

# Health strategy

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## Part I

# Strategies

### 1 Health strategy

#### 1.1 Longevity

Avg life capacity: 90 yrs. Sardinian Highlands, Okinawa, 7th day adventists enjoy high life expectancy.

Okinawans, Sardinian highlanders, adventists enjoy low-intensity workouts due to their lifestyle - they don't specially exercise.

They enjoy the benefits of close knit social circles of family and loved ones first, then about 4 to 6 friends throughout the life, then the tribe with which common easily identifiable values. The avg american used to have 3 good friends, now that number is down to 1.5.

#### 1.2 Problem response

Always be prepared for common illnesses. Have important medicine. Have phone number of the nurse-line handy.

##### 1.2.1 Strong focus on recovery

When illness attacks, attempt to stop all work, take rest; otherwise the stressed body will be open to other illnesses. Don't even venture out for amusement.

### **1.2.2 Attitude**

When disease attacks, an effective fight must be orchestrated. Information and a fighting-attitude is essential.

During disease, one may feel: 'Life has no purpose. It is not worth living in this pain.' But, this feeling about the nullity of life is a result of a body too sick to feel its natural urges, and of a mind which is feeling helpless. So, Never feel helpless and remember that mental capacity/ mode is affected by disease.

### **1.2.3 Techniques**

Modern medicine must be fully used. Learn lessons about causes and cures of illness.

Also use ancient and effective techniques to alleviate symptoms. For example, deep breathing relieves pain and sedates.

### **1.2.4 Important resources**

bcbstx.com.

UHS 24-Hour Nurse Advice Line (512) 475-NURS (6877). Or 1-866-412-8795 opt2. Condition management: opt3. Lifestyle mgmt: opt1.

Blue Care advisor: Registered nurse Janet Mwinamo. M1-866-412-8795 - ext 29070 M-F 0830-1700CST.

### **1.2.5 Unnecessary/ wrong treatments**

The wrong belief among patients that more care implies lower sickness, cognitive defects in doctors who don't rely on research, the fear of law-suits and prospects of more income (in countries like USA) also lead to these useless treatments.

## **2 Care-giving**

### **2.1 Quarantine**

Try your best not to be contaminated by the disease of the sufferer. Wear masks if necessary, wash hands often, sleep separately, avoid fluid exchange, use clean clothes, store brushes etc.. separately.

## **Part II**

# Information

## 3 Physical data

### 3.1 Body dimensions

height: 172.5 cms or 5 ft 7.92 in = 5.66 ft. (.92 in is 12 cms.)

weight: 107.5 pounds

chest 32 inches

stomach 28 inches

For clothing measurements, cell-phone height see clothing strategy.

#### 3.1.1 History

weight: 52 kgs or 114.9 pounds

## 3.2 Eyes

### 3.2.1 Eye measurements

Pupil Color: brown.

Bridge width: 17mm: average nose.

Temple length: 103 mm.

[Jan 2011] Right eye: 2.25 sph, 0.75 cyl, 80 deg; Left Eye: 1.75 sph, 1.5 cyl, 100 deg.

Pupillary distance: 70.

[26 May 2010] left (OS): spherical: -1.5 cylindrical: -1.25 axis: 95 degrees

right (OD): spherical: -1.75 cylindrical: -1 axis: 80 degrees (seems old spectacles was not 75 degrees as it was supposed to be.)

[20th Mar 2009]

left (OS): spherical: -1.5 cylindrical: -1.25 axis: 95 degrees

right (OD): spherical: -1.75 cylindrical: -1 axis: 75 degrees

Pupillary distance: [Ref] Self measurement: 72 mm, 70 mm, 72 mm (self, 2 ft from mirror and mark on glass). Avg is 71.66 mm.

Erica Chiang, OD, Walmart, Austin TX..

#### 3.2.1.1 Old spectacles

Eye (glass) width: 45 mm. Height: 26 mm.

Bridge width: 20 mm.

Temple length: Approx 132.5 mm: 5mm difference not a huge deal. Curved length 140 mm: bit too big from memory. Total width: 110 mm.

[9th Jul 2007] intraocular pressure: 17 mm Hg

left (OS): spherical: -.25 cylindrical: -1.75 axis: 90 degrees

right (OD): spherical: -.25 cylindrical: -1 axis: 75 degrees Dr Vishvamurthy, be~NgaLuru..

[25th Apr 2006] left: spherical: -.5 cylindrical: -.75 axis: 90 degrees  
 right: spherical: -.75 cylindrical: -.25 axis: 75 degrees

### 3.2.2 Places to buy or test

Walmart Vision center: (512) 491-9707, 45\$. UT Health insurance does not cover polycarbonate lens.

Titan eye + or baLEpETE, be~NgaLuru.

Online: [Ref] [Ref] [Ref] [Ref]

googles4u: Can get frame for 10, polycarbonate for 33\$, photocromatic glass for 59 - only for glass lenses, but in current specs (as of 2010), they seem to have missed it despite my order. You get a discount if you go through glassyeyes.

29dollarglasses: polycarbonate transition glasses: 40 + 50.

### 3.2.3 Properties of good eyeglasses

For sunglasses details, see clothing strategy.

#### 3.2.3.1 Lens

Polycarbonate lenses are thinner and lighter than traditional plastic eyeglass lenses. They also offer 100 percent ultraviolet (UV) protection and are up to 10 times more impact-resistant than regular plastic lenses. Fewer scratches too. no UV treatment needed, no scratch resistant coating needed.

No need to prefer thinner and lighter high-index lens materials for current needs: 1.5 refractive index enough. Edges that are thicker than their centers.

Antireflective coating: No halos around lights. Polarization: eliminate glare from horizontal surfaces: not needed usually.

Photochromatic lens: Darken to sunglass shade when exposed to sunlight.

Transitions lenses: variable-tint technology, rapid darkening, come in high-index polycarbonate, expensive.

#### 3.2.3.2 Frame

You can also get a headache if you're not looking through the optical centers of the lenses. Frames that are too large or that don't fit the bridge of your nose properly can slip.

Full rim frame. Spring hinges.

If playing sports, use sports frame to withstand impact.

Material: Plastic is easier to break. Titanium, beryllium and stainless steel are lightweight, strong and corrosion-resistant.

Note disadvantage of frames of small height, when having to look at both blackboard and book.

