



South Asian
Heart Center
EL CAMINO HOSPITAL

**MANAGE REST.
MANAGE STRESS.**

ASHISH MATHUR
CO-FOUNDER & EXECUTIVE DIRECTOR

AIM TO PREVENT™

ASSESS
Advanced Screening

INTERVENE
Lifestyle Counseling

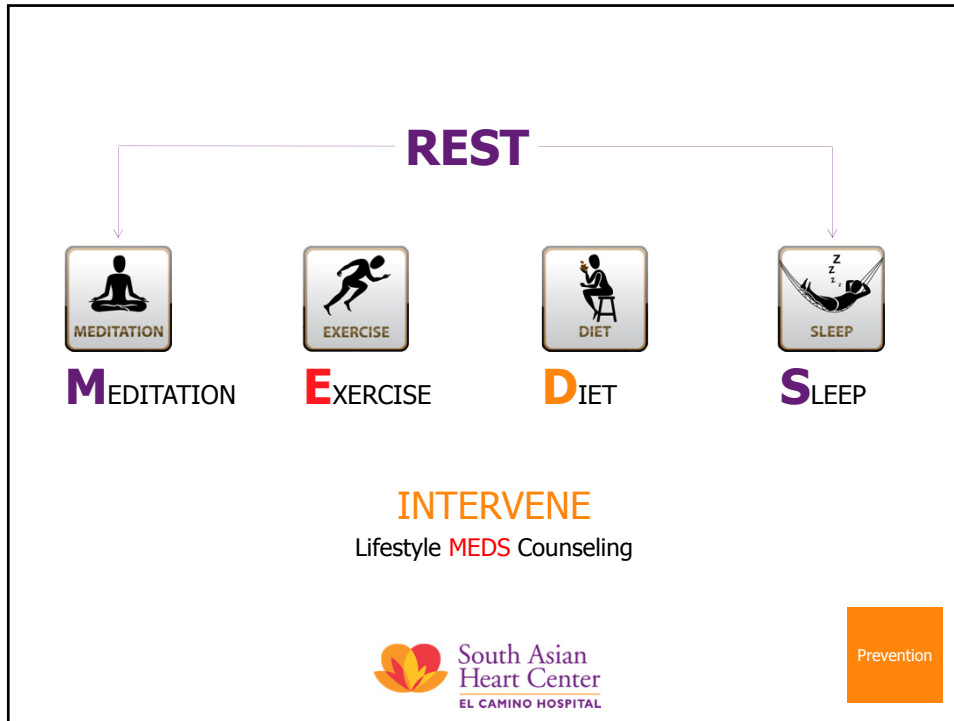
MANAGE
Heart Health Coaching



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Prevention



The Importance of a Daily Routine

The Alameda Seven Habits for Successful Aging

- Adequate sleep, 7-8 hours/night
- Regular vigorous activity (>3kcal/kg/day)
- Maintaining recommended weight
- Not smoking
- None/moderate alcohol
- Eating breakfast daily
- Eating meals regularly, not snacking

At age 45 a man with

- ≤ 3 habits: will reach age 67
- 4-5 habits: will reach age 73
- 6-7 habits: will reach age 78

SOURCE
7,000 people in Alameda County, CA were studied for 25 years

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STRESS

PHYSIOLOGICAL STRESS Stress results from the inability of the physiology to maintain balance, a steady state and/or HOMEOSTASIS

PSYCHOLOGICAL STRESS Stress results from the absence of CREATIVITY when the individual or organization is challenged

“Stress is that which obstruct the flow of intelligence.”
Hans Selye



Sources, Factors, and Result of Stress

SOURCES Work, Family, Financial

FACTORS Depression, Locus of control, Perceived stress, Life events

HEART ATTACKS Psychological factors explain 32.5% of population attributable risk

CORONARY ARTERY DISEASE 2-3x increased risk with job strain (high demand, low control)

DYSLIPIDEMIA, INFLAMMATION Work stress associated with atherogenic lipids/elevated fibrinogen

OBESITY Stress exaggerates diet-induced obesity (abdominal adiposity)



The Lancet 2004 364:9438-953-962
 Eur J Cardiovasc Prev Rehabil 13:414-420 (2006)
 J Intern Med: 1997 242:149-56;
 Nature Med. 2007 13, 803-811

