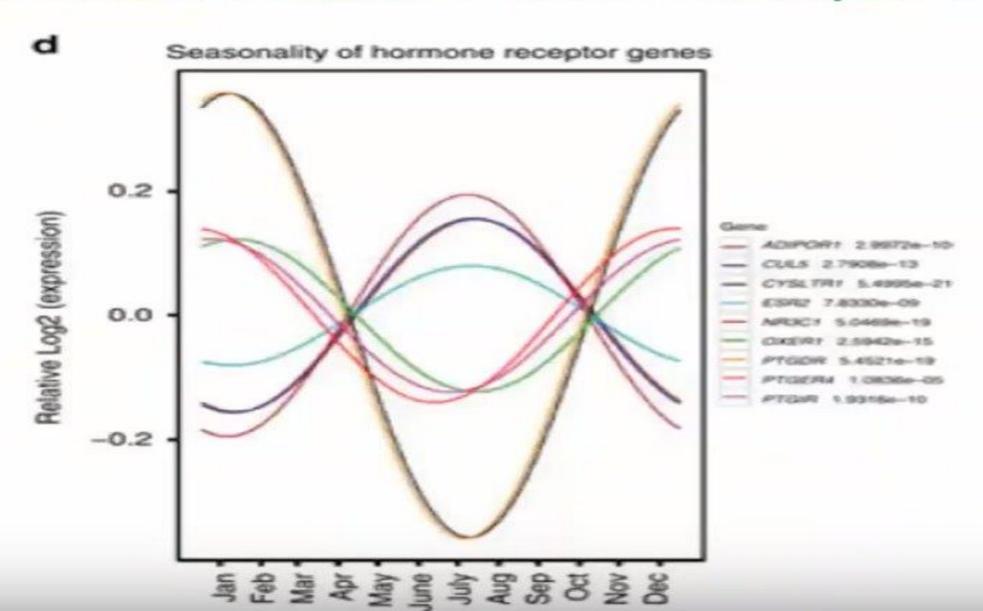
#### **Seasonal Gene Expression 3**

### Seasonal Gene Expression in Subcutaneous Adipose Tissue



#### **Seasonal Gene Variations 4**

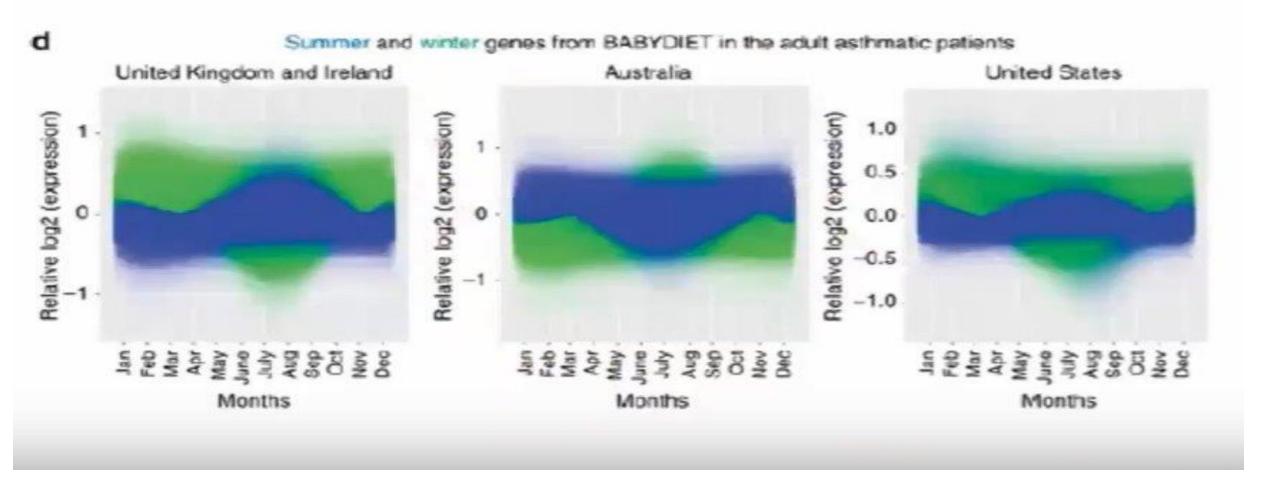
## Seasonal Variation in Hormone Receptor Genes