### 3.3 Blood

#### 3.3.1 Pressure and pulse

[10th apr 2010] When relaxed, 1.5 hours after lunch. blood pressure: 102/57 mm of Hg pulse: 69 / minute (regular)

##### 3.3.1.1 History

[17th feb 2006] blood pressure: normal 120/80 mm of Hg pulse: 76 / minute (regular)

#### 3.3.2 Blood picture

[17th feb 2006]

\* Haemoglobin: 12 gm% (normal) 15.4 gm/dl [1st mar 2003] \* RBC count: 4.0 mil/cmm (normal range: 4.5 to 6.5) 5.4 mil/cumm [1st mar 2003] \* hematocrit: 39% (normal) [1st mar 2003] \* WBC differential count: \* neutrophils 65% (normal) 54% [1st mar 2003] \* lymphocytes 29% (normal) 33% [1st mar 2003] \* eosinophils 04% (normal) 06% [1st mar 2003] \* monocytes 02% (normal) 07% [1st mar 2003] \* basophils 0% (normal) \* erythrocyte sedimentation rate: 05 mm/hr [1st mar 2003] \* platelet count: 1.8 lakhs/cumm (normal) [1st mar 2003] \* mchc: 40 gm/dl (normal range: 31 - 36) [1st mar 2003] \* mch: 30 pg (normal) [1st mar 2003] \* mcv: 76 fl (normal) [1st mar 2003] \* Peripheral smear: normocytic/ normochromic \* "platelets were adequate." \* blood group (serology) : A +ve [Rh(D) typing

### 3.4 Biochemistry

[17th feb 2006]

\* blood sugar (fasting): 78 mg/dl (normal) o corresponding urine sugar: nil \* blood sugar (post lunch): 119 mg/dl (normal) o corresponding urine sugar: nil \* cholesterol: 168mg/dl (normal) \* serum creatinine: 0.9 mg/dl (normal) \* S G P T: 23 IU/L (normal) \* stool: [17th feb 2006] \* color: brownish \* consistency: semisolid \* reaction: alkaline \* mucus: absent \* frank blood: absent \* Ova: nil \* cysts: nil \* pus cells: 4-5 / hpf \* RBC: nil \* "others": nil

### 3.5 urine

[17th feb 2006]

\* color: pale yellow \* appearance: clear \* deposit: absent \* reaction: acidic \* specific gravity: 1.010 \* albumin: nil \* sugar: nil \* ketone bodies: absent \* bile salts: absent \* bile pigments: absent \* pus cells: 2-3 / hpf \* epithelial cells: 1-2 / hpf \* rbc: nil \* crystals: nil \* casts: nil \* "others": nil

### 3.6 Other data

ECG: normal [17th feb 2006] XRay chest pa view: [17th feb 2006]

\* soft tissues of chest and thoracic bony cage appear normal. \* tachea is almost centrally placed. \* cardiac outlines appear normal. \* lung parnchyma appear normal. \* both hila appear normal. \* no evidence of mediastinal mass. \* both cp angles are clear. \* no evidence of pleural effusion on both sides. \* both domes of diaphragm normal in contour. \* normal study. similar result found on [1st mar 2003].)

lung function test [1st mar 2003]: "Significant l?? and f?? airway obfuscation. Good BD relapse.

## 4 Brain health

### 4.1 Genetics

Some special genes can predispose you or increase resistance to diseases, including cognitive ones like alzheimers. As explained in the human society survey, genes play a limited role in general in the heritability of intellect.

### 4.2 Blood supply to the brain

Fatty build up in blood vessels is linked with brain impairment, and deadly strokes and heart attacks. The brain relies on a good blood supply to keep its functions and processes in top order.

#### 4.2.1 Hydration

Hierarchical regression models demonstrated that lower hydration status was related to slowed psychomotor processing speed and poorer attention/memory performance, after controlling for demographic variables and blood pressure.

##### 4.2.1.1 Negative agents

Drinking heavy amounts of alcohol shrinks your brain.

#### 4.2.2 HDL levels

One important determinant of blood vessel health is cholesterol levels, with the LDL subtype of cholesterol being bad for your arteries and HDL being good. Many dietary items which increase HDL naturally include.

##### 4.2.2.1 Negative agents

Smoking reduces HDL.

**Trans fats** Trans fatty acids (commonly termed trans fats) are a type of unsaturated fat. Most trans fats consumed today, however, are industrially created as a side effect of partial hydrogenation of plant oils. Partial hydrogenation changes a fat's molecular structure (raising its melting point and reducing rancidity), but this process also results in a portion of the changed fat becoming trans fat. In trans fat molecules, the double bonds between carbon atoms (characteristic of all unsaturated fats) are in the trans rather than the cis configuration, resulting in a straighter, rather than a kinked shape. As a result, trans fats are less fluid and have a higher melting point than the corresponding cis fats. The primary health risk identified for trans fat consumption is an elevated risk of coronary heart disease (CHD). [Ref] In other words, it blocks blood vessels, including those which plumb the brain.

### 4.2.3 Capillary damage

#### 4.2.3.1 Oxidative damage

Since the brain uses about 25% of the body's oxygen, the brain is highly susceptible to oxidative damage.

#### 4.2.3.2 Diabetes

Diabetes damages the small blood vessels in the brain, and eventually rots these vessels to the point where they entirely close off. When this happens, the brain tissue fed by the blood vessel dies (i.e. a stroke). The diabetic brain therefore frequently looks like Swiss cheese, with lots of little holes scattered all over the place.

#### 4.2.3.3 High blood pressure

Also damages the plumbing.

## 4.3 Nutrition

See food strategy.

## 4.4 Activities: Stimulation and rest

### 4.4.1 Physical activity

Physical activity may be beneficial to cognition during early and middle periods of the human lifespan and may continue to protect against age-related loss of cognitive function during older adulthood. The tasks, which measured subjects' reaction time and response accuracy when presented with congruent and incongruent visual patterns, involve cognitive processes known as executive control function (ECF).

Exercise causes the frontal lobes to increase in size. But other regions benefit from exercise in many secondary ways. "Wherever you have the birth of new brain cells, you have the birth of new capillaries."

#### **4.4.2 Cognitive exercise**

The Religious Orders Study, which began in 1993 and includes more than 1,000 nuns, priests and brothers across the country, has found that those who engage more often in reading, puzzles and processing information have a 47 percent lower risk of Alzheimer's disease than those who do little or none.

As Begley points out, many scientists now pooh-poo the "use-it-or-lose-it" theory of mental functioning. Instead, they argue that it is "cognitive reserve" built up largely before the age of 30, not ongoing mental training, that benefits aging adults.