Emotional Triggers & Cardiac Mortality

WAR: 1991 GULF WAR ↑Acute MI, ↑Sudden death in Tel Aviv by 58%

SPORTING EVENTS ↑Relative risk of death from MI/Stroke 51%

DISASTERS: EARTHQUAKE (NORTHRIDGE LA 1994) ↑Acute MI: 149 (prior week) →201 (week after)
 ↑ Sudden cardiac deaths 4.6 → 24 (day of)

SOURCE

JAMA 1995;273:1208-10; BMJ 2001;322:1306; Psychosomatic Medicine 67:179-186 (2005)
 Am J Cardiol 1996;77:1230-2; J Am Coll Cardiol 1997;30:1174-80; Clin Cardiol 2003;26:495-9



Managing Rest to Reduce Stress



RESTING WHILE ASLEEP

SLEEP WELLNESS What is restful? How long? When? How?

SLEEP DISORDERS Increased CVD, Hypertension, and Diabetes




RESTING WHILE AWAKE

MEDITATION ROUTINE How long? How often? When?

MEDITATION TECHNIQUES Concentration, Contemplation, Transcendental






Routine of restful sleep

7-8 hours/night essential for:

- Good health
- High energy
- Motivation
- Happiness
- Longer life


UN-CONSCIOUS STATE	A natural & periodic state of rest during which consciousness of the world is suspended
RESTORATIVE STATE	A state during which the body and mind are allowed to rest & restore.

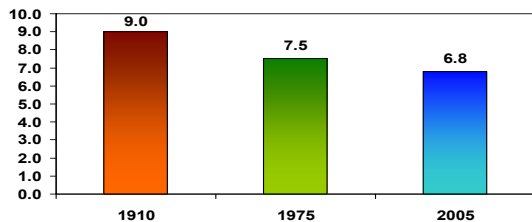


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Sleep Duration and the Obesity Epidemic


**Sleep duration
in US adults**

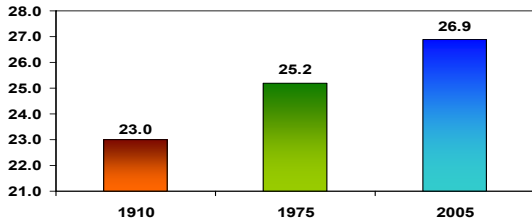





Year	Sleep Duration (hours)
1910	9.0
1975	7.5
2005	6.8

**BMI
in US adults**





Year	BMI
1910	23.0
1975	25.2
2005	26.9



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Sleep Architecture/Stages

NREM

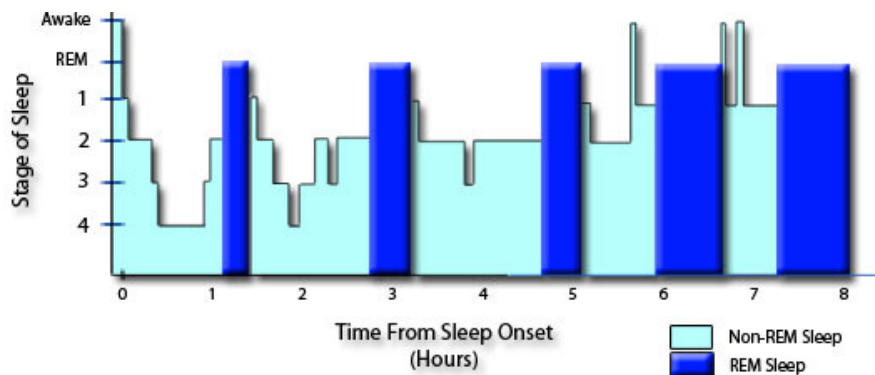
NREM: N1 (5-10%)	Transitional stage of sleep with both sleep and awake characteristics Detect & even respond to external stimuli; Unaware of being asleep
NREM: N2 (40-50%)	Senses begin to block external stimuli
NREM: N3 (20-30%)	Very deep sleep; very difficult to wake up; grogginess, disorientation Human Growth Hormone (HGH) released, making this restorative

REM

REM: R (20-25%) Rapid Eye Movements Dreaming State	High brain activity; Lowest muscle tone Core body temperature drops; Altered respiratory patterns Restorative for the mind; associated with long term memory Restoring wakefulness and alertness
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Sleep Stages Through the Night





