



SLEEP IN PATIENT PROTOCOLS

An Integrative Medicine Case Study

WITH EXPERT PERSPECTIVES BY:

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PATIENT INFORMATION



Name: Steve	Race/Ethnicity: White/Caucasian
Date of Birth: July 20, 1980	
Marital Status: Divorced, three children, ages 7, 9, and 13	
Problems: Chronic insomnia Gastroesophageal reflux disease Overweight/obesity History of depression	
Allergies: Seasonal	

Social History:

Alcohol: 1-2 drinks per day, more on some weekends

Smoking: Quit smoking 14 years ago

Vital Signs:

Height:	71 inches (5'11")	Weight:	298 pounds
BMI: 41.6		Non-fasting