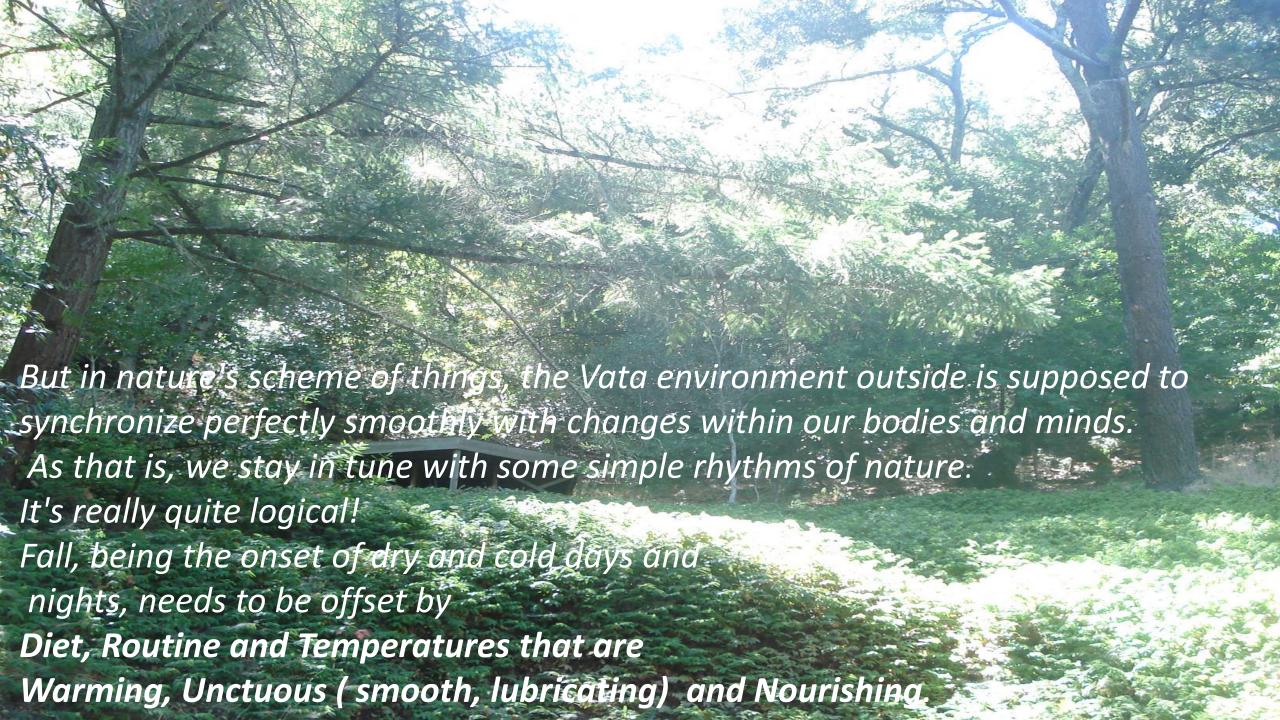


#### **Seasonal Gene Expression 5**

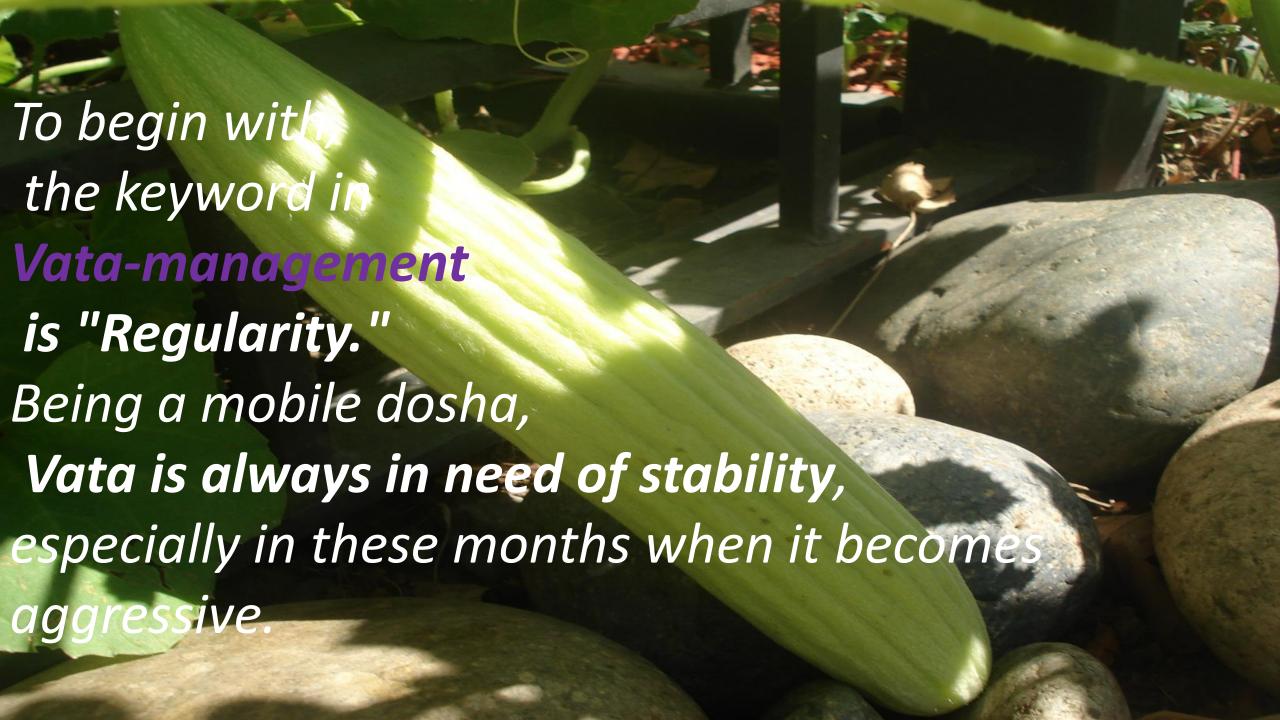
#### **Gene Activity Summer and Winter in Asthma Patients**

Opposing Activity Seasonally in Northern vs Southern Hemispheres









Ayurveda also elaborates some simple and effective lifestyle changes at the junction of the two seasons

(Ritusandhi)

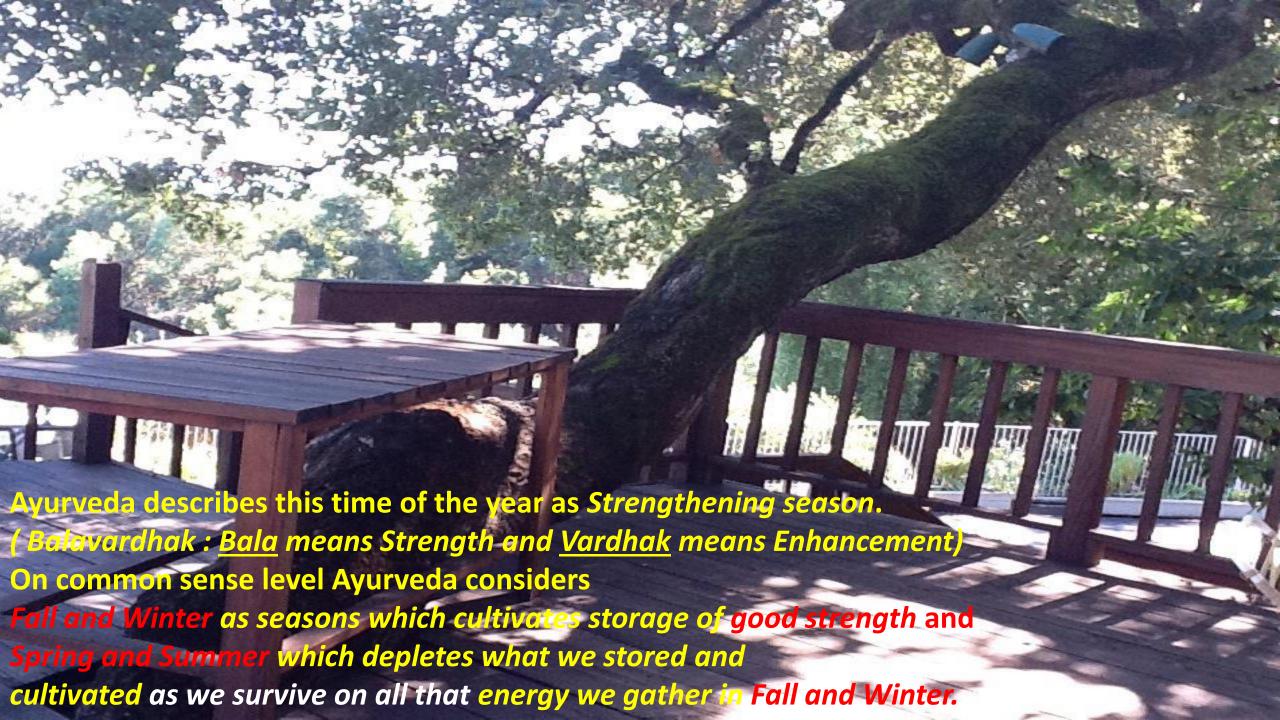
to cultivate vibrant Health and Happiness during this important transitional time between two changing seasons.

