

An Integrative Approach to Sleep

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- Discuss the importance of sleep, it's benefits, sleep hygiene, quality of sleep and the effects of stress.
- Recognize and have an understanding of the 5 stages of sleep, sleep as health prevention and one's own relationship to sleep.
- Identify holistic practices used for prevention, better quality of sleep, health and wellbeing and the importance of understanding the circadian rhythm.

Objectives

- Explore/experience specific strategies, such as, mindfulness, yoga, meditation, Tai chi, breathing exercises, Reiki, and music therapy.
- Discuss an Ayurvedic perspective and its connection to the circadian rhythm, melatonin and daily and seasonal routines to maintain one's balance.
- Explore/create one's own unique constitution, seasonal eating, healthy lifestyle and awareness practices that are contained in a tool-box of resilience strategies.

Objectives

- "Why is sleep important? It should be a priority, but it is not."
 - "A healthy immune system and essential cognitive function in our waking hours needs healthy sleep as a priority."
 - "More than 1/2 of Americans do not get a good night sleep."
 - "Healthy sleep is just as a healthy diet and regular exercise."
- Every disease that is killing us in developed nations has causal significant links to a lack of sleep."

- Sleep deprivation is increasing our risk of insomnia, cancer, Alzheimer's, obesity, heart health, diabetes, immunity, anxiety, depression, mental health and shorter lifetime.
- Things have to change in the workplace, our communities, homes and families. It effects everyone, to some degree.
- Light, made by electricity not by nature, at work, longer commuter times, anxiety, loneliness, depression, alcohol and caffeine are effecting our sleep.

"We are in the mist of a catastrophic sleep-loss epidemic"



- Sleep is a basic human need, like eating, drinking, breathing and is vital to good health and wellbeing.
- It maintains a healthy immune system, balanced appetites, less susceptible to diseases and infections, improves memory and enhances cognition.
- Sleep helps us forget redundant information and enhances clearance of harmful toxins.
- By sleeping deeply, we can discard negative thoughts and experiences every day by not storing them.

The Importance of Sleep

- 30% of the population suffer from insomnia.
- 50% can sleep but have trouble maintaining quality sleep, due to tension, work, stress and emotional issues.
- 10 million people in the USA use sleep aids.
- Sleep disorders can result in loss of memory, obesity, metabolic disturbances, accident, falls, traffic mishaps, lowers immunity, diseases and unable to clean the brain.

- By trying to manage our stress in daily life over a period of time, can reduce ones control of healthy sleep patterns.
- Stress and sleep do not mix, like water and oil they go hand in hand in creating lack of sleep.
- By being in chronic overdrive, "flight or fight", the SNS and adrenal gland increases our stress response, using consistent release of cortisol and adrenaline.

Stress and Sleep

- Chronic stress can cause a sleep disorder, 19% adults; more than 43% adults are sleepless for a month from worry; 21% is a repeating cycle that harms the functional harmony of the body.
- Systems become under attack: CNS, adrenals, fight or flight, high alert, irritable, HA, depressed, drugs, alcohol, overeating and addictions.

Stress and Sleep

- An average of 3-6 hours of sleep are not enough, worry at night interrupts sleep, chronically this will create insomnia.
- Interrupted sleep, sleep deprivation is affected by stress, adrenal fatigue and hormonal imbalance. This increases anxiety and worrying. We become unaware of what is disrupting our sleep, we get "use-to-it", numb-out and detached.

Sleep and Stress

- Sleeping pills do not produce natural sleep, not the root of the problem. They are sedatives, hypnotics...very different and don't give us restorative natural benefits of sleep.
- Caffeine stops us from sleeping, but the depth of sleep that you have on caffeine is not deep or feel refreshed.
- Alcohol is a sedative that removes consciousness and fragments your sleep. You awaken often and it blocks your REM sleep (dream sleep), critical for mental health and emotions.

Sleeping pills, caffeine and alcohol

- Without sleep there is low energy and disease. With sleep there is vitality and health.

- Lack of sleep is linked to cancer of bowel, prostate and breast; night-work shift; less control of blood sugar, more weight gain, less resilience and motivation.

The shorter you sleep, the shorter your life.

- Risk of Alzheimer's from loss of deep sleep, amyloid deposits accumulate in

- Stress and anxiety
- Poor diet and lifestyle
- Lack of fitness
- Medications
- Noise and environment
- Uncomfortable bed
- Menopause
- Sleep apnea
- "Monkey Mind"
- Finances
- Relationship struggles
- Parenting
- Work
- Chronic health issues
- Restless leg syndrome
- Emotional disturbances

What prevents restful sleep



Sleep is needed as a preventative medicine

- Some researchers say, it's not a bank, you never get back what you lost. You can't pay it off another time.
- Nap, if you need to, but only 30 minutes or less a day. Daytime naps will make the nighttime sleep cycle disrupted/interrupted sleep.
- Teens sleep on weekend because it's their biology. By changing to a later school start is healthier.
- Sleep decreases in age, which needs sleep! Sleep can be more fragmented.

