#### Sleep

Todo: Polyphasic sleep society. (20 min, 90 sleep) (is Totally normal) Mathew <a href="https://www.polyphasic.net/">https://www.polyphasic.net/</a>

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7/28/2021 Dr Russel Reiter is expert on Melatonin. He has book and youtubes <u>https://www.youtube.com/watch?v=I7YIRqTNmuY</u>. He talks about how cancers stop growing in darkness and Melatonin. He talks about how we used to have many more hours of darkness (before lightbulb). Talks about how bad night light is for us, including when we go to the bathroom. (Moon light is only thing ok).

He uses <u>https://www.amazon.com/gp/product/B001E0WOKE</u> Natrol time released Melatonin. Time released seems to make sense to me.

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7/28/2021 GABA A friend mentined his chiropractor suggested GABA <u>https://www.webmd.com/diet/health-benefits-gaba#1</u>

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Sleep, and cannabis <u>https://www.leafly.com/news/strains-products/best-cannabis-products-for-sleep-california</u>. Cannabis, typically Indica strains, can help with sleep. There is also CBD to consider.

#### **BED/NIGHT**

Handful of almonds / walnuts

Complex carb snack before bed

2 kiwi's before bed

A regular nightly routine helps the body recognize that it is bedtime. This could include taking warm shower or bath, reading a book, or light stretches.

No stimulating or stressful activities before bedtime No stimulants (coffee), dark chocolate, alcohol (disrupts REM), spicy foods before bed, blue light (2-3 hours before bedtime), **No fluids within 2 hours of bedtime** (if you pee @ night) Avoid grains and sugars, No work, 2-3 hours before bed Eat a high protein snack (it could be cauliflower) several hours before bed: (provides tryptophan needed for melatonin and serotonin) Eat a small piece of fruit (help tryptophan to cross blood-brain barrier)

Cortisol reduces REM sleep (To decrease cortisol) Magnesium supplementation Omega-3 Sufficient sleep Reducing stressors Laughing Regular exercise

Melatonin (reset the circadian clock) (decreases with age) Does NOT cause sleepiness. Note: Short term use of Melatonin is considered safe, but long term use does not have enough data to determine if long term use is good or not.

- **Taurine** 1000-2000mg daily before sleep. You can repeat the dose if you wake up at night to help you get back to sleep.
- L-tryptophan, taken with taurine, helps promote sleep. Taurine has a calming effect and L-tryptophan has a more hypnotic effect. Take 500-3000mg before sleep. Begin with 500mg and increase every third day by 500mg as needed. If you wake up at night, take half your nighttime dose.

## DINNERS

Bannana, pinaple, oranges, high protein (quina) Tart cherry juices, and cherries (lots of mel) Cherries are one of the few sources of melatonin, Researchers who've studied the melatonin content of cherries recommend eating them an hour before bedtime.

Bananas provide Potassium and magnesium

DAILY FOODS Avocado, Broccoli

# Summary of some of the key tools and solutions:

NOTE: Everybody is different. So you have to try what works for you. NOTE: I have highlighted some of the solutions that I have tried, or want to try.

One method comes from a friend (who also happens to be a good coach) ChewHoong... She helped me create an affirmation before I go to sleep. For a greater results she suggested to create what you might call a "ritual" around the affirmation. Right before sleep (just an example):

- 1) Set your intention. "I intend to provide a process and affirmation to help me sleep."
- 2) Take a sip of water (this is also an NLP process)
- 3) Say you affirmation. It may be custom to you. It could be, for example, "I look forward to sleeping straight through soundly and deeply for 6-8 hours, and if I wake up I'll be able to turn over and go right back to sleep."
- 4) Repeate affirmation if you want with feeling.
- 5) At the end, take a sip of water to end the process.

