

Addressing Migraines at the Root

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It goes without saying that migraines can have a significant negative impact on quality of life. When someone suffers from migraines, I don't take for granted that this is a card they've been dealt. I believe the migraines are being triggered by some imbalance. Once the imbalance has been identified and addressed, the person can live free of migraines. Here are some of the most common imbalances to help you troubleshoot the root cause of your migraines.

1. Dehydration
2. Blood Sugar Fluctuations
3. Musculoskeletal Issues
4. Inadequate Sleep
5. Magnesium Deficiency
6. Riboflavin Deficiency
7. CoQ10 Deficiency
8. Dietary Intolerances
9. Intestinal Permeability
10. Hormonal Imbalance
11. Stress
12. Medications

Dehydration

- Sometimes migraines are as simple as poorly managed dehydration.
- Do a trial of enlightened hydration:
 - o Don't just drink tap water
 - o Drink water with solute in it (e.g., some combination of lemon, raw honey and a small amount of sea salt) or coconut water
 - o Consider switching to mineral water
- Overall, drink a lot more water than you're accustomed to drinking, and consume it throughout the day.

Blood Sugar Fluctuations

- Blood sugar ups and downs, common with the western diet, is a surprisingly common cause of migraines.
- How do you know if you experience blood sugar swings?
 - o Do you get "hangry"? Do you experience anxiety? Do you wake up several times during the night? Do you crave something sweet or have an energy crash in the afternoon?
- Here's how to stabilize blood sugar:
 - o Avoid sugar and refined carbohydrates
 - o Consume more protein and fat
 - o Add in a blood sugar safety net: take a spoonful of coconut oil at least 3 times a day (upon waking, in the afternoon and before bed). NB: don't skip this step.

Musculoskeletal Issues

- Many migraines are due to muscle tightness and pathologic fascial holding patterns in the neck, shoulders and upper back.
- If you suspect this may play a role in your migraines, get some skillful body work.

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- I most strongly recommend:
 - Craniosacral therapy
 - Acupuncture
 - Osteopathic manipulation
 - Bioenergetic osteopathy
 - Chiropractic
 - Rolfing
 - Feldenkreis

Inadequate Sleep

- Managing this issue is easier said than done, but if you are operating on less than 7 hours of sleep nightly and suffering from migraines, I strongly recommend making sleep rehabilitation a priority.
- Here are the best ways to set yourself up for better sleep:
 - **Caffeine**
 - Don't underestimate the relationship between caffeine and sleep
 - Even if you have no trouble falling asleep, caffeine decreases sleep quality
 - Reduce overall caffeine consumption and stop caffeine by 12pm
 - **Blood Sugar**
 - Blood sugar fluctuations disrupt your sleep, causing middle of the night awakening
 - Take a spoonful of coconut oil right before bed to ensure stable blood sugar while you sleep
 - **Light**
 - Be strategic about light
 - Let your eyes see bright light in the morning and dim light at night
 - Dim the lights in the evening to avoid melatonin suppression
 - At night, brush your teeth, bathe and read by candlelight (rec: GoodLight non-toxic candles).
 - Download *f.lux* on your computer (dims your computer screen)
 - Consider wearing orange-tinted glasses for 30-60 minutes before bed (Uvex brand)
 - If your room isn't completely dark when you sleep, wear an eye mask (Bucky brand) or install blackout shades (Less intimidating than it sounds—just go to a store like Home Depot. They measure your windows and install the shades for a reasonable fee).
 - **Rhythm**
 - Your body likes routine
 - Try to go to sleep and wake up at roughly the same time 7 days a week
 - **Wind Down**
 - Stop using electronics by 9 or 10pm
 - Have a relaxing evening ritual (take a bath, stretch, read by candlelight)
 - Set your phone on a do-not-disturb schedule, perhaps 11pm-7am
 - Even better: get the phone out of the bedroom
 - **Magnesium**
 - Magnesium deficiency interferes with restful sleep
 - Take an Epsom salt bath by candlelight right before bed, or supplement with Magnesium glycinate

