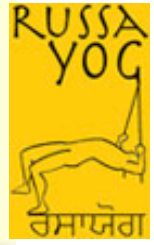


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The Arrow of Time:

Is Health-to-Disease a Natural Path?



If you are lucky you may have been to see the Taj Mahal in Agra, India. Built in 1631 by the Mughal emperor Shah Jehan for his wife Mumtaz Mahal this monument is now 369 years old. When you first see this white marble monument you may have the impression that it was built just a few years ago. Why has this building been untouched by time? You will notice a number of artisans continuously repairing the monument, mending the inlays of precious stones. The Indian government has placed a green zone around the Taj to keep any pollution away. In its history the monument was never attacked, in spite of numerous wars and rebellions.

The Taj Mahal offers a clue to how humans can slow their response to father time.

How does the arrow of time move? When we observe life we see young, beautiful bodies age, clever intelligent minds become dull, loving people become cynical or mistrusting. Is this a natural order of things? Can we stay well till the end and have an accepting transition to the end? Often it appears the following occur in our lives :

- We go from vibrant health to injury and disease;
- From being rich to being poor;
- From having a taut physique to having a saggy one;
- From having a sharp, open, adventurous and trusting personality and creative mind to a dull, fearful, cynical personality

Is this how Nature works? What are the answers to the following questions:

- How do we slow down the mind-body decay? How much can the decay be slowed?
- Can we self-heal our body, mind and spirit?
- How can we enhance self-healing? Where are the limits of self-healing?

- How do we distinguish between what may be probable from what is only remotely possible?

If we look around us we see that the arrow of time is such that normally we go from health to decay. Fruits become rotten, flowers wilt, youthful muscular bodies give way to old age and weak bent bodies. But remember we also see new flowers blooming, children being born, beauty being created. We see the cyclical nature of time. While we cannot live forever, *the use of yogic concepts allows us to greatly enhance our wellness and, within limits, allow progress from ill health to wellness.* We can also develop the wisdom that allows us to understand the *Samadhi* state to accept the inevitable and see that our own decay is replaced by beauty and health of the next generation.

So Many Ways to Lose Wellness; So Few Paths to Wellness:

The challenge of human existence is that there are almost infinite ways to be unhealthy but just a few paths that lead to wellness. Consider the following:

- If you are traveling by car, a momentary lapse of attention can cause an accident, sending you and your companions to the hospital.
- If you are walking down the stairs, a slight imbalance can cause a fall that can cause a concussion.
- If you enjoying a meal at a restaurant, a small lapse in kitchen hygiene can cause food poisoning.
- A small misstep resulting in betrayal in a relationship can cause loss of years of love and attention. A beautiful family can be torn by small errors.
- To clean your clothes it takes an hour of hard work. The same clothes can be dirtied in a second.
- It takes an hour of exercise to burn 600 calories while it takes 15 seconds to gulp down a milkshake that replaces those 600 calories.

So Easy to Break, So Hard to Build

A corollary to the concept described above is the observation that it is so easy to destroy something of value and so difficult to build anything of value and order. A careless action can cause a fire that in an hour can destroy a house that took years of planning and work to build. A beautiful, muscular physique can be destroyed in minutes. It takes a second to plunge a knife into the human body; it takes months of therapy to recover.

The Aging Process

Nearly everything we have learnt about aging from observation and from cultural and social immersion is appearing to be untrue. A generation ago a person of 60 or 70 was considered old and, on average, was hunched over with weak muscles and a feeble and cynical mind. Clearly we now see vigorous 60-year bodies and minds that are inquisitive and sharp in their 60s, 70s and beyond. New research into aging, along with yogic techniques for wellness is showing that the natural aging process is far slower than what we have been led to believe.

A majority of young people in developed countries will live close to 100 years. But what if you led your life so that at 70 your muscular strength was only 50% of the strength when you were 25 years old and your strength was rapidly decreasing? What if your height was 2 inches less because your spine had bent and vertebrae had collapsed? What if your memory was fading and you were unable to make new friends? How would your remaining 30 years be? Is that acceptable?

Imagine if you were to be as well in mind-body-spirit at 90 or 100 as you were in your 20s or 30s! Is it not worth taking time to explore this possibility and learn skills and techniques that would allow you to do so?