#### **4.4.3 Negative agents**

Games such as Mahjong epilepsy.

##### **4.4.3.1 Prolonged stress**

The more hours you put in at work, the more likely you are to have high blood pressure. High Blood Pressure ravages the small blood vessels that feed the brain, and over time leads to many little holes in your gray and white matter that are quite obvious on MRI brain scans. [Ref]

In medical students studying for exams, the medial prefrontal cortex shrinks during cram sessions but grows back after a month off. [Ref]

##### **4.4.3.2 Sleep deprivation**

Some aspects of memory consolidation only happen with more than six hours of sleep. [Ref]

Teenagers who stay up late on school nights and make up for it by sleeping late on weekends are more likely to perform poorly in the classroom. This is because, on weekends, they are waking up at a time that is later than their internal body clock expects. [Ref] Sleep debt can be repaid, though it won't happen in one extended snooze marathon. Tacking on an extra hour or two of sleep a night is the way to catch up. [Ref]

By depriving rats of sleep for 72 hours, the researchers found that those animals consequently had increased amounts of the stress hormone corticosterone, and produced significantly fewer new brain cells in the hippocampus. [Ref]

### **4.5 Physical damages**

About an American football player: He committed suicide November 2006 at the age of 44. The results of his brain autopsy have just been announced, and



the pathologist from the University of Pittsburgh concluded that his brain cells had the appearance of an 85-year-old man with Alzheimer's disease.

They found brain damage in virtually every Everest climber but also in many climbers of lesser peaks who returned unaware that they had injured their brain.

On shockwave injuries: If the skull doesn't break, sometimes this can lead to the energy of the impact being more fully absorbed by the brain, often leading to shearing and tearing of the white matter pathways as the brain 'bounces around' inside.

## **4.6 Aging effects**

In general, memory declines with age. But, for a few people, it remains clear and functional. [National Geographic, Nov 2007]

### **4.6.1 High spread**

Claude E Shannon died of Alzheimer's disease. It's estimated that 5-10% of the population aged 65 years or older has dementia.

### **4.6.2 White matter decline**

White matter naturally degrades as we age causing disrupted communication between brain regions and memory deficits after conducting a battery of cognitive tests and brain scans on 93 healthy volunteers, ages 18 to 93. [Ref]  
The observed weakening of these brain network interactions (associated with default state and executive functions) was significantly correlated with a measured decline of cognitive functions as a result of aging. [Ref]

# **Part III**

## **Health problems**

### **5 Injury record**

Many abrasions on knees, elbows whilst running, playing throughout childhood and youth.

Injury: Loss of 2 milk teeth. Cause: Impact with another kid's head. Age: Primary school. Treatment, result: Not treated. Possibly buck teeth.

Injury: Injury to head, among others (possibly including severe elbow abrasion). Cause: Fall in gutter in road next to playground. Impact on stone. Age: Primary school. Treatment, result: Stitched, scars.

Injury: Deep 2 inch cut behind right shin bone, below knee. Cause: Hit by scooter while crossing road. Age: Middle school. Treatment, result: Stitched, big scar.

Injury: Fracture of right little finger joint. Cause: Unknown. Age: Before or during high school. Treatment, result: Not treated, badly set.

Injury: Loss of 2 permanent teeth. Cause: Fall while wicket-keeping. Impact with stone. Age: 11th or 12th grade. Treatment, result: Both teeth retrieved. Dkeletal support of one damaged, so tooth discarded. 1 tooth replaced after root canal treatment, which, being badly executed, damaged that tooth.

Injury: Deep abrasion in palm, knees, chest. Cause: Motorcycle skid on a stony road. Age: 3rd year BE. Treatment, result: Stitches, rest.

Injury: Loss of teeth. Multiple abrasions. Cut in the chin. Cause: Age: Treatment, result:

## **6 The head**

### **6.1 Heavy head**

#### **6.1.1 Symptoms**

Head feels heavy, stuffy. Attention is impaired.

#### **6.1.2 Cause**

Exposure of head to cold air or cold water.

#### **6.1.3 Solution**

Go to sleep at once. A nap suffices sometimes. But may last entire day. Even then, should be gone in 2 nights sleep.

Use paracetamol (known as acetaminophen in the USA) if necessary.

#### **6.1.4 History**

Late Nov, Dec 5 2011: Heavy head (observed after walk in very cold weather) disappeared with evening nap.

05/14/2008: Went on a hard cycling trip on the previous day, a hot-air day. Skipped lunch, ate early dinner on the previous day. During the trip, I had swam for half an hour in very cold water. The next day, head was heavy. Studied for most of the day, fighting to retain attention. Went out for shopping and slept late. Upon waking the next day, the disorder was gone, but was replaced by stomach ache.

October 2007: Played tennis outdoors in Massachusetts while cold wind was blowing. The next day, heavy head ensued. In future tennis games, I wore good and warm head and ear coverings; and in those cases, heavy head did not ensue.

## 6.2 Migraine

(\*possibly\* a type of vascular headache) Symptoms: blur patches in the vision field (Fully reversible, one sided, "visual aura", a mostly neurological event), inability to read, developing to a blur ring around vision field (tunnel vision), lasting for around ten minutes, ending in nausea and slight headache

### 6.2.1 Cause

\* stress \* bright light \* skipped/ irritating meals \* unnatural use of the brain (noticed on two occasions) in trying to induce an artificial, memorized "state of the mind" (eg: simulation of quick thoughts by bringing up quick, moving images in the mind)

### 6.2.2 Solution

Go to sleep at once. Use paracetamol (known as acetaminophen in the USA) or vasograin (includes paracetamol and caffeine) if necessary.

### 6.2.3 History

No migraine since 2007, when I identified the cause: crude misuse of brain.

## 6.3 Dry eyes

Symptoms: Dryness of the eye

### 6.3.1 Cause

Strain to the eyes, generally because of reading too much.

### 6.3.2 Solution

rest eyes.

## 6.4 Eye strain

### 6.4.1 Symptoms

No burning sensation; just a feeling of lack of strength in muscles required to rotate the eyeball.

Greater social irritability, lack of concentration.

### 6.4.2 Causes

**Strained eye muscles** Straining of some eye muscle; especially the ciliary muscle involved in focusing. Switching between distances rapidly can hasten the strain as well.

Staring at a monitor for a long time also causes it.

**Environmental factors** A flickering wireless mouse cursor is suspected to have once played a part.

High contrast also causes eye strain. (Was once using low contrast in linux installations for this reason.)