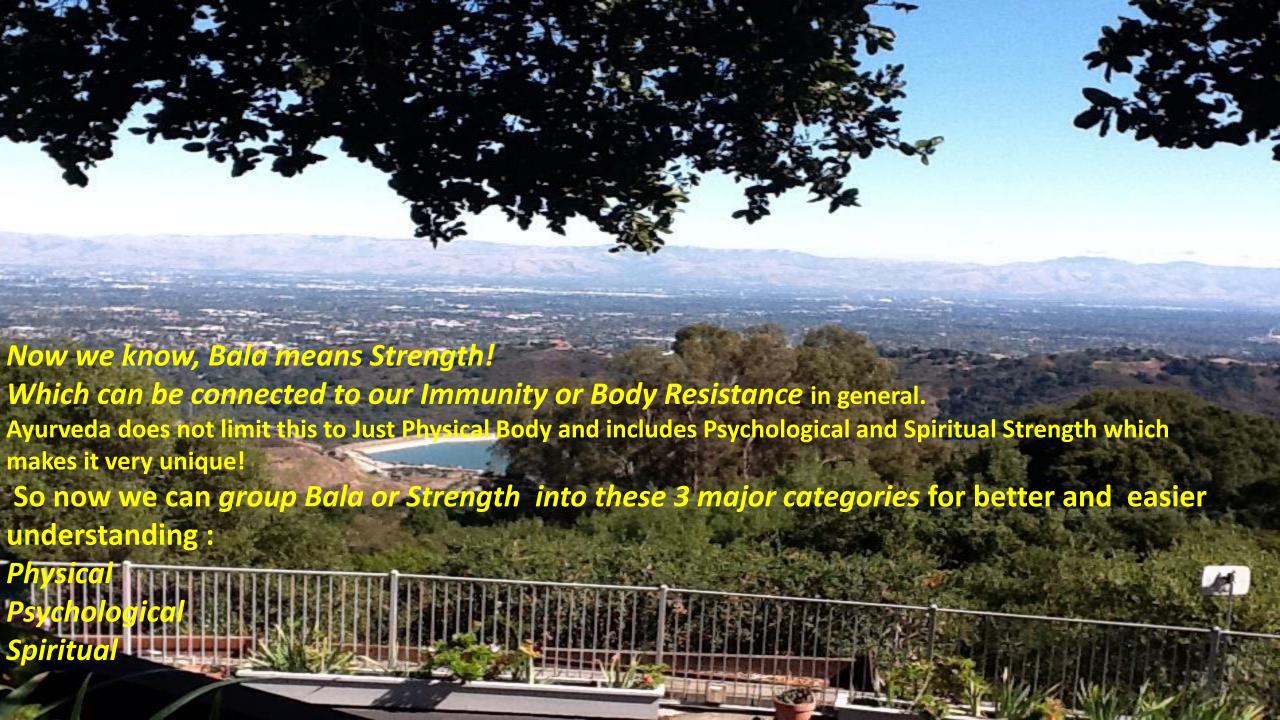
Traditionally in India there is *elaboration of six seasons instead of four.* 

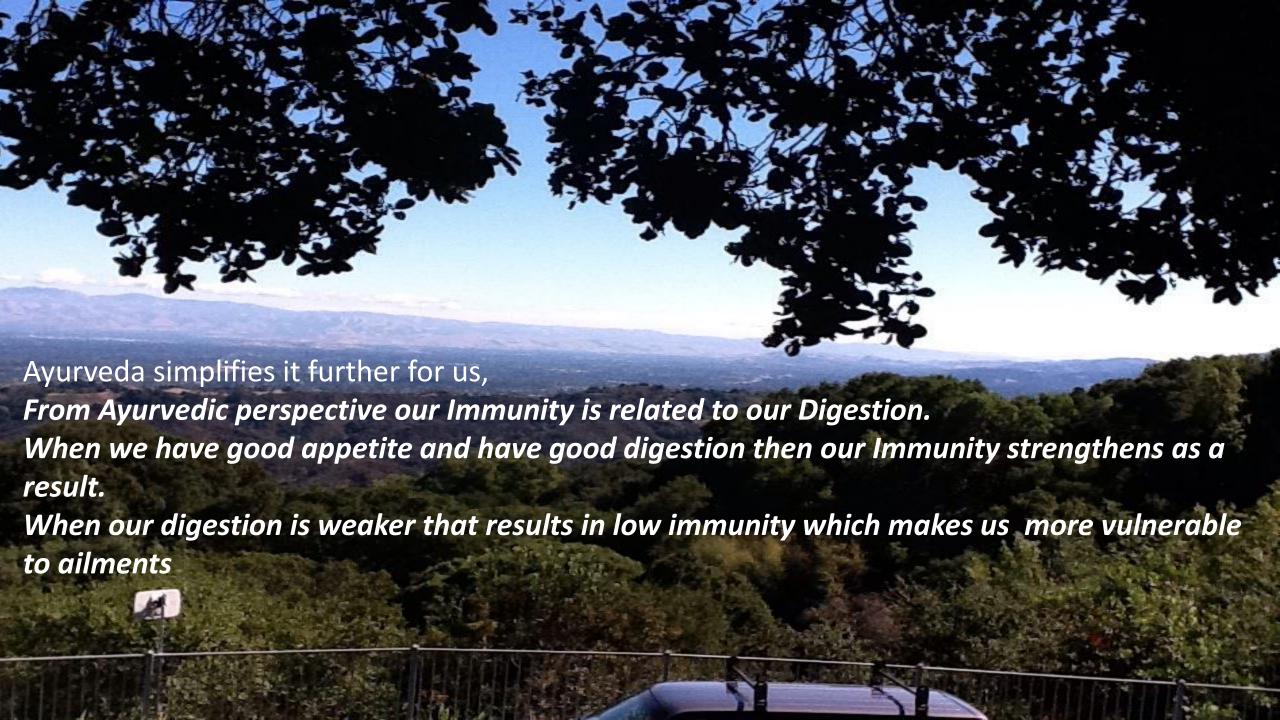
Therefore it is time to pay attention in Fall and Winter to the basics of your daily routine.

Ayurveda has a unique lookout to foresee these seasonal change as something which can help us strengthen on various dimensions.