There are techniques and therapies based on medical intervention where your hormones are replaced, you are on special diets and purges, and wellness becomes your life's mission leaving you little time to create and contribute to the world. It is possible that such serious interventions help. But why not use the much simpler and inexpensive techniques based on yogic approach which in its simplest essence is: *Don't let it break in the first place! Avoid injury of the body, mind and spirit!*

Following are the main causes of what we see as aging:

- **Cell Biology:** In the cell replication process, errors are made that cause cell decay or mutation. Stresses of various kinds degrade this replication process. If you are exposing your skin to the sun too much you see the aging of the skin; If you smoke too much, eat too much, or worry too much, you interfere with a perfect replication, thus causing aging. In a stress-minimal environment each replication creates an exact copy with essentially no aging till the maximum number of steps, which is now believed to be 120 years.

- **Injury Based Living:** For a variety of reasons, ranging from ignorance to being overly competitive, you get injured and keep getting injured. Every injury (of the body, mind and spirit) enhances your aging process.
- **Rigidity of the Mind:** Your brain is capable of making new pathways through learning (languages, music, math, reading literature, conversation that is challenging,...). If these pathways are not developed your brain ages through loss of old pathways.
- **Outdated or Degrading Cultural or Social Attitudes:** Cultural and social attitudes can be such that they lead to practices that don't place high value on wellness. One is expected to behave a certain way at 60 or 70 or 80 or 90.
- **Poor Stress-Coping Skills :** Unexpected and expected stresses are part of life. These stresses can help you strengthen and stay youthful. But if you use poor coping skills when faced with stresses of life your wellness will suffer. Most coping techniques for stress depend on food, pills, alcohol, tobacco and other chemicals, anger, cynicism, withdrawal, etc.
- **The Rapidly Changing World:** Life spans are longer, healthcare is expensive, food supply is very different, gender roles are shifting, family support is different, the economy and work lifestyle is changing, technology is becoming omnipresent. The changing world is rendering previous pathways and skills useless. Exercise of the body and mind has to be different so it focuses on lifelong wellness with an aversion to injury. Injuries are an important source of aging. If you are injured you cannot exercise and the body degrades.
- **The inability to unlearn:** Most of our education is focused on learning. However, unlearning is equally important. In fact unlearning is more difficult than learning. We acquire unhealthy habits and coping skills knowingly or unknowingly and find it very difficult to let go of them.
- **The Competitive and Global Economy:** The economy is set up in such a way that to survive, one has to do things that cause decay and aging.

Concepts: Energy + Guardrails + Feedback

It does seem that Nature has intended life to slowly and steadily become unwell. How do we go against this Natural trend? Is it possible to convert weak muscles into strong ones? A poor posture into a strong muscular posture? A dull mind into a sharp one? A bad relationship into a healthy one? A very bad relationship into a non-relationship?

Let us use a simple example of a family using a set of china at home. You have a beautiful and special set of china that you want to use regularly and at the same time pass

it on to your children and grandchildren. How would you do that? You would follow these simple rules:

- 1) Keep the china in a closet which is opened only when you are ready to use the china;
- 2) Develop a 'best practice' to bring the china out. Bring it out calmly and a few pieces at a time, making sure that there is nothing on the floor to trip you, etc.
- 3) Use the china carefully and don't bang your spoons on the rims or throw the cups around. If there are children present be very careful.
- 4) After the use bring the china to the sink carefully and wash and clean as soon as possible using mild cleaners. Dry the china and put it back in the closet.
- 5) If the china chips try to get it repaired using good glue and care. Don't use the chipped piece, otherwise it will start crumbling more.

The key to keeping the china for a generation or more is having certain discipline, putting the energy to perform the discipline, and using resources (cabinets, washcloths, mild detergent, etc.) to protect the china. The same approach can be used to keep our mind-body well for our full lifespan.

To stay as well as possible one can use yogic tools to place a high priority on the wellness paths. *Here are the yogic tools:*

Pranayam (Energy or nutrition) and Asan (challenges)

To take any path, healthy or unhealthy, one needs fuel or nutrition. If you drive to Las Vegas you will need gasoline. What will you use for your nourishment? Here are the important nourishments for the body and mind:

- **Breath** is the nourishment in yoga practice.
- **Healthy food and drinks** (not to much, not too little)
- **Energy derived from nature** (sun, trees, rivers and oceans)
- **Physical touch and love** from others and doing for others.

When we think of *pranayam* we must think of both positive and negative. Physically negative *pranayam* would mean breathing polluted air or air with germs and viruses. Mentally negative *pranayam* would mean succumbing to superstitions and hoaxes. Socially bad *pranayam* is to participate in hatred of those not like us. Spiritually bad *pranayam* would be replacing love for ritual.