**Stress and fatigue** Stress, in part: so can be psycho-somatic.

### 6.4.3 Solution

**Immediate relief** Deep breathing. A nap. A walk.

**Use of eye as a physical activity** Research or reading or programming should rightly be considered a physical activity as it involves heavy use of the eye muscles, wrist, shoulder, fingers - there is often over-emphasis on the mental aspect of the job.

**Fixing the environment** Use a low contrast background; make the working area evenly lit. Remove glare.

**Developing and maintaining strength of eye muscles** Use eye exercises: eye yoga.

**Giving breaks to the eyes** Every 20 minutes, stare at a point 20 feet away for 20 seconds, giving 20 seconds for the transition in focus.

### 6.4.4 History

On Nov 30 and Dec 1 2009, I experienced eyestrain. There was no burning sensation; just a feeling of lack of strength in muscles required to rotate the eyeball. On Nov 30, I got relief by taking an hours nap. On Dec 1, very surprisingly, I got relief after some deep breathing. Hence, this pain is suspected to be psycho-somatic. Or, is it just that deep breathing suppresses pain?

April 1st week, 2010: Eyestrain experienced on Saturday, following heavy note-making. Was absent after long rest on Saturday; irritability towards others was observed. Did 4.5 hours coding on Sunday. Next morning, there was eyestrain; this reduced attention during classes, removed enthusiasm for work.

May 3, 2010: rAtrau akShipIDA. tatttu nidrAgamane  
vAdana-pAda-anantaraM eva agachChat. nAgarAjJNA saha kArya-samaye  
akShi-vishrAntiH na prApyate iti ajAnaM.

## **6.5 Stiff neck**

### **6.5.1 Cause**

Stress or response to cold or cold drafts of air.

### **6.5.2 Solution**

Take a walk.

Deliberately learn to relax your muscles when cold.

Take care of stress.

### **6.5.3 History**

In the last 10 days of October 2010, before the AISTATS deadline, it was getting cold at night, and there was much stress. I developed a stiff neck. It disappeared over the next few days.

## **7 Respiratory system**

### **7.1 Nasal congestion**

Topical decongestants should only be used by patients for a maximum of 3 days in a row, because rebound congestion may occur in the form of rhinitis medicamentosa. [Reference]

Use prANAyAMa and mantras with many anunAsikas.

### **7.2 Common Cold**

Symptoms: Yellow mucus indicating infected sinuses.

#### **7.2.1 Cause**

Your nose runs during a cold or the flu to get rid of unfriendly bacterial or viral invaders.

#### **7.2.2 Solution**

Rest. Ingest lot of warm food and vitamin C. Relieve congestion.

The use of vasoconstrictors is typical. See allergic rhinitis section.

### **7.3 Dry cough/ itchy throat**

#### **7.3.1 Symptoms**

Dry cough has no purpose and the irritation on the chest is more nuisance than benefit. Can lead to disturbed sleep.

### 7.3.2 Cause

Post-nasal drip. Daily, one swallows much mucus. In case of post nasal drip, mucus production is excessive.

### 7.3.3 Solution

Drink much water to wash down mucus. Nasal irrigation. Sleep with many pillows. Breathing slowly and deeply reduces dry cough.

Honey.

Benadryl.

#### 7.3.3.1 Local anesthetics

Menthol tablets: Halls, Vicks etc.. were very effective during a flu attack in Feb 2011, especially when they were held in the mouth for long while sleeping. Chloraseptic spray.

## 7.4 Allergic rhinitis (Hay fever)

### 7.4.1 Symptoms

Non-Yellow mucus. Itchy throat. Itchy eyes. Sneezing. Can lead to lack of good sleep, fatigue and further complications.

### 7.4.2 Cause

Allergens, which include pollen grains and dust irritate the nasal membranes. The pollen count, in general, is highest from mid-spring to early summer. Hot, dry, windy days are more likely to have increased amounts of pollen in the air than cool, damp, rainy days when most pollen is washed to the ground. [Reference]

### 7.4.3 Symptomatic Solution

Consider defense against asthma simultaneously.

#### 7.4.3.1 Anti-histamines

Histamine, produced in response to foreign pathogens, induces an inflammatory response. Antihistamines stop them.

Eg: 10mg Cetirizine (eg Zyrtec) every 6 hours, 10mg Loratadine.

**With decongestants** These combinations are marketed using the same brand name as the cetirizine with a "-D" suffix (Zyrtec-D, Virlix-D, etc.) Claritin-D/ Allegra-D, which combines Loratadine with pseudoephedrine, was very effective in 2011.

**7.4.3.2 Decongestants: vasoconstrictor**

Use vaso-constrictors, like Pseudoephedrine, oxymetazoline (afrin spray).

**7.4.3.3 Decongestants: Steroids**

Nasal steroids reduce inflammation in the nasal passages and are better than oral antihistamines at relieving most nasal symptoms, including a blocked nose. Nasal steroids have to be used regularly to be effective. They are best started a couple of weeks before the pollen season begins.

Use fluticasone (eg Flixonase allergy nasal spray) : a spray for each nostril twice daily.

**7.4.3.4 Decongestants: water based**

Saline spray: seems surprisingly effective.

**7.4.3.5 Allergen avoidance**

Remain indoors in the morning and evening when outdoor pollen levels are highest. Keep windows closed and use the air conditioner if possible in the house and car. Do not dry clothes outdoors. A small amount of petroleum jelly around the eyes and nostrils will stop some pollen from entering the areas that cause a reaction.

**7.4.4 Permanent Solution**

Consider immunotherapy. Rush immunotherapy has been successfully attempted at KIMS, be~NgaLUru.

**7.4.4.1 Hookworm infection**

Low-level Hookworm infection is shown to modulate the immune system and eliminate asthma symptoms.

**7.4.5 History****7.4.5.1 be~NgaLUru**

June 2nd to 4th, 2008: I arrived in India from USA and after the first night, was beset by severe hay fever. Topical decongestants (Vicks) provided some relief, but not adequately. Restful sleep was impeded severely. On June 4, I took Zyrtec (10mg in the morning and 10 mg in the afternoon), around 4 to 6 sprays of Flonase during the day. Long, drowsy, restful sleep ensued. Ill effects were much lesser the next morning.

May 20 to June 6, 2010: Allergic rhinitis was much less severe compared to last time: did not allow onset of wheezing. Treated running nose with anti-

histamines (Zyrtec): initially once a few days, then more frequently: once in 2 days towards the end. In the last couple of days, closed windows.