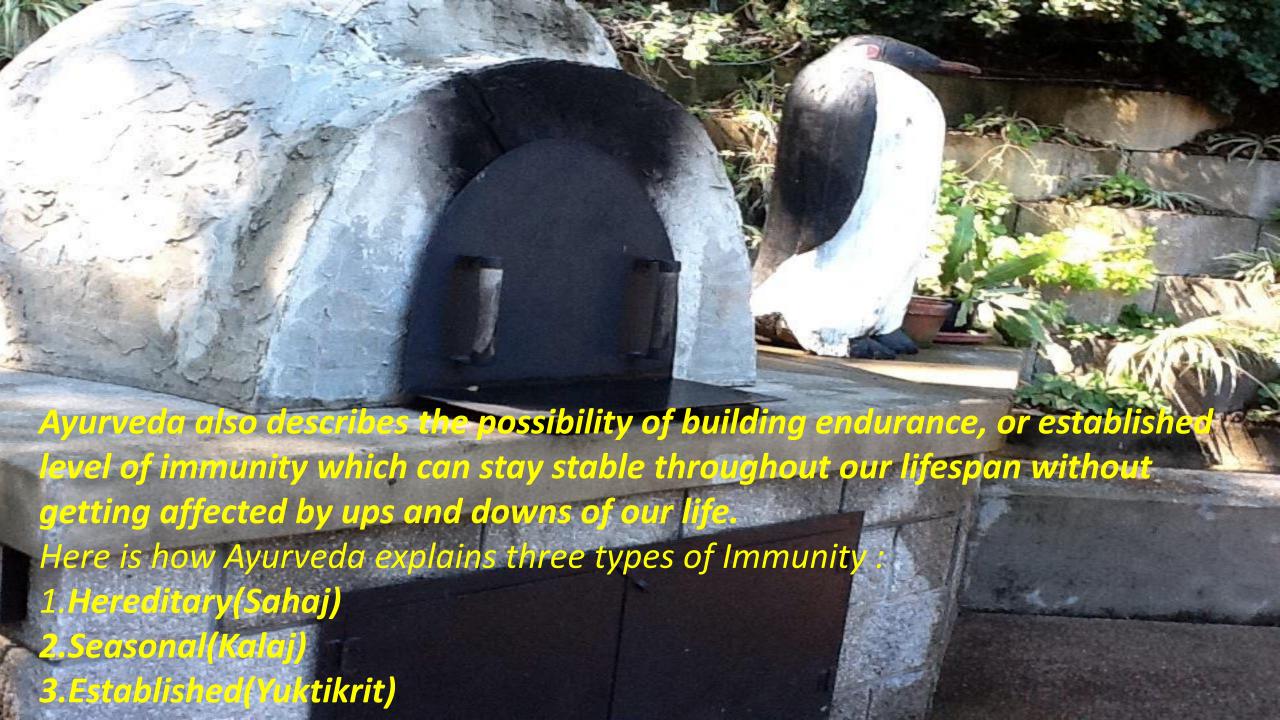


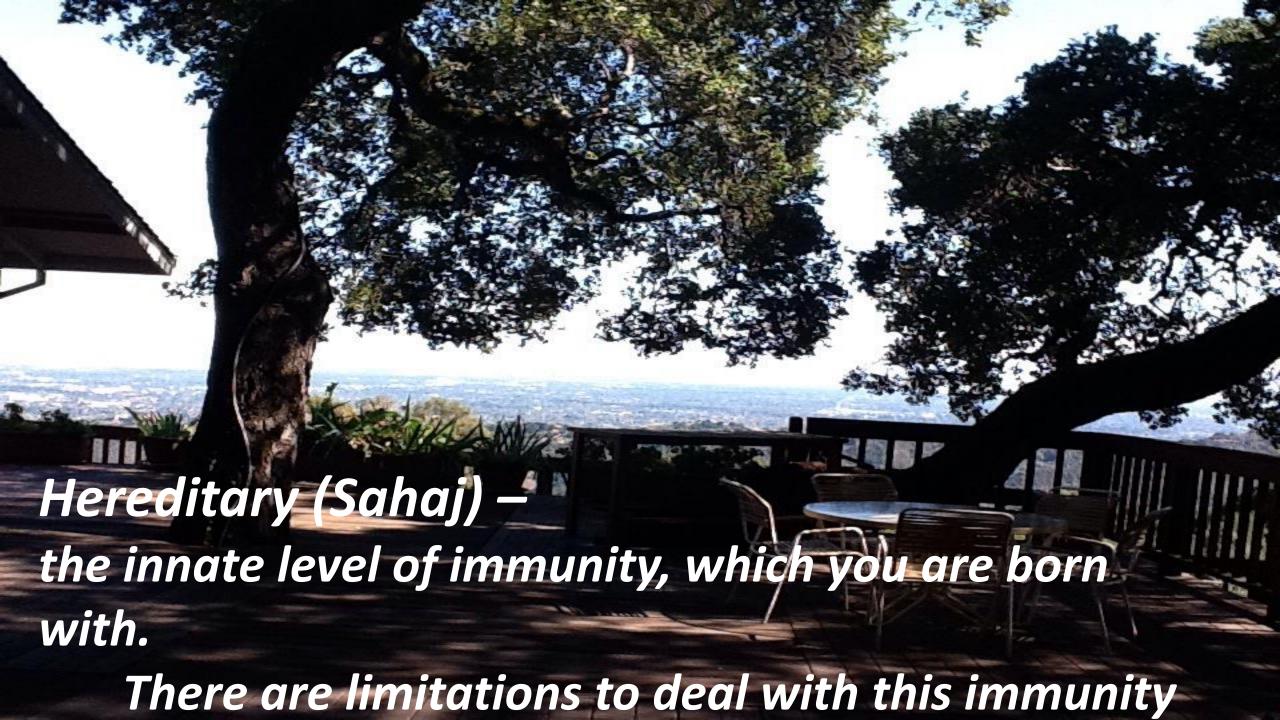












Seasonal (Kalaj) – fluctuating levels of immunity due to the change of seasons, different stages of life, and planetary cycles.

This is the main focus of Ayurveda to make certain changes with seasons, age, etc..

One reason that winter is a good season for building immunity is that the digestion is stronger in cold weather.

Just as your home's heating system works harder in cold weather, so your inner digestive fire stokes up when the air turns chilly.

Established (Yuktikrit) —
a balanced, permanent level of immunity that can be realized by following an Ayurvedic diet and lifestyle.

When you follow the Ayurvedic dietary guidelines and lifestyle for each season, take Amrit and other herbal food supplements to enhance immunity and create balance, Ayurveda says you can *develop* an established, permanent state of immunity, when sickness is no longer a threat.

This is the third level of immunity (Yuktikrit), which is the goal of Maharishi Ayurveda.

This is what "bala" really means, "a state without disease."

Winter is the season when nature is ready to nurture us.

Due to the digestive level being very high, people feel hungrier,
and can actually digest food better in winter, thus nourishing
their bodies more.

People just think this season is bad for immunity because as appetite increases, people start eating

- More junk food and
- Heavy, Hard to digest foods, and thus
  - Weaken their immunity.

# What Kind of Toxic? 3 categories

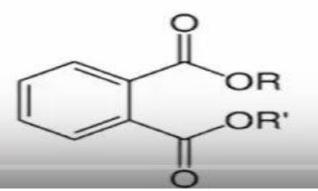
Ama— Chemically non-reactive "debris"; clogs the channels; heavy, sticky, viscous— LDL cholesterol