Developing A Sleep Hygiene

1. Stick to a sleep schedule
2. Pay attention to what you eat and drink
3. Create a bedtime ritual
4. Get comfortable
5. Limit daytime naps
6. Include physical activity in your daily routine
7. Manage stress

SOURCE

<http://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/sleep/art-20048379>

<http://www.helpguide.org/articles/sleep/how-to-sleep-well-as-you-age.htm#quality>



Signs of Sleep Disorders

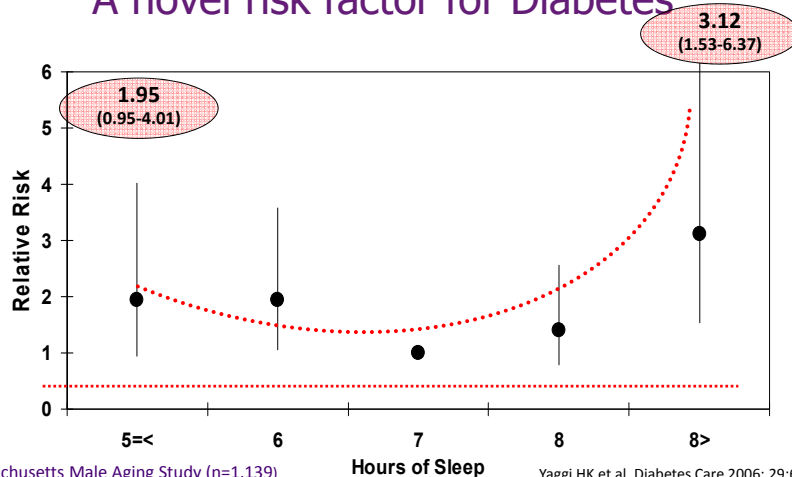
1. Struggling to sleep most nights
2. Wake up tired most times
3. Snoring or stop breathing in bed
4. Excessive day time sleepiness
5. Have trouble falling asleep (or staying asleep) for at least a month

SOURCE

<http://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/sleep/art-20048379>