Can you sleep off a debt?

- Consistent bedtime routine
- Cool room 60-70 degrees
- Proper lighting
- Dark, calm and quiet
- Light evening meal
- Decrease caffeine
- Meditation habit
- Gratitude journal
- Calm music, good book
- Warm bath
- Resolve emotions
- Exercise daily
- Yoga practice
- 2 hours before bed - no TV, devices, phone, lights
- Screen addiction
- "Blue Light" of digital displays, negates pineal gland to produce melatonin.

Good Sleep Hygiene

- Magnesium and calcium (before bed)
- Chamomile – relax, calming
- Passion Flower – soothes NS
- Valerian – mild sedative, restful sleep
- Adaptogenic Herbs - Ashwagandha (Indian Ginseng), Holy Basil (Tulsi), Amla (Indian Gooseberry), Ginger Root, Turmeric, Reishi Mushrooms and many others.

Natural Sleep Support

- Discover your own sleep rhythm.
- Change your behaviors and choices.
- Develop the tools that help you.
- Release your worry radar.
- Release things beyond your control.
- Take action.
- Build your personal Tool Box.
- See a sleep specialist, if needed.

Repeat your good sleep habits!



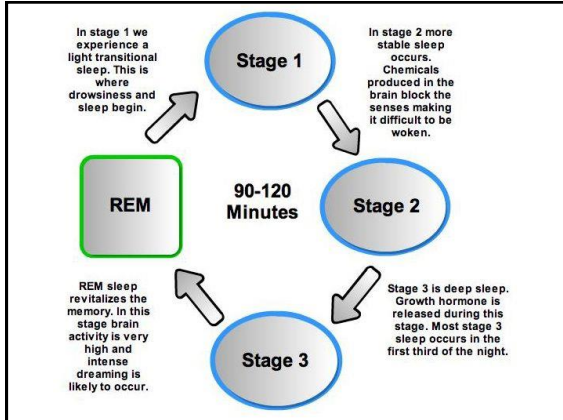
*"And if tonight my soul may find her peace
in sleep, and sink in good oblivion,
and in the morning wake like a new-opened flower
then I have been dipped again in God, and new-created."*

-D.H.

Lawrence

- Stages 1-4 are non-REM sleep, followed by REM sleep.
- A complete cycle is an average of 90-120 minutes, from #1 through REM.
- Each stage is between 5-15 minutes.
- The 1st sleep cycles are short. REM sleeps and there are long periods of deep sleep.
- Later in the night, REM periods lengthen and deep sleep decreases.

The 5 Stages of Sleep



- Stage 1 – light sleep
- Stage 2 – light sleep
- Stage 3 – deep sleep
- Stage 2 – light sleep
- Stage 1 – light sleep
- REM Sleep
- One full cycle is about 90-120 minutes.
- Usually there are 4-5 complete cycles.

The 5 Stages of Sleep

- Stage 1 – light sleep, awoken easily, muscle activity slows and eyes move slowly. There can be sudden muscle contractions.
- Stage 2 – Eye movement stops, brain wave is slower, preparing for deep sleep and body temperature/heart rate/breath decreases. Repairing and restoring the body starts to heal by detoxing. (clearing, cleaning and pruning)

The 5 Stages of Sleep

- Stage 3 – deep sleep releases pituitary and growth hormones, the brain generates slow delta waves, body and muscle are restored from stressors of the day. The immune system restores itself, and refreshes itself for the next day.
- This can be a time of sleep walking, night terrors, talking in sleep and bedwetting.
- This is the transition between non-REM and REM sleep.

The 5 Stages of Sleep

- Stage 4 – very deep sleep continues and the brain produces delta waves exclusively.
- Non-REM dominates the first-half of the night.
- REM sleep (rapid eye movement) increases in the second-half. Brain waves speed up and dreams occur. Heart rate increases but body doesn't move yet. It is the beginning of

The 5 Stages of Sleep

- The first REM cycle lasts 10 minutes. Each cycles lasts longer and the final REM stage is about 1 hour. It then prepares the hormone cortisol to awaken the body.
- REM sleep (when people dream), is linked to long-term cognitive health as we age. It clears out unnecessary information, reorganizes and memory and learning are improved.
- Interrupted REM sleep can cause fuzzy

Benefits of REM Sleep

- When we age, there is less of slow wave sleep. This can cause weight gain, hot flashes, fatigue and accelerates aging. We need slow wave sleep to repair and restore.
- Sleep is a priority. Sleep between 7-9 hours per night is suggested. Be aware of symptoms related to sleep deficiency.
- Lack of sleep has been linked to imbalances in immunity, metabolism

Sleep and Aging



“Our bodies are naturally encoded to respond to light and dark and sleeping with the rhythms of Mother nature.”