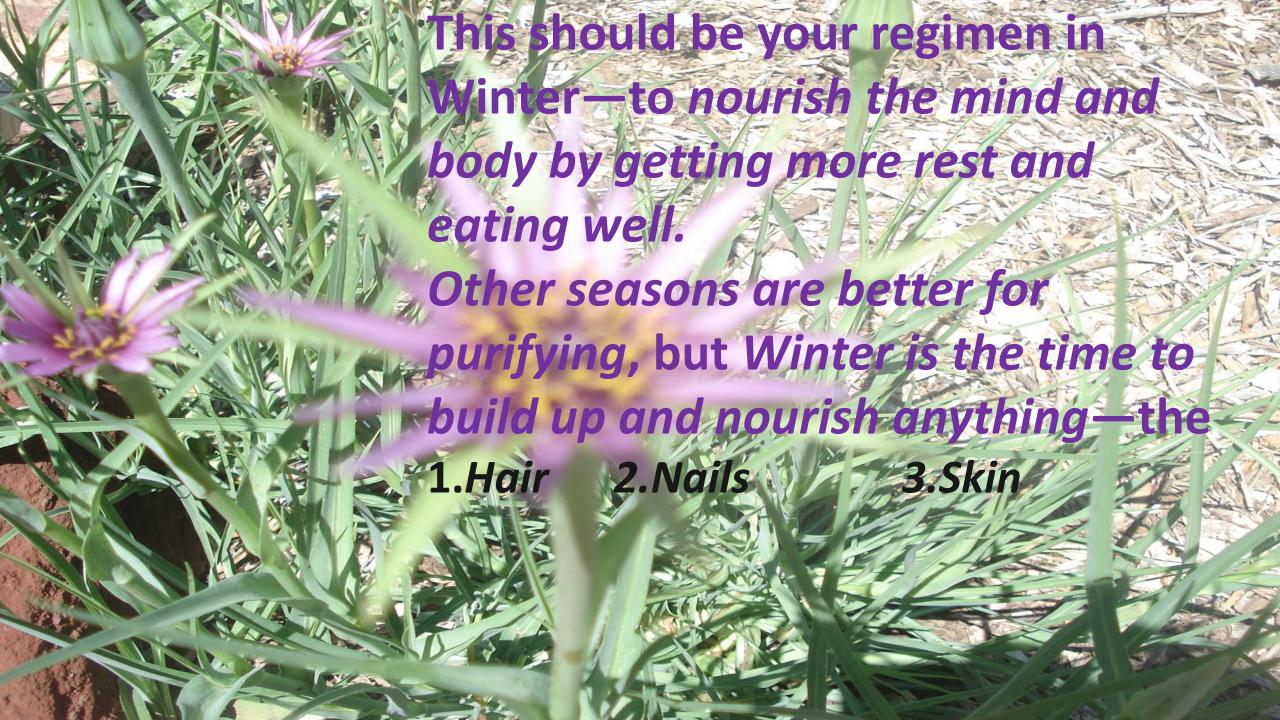
Ama Visha- Chemically-reactive debris; damages the channels, oxidative, corrosive- oxidized LDL

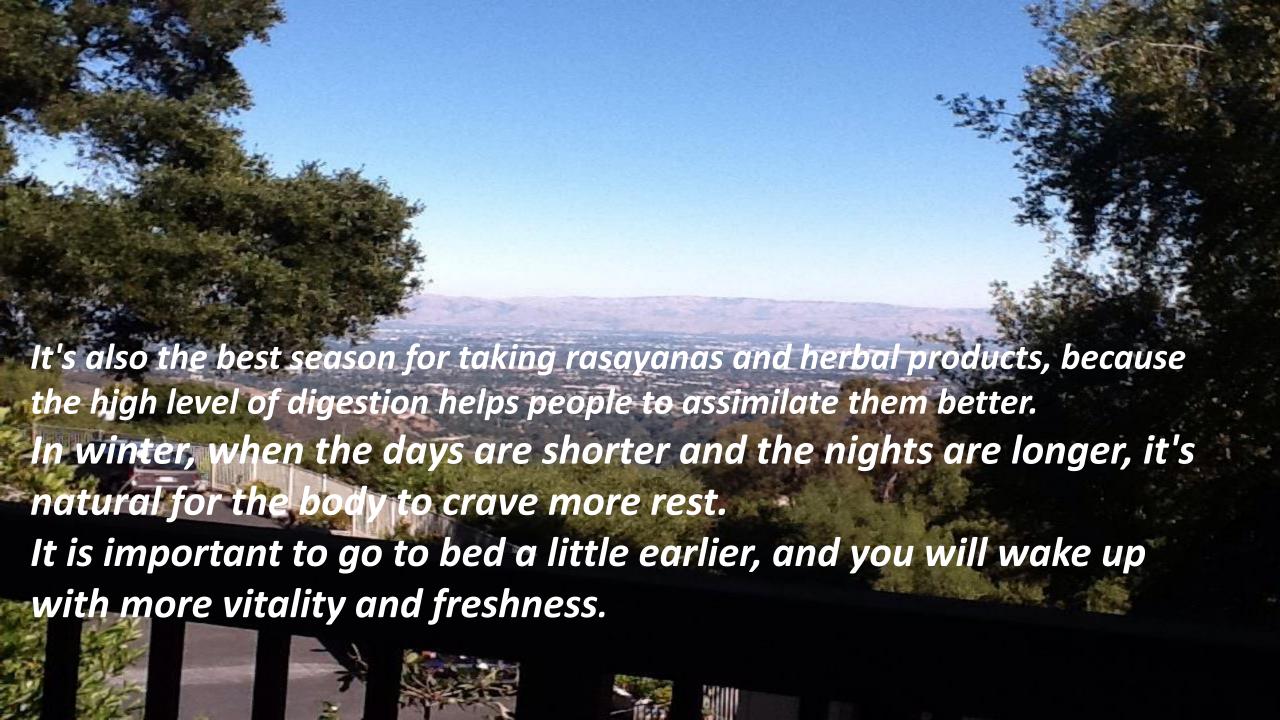


Gara Visha – From OUTSIDE the body; "slow poison," xenobiotics









# Doshas and times of day

### Pitta

10:00 -2:00 AM &PM

Heightened digestive strength at day and metabolic cleansing at night

Day: Night: Largest meal around 12:30PM Sleep by 10:00 PM for metabolic cleansing of impurities

# Kapha

6:00 - 10:00 AM &PM

Tendency for physical heaviness and mental slowness

Morning: Be awake before

Kapha time, Exercise,

Breakfast

Evening: Meal, v

Meal, walk, pleasant non-stimulating activity, bed

## Vata

2:00 -6:00 AM &PM

Tendency for mental alertness AM&PM but possibly tiredness by afternoon

Morning:

Awake, Meditation

Afternoon: Meditation

# **Nutrition from within**

- Diet is important.
- Include lots of leafy green vegetables in your diet.
- Eat plenty of sweet, juicy fruits.
- Drink lots of warm water through the day.
- Cook with spices--they're not only great flavor enhancers, they can help you stay healthy and beautiful.
- Cumin, for example, helps flush your body of toxins, and this, in turn, can mean a glowing, radiant complexion.
- Taking regular breaks

# Immunity-boosting Foods and Lifestyle Tips for Winter: Favor: In general, immunity-boosting foods include those that are Fresh Easy to digest • Pure Wholesome Organic Favor Sweet, Sour and Salty tastes; Reduce: Astringent, Bitter, and Pungent tastes in winter.



# Warm, Nourishing Foods: Balancing Vata Dosha

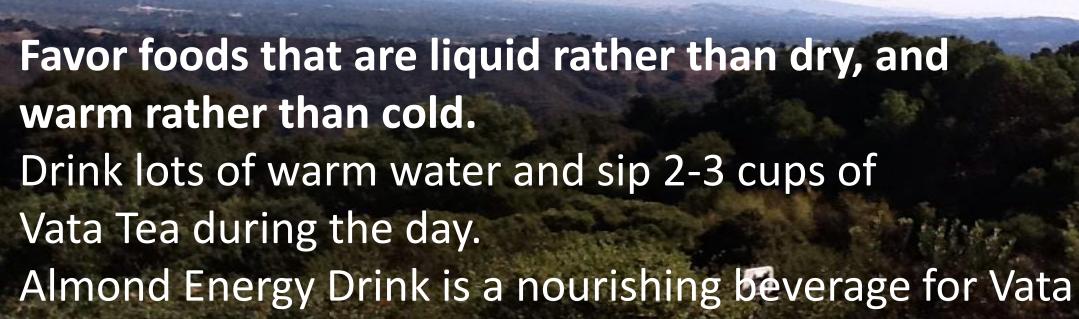
Every season is associated with a dosha in Ayurveda-

- Spring with Kapha,
- Summer with Pitta and
- Fall and Winter with Vata.
- Each of these doshas has a tendency to increase within the physiology during its season.
- Thus, the heat of summer tends to aggravate the Pitta in us, while a dry, cold and windy winter tends to increase Vata.
- These seasonal fluctuations of the doshas within us can be balanced by eating appropriately for the season.
- Desh (Place) and Kala (Time) are important considerations in choosing what you eat.
- When you reflect, some of these choices come naturally to most of us-we head for cool beverages on a
  hot day and yearn to wrap our fingers around a steaming mug of soup on a chilly evening.
- Vata dosha is composed of the air and space elements, and it governs all movement in the body.
- Signs of an aggravated Vata include an irregular digestion, gas, constipation, intestinal cramps, poor assimilation and fatigue.