In addition to nutrition the body and the mind need challenges that allow growth. Through *asans* one can build greater strength, greater flexibility, greater balance, etc. If the *asans* are chosen well they will not injure. In the fitness culture dominated by competitive sports injury is ever-present. As shown in the table at the end of this document, *in USA there are nearly 3.5 million injuries in sports that require medical attention at a cost of close to 20 billion dollars.* An injury stops you from doing the fitness program and sets you back. When performed with *dhyan*, an *asan* allows you to develop wellness with minimal or no possibility of injury. The human body and mind can be stronger at 60 than it was at 20. The key is to use well-designed *asans* suitable for the modern ‘wired world.’

Niyam (Discipline or Guardrails) and Dhyan (mindful feedback)

As we have noted above there are so many paths to ill health and so few to wellness. Guardrails designed by us (not imposed on us) are needed to take paths that leave us feeling light and well. Personal guardrails need to ensure there is minimal deviation from the chosen journey. It is very easy to go off the path and hard to stay on the path. Nature offers many interesting choices, but once your path is decided do not let distractions take you off your path. Decide on your own *niyams* and choose them mindfully so they are doable and are not too rigid or punishing. The best *niyam* is one that places injury prevention as a high priority.

Imagine a mentor and guide who is watching over your shoulder and every time you start to deviate from your path, he or she taps you and helps correct you. This is what *dhyan* allows you to do. *Dhyan* is your own inner guide. With *Dhyan* you are in a stable state and any push or pull to topple you is self-corrected through *dhyan*. At any moment of time if you stop and listen to your mind you will hear many divergent voices. Thoughts are flowing through your mind—friends faces and conversations are floating through, the sales rep who was rude flows through, a list of items you have to pick up flashes across. In all this clutter there is also a thought that stabilizes you if you deviate from a path you have chosen. You want this stabilizing thought to be dominant, especially when there is a lot of distraction. While *niyam* also helps stabilize you, *niyam* has its limitations. To distinguish between *niyam* and *dhyan* let us consider a road trip in your car. *Niyam* is like the guardrail on the side of the road that keeps you on the road and protects you from falling over into a deep ravine. A guardrail on the road can prevent some accidents, but it cannot protect you from every possible accident. *Dhyan* is the ability to drive without guardrails and to be able to react to any unexpected event. In *dhyan* you can see the traffic slowing ahead, you see the car swerving in and out of the lanes behind you and

you prepare for a reckless driver. In *dhyān* you are aware of your car's gauges so you don't run out of gas. The tiniest abnormal rattle is picked up by *dhyān*.

To develop *dhyān* one needs to learn to clear the clutter of the mind. Meditative techniques where one keeps attention tied to a *mantra* (a concept embodied in a word or symbol), *prāṇāyāma* (breath sequence) or movement allows one to calm the clutter.

Resources

We need to learn skills and acquire knowledge to be able to release the negative residue of stress in life. A good moisturizing cream can release the residue of harsh climate on the skin. The Shvas program can remove the residue of daily living from the body.

The Energy Within Us: Chakras and Human Layers of Complexity

Let us examine the multi layered *chakra* (chakra: circle)-based description for full human development. Just as in a home a number of entities have to work well for the home to function, in the human being a number of layers have to be energized and kept active. In the home, we have the physical structure of the walls, doors, roof and the paint. We have the power sources, the gadgets that keep the home warm and allow us to cook our food, the beds, the entertainment systems, and the communication system... In the human form we have the following *chakras*. The *chakras* (circles) represent our various dimensions—from physical to spiritual. These *chakras* need to be energized through strong practice, mind control and life participation (not through gems and crystals and colors and furniture arrangements). All these *chakras* need to be nourished if we are to become well and stay well.

- **Mooldhara:** Source of our energy and strength; located at the base of the spine. This *chakra* represents our raw strength or power. Just like a car needs gasoline or electricity, we need raw strength to function. Our movements, ability to talk, get food, etc., all depend upon energy. *Asanas* in yoga that involve all our strength awaken our mooldhara.
- **Svadisthan:** Our creative energies; associated with our reproductive organs. Humans are creative not only in having the ability to reproduce (like other animals) but we can create art, music, mathematics, ... Creativity in all these areas is associated with pleasure. *Asanas* and *prāṇāyāma* that focus on our groin and abdominal muscles energize the *svadisthan*. Efforts linked to music, art, inventions of new technology allow the *svadisthan* to be nourished.