- Three American researchers won the Noble Prize in Medicine October 2, 2017.
- They discovered the molecular circuitry of the body clocks that control life on earth.
- This shows how life adapts to the 24-hour cycle and how diseases arise in the cells.
- How plants, animals and humans adapt their biological rhythms to be synchronized with the Earth's rotations.

Body clock researchers win the Noble Prize

- “The clock regulates critical functions such as behavior, hormone levels, sleep, body temperature and metabolism.”
- “Our wellbeing is affected when there is a temporary mismatch between our external environment and this internal biological clock.”
- Chronic misalignment between our lifestyle and the rhythm dictated by our inner timekeeper is linked to the increased risk for various diseases.

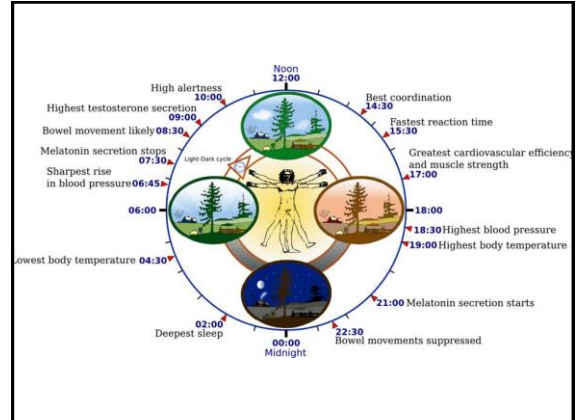
The Circadian Rhythm

- According to researcher Frank Scheer from Harvard Medical School, every cell of the body has an internal clock that regulates the body's metabolism.
- All ancient medical systems like Ayurveda and Traditional Chinese Medicine were based on an in-depth study of diets and lifestyles in sync with the daily, monthly and seasonal cycles of nature.

The Circadian Rhythm

- Circadian medicine in the form of the Ayurveda clock is a study of how to live, eat and breathe in harmony.
- Melatonin is the governor of the light/dark, seasonal and daily cycles that drives each one of the cell's biological clocks.
- Melatonin gets you ready for sleep, cortisol gets you ready for waking up.
- As we age we begin to produce less and

Ayurveda and the circadian rhythm

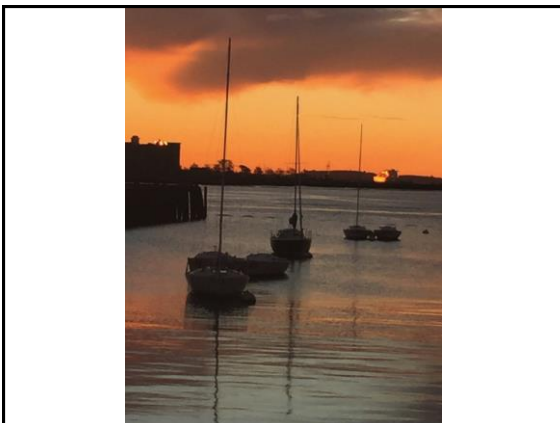


- Soaking up the sun during the day, increases melatonin at night.
- Melatonin-rich foods are pineapple, tart cherries, walnuts, almonds, banana and oranges.
- A warm bath before bed, has a relaxing effect that decreases cortisol and melatonin increases.
- Warm milk before bed boosts melatonin and supports healthy sleep.
- Meditation and prayers can produce more melatonin because it lowers

How to increase melatonin naturally

- Regulate your caffeine, as it is a stimulate which can reduce your melatonin levels.
- No artificial light at night, 2-3 hours before bed. Make it a Digital Free Zone.
- No LED lights at night, blue light in particular, blocks melatonin. Melatonin's job is to detox, rebuild and rejuvenate while you sleep.
- Exposure to natural light during the day can be affecting the pineal gland. The pineal gland regulates the body's internal clock and produces melatonin,

How to increase melatonin naturally



- Sleep – brings balance to all systems, consciousness
- Meditation/Stress Management – self-reflection, self-regulating
- Movement/Yoga/Pranayama – regulates action (vagus nerve)
- Emotions – compassion, love and gratitude
- Nutrition/Nourish – of well-being by based food
- Biological Rhythms – grounding, energy

Six Pillars of Wellbeing by Deepak Chopra

- “Approach sleep as a personal yoga practice.”
- A yoga research program for cancer survivors included: breathing exercises, gentle and restorative postures and meditation. It improved sleep quality.
- Gentle yoga, restorative and supportive poses, such as, legs-up-the-wall, supported forward bend, bridge pose, reclining bound-angle pose, supported

Yoga, mindfulness and meditation

- Guided meditation – Body Scan of progressive relaxation.
- Mindfulness meditation improves sleep quality and reduces fatigue by changing poor sleep habits and establishing a bedtime routine.
- Work with yoga, mindfulness, and awareness, moon breath, 4-7-8 breath (repeat 3 times) and diaphragmatic breathing (inhale/exhale belly slow for

Yoga, mindfulness and meditation

- Sounds of nature triggers the relaxation response, which reduces the body’s natural fight or flight response.
- Music-based therapy – lights down, choose your music or see a music therapist.
- Tai Chi, Qigong and yoga use grounding poses.