## Eating to balance Vata

## "Warm" and "cooked" are key factors in the Vata-pacifying diet.

- Nourishing soups and stews,
- hot cereals,
- hearty grains,
- wholesome beverages and
- heavy desserts like rich rice pudding all feel welcome on cold winter days.
- All dairy products, for example, pacify Vata.
- Always boil milk before you drink it, and drink it warm, with a pinch of cardamom or dry ginger in it.
- Sweet lassi is an excellent lunchtime beverage.
- Favor sweet, sour, heavy
- *Fruits:* such as oranges, bananas, avocados, grapes, cherries, peaches, melons, berries, plums, pineapples, mangos and papayas.
- Vegetables: should be eaten cooked; reduce raw salads.
- Beets, carrots, asparagus and sweet potatoes are good choices.
- In moderate quantities, the following vegetables are also fine, especially if they are cooked with Ghee or oil and Vata reducing spices: peas, green leafy vegetables (chopped small, with thick fibrous parts discarded), broccoli, cauliflower, celery, zucchini and potatoes.
- Spices: cardamom, cumin, ginger, cinnamon, salt, cloves, mustard seed and black pepper in moderation.
- Vata Churna from Maharishi Ayurveda is a convenient, ready-to-use Vata spice mix, cooking with it rather than sprinkling it on prepared foods as the preferred way of assimilating the benefits of the spices.



season.

Foods that nourish and balance the body in the cold, dry, winter season are:

- Sweet
- Sour and
- Salty tastes.
- Warm, home-cooked, unctuous foods are ideal.
- Foods cooked with easy-to-digest oils such as Ghee or Sesame or olive oil.
- First and foremost, regulate your mealtimes.
- Have lunch at noon, and dinner early in the evening.
- Don't skip or neglect breakfast.

This simple rescheduling will **regulate your metabolic activity**, setting hunger cycles in order, **generating healthy agni (Digestive Fire)**, and **making sure that no toxins accumulate in your system**.

- Next, start turning in early--ideally by 10 p.m.
- Make this a habit, regardless of the hours you have been keeping hitherto. Of course, you'll need to
  make adjustments in work and entertainment patterns--this might mean not watching your favorite
  late night show or winding up office work earlier in the evening. All these sacrifices or changes that
  you make will reward you handsomely in terms of balanced Vata and glowing health.
- Vata dosha imbalance needs to be corrected with *plenty of moisture and lipids--* and this can be done by taking in *unctuous food cooked using healthy oils*.
- Enjoy pleasure of a cup of hot herbal teas
- Fall foods should include hot soups
- Freshly cooked and lightly spiced lentil soups
- Warm stewed apple taken in the morning,
- Cream of wheat cereal, and
- Warm milk.
- Cooking fresh and warm
- Get wholesome nutrition with whole wheat bread or chapatti.
- Snack on dates or fresh fruit.
- Flavor your glass of milk with Almond Energy Drink.
- The possibilities are endless, and their health benefits should be ample motivation for you to think about them every morning.
- Before you go to bed, a warm cup of milk with a bit of ginger and a touch of honey will do you a world
  of good.

#### Good eating habits.

- Vata dosha is balanced by regularity in routine.
- Eat three nourishing meals a day, and eat them at around the same times each day.
- Don't skip meals, especially breakfast.
- Eat lunch, the heaviest meal of the day, close to noon.
- Eat a lighter meal, such as mung bean soup, for dinner.
- Your last meal of the day should be done at least three hours before you go to bed.
- If you snack in-between meals, eat nuts and raisins soaked in water (dried fruits aggravate Vata) or stewed fruit for a healthy dose of energy.
- Most nuts are Vata-pacifying.

#### Avoid:

- Foods that are hard to digest should be avoided if you want to increase your immunity.
- Commercially processed foods, as well as canned, frozen, and packaged foods are old and difficult to digest, so they
  weaken immunity,"
- Leftovers
- Foods grown with chemicals, and foods laced with preservatives tax the digestive system and clog the channels of circulation, creating a sluggish, compromised immune system.
- It's best to eat less of the
- Astringent,
- Bitter, and
- Pungent tastes in winter, although all six tastes should be included in your diet.
- Avoid deep-fried foods.
- Avoid cold or ice-cold foods, as cold foods and drinks douse the digestive fire.
- Lifestyle also impacts immunity.
- Avoid Staying up late,
- Avoid working at night,
- Avoid eating at irregular times,
- Avoid cold sandwiches
- Avoid Dry Cereals
- Avoid exposing the body to stress and fatigue, and
- Avoid sleeping during the day can all affect the digestion and body rhythms—and thus compromise the immune system.
- Avoid drying foods like popcorn and steamed veggies without a trace of fat.
- That's why it's important to follow the ayurvedic daily routine, to keep the digestive system and other bodily rhythms working smoothly, and thus keeping the immunity high.

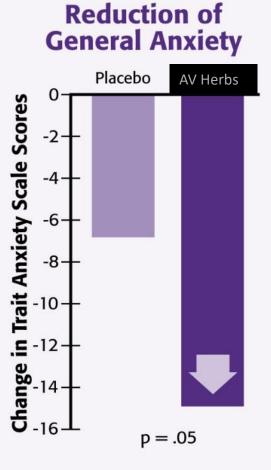
#### Dealing with the Vata Mind:

- Vata disturbance in Fall can cause
  - \*Restlessness,
  - \*Anxiety and day-to-day
  - \*Mental stress to increase.
- It's a situation you'll find already greatly relieved by following the above diet and sleep tips. also you should make time to do light yoga and meditation, Transcendental Meditation ™(R) is medically proven to be beneficial.
- This means, not overstretching yourself over a problem,
- supplying yourself with plenty of water and healing warm drinks through the day, and
- practicing deep, relaxed breathing at regular intervals.