Magnesium Deficiency

- Speaking of magnesium, most of us are deficient in this critical mineral because our food is grown in magnesium-depleted soil

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- Magnesium deficiency can exacerbate migraines, insomnia, muscle tension, menstrual cramps, and much more
- Here are some options for repleting magnesium:
 - o Take an Epsom salt bath (rec: Epsoak Epsom Salts, ~2 cups of salt, soak for ~20 min)
 - o Take Magnesium Glycinate in pill form (rec: Metagenics brand)
 - I typically recommend 400mg at bedtime. Some migraine sufferers benefit from taking 800mg daily. Work with your doctor to find the right dose. If you develop loose stool, take less.
 - o Use topical magnesium gel (Designs for Health MagneGel). Rub a pea-sized portion on your thigh before bed

Riboflavin Deficiency

- Some migraine sufferers benefit from riboflavin supplementation at a dose of 400mg daily.
- Do not achieve this by taking extra multivitamins, as that will result in overdosing on other components of the multivitamin. Take a separate riboflavin supplement.

CoQ10 Deficiency

- Some migraines are caused by mitochondrial dysfunction in the brain, and this can be mitigated by CoQ10/Ubiquinol supplementation
- Do a 3-month trial of Integrative Therapeutics Ubiquinol 100mg three times a day

Dietary Intolerances

- In many cases, the root cause of migraine is dietary intolerance
- To identify dietary intolerances, I recommend following an elimination diet such as the Whole30 (www.whole30.com)
 - o Follow this strictly for 30 days, observe any changes to your migraines, then systematically re-introduce foods, and track your migraines
- Short of a comprehensive elimination diet, you can also do a 1-2 month trial eliminating the most likely culprits, or any foods you suspect you don't tolerate
- Most likely culprits:
 - o Gluten
 - o Dairy (especially aged cheese)
 - o Eggs
 - o Red wine / alcohol
 - o Chocolate
 - o Caffeine
 - o Aspartame
 - o Soy sauce
 - o Food additives:
 - Nitrites (e.g., processed meats)
 - Sulfites (e.g., dried fruit)
 - MSG
 - Yeast extract
 - Hydrolyzed/Autolyzed yeast
 - Hydrolyzed vegetable protein (HVP)
 - Hydrolyzed plant protein (HPP)
 - Sodium caseinate
 - Kombu extract

Intestinal Permeability

- In susceptible individuals, gut inflammation, gut dysbiosis (imbalance in gut flora), and certain foods can cause intestinal permeability (i.e., leaky gut)
- Intestinal permeability can then trigger migraines by various mechanisms, including systemic inflammation and the release of endotoxins such as lipopolysaccharide from the gut into the bloodstream
- The best way to address this potential root cause of migraines is to heal the gut
- See the gut healing handout for a full explanation. Briefly, here's how to heal the gut:
 - Avoid What Irritates the Gut
 - Food: Gluten, sugar, industrial vegetable oils, artificial sweeteners, alcohol
 - Certain medications: antacids, antibiotics, oral contraceptives, psychiatric medications (only make changes under close supervision from your doctor)
 - Add in What Soothes the Gut
 - Fermented foods: sauerkraut, kimchi, beet kvass, miso paste, apple cider vinegar, kombucha, kefir (if you tolerate dairy)
 - Starchy tubers: sweet potatoes, white potatoes, plantain, taro, yucca
 - Bone broth – make your own or purchase it:
 - US Wellness: www.grasslandbeef.com
 - Supplements:
 - Take a probiotic daily – I recommend *Prescript Assist*
 - Consider glutamine, collagen and turmeric
 - Create the Conditions for the Gut to Heal
 - Squatty potty – www.squattypotty.com
 - Get enough sleep
 - Manage stress
 - Acupuncture, yoga, meditation, breathing exercises, journaling, being in nature, unplugging
- Treat gut infections: if you suspect you may have a gut infection, get evaluated and treated by a functional medicine doctor or naturopath