Yoga, mindfulness and meditation

- Yoga nidra means “yoga sleep”. Your body sleeps while your mind remains conscious and clear. One can feel completely relaxed, alert and “near” sleep!
- It is accessible to everyone. As a meditation for sleep, the guided relaxation improves sleep patterns.
- Is a PMS mood balancer.

Yoga Nidra

- Increases dopamine by 65%
- PMS mood balancer
- Decrease PTSD symptoms
- Healthy reset for college students
- Improves back pain
- Improves work stress levels (improved self care for stressed nurses).
- 40% pain relief of rheumatoid arthritis.
- Tinnitus-induced stress relief
- Improves insomnia, anxiety, depression and sleep quality

Yoga Nidra Benefits

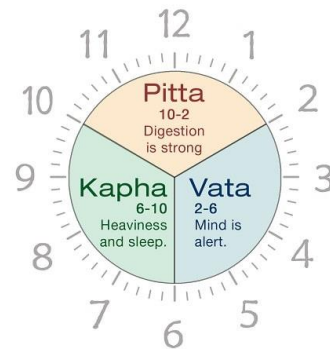


“It is a common experience that a problem, difficult at night, is resolved in the morning after the committee of sleep has worked on it.”

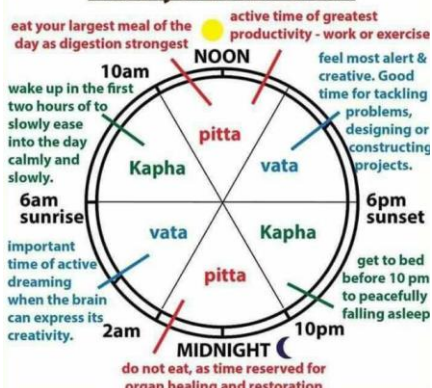
- John Steinbeck

- There is a connection with the Ayurvedic Clock and the Circadian Rhythm.
- Knowledge of the cycles of seasonal routines and daily routines detects imbalances, before there is dis-ease.
- Awareness of ones individual constitution, creates personal self-care for health. An Ayurvedic Perspective connection and knowledge of the 3 biological energies (Vata-Pitta-Kapha)

- **VATA** – qualities of space and air; wind, circulation and movement; dry, rough, light, cold, subtle and mobile; grounding, warming and routine brings balance.
- **PITTA** – qualities of fire and water; digestion, metabolism and absorption; oily, sharp, hot, light, liquid and acidic; cooling, calming and moderation brings balance.
- **KAPHA** – qualities of water and earth; structure, joints, lubrication and immunity; cold, heavy, dull, sticky and static. Drying, stimulating and expression



The Ayurvedic Clock



- Consistent bedtime and wake time.
- Eat meals at the same time each day.
- Maintain consistent work hours, from one day to the next.
- Limit processed foods, sugar and refined carbs.
- Moderate exercising daily
- Before bed take a warm bath, massage feet and scalp with warm oil and have a cup of Daily Routine - tools to heal yourself
- Morning routine of yourself senses, drinking warm water, bathing and holistic

The changing of the seasons of nature require different diets, lifestyle and routine to manage and preserve one's balance.

- Vata Season – fall and early winter
- Kapha Season – second half of winter to spring

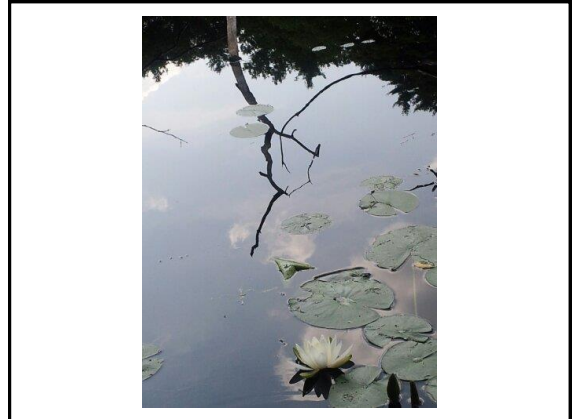
Seasonal Routines

- Pitta Season – summer and early fall



"May the sun bring you energy by day
 May the moon restore you by night
 May the rain wash away your worries
 May the breeze blow new strength into your being
 May you walk through the world knowing it's beauty all
 the days of your life."

An Apache blessing...



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