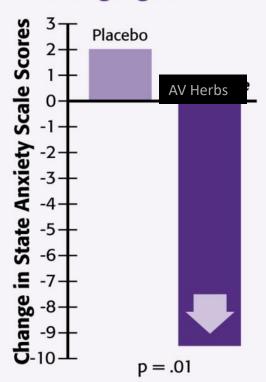


#### **Reduced Symptoms of Generalized Anxiety Disorder**

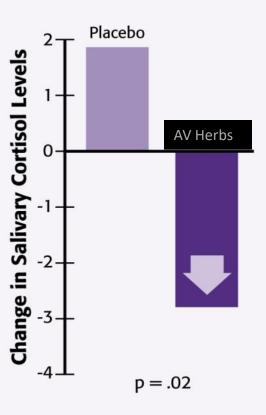
Benefits of AV Herbs Tablets



#### Reduction of Anxiety Caused by Challenging Situation



# **Reduction of Stress Hormone**



<sup>\*</sup>Reference: Mills, P.J. et al. "Effects of a traditional herbal supplement on anxiety in patients with generalized anxiety disorder," Journal of Clinical Psychopharmacology 2002; 22 (4):443-444.

- Ayurveda sees Winter as both a challenge and an opportunity.
- It's true that Winter weather can impact skin adversely.
- So it pays to follow a good basic skin care regimen to replenish moisture levels and protect against winter sun damage.
- Winter, according to Ayurveda, is the ideal time to feed your skin the potent nutrients it needs to stay youthful and healthy.

- Keep the thermostat as low as you can handle comfortably to reduce dehydration from heating.
- Hot water may feel tempting in cold weather, but it can damage your skin.
- Bathe in pleasantly warm water, not hot, and keep to one bath or shower a day in winter.
  Use cleansers that will not deplete moisture from already dry skin.

As a result, the outer layers of the skin tend to dry out more during Fall and Winter, leading to dry skin, with scales, inflammation and itching being associated problems for some people.

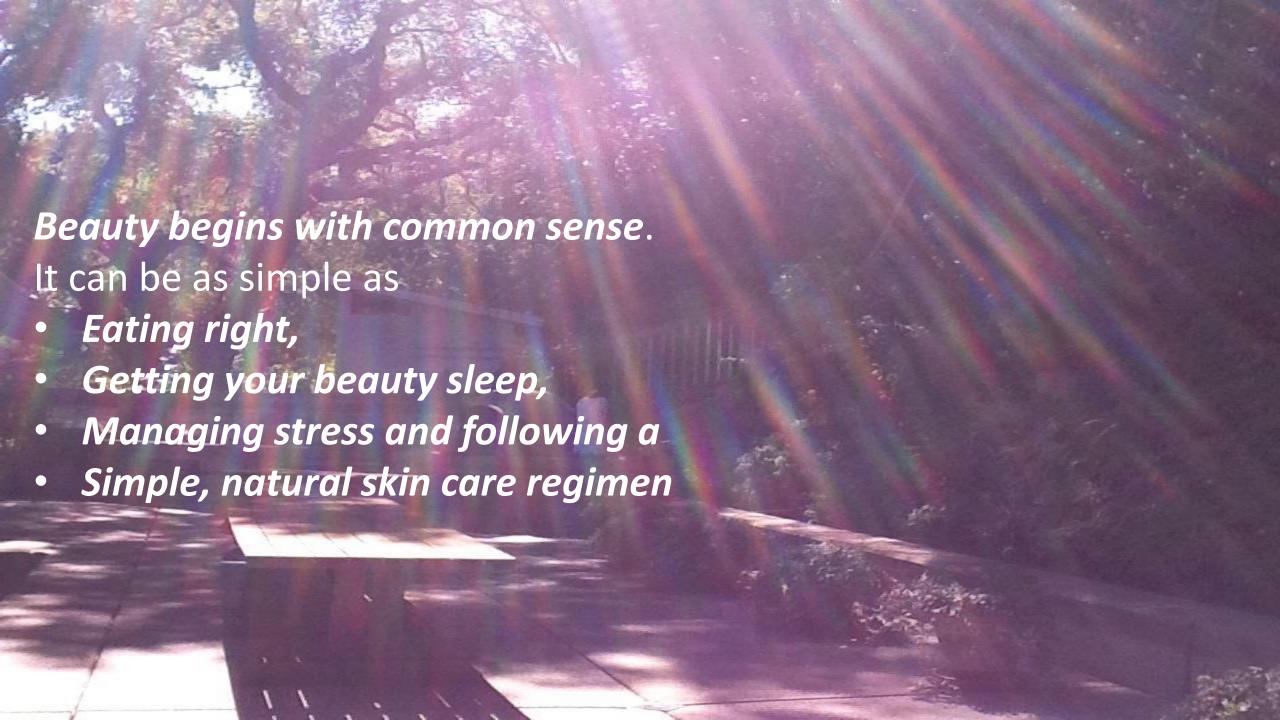
The problem is exacerbated because of heating, fires in fireplaces and exposure to rapid fluctuations in temperatures as one moves from indoors to outdoors or vice versa.

Winter doesn't have to be hard on skin.

As odd as it may seem, winter is actually the best time of year to nourish the skin, because it is dryer and more receptive during this cold season. This illustrates one of the great underlying principles of Ayurveda: it takes advantage of the natural tendencies available in every season for rejuvenation and purification.

In warmer seasons, the skin is naturally detoxifying more, and therefore is less absorbent.

In winter months, it's just the opposite.



# Probability of when Vata can Dominate in Life: Winter

- Dryness, cracking, dullness and roughness of the skin are common issues in cold, dry, windy weather.
- This kind of weather, associated with the Vata Season (November to February), increases the:

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*dry,
*cold,
*rough, and
*coarse qualities of Vata, both in the
outer environment and in our bodies.
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- When the person is by *Nature of Vata constitution*, or is
- Eating a *Vata-aggravating diet* or
- Living a Vata-aggravating lifestyle, or is in the
- Vata time of life (from 60 years of age on up),
- The effect of Vata imbalance on skin is even stronger.
- Perhaps an even more interesting Ayurvedic skin fact is that some winter conditions actually cause heat to build up in the skin.

#### Probability of when Pitta can Dominate in Life: Winter

- If the weather is freezing but not windy
- (such as in some areas of the northern US),
- the freezing temperatures shrink the skin pores, preventing the body from releasing heat.
- As internal heat builds up, Pitta dosha becomes imbalanced, resulting in increased sensitivity, occasional blemishes, rashes, or sometimes redness.
- Because of the *increased Pitta*, this kind of weather can also not surprisingly increase hunger.

# Probability of when Kapha can Dominate in Life: Winter

A third winter skin condition occurs when the weather is cold and wet, causing Kapha dosha to increase and result in oily, heavy skin.

- This is more common in late Winter, although in some climates, it can be cold and damp all winter long.
- During this time, *Toxins* (*Ama*) *tend to accumulate*, which may make the skin dull and clog the pores, and may also cause skin irritation and breakouts.

#### Effective Winter Skin care:

Because Vata is drying, skin neglected in this season tends to wrinkle and age faster.

- Winter brings with it low temperatures,
- Freezing rain and snow, a
- Significant drop in humidity and
- Dry cold winds in most parts of the country.
- Our skin, the organ that acts as a barrier between our bodies and the external environment, generally takes the brunt of the punishing weather.

#### All moisturizers are not made equal

- What you put on your skin is absorbed by your skin.
- When you use heavily synthetic, chemical-laden products on delicate skin, be prepared for long-term damage.
- This doesn't mean you have to do without moisturizers or other skin care products.
- Look for natural products, and read those ingredients with a magnifying glass.
- Many products that claim to be herbal or botanical can contain artificial ingredients.