#### 7.4.5.2 Austin

Aug 6th 2009: Austin TX. Moved to new apartment. Was a slightly stressful day. Slight wheezing observed. Cleared rapidly upon eating Zyrtec.

october 20th 2009: Austin TX. Had eaten a dinner of nuts the previous night. Much sneezing observed next morning. Stopped after clearing nose and relaxing.

High sneezing due to eating nut/ berry mix.

#### 7.4.5.3 Seattle

vidyA-gRRihe comforter-bed-upayogaH kRRitaH August 29 rAtrau. anu-dine allergic rhinitis cha repeated sneezing .

### 7.5 Asthma/ allergic bronchitis

#### 7.5.1 Symptoms

Wheezing, shortness of breath, profuse production of mucus, wet cough, blueness in the nails

#### 7.5.2 Cause

the pulmonary lining reacts to some atmospheric irritant

#### 7.5.3 Solution

Rest. Consider defence against rhinitis simultaneously.

##### 7.5.3.1 Anti-histamines

See allergic rhinitis section.

##### 7.5.3.2 Decongestants: steroids

See allergic rhinitis section.

##### 7.5.3.3 Decongestants: beta2 agonists

These cause smooth muscle relaxation, leading to widening of bronchial passages. According to well-done studies, these should never be used alone: they should be used in combination with steroids. Eg: salbutamol.

For even more severe attacks: long-acting beta-agonists (LABA).



**7.5.3.4 Inhaler use**

Prime the inhaler before your first use. Using a spacer or holding the inhaler 2 inches from the mouth may improve delivery. The only reliable way to determine if the inhaler is empty is to count the number of doses. Patients should rinse/ gargle their mouths with water and spit after glucocorticoid inhaler use to prevent oral thrush/ cancer and dysphonia.

Past prescription (2006 - 2007): SeroFlo 250 (salmeterol, a long-acting beta-2 agonist and Fluticasone Propionate, a glucocorticoid) and Asthalin (Salbutamol) (100micrograms per dose, a short-acting Beta-2 adrenergic receptor agonist, a bronchodilator) have been successfully used. Side effects may include tremors.

**7.5.4 History**

Serious attacks started in 2003-2004. There was one attack in Mysore in early 2004. No inhaler was prescribed at that time. There was an attack in Bangalore in early 2005. Pulmonary tests were conducted. Inhalers were prescribed and use was demonstrated at Sagar Appollo hospital. Further attacks happened in 2006 and 2007. Effective medicine was prescribed.

A mild attack on the night of June 12, in conjunction with the allergic rhinitis attack and a coughing bout. A mild attack on August 6-9, in conjunction with the nasal infection, mild fever a couple of times, allergic rhinitis attack and coughing bouts.

**8 Wide spread infection****8.1 Flu/ Viral fever**

Symptoms: Rhinitis, possible bronchitis, Cough which is initially dry, Fevers which come and go, chills.

**8.1.1 Cause**

Viral infection.

**8.1.2 Solution**

Rest.

Get symptomatic relief for fever, dry cough, congestion etc..

**8.1.2.1 Prevention: Vaccination**

Get flu-shots: even though they are ineffective if the strains in the vaccine do not match the ones in circulation, one cannot tell in advance if this is the case. When they are well matched, they are very effective.

### 8.1.2.2 Prevent contamination

While caring for the sick, take care not to exchange bodily fluids, wash hands often, have good air circulation/ maybe wear mask, sleep separately etc..

### 8.1.3 History

2011 Feb 14-21, Austin: Did not get flu shots that season. Caught flu from shruti, who had recovered fast - worst symptoms only lasted 2-3 days. Surprisingly, my recovery was much slower. Initially slight body pain, then dry cough which prevented sleep, fevers which came and went, then rhinitis, then bronchiitis.

## 8.2 Fever

Symptoms:

### 8.2.1 Cause

Viral or bacterial infection. People with lower immunity are especially susceptible: HB fell ill after walking in the rain.

### 8.2.2 Solution

Rest

Ingest Temperature reducers and painkillers like paracetamol.

If bacterial, get antibiotics, ingest complete dosage to avoid creation of superbugs

## 8.3 Chicken pox

### 8.3.1 History

Happened during primary school.

## 9 Gastro-intestinal tract

### 9.1 Stomach ache / cramps

#### 9.1.1 Symptoms

(Possibly) bubbling sounds in stomach, flatulence, burping, stomach pain / burning, vomit of digestive acids and food.

### 9.1.2 Cause

\* Stomach releases digestive acid - only to find that there is nothing to digest. Trigger could be Skipping food, abnormal stimulation of stomach.

\* possibly Indigestion/ over-eating, eating outside routine times, spicy food

\* stress

\* food poisoning or infection.

Also, may be connected to excessive soluble fiber intake: see flatulence section.

### 9.1.3 Solution

First vomit the acid out. Pain killers. Antacids (salts to neutralize acid) or H2 blockers (Zinetac/ ranitidine, ), or proton pump inhibitors (Prilosec).

Rest.

Take a walk.

Avoid tea, caffeine, milk or anything acidic. Eat (oat meal) broth as possible.

### 9.1.4 History

01/29/2008: Woke up at 0500 with stomach ache. Drank water, took Zinetac, but on waking up later, pain had increased. Had to vomit many times. Took paracetamol, but it was washed out as vomit. Only a couple of spoons of food went in. After stomach, rectum and bladder were emptied, slept for some time, and woke up better. Still, lethargy persisted until I was forced to get out.

Possible cause: Blueberry bread and microwaved vegetables eaten the previous night were very dry. I also ate 1 very old, wrinkled peach during the previous night.

05/15/2008: Was suffering from a heavy head on the previous day, but fought for attention and studied for most of the day. Had eaten potentially dirtied nuts earlier. Ate dinner early upon becoming hungry. Dinner was spicy (with tomato spice, green spice) Mexican food. Rather than sleep, went shopping. Drank fruit juice and slept at midnight. Woke before sunrise to pain, ate curd-cereals to moderate it. On waking up after sunrise, very severe pain persisted. Vomiting the acid out brought temporary relief, but would soon be replaced. Emptied bladder and rectum. Ate pain killer, which bought time and some capacity for activity. Ate Zinetac, the H2 suppressor. Intermittently ate few spoons of oat-meal broth. Slept. Found some relief, but continued to rest.

Possible causes: Stress and food eaten the previous day.

## 9.2 Forceful defecation

### 9.2.1 Cause

Irritants like excessive spice.