#### A potential GREAT source!

A friend of mine Lynda has been a therapist for 30 some years, and recommended many things including this bedtime meditation

https://medical.mit.edu/sites/default/files/BedtimeMeditation.mp3 and I really liked it.

todo I plan to look at this! I have not reviewed this much at this point: <u>https://medical.mit.edu/community/sleep</u> intro and links, including the additional resource link:

https://medical.mit.edu/community/sleep/resources

On that page is <u>Bedtime relaxation (15:21)</u>. To save it, with firefox rightmouse and "save link as", for IE, right mouse click and chose "Save Target As". I don't know how to do this with smartphones. Note: I made a version of the .mp3 that repeate one extra time, in case it takes longer than 15 minutes to fall back to sleep. If you want that, contact us (email at bottom of page).

Note: If you research this site, and have a summary of highlights from it, please email us and let us know (email link at bottom of page). Thanks!

There are many meditations and tips, here is just another one. <u>https://medical.mit.edu/sites/default/files/SleepTips.mp3</u> (new info only added), low light near bed, Exercise can be great for sleep, not too much exercise near bedtime, White noise Cool your body before sleep. Don't get into bed until you get sleepy, yet wake up at the same time. After you get into bed, don't look @ clock Learn how to let the day go. Yoga, chi-gong... etc.

Other things to consider: <u>https://www.healthline.com/health/medical-marijuana/cannabis-for-sleeping#science-says</u>

Have a high protein snack several hours before bed. Daily foods: Avacado Broccoli (gas possible, if too near nightime) Almonds

- 1) Consistant time to bed each day
- 2) Dark room
- 3) No bluelight before.. try 1 hour before bed, all electronics and bright LED lights.
- 4) Melatonin (Tart cherries, kiwi) and tryptophan sources near bedtime

Insomnia

Meditation when you wake but can't get back to sleep. If you have a hard time focusing on meditation, consider HeartMath.org.

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Sources of Tryptophan

https://www.healthline.com/health/healthy-sleep/foods-that-could-boost-your-serotonin eggs, cheese, pineapples, tofu, salmon, (all nuts & seeds contain T), turkey (stuffed tryptophan).

(If you add carbs, it helps with tryptophan)

https://thesleepdoctor.com/2013/11/26/kiwi-super-food-for-sleep/

4/9/2019 <u>https://www.sleepfoundation.org/articles/food-and-drink-promote-good-nights-sleep</u>

Certain foods and beverages could actually help you fall asleep faster and sleep more soundly. Here are some things to put on your grocery list for more restful nights.

## Complex Carbs

stick-to-your-ribs whole grains for your bedtime snack: Popcorn, oatmeal, or wholewheat crackers with nut butter are all good choices. DAVE, this conflicts with wheat (see below)

## A handful of nuts

almonds and walnuts, specifically, contain <u>melatonin</u>, a hormone that helps to regulate your sleep/wake cycle. Eating them can increase your blood levels of the hormone, helping you sleep more soundly.

# Bedtime Tea

A nightly cup of tea (sans caffeine, of course) can be a perfect <u>relaxing</u> ritual. Chamomile, ginger, and peppermint are calming choices for bedtime.

## Fruits

tart cherry juice and whole tart cherries contain a lot of melatonin, and bananas, pineapple, and oranges are also sources. If you have <u>insomnia</u>, eating two kiwis before bed can increase your sleep duration by an hour over the course of a month.

https://www.sleepfoundation.org/articles/what-makes-good-nights-sleep (I have not reviewed much of this site as of yet... but it looks good!!!

# https://www.sleepfoundation.org/shift-work-disorder/shift-workyou/relaxation-exercises-falling-asleep Breathing exercise

# **Guided imagery**

Get into a comfortable position in bed. Close your eyes and relax. Begin to visualize a scene, memory, or story that you find calming. This is highly individual—find what works best for you by trying a few choices. For example: a **favorite vacation or calming outdoor spot**, a relaxing activity like curling up with a book in your favorite chair, or something repetitive like remembering the steps of an exercise or dance routine. The key is to find something that allows you to focus your attention and let go of other thoughts.