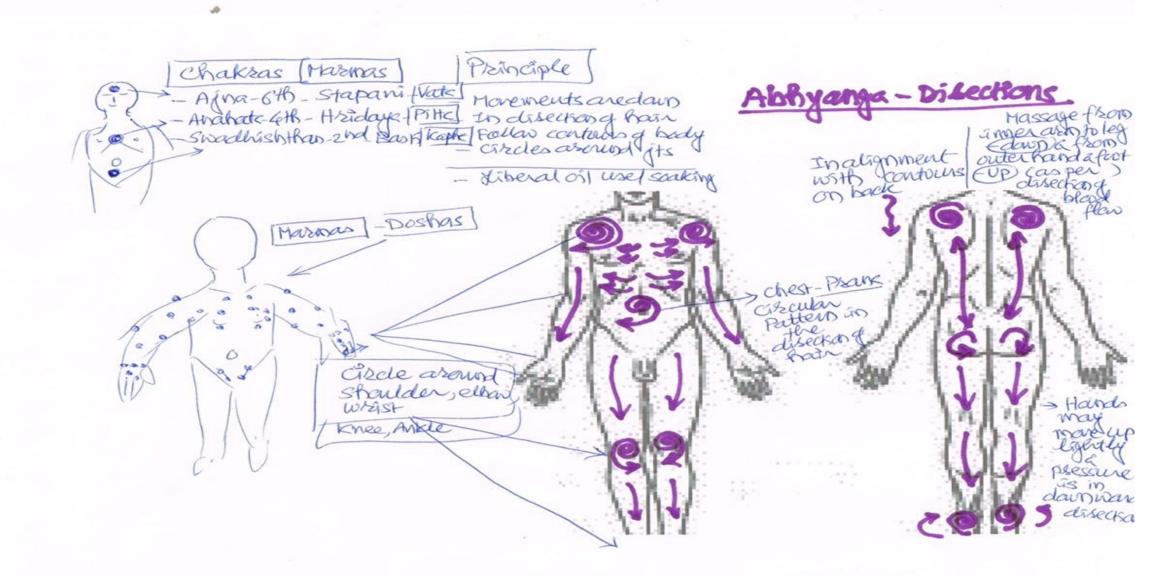
# Protect your skin

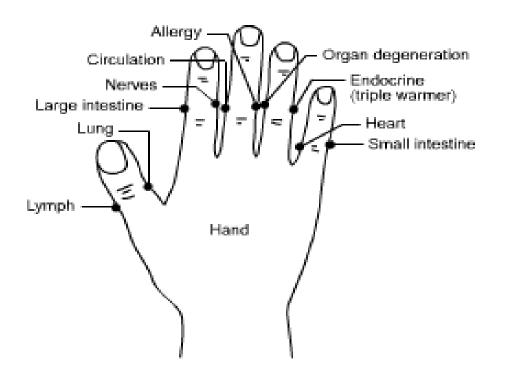
- Winter winds can be very harsh and drying on some types of skin.
- Choose natural fibers such as wool or silk for protection-natural fabrics allow the skin to breathe better.
- If your skin tends to chafe with wool, try thick cotton.
- Always dress in layers, so you can add or remove layers for comfort.
- Bundling up too much can cause moisture loss through sweat.
- Sun protection is just as important in Winter as it is in Summer-wear a wide-brimmed hat and avoid exposure to the hot sun as much as possible.
- Remember your sun-protection on that skiing holiday-the sun at high altitudes is even more damaging, especially when it reflects off snow.
- Winter skin is very receptive to deep nourishment.
- This is the season to pamper your skin with rich nourishment routines, morning and evening.
- The ayurvedic herb Gotu Kola, for example, is a collagen enhancer and can help your skin look and feel younger.
- Make sure you use a herbal product that is balanced.

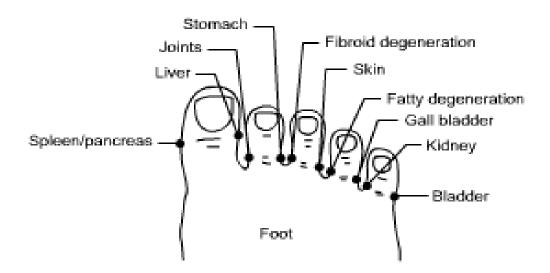
# Follow a skin-friendly lifestyle

- Get your beauty sleep.
- People tend to shortchange themselves on sleep during the holidays.
- Lack of sleep does not just put dark circles under your eyes and rob the luster from your skin.
- Sleep deprivation has been linked in recent research to long-term health problems, including obesity.
- Manage your time,
- plan ahead,
- get family members to share holiday tasks.
- A soothing cup of Slumber Time Tea,
- a warm bath scented with Maharishi Ayurveda Therapeutic Bath Salts, or
- settling aroma such as Slumber Time diffusing in your bedroom can all help you get those zzzs.

Ama 5







#### Below find some helpful hints for nourishing your skin type in all three winter weather conditions

Recommendations	Vata ( Cold and Windy)	Pitta (Freezing but not Windy)	Kapha ( Cold Damp Weather)
Exercise	Light	Moderate	Stimulating
Daily Oil Massage	Sesame Oil, Warm oils, Moisturizing and Warming Oils like Apricot, Almond, Jojoba,	Cooling or Soothing Oil Coconut, Castor, Kukui Nut Oil	Stimulating with warm oils
Moisturize	Skin especially facial		
Skin wash	Oatmeal, Moisturizing	Clay wash	Luffa sponge, Exfoliating and Stimulating
Aromatherapy	Vata, Floral and Herbal : Lavender	Rose and Sandalwood	
Covering & Clothing	which keeps skin warm and covered	which keeps body covered even when in snow like skiing	
Fabric	Silk and Wool	Cotton, Soft & Light	
Greens and Veggies	Plenty, Well cooked- leafy greens		
Fruits		Sweet and Juicy	
Spices	Cumin, Coriander, Turmeric	Cumin, Coriander, Fennel and Licorice Avoid: Hot & Spicy	Cumin, Coriander, Turmeric, Black Pepper, Ginger
Water	Warm or Room temp	Room Temp	Warm or Room Temp

#### **Products to Enhance Immunity**

- **Amrit** is the most powerful ayurvedic food supplement for boosting immunity and overall well-being, as shown in several research studies. Other studies have shown that it is 1000 times more effective than Vitamin C in scavenging free radicals, the reactive molecules that are responsible for disease and decay in the body.
- Using *massage oils* on a daily basis will also help enhance immunity.
- You can choose from
  - \*Moisturizing, (Vata)
  - \*Soothing, (Pitta) and
  - \*Organic Stimulating (Kapha) Massage Oils, and also special\*Rejuvenation and
  - \*Aroma Massage oils: Vata, Kapha ,Pitta, Sniffle free
- Daily ayurvedic self-massage, called Abhyanga, is one of the most pleasurable ways to enhance immunity.
- Self-massage stimulates all of the organs of the body, flushes out impurities, and possibly helps reduce stress and creates vigor in our body.
- Herbal Teas: Vata, Pitta, Kapha, Slumber time, Sniffle free tea.