## 9.2.2 Solution

### 9.2.2.1 Safe defecation

Ejection of feces with a fart often occurs - especially at the beginning of defecation. Splashing often occurs.

Avoid splashing in western toilets by inserting toilet paper on water surface to smoothly decelerate ejected feces.

Avoid infecting others and to stay safe: clean the toilet surroundings/ components, take a bath.

## 9.2.3 History

March last week 2011: Ate very spicy and salty sea-weed soup - with much pepper, curry powder, some milder spices. Normal defecation next morning. But in the afternoon, there was seaweed was defecated - this time beginning with a fart, anus seemed sensitive - some splatter.

## 9.3 Gut bacterial damage

[Incomplete]Fecal transplants.

## 9.4 Diarrhoea

### 9.4.1 Cause

Infection in the gastro-intestinal tract.

Osmotic diarrhoea: too much water is drawn into the bowels. Usually due to overconsumption of incompletely digestible substances.

#### 9.4.1.1 Irritants

Or apple or prune juice having high fructose: glucose ratio (undigested fructose due to excessive intake) or large quantities of artificial sweeteners (sorbitol is hard to absorb). So gastro-intestinal tract tries to get rid of irritants.

### 9.4.2 Solution

Rest.

Replenish bodily fluids and electrolytes faithfully to avoid dehydration. Symptomatic relief: Loperamide/ Eldoper: Ensures that food stays in the intestine longer, allowing for more water to be absorbed. Dosage: In adults and children 12 years of age and older, the usual dose is 4 mg (2 capsules) as a first dose, followed by 2 mg (1 capsule) after each unformed stool. The maximum dose is 16 mg/day.

Await diarrhoea cessation for a day or two. Visit a doctor of medicine if it does not.

Loperamide does not cure the infection which may have caused diarrhea in the first place. So, may need to ingest antibiotics.

Also see forceful defecation section.

### 9.4.3 History

Happened many times during childhood.

Early December 2007: Diarrhoea after drinking two glasses of concentrated apple juice.

01/27/2008: Two rounds of loose motion in the morning. Possible cause: bread with spicy garlic pasta sauce eaten for snacks the previous day.

Nov 11 and 12, 2008: Diarrhoea and flatulence upon consuming prune juice. It disappeared when consumption of prune juice was stopped.

August 1, 2009: Ingested frozen yogurt topped with sugar-free hot-fudge, marinated raspberries, walnuts at around 1700. Diarrhoea occurred when I finally responded to slightly irritated, flatulant stomach, extretory urge at 2230.

Jan 2010: Several days after shRRingEri trip, had diarrhoea. A few days later shruti started having diarrhea too. Until I started ingesting antibiotics (2 days after onset), the diarrhea did not stop.

## 9.5 Excessive worms in the gastro-intestinal tract

### 9.5.1 Symptoms

Note that we have coevolved with some worms in the gut. Hookworm infection has been shown in some people to eliminate asthma.

But, the worm infestation, when excessive, is bad. This leads to symptoms like overeating, anemia etc., depending on the worm.

### 9.5.2 Cause

### 9.5.3 Solution

Ingest anti-worm medication

### 9.5.4 History

Happened many times. Pin worm infestation. Round worm infestation.

## 9.6 Nausea

### 9.6.1 Cause

### 9.6.2 History

July 2009: Ate seaweed, very undercooked, salted, in large quantities. At 4 AM, got cramps in stomach, salty taste in mouth, nausea, swallowed saliva

many times, speedy recovery.

### 9.6.3 Solution

## 9.7 Flatulence

### 9.7.1 Cause

Also see diarrhoea subsection.

**Excessive fiber intake** Cramping, diarrhea, and intestinal gas are some of the problems associated with a sudden increase in fiber intake. Gradually increasing your fiber intake over a period of six to eight weeks can minimize undesirable effects. Some individuals may experience discomfort even with a gradual intake.

Soluble fiber is not broken down until it reaches the large intestine where digestion/ fermentation by microorganisms causes gas (flatulence).

#### 9.7.1.1 Gas producing food

Excessive fiber intake: see Cramps Subsection. Food high in complex oligosaccharides (which are acted on only by bacteria).

Undercooked beans (and possibly corn).

Certain brands of whole wheat bread, low fat Blue bell ice cream (likely irritant: large quantity of sorbitol).

Large amounts of unripe banana or apple.

Excessive nut or dry fruit (eg: fig, date) intake.

Old Dove Promises Dark chocolate caused severe very smelly flatulence on 26th august 2010; on the previous day, it had caused severe (almost insatiable) hunger. Caffeine in it probably irritated the gut. [Theory: An intolerance to chocolate is an adverse reaction (not an immune response) by the body to chocolate. The adverse reaction results from the body's inability to metabolize the food.]

**Especially smelly flatulence** Dates and garlic have been confirmed to yield very smelly gas (Oct/ Nov 2010: date walnut cake and garlic soup on separate occasions).

**Lactose tolerance level** Drinking milk products beyond a certain level produces fart - the body can produce only a certain amount of lactase; the rest gets broken down by bacteria, producing flatus in the process.

Visited Seattle during the last weekend of August 2010, did not imbibe many milk products. Only farted when excretion was imminent. When I returned to Austin, I drank 2.25 tea cups of milk. After some hours, I produced a series of smelly farts; but there was no bloating or cramps.

### 9.7.2 History

Last week of Jan 2011: Very smelly and loud farts in evenings, despite defecation. Warm water with lime temporarily calmed the stomach.

Sep 2010: Ate almost an entire pack of 'mission figs' for lunch. Produced very smelly farts for the entire day.

Mar 2010: Suddenly increased intake of apples and pears. This caused mild stomach cramps, flatulence.

### 9.7.3 Solution

Defecate processed food. Drink lot of water to ensure that this happens: it is normal to defecate 2-3 times a day.

Walking stimulates digestion, peristalsis, allows gas to escape smoothly.

To maintain general digestive health: Use food ingredients like coriander. Mix a teaspoon of lime juice with ginger (tablet?) and a glass of water and drink.

When eating food with a lot of insoluble fiber, eat the beano tablet. Restore the microbial ecosystem of the stomach by eating acidophilus probiotics tablet (as a substitute for yogurt, which still has some fermentable lactose).

In very bad cases, use activated charcoal (as an underwear or a diaper or as a dietary supplement; the last option causes it to interfere with nutrient/ drug absorption and is undesirable.)