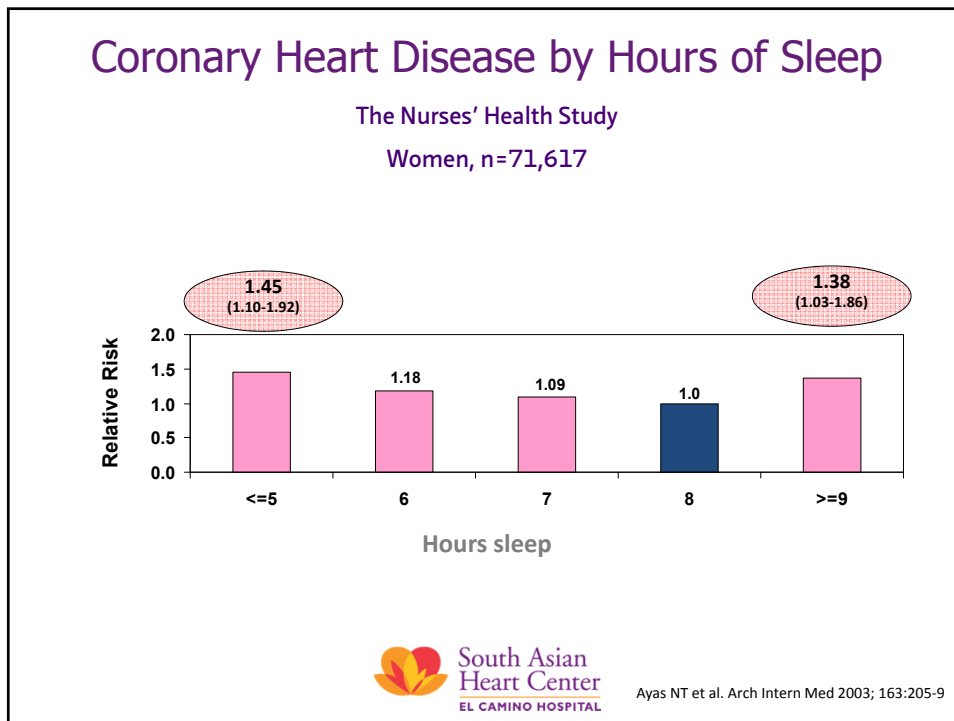
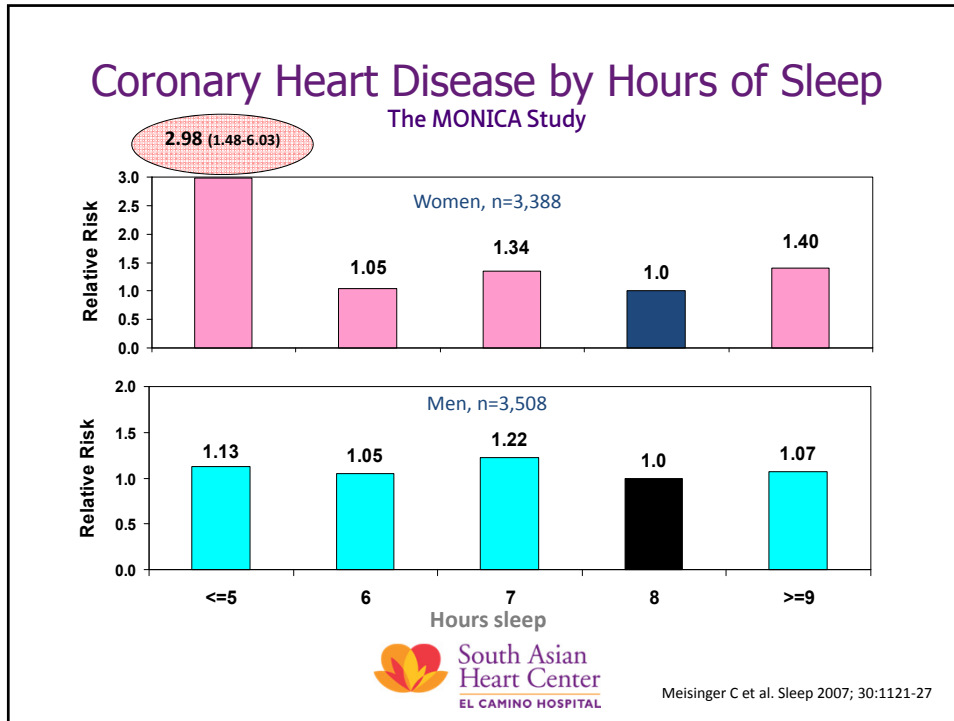
Sleep Duration: A novel risk factor for Diabetes



The Massachusetts Male Aging Study (n=1,139)
The Nurses' Health Study (n=70,026)

Yaggi HK et al. Diabetes Care 2006; 29:657-6
Ayas NT et al. Diabetes Care 2003; 26:380-41





Summary: Rest while Asleep

- Either a decrease in sleep duration from a regular 6, 7 or 8h per night or an increase from a regular 7 or 8h per night predict all-cause mortality
- Decrease in sleep duration increases cardiovascular deaths
- Increase in sleep duration increases non-cardiovascular deaths



Resting while Awake: Meditation

- Hypo-metabolic state accompanied by non-focused alertness or pure consciousness
- Achieved through the process/technique of meditation
- Opportunities to choose rest over stress while awake
 - Feeling stressed, rushed, pressured, tense, tired or upset?