Remember to follow these additional tips if you have difficulty sleeping:

- Turn off electronics and rotate your clock away from you (don't watch the clock or check your phone if you can't sleep). Try not to worry if you can't fall asleep, and remind yourself that **your body will eventually take over and help you sleep**.
- If you are awake for more than 20 minutes in bed, **move to a different part of the house** (one without bright lights). Do something relaxing for a while, until you begin to feel tired and come back to bed.

How can I improve my sleep hygiene? https://www.sleepfoundation.org/articles/sleephygiene

One of the most important sleep hygiene practices is to spend an appropriate amount of time asleep in bed, not too little or too excessive. Sleep needs vary across ages and are especially impacted by lifestyle and health. However, there are recommendations that can provide guidance on how much sleep you need generally. Other good sleep hygiene practices include:

- **Limiting daytime naps to 30 minutes.** Napping does not make up for inadequate nighttime sleep. However, a short nap of 20-30 minutes can help to improve mood, alertness and performance.
- Avoiding stimulants such as caffeine and nicotine close to bedtime. And when it comes to alcohol, moderation is key4. While alcohol is well-known to help you fall asleep faster, too much close to bedtime can disrupt sleep in the second half of the night as the body begins to process the alcohol.
- Exercising to promote good quality sleep. As little as 10 minutes of aerobic exercise, such as walking or cycling, can drastically improve nighttime sleep quality. For the best night's sleep, most people should avoid strenuous workouts close to bedtime. However, the effect of intense nighttime exercise on sleep differs from person to person, so find out what works best for you.

- Steering clear of food that can be disruptive right before sleep. Heavy or rich foods, fatty or fried meals, spicy dishes, citrus fruits, and carbonated drinks can trigger indigestion for some people. When this occurs close to bedtime, it can lead to painful heartburn that disrupts sleep.
- Ensuring adequate exposure to natural light. This is particularly important for individuals who may not venture outside frequently. Exposure to sunlight during the day, as well as darkness at night, helps to maintain a healthy <u>sleep-wake cycle</u>.
- Establishing a regular relaxing bedtime routine. A regular nightly routine helps the body recognize that it is bedtime. This could include taking warm shower or bath, reading a book, or light stretches. When possible, try to avoid emotionally upsetting conversations and activities before attempting to sleep.
- Making sure that the sleep environment is pleasant. Mattress and pillows should be comfortable. The bedroom should be cool between 60 and 67 degrees for optimal sleep. Bright light from lamps, cell phone and TV screens can make it difficult to fall asleep4, so turn those light off or adjust them when possible. Consider using blackout curtains, eye shades, ear plugs, "white noise" machines, humidifiers, fans and other devices that can make the bedroom more relaxing.

https://www.sleepfoundation.org/articles/your-thyroid-blame-your-sleep-issues

When your gland produces too much thyroid hormone, this is known as hyperthyroidism. The condition causes different bodily functions to speed up, leading you to feel wired and jittery.

Symptoms may also include feeling anxious and experiencing a racing pulse, making it hard to get into a relaxed state.

Ginka balboa (source for this?)

John Bergman is a well respected, and has several videos! From https://www.youtube.com/results?search\_query=john+bergman+sleep+ https://www.youtube.com/watch?v=8ARDCi6OGjw Insomnia causes: Stress (physical, chemical, emotional) Poor sleep environment Inconsistent sleep schedule Excessive stimulation before bedtime Sedentary lifestyle Insomnia cures:

Insomnia cures: Reduce stress Improve environment Restrict your sleep (6 hours per night) (until you cure your insomnia) Avoid excess stimulation Exercise regularly Emotional freedom technique, journaling before bed, reading before bed Sleep 10pm->4am for 21 days. (this gets into a routine) ABSOLUTE DARK (mask if needed), cover blue lights

NREM (3 stages) Deepest state of NREM, **thought to be the most restful form of sleep**, person feels "groggy" when awoken from stage 3 (called Sleep Inertia, groggy when awakened).