Hormonal Imbalance

- For women, if your migraines track with your menstrual cycle, it behooves you to take steps to balance your hormones
- See the dysmenorrhea and detoxification handouts for a full explanation, but briefly:
 - Reduce exposure to endocrine disruptors and xeno-estrogens, which include:
 - Personal care products, make-up, toiletries, etc
 - Conventional cleaning products
 - Plastics (store food in glass containers rather than plastic, drink out of glass water bottles)
 - Tap water (which contains birth control residue)
 - Air pollution (consider getting a HEPA filter)
 - Detoxify
 - Be sure to have at least one bowel movement daily. If this isn't happening, see gut healing.
 - Consider detox practices such as dry skin brushing, starting the day with warm water with lemon, oil pulling, jumping on a trampoline, infrared sauna
 - Manage stress
 - This is critical to balancing hormones

Stress

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- While we all pay lip service to stress management, it is fundamentally at odds with our culture. We value productivity and discount the importance of and need for rest. We also pride ourselves on being busy and surviving on inadequate sleep. Have a “willingness to let go of exhaustion as a status symbol and productivity as self-worth” – Brené Brown.
- Some tips for managing stress:
 - **Wind down before bed**
 - o Have a relaxing evening ritual (take a bath, stretch, read by candlelight)
 - o Read a book in bed wearing orange glasses until you feel sleepy
 - o Count back 8.5 hours from wake-up time. That’s when you need to get in bed and read a book.
 - o Lie in bed with your hands on your belly; inhale for 4 counts, hold, then exhale for 4 counts
 - **Unplug**
 - o Spend more of your free time unplugged (away from TV and internet)
 - o Don’t let yourself be on autopilot, checking the phone compulsively, habituated to going home and opening the computer or turning on the TV. Make these choices *consciously*.
 - o Stop using electronics by 9 or 10pm
 - This means turning off the TV and not checking your phone (I know, it’s a tall order these days!)
 - Set your phone on a do-not-disturb schedule, perhaps 11pm-7am, and get the phone out of the bedroom
 - **Play**
 - o Spend time playing with animals or children
 - o Be goofy with your significant other or a friend
 - o Play games, make music, create art
 - o Don’t just numb out with TV or internet. Invest your time in activities that truly refuel you: being in fresh air, sunshine, nature, engaging with art and creative pursuits.
 - **Exercise Less Intensively**
 - o While exercise has immense benefits and stress-relieving properties, some popular exercise regimens behave as stressors
 - o Re-learn how to listen to your body and know the difference between exercise that is rejuvenating you and exercise that is taxing your body
 - **Breathe**
 - o Breathing exercises are a tool to instantly switch the tone of your nervous system from stress to relaxation
 - o Lie down, place your hands on your belly, and inhale for 4 counts, hold for 2, and exhale for 4
 - **Meditate**
 - o Demystify this. It can be very simple. Sit and observe your thoughts. Try to cultivate a patient and compassionate attitude toward yourself and your thoughts.
 - **Tech Support for Meditation** (kind of a contradiction!)
 - o HeadSpace: www.getsomeheadspace.com
 - o HeartMath: www.heartmath.com
 - o Free guided meditations:
 - <http://marc.ucla.edu/body.cfm?id=22>

Medications

- Medications themselves play an underappreciated role in migraines
- It’s beyond the scope of this handout to cover all potential medication issues

- Do not make any changes to prescription medication without a discussion close supervision from your doctor
- To highlight a few:
 - NSAIDS (ibuprofen, alieve, Excedrin, etc)
 - Can contribute to intestinal permeability and can cause rebound headache pain
 - Oral contraceptives and other hormones
 - Migraines are affected by all hormone imbalances, including those caused by medication
 - I am loathe to think of oral contraceptives as a *treatment* for hormonal imbalance. It can only ever be a band-aid, and it will never address an issue at the root, and will frequently contribute to further imbalance.
 - Steroids
 - Exacerbate intestinal permeability
 - Antibiotics
 - Disrupt gut flora, thereby causing gut inflammation and intestinal permeability and systemic inflammation
 - Psychiatric medications
 - Mechanism may be through disruption of gut flora, impairing mitochondrial function or other means