## 9.8 Inefficient/ high frequency excretion

### 9.8.1 Symptoms

A short while after a spell of excretion, it turns out that the body is ready for excretion again. Excretion occurs in two bouts.

### 9.8.2 Cause

It is a common flaw to assume that the excretion is done after the first pellet has been excreted.

Insufficient water causes the feces to become hard, and the movement tough.

Excessive insoluble fiber/ roughage intake causes frequent bowen movement.

### 9.8.3 Solution

See shArIrika-kriyA strategy.

### 9.8.4 History

Mid-april 2011: Ate okra cooked in microwave; resulted in frequent defecation. Symptoms disappeared after switching diet.

## 9.9 Over-eating

### 9.9.1 Cause

udvegaH, vA Ata~NkaH. There is an autonomous ganglion in the stomach which is active in such situations, eating is an attempt to calm it down.

### 9.9.2 Solution

### 9.9.3 History

sAyaM-kAle pradIpa-melanAnantaraM laghuH udvegaH,  
tat samyak na niyantritaH. sAyaM-kAle cha rAtrau nirantaraM  
ati-bhakShaNaM. tasmAt udare vikAraH.

## 10 Sleep

### 10.1 Delay in falling asleep

#### 10.1.1 Causes

Indiscipline.

Noise. Excessive heat or cold.

Eagerness to implement plans, to think and understand: ambition.

#### 10.1.2 History

Penultimate week of March 2010: See 'lack of sleep' subsection.

First week of Sep 2010: Arrival of sleep went to 12, and then to 1.

#### 10.1.3 Solution

##### 10.1.3.1 Abandon plans

Abandon ALL ambition, except the one to attempt to sleep. Set/ control ambition level to 0. Sleep is not a time for it. Make no plans, solve no problem, attempt no understanding. Don't solve mathematical problems in the middle of the night: that leads to alertness.

##### 10.1.3.2 Smooth gradient to sleep

Avoid stimulation.

Try a light snack: banana or yogurt.

Stay in bed and do something boring. Focus on relaxing the body, restoring sleep.



**10.1.3.3 Other ideas**

svapna-darshaNa-abhinayena nidrAgamanaM sAdhyaM.

**10.1.3.4 Temperature**

Reduce body temperature slightly.

**10.1.3.5 Setting body clock**

Wake up naturally, to sunlight. Listen to your body - wake up when you feel ready.

Physical activity done earlier during the day shown to improve sleep. Activity level helps set the body clock.

Limit midday naps to afternoons.

Have a regular bed time: try to go to sleep 8 hours before sunrise. ***Don't try to squeeze in one more task before sleep.*** Must get up only at the end of a full sleep cycle. Beware: Wake-up time is much more stable than sleep-time. Maybe use melatonin supplements.

**10.2 Sleep disturbation****10.2.1 Cause****10.2.1.1 Temperature**

shavAsanaH upayojitavyaH.

Upon waking up in the middle of cold nights, it is difficult to return to sleep without being warm. Or, if temperature inside the sleeping bag increases too much, sleep is disrupted.

**10.2.1.2 Urine**

Waking up in the middle of the night to pass urine.

**10.2.1.3 Noise**

Excessive noise in the middle of the night causes sleep disturbance.

**10.2.1.4 Oxygen deprivation**

Lower oxygen levels lead to nightmares and waking.

**10.2.1.5 Stress**

Excessive worries lead to bad dreams and sleep disruption.

### 10.2.2 History

Jan 2012: CA: On first week at internship, was usually sleeping 9:30 to 7: 9.5 hours. On Jan 18 night: Heater was on, ventilation was bad due to closed door and windows in order to avoid smell of meat and cold temperature. The latter part of the day was tense due to failure in fixing the bike and tow-notice on the car. OPT extension work delayed sleep till 10:30. Woke at 4, made reminder call to Zhengdong in Beijing, drifted to sleep in an hour. Woke next day at 7:30. The next day was tense, afternoon to 6, I was very sleepy and was unable to concentrate. Recovered with good sleep and relaxation on the following night.

Penultimate week of March 2010: See 'lack of sleep' subsection.

March 18, 2010: Slept between 1045 to 0330; 0330 to 0640: sleep lost due to excess heat in sleeping bag; then slept till 1015.

In June 2009, was heavily distracted by conversations online. Slept late. Severe sleepiness observed during afternoon and evening. Must be strict about sleep-time. Must dedicate enough time to sleep.

### 10.2.3 Avoid disruption

Reduce water intake during night to avoid urge to urinate.

Control temperature: Have warm clothing handy, if it is mildly cold. If it is hot, leave the fan on. Beware of cold drafts blowing from the window.

Close the door, if necessary, to avoid noise.

### 10.2.4 Restore sleep

Fix the problem which disrupted sleep.

See 'delay in falling asleep' section.

## 10.3 Unusual need for sleep

### 10.3.1 Symptoms

Sleepiness during the day/ work-time.

### 10.3.2 Causes

Delay in sleeping, or sleep disruption followed by inability to return to sleep. Bed bugs, mosquitoes.

### 10.3.3 Consequences

Cognition, memory is impaired. Work is more careless: you forget and leave things where they are not supposed to have been left.

Hunger is often increased, atleast with mild sleep disruption.

### 10.3.4 History

Dec 8: dinE adhikA nidrAvasthA. ataH  
dIrgha-vimarshE asAmarthyaM. bAhiH shItaM gataM chEt nidrA alpa-kAlaM  
vigachChat.

During the last week of august 2010, just after I successfully switched from Inderjit's lab to pradIpa's lab (a stressful, yet well-handled transition), I slept a lot. I would sleep till late in the morning; on a couple of days, I returned to bed after breakfast and slept till noon. On one day, I had to return home to sleep. Such excessive sleepiness was observed even during the seattle visit during the weekend.

March 23, 2010 Night: Slept between 1130 to 0330; excess heat was the cause for waking up. Was very relaxed the entire time; returned to sleep only for around 30-45 minutes after 7. Tiredness and sleepiness and noticable cognitive sluggishness were detected at 1245; later, by 1400, heavy sleepiness was detected; noticable strain was exerted in the face to keep eyes open; time seemed to pass slowly; cognition was more heavily impaired. On 24th, I only slept for 4.5 hours, starting at 0300, until when, I was rearranging knowledge of linear algebra. Later, on 25th, I got 7.5 hours of sleep. But on 25th, the same problem re-occured; leading to impaired cognition and sleepiness in the evening of 26th. Eg: Did not wash knife after cutting apple, orange; did not replace tape after its use; forgot that I unrolled the sleeping bag etc..