(REM is 4-5 periods per night, bizarre content, we want to get 4/5, adults have it less then children)
REM on-off switch
ON when abundance of neurotransmitter Acetylcholine (activates Rem on neurons) (Ann: some? antihistamines inhibit Acetylcholine)
OFF requires absence of monoamine neurotransmitters
Histamine, serotonin, dopamine, adrenaline, melatonin, norepinephrine
Serotonin and norepinephrine switch REM neurons OFF

Cortisol reduces REM sleep (To decrease cortisol) Magnesium supplementation Omega-3 Sufficient sleep Reducing stressors Laughing Regular exercise

Melatonin (reset the circadian clock) (decreases with age) Does NOT cause sleepiness Exposure to even small amounts of light can suppress melatonin; BLUE LIGHT has the strongest effect

To increase: Melatonin cherries, banana, pineapples, oranges, grapes, plumbs, olive oil, wine and beer

# avoid looking at bright screens 2-3 hours before bed (after sunset, and it messes the circadian cycle)

Solutions for blue light: (exposure to sunlight for **full spectrum** fluorescent bulbs) (at least 30 minutes of sunlight per day)

## Dos and don'ts to achieve deep sleep

No stimulating or stressful activities before bedtime No stimulants (coffee), dark chocolate, alcohol (disrupts REM), spicy foods before bed, blue light (2-3 hours before bedtime), **No fluids within 2 hours of bedtime** (if you pee @ night) Avoid grains and sugars, No work, 2-3 hours before bed Reduce or eliminate all medication

Do:

\*\*Stimulate the Parasympathetic Nervous System (Chiropractic care) Regular sleep schedule Establish a routine: meditation, deep breathing, aromatherapy, etc. Improve your sleep environment, room tem no higher than 70 degrees! Eliminate EMF's (electro-magnetic fields) Eliminate alarm clocks if you can Exercise regularly, Reserve bed for sleeping (not reading, especially for insomniacs) Eat a high protein snack (it could be cauliflower) several hours before bed: (provides tryptophan needed for melatonin and serotonin) Eat a small piece of fruit (help tryptophan to cross blood-brain barrier) Hot bath before bed Wear eye mas to block out light Listen to relaxing audio or white noise Journal your thoughts before bed Read 30 minutes before bed.

## 5 keys to health and healing

Proper nerve supply (chiropractor) Regular exercise Proper nutrition Sufficient rest Prayer and meditation

Buckwheat pillow (he likes) What is the best sleeping position?

To tell if you got good REM, do you feel refreshed when we wake up?

Pee at night: Unstable pelvis, Cagle exercises, fluids 2 hours.

How long does it take you to realign someone's neck?

https://www.youtube.com/watch?feature=youtu.be&v=4Mtw3vBQYOg

Core componts of sleep Go to bed 10->2 most melatonin secretion, creats more human growth hormone 8/14/2019 https://www.psychologytoday.com/us/blog/owning-pink/201106/how-treatinsomnia-naturally

Besides the suggestions within this page,

# Nutrition

- Eat foods high in tryptophan before bedtime, such as lean turkey.
- Eat foods high in magnesium, such as halibut, almonds, cashews, and spinach.
- Eat foods high in Vitamin B complex, such as leafy green vegetables, nuts, and legumes.

# Supplements

- **Taurine** 1000-2000mg daily before sleep. You can repeat the dose if you wake up at night to help you get back to sleep.
- L-tryptophan, taken with taurine, helps promote sleep. Taurine has a calming effect and L-tryptophan has a more hypnotic effect. Take 500-3000mg before sleep. Begin with 500mg and increase every third day by 500mg as needed. If you wake up at night, take half your nighttime dose.
- (see also <u>https://www.webmd.com/vitamins-and-supplements/l-tryptophan-uses-and-risks#1</u>)
- Vitamin B6- 100-300mg/day with food.
- Magnesium glycinate 400-1000mg/day with food. Begin with the lowest dose and increase by 100mg/day. Reduce your dose if your stools are loose.
- Valerian root extract- use as directed on the label.