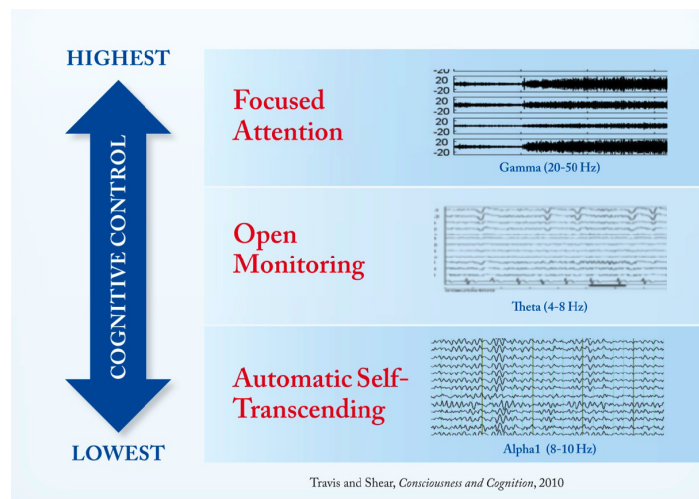


Meditation Techniques

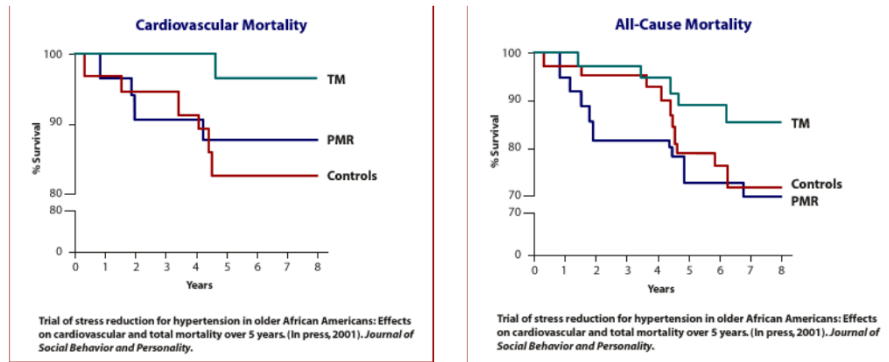
- **Concentrative: Focus on an Object**
 - Focused Attention
 - Spiritual, Prayer, Rhythmic Breathing, Repetitive Chanting
- **Contemplative: Observe an Object**
 - Open Monitoring
 - Mindfulness, Zen, Breath, Movement
- **Transcendental: Lose the Object**
 - Automatic Self-transcending: Pure consciousness or alertness
 - Uses meaningless sound or mantra



Cognitive Control & Meditation Techniques



TM and Survival



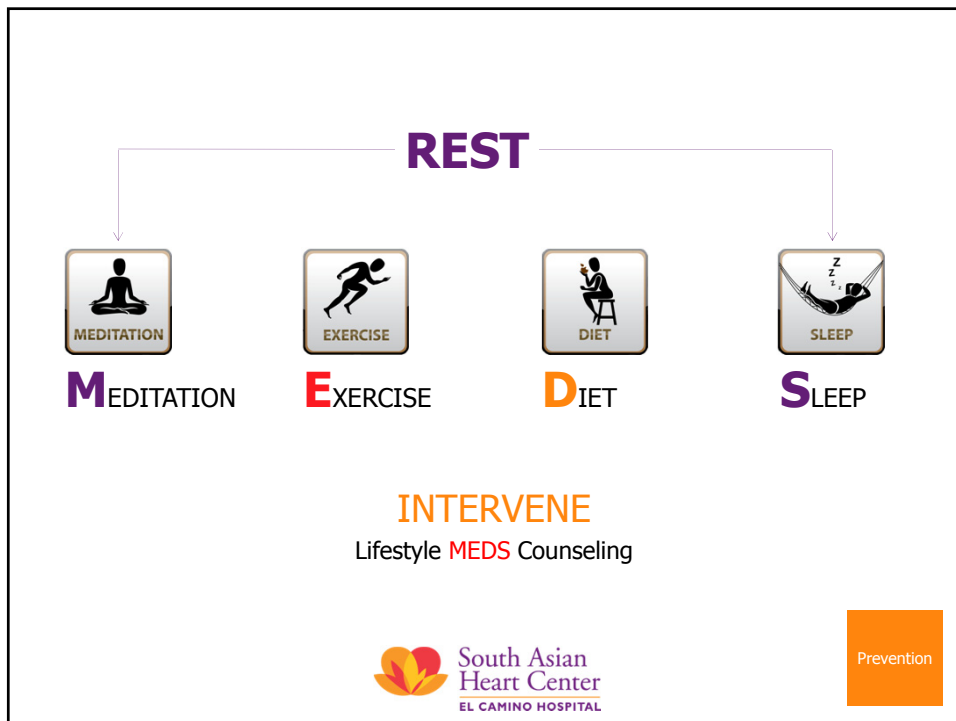
Next Steps

- Scheduling your TM orientation
- Sleep Disorders:
 - Visit your Primary Care Physician
 - Scheduling Sleep Study either with PCP, or
 - Send email to admin@southasianheartcenter.org
- Webinar Survey
- Copy of Presentation



Scheduling your TM orientation

- Send email to schedule your TM Orientation admin@southasianheartcenter.org
- Orientations are Thursday, 7:30 pm
- 305 South Dr #3, Mountain View, CA 94040
- Phone: (650) 424-8800



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 Prevention

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