- **Manipur:** Ability to balance and regulate our energy; associated with the pancreas. The energy in our body needs to be regulated so it can be used as needed, when and where needed. The energy needs to be balanced, as any imbalance will create disharmony. Diabetes is an illness an increasing number of people are suffering from, partly as a result of poor diet. This disease weakens our energy (sugar) balance leading to a variety of problems. In a bigger sense we need to balance our life so that we pay attention to our physical, intellectual and social life.
- **Anahat: Heart:** Ability to empathize with others. The ability to feel empathy is an important step in the development of our spirituality. Through this process we can learn the concept of *IkOnkar* or seeing ourselves in all Creation. It is interesting to see studies that show how important having friends and loved one is as an antidote for aging. An open heart that forgives and does not hold grudges is essential to releasing life stresses arising from human interactions.
- **Visudha:** Ability to express joy and sorrow, and is associated with the thyroid. We laugh, cry, express surprise, and anger. This ability is critical for us and represents a healthy state. People who suffer from depression, thyroid related illnesses often are unable to express and carry a flat expression on their faces.
- **Ajna:** Inner eye with ability to look inwards; associated with the third eye between our out-looking eyes. We can self-examine and learn to release our ego. We can meditate, we can pray, we can commune with our inner self as well as the world outside us. By looking inwards with an enlightened *ajna* we can see our faults and correct them. We can even feel and diagnose our illnesses and their sources (although this requires a high degree of development). Just as through our outer eyes we can see the path so we don't walk into a bush, through our inner eye we can guide ourselves. A key outcome of an awakened *ajna* is to live injury-free. Injury to the body and mind is an important source of aging. Knee injuries can lead to arthritis. Hip fractures can lead to fear of walking and running, leading to a frail body. Injury to our confidence can cause fear and anger. Let's not injure ourselves!
- **Sahasrara:** Consciousness and ability to connect with the universe; associated with the top of our head or the pineal gland. This *chakra* distinguishes us from all other life forms and makes our lives especially precious. We can go beyond our immediate survival issues. Love is an obvious manifestation of *sahasrara*—not just love for our family—love for all, and even love for the entire Creation. *Sahasrara* is the most important *chakra* for it allows us to overcome our ultimate fear—death.

Tools for Daily Life

The laws of the world are such that disorder will increase i.e., ill health will increase, unless exceptional care is taken using the concept of *ashtang*. Here *niyam* is of critical importance.

Set your practical Niyams:

- Right exposure to sun: not too much just enough.
- Avoiding smoking and pollution.
- Stressing muscles to build and recharge.
- Challenge the mind. Choose some difficult mental tasks and accomplish them.
- Challenge your social skills. Make new friends or engage strangers in conversations.
- Avoid toxic relations. Just as you should not eat or drink something you are allergic to, stay away from toxic relations.
- Don't let celebrities and slick salesmen set your path. Set your own unique path.
- Spend time understanding economics since many stresses are related to financial stresses. Maintain the discipline needed so you can be financially stable.
- Be comfortable in your own skin.
- Meditate daily and heal any residue left from the day.

The following table of injuries is based on 2006 data compiled by the U.S. Consumer Product Safety Commission's National Electronic Injury Surveillance System (NEISS).

Estimated Number of Injuries	Sport and Type of Injury
529,837	Basketball - Cut hands, sprained ankles, broken legs, eye and forehead injuries.
490,434	Bicycling - Feet caught in spokes, head injuries from falls, slipping while carrying bicycles, collisions with cars.
460,210	Football - Fractured wrists, chipped teeth, neck strains, head lacerations, dislocated hips and jammed fingers.
275,123	ATVs, Mopeds, Minibikes - Riders of ATVs were frequently injured when they were thrown from vehicles. There were also fractured wrists, dislocated hands, shoulder sprains, head cuts and lumbar strains.
274,867	Baseball, Softball - Head injuries from bats and balls. Ankle injuries from running bases or sliding into them.
269,249	Exercise, Exercise Equipment - Twisted ankles and cut chins from tripping on treadmills. Head injuries

	from falling backward from exercise balls, ankle sprains from jumping rope.
186,544	Soccer - Twisted ankles or knees after falls, fractured arms during games.
164,607	Swimming - Head injuries from hitting the bottom of pools, and leg injuries from accidentally falling into pools.
96,119	Skiing, Snowboarding - Head injuries from falling, cut legs and faces, sprained knees or shoulders.
85,580	Lacrosse, Rugby, & other Ball Games - Head and facial cuts from getting hit by balls and sticks, injured ankles from falls.

References:

1. Baby Boomer Sports Injuries, U.S. Consumer Product Safety Commission, April 2000. [[PDF](#)]
2. [National Electronic Injury Surveillance System \(NEISS\) On-line](#)