Note: Taurine is recommended as a supplement for vegans: <u>https://drjoelkahn.com/supplements-recommend-plant-based-patients/</u>

8/14/2019 https://www.forbes.com/sites/melaniehaiken/2012/06/30/5-surprising-foodsthat-help-you-sleep/#3b773c974d28

# 1. Cherries.

According to agricultural research studies, cherries are one of the only natural food <u>sources of melatonin</u>, the chemical that controls the body's internal clock to regulate sleep. During the ten months of the year when cherries are out of season, dried cherries and cherry juice (especially tart cherry juice, which contains less sugar) are good substitutes. (Grapes also contain melatonin, but you need to eat more of them to get the same effect.) Researchers who've studied the melatonin content of cherries recommend eating them an hour before bedtime.

# 2. Bananas

Potassium and magnesium are natural muscle relaxants, and bananas are a good source of both. They also contain the amino acid L-tryptophan, which gets converted to 5-HTP in

the brain. The 5-HTP in turn is converted to serotonin (a relaxing neurotransmitter) and melatonin.

# 3. Toast.

Carbohydrate-rich foods cause a spike in blood sugar levels, triggering the body's production of insulin to bring them back down. This is why you often feel a burst of energy in the first few minutes after eating carbs, then a "crash" of tiredness. At night, this sleepiness can be very useful, making toast the perfect midnight snack. Along with insulin comes a release of tryptophan and serotonin, two brain chemicals that promote relaxation and combat anxiety.

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From "Prescription for Nutritional Healing:" (You can find this in your library, a great healt resource) (I have more to add to this)

Lack of calcium and magnesium can cause you to wake up after a few hours and not get back to sleep.

Don't eat large meals 2-3 hours before bed.

Avoid cheese, chocolate, eggplant, tomatoes, wine. Go to bed whien you are sleepy.

https://getpocket.com/explore/item/shuteye-and-sleep-hygiene-the-truth-about-why-youkeep-waking-up-at-3am

caffeine, but people tend to underestimate how long its effects can last – Fischer says to stop consuming it by 2 p.m. or 3 p.m.

Water intake during the day is also a factor: "Even going to bed mildly dehydrated can disrupt our sleep."

Alcohol has a disruptive effect beyond the initial crash, causing spikes in blood sugar and cortisol levels.

A "pro-sleep" bedtime snack is a small amount of complex carbohydrates and protein, such as wholegrain cereal with milk,

or toast with peanut butter, says Fischer. An "antiinflammatory" diet favouring fruits, vegetables, lean protein, nuts, seeds and healthy fats (and limiting processed foods, red meats and alcohol) has been shown to improve sleep apnea.

As for exercise, although being active during the day aids sleep, anything strenuous is to be avoided before bedtime.

Our bedrooms – even our beds – have come to double as home cinemas, offices, "a dining room, maybe," says <u>the sleep</u> <u>consultant Maryanne Taylor</u>. "You would be amazed at how significant that is for sleep.

For that reason, if you do struggle to fall back asleep on waking up during the night, the advice is to get up for a bit. "Don't just lie there – it's counterproductive."

So, too, is looking at the clock, especially if it doubles as your phone. "As soon as your brain has registered that it's 2 a.m., you convince yourself that that's your lot," says Taylor. Such worry loops might be waking you up in the first place.

It is wrong to assume that you must sleep through the night, every night, she says. "We all have blips in our sleep – it's never going to be that you sleep brilliantly all the time." But accepting that – even as you lie awake, hours before dawn – might be the first step towards it.

Todo add science of sleep (a Parade Special Edition)