### 10.3.5 Solution

Solve the problem which is causing the lack of sleep: delay in sleeping, or sleep disruption. Repay the sleep-debt.

Waking up after having overslept can result in grogginess. So you can wake up with a relaxing shavAsana.

## 10.4 Snoring

### 10.4.1 Cause

A loose palate?

### 10.4.2 Solution

Find a posture where you will not snore- In case of father (and probably I), sleeping on the side reduced snoring.

### 10.4.3 History

2010 May 7. Austin. Snored at 7 in the morning, while sleeping on the side, nose was slightly blocked.

March 2011. Started sleeping on the back. Felt that sleep quality reduced - I woke up several times in between. At one such occasion, I was convinced that I was snoring - remember the feel of vibration in my half mucus-filled nose.

## **10.5 Somniloquy / Sleep talking**

### **10.5.1 History**

Sleep talking observed twice. On Jan 2 2010 night, I spoke 3 words, the first of which was 'sorry' and returned to sleep. No sleep-talking observed for 2 days, when I deliberately calmed myself before sleeping; slept arranging for my movement not to be restricted by my sleeping bag or fear of falling from the cot; ensuring that the air-flow to the nose is not blocked by blankets.

## **11 Fatigue, body pain**

### **11.1 Fatigue and strain**

#### **11.1.1 Cause**

##### **11.1.1.1 Forehead muscles**

Long hair falling on forehead causes strain to muscles in forehead, which in turn causes fatigue.

Lack of sleep causes desire to sleep during the day, when attention may be required. This causes strain in muscles in the forehead.

#### **11.1.2 Solution**

Put away long hair securely with a band.  
Maybe go to sleep.

### **11.2 Delayed onset muscle soreness (DOMS)**

#### **11.2.1 Cause**

Sudden change in exercise/ physical activity pattern causes microscopic tears in the muscles.

#### **11.2.2 Solution**

The first two days are painful. But rest and wait for the muscles to heal and grow (they undergo hypertrophy); and it will go away.  
Avoid it when possible - progress gradually.

### 11.2.3 History

#### 11.2.3.1 Jan 2012

Participated in the suryanamaskAra-yajJNa in sunnyvale shAkhA with 5\*13=60 sUryanamaskAra-s.

#### 11.2.3.2 Oct 11-13 2010

On Oct 10 evening, exercised at the HSS shakhA, which involved sideways running and forcing oneself to continue in vIrabhadraAsana. The next two days, experienced pain behind the thighs.

#### 11.2.3.3 Childhood

Used to experience it after Karate 'belt' tests during childhood. Remember experiencing it after hikes.

## 11.3 Severe muscle pain

### 11.3.1 Solution

Ingest pain relief - eg: Ibuprofen (pick non sleep inducing version).

### 11.3.2 History

Apr 2011: During travel to Boston, fell asleep in a bad posture. Severe pain onset happened in that evening. A red spot in the back was observed at night. Sleep was disturbed; ibuprofen yielded relief. Pain disappeared in 1.5 days.

## 12 Skin

### 12.1 Dry skin (Xerosis)

Symptoms: Itching skin. Broken skin.

#### 12.1.1 Cause

Oil coating over skin removed. Maybe because of dry cold winter weather or long shower.

#### 12.1.2 Solution

Restore oil layer.

## **12.2 Buttock boil**

### **12.2.1 Symptoms**

Difficulty in sitting.

### **12.2.2 Cause**

Infection in a hair follicle. Or clogged hair follicle.

### **12.2.3 Solution**

If possible, drain it: that brings immediate relief. Or apply heat.  
Otherwise, a day's not sitting on a chair will cure it!  
Avoid it by shifting position often.

## **12.3 Prickly heat aka Miliaria**

### **12.3.1 Cause**

Sweat gland ducts get plugged due to dead skin cells or bacteria or bad clothing.  
The trapped sweat leads to irritation (prickling), itching and to a rash of very small blisters, usually in a localized area of the skin.

### **12.3.2 Treatment**

The main aim of treatment of miliaria is to prevent excessive sweating, many person use talcum powder which have some cooling effect.  
Keep the crotch dry- maybe place tissue there.  
Lidocain and Hydrocortizone cream.  
Don't scratch.

### **12.3.3 History**

Observed in June 2009 in Austin. Relieved by daily application of Johnson's baby powder. Nycil was used in India.  
Itching testicles: mid august 2010, early september 2010.

## **12.4 Unknown small rashes at multiple patches**

Candidates: Miliaria rubra or hives.

### **12.4.1 Symptoms**

A skin rash with pale red itchy bumps, at various parts of the body. Itchiness (pins and needles which is not numbness) may disrupt sleep.

### 12.4.2 Cause

If hives: In many cases, this is due to an allergic reaction; in many others the cause is unknown.

In case of milaria: sweat pooling + excessive skin bacteria.

### 12.4.3 Solution

If hives: Anti-histamine medication. Avoidance of allergen.

Pricking increases the pain - don't do that.

Sleeping in a way as to apply pressure on the itchy side enables sleep.

#### 12.4.3.1 Detecting allergen

Keep a log of items eaten and pulse rates around the time of each meal (5min before, 30, 60, 90 minutes after), and while waking and sleeping. Consistent increases in pulse rate after eating a certain type of food indicates allergy.

### 12.4.4 History

Around June 25 2011: Initially felt itchy near the genitals perhaps due to heat. Then, a day or two later, noticed 2-3 slightly painful patches of tiny red pimples/ boils at the waist towards the back, and later noticed some on the right thigh.

I had been eating quinoa daily - often for multiple meals, and I had placed myself under slight, stress and persistence in completing a programming assignment. Tried pricking a boil or two - that only made the spots more sensitive. Severely disrupted sleep, which in-turn disrupted cognitive ability. Later, realized that sleeping in a way as to apply pressure on the itchy side enables sleep.

## 12.5 Abrasion and cuts

### 12.5.1 Solution

Wash wound. Apply antiseptics like turmeric powder. Apply breathable, water proof, invisible, flexible liquid bandage twice to protect the wound from further dirt. For large wounds, use sprays.

## 12.6 Bed bugs

### 12.6.1 Symptoms

Multiple bites in a straight line. Drowsiness in the morning.

### **12.6.2 Solution**

Dispose possibly contaminated blankets and clothes.

Ensure you get good sleep: isolate the cot from bedbugs - place cot legs in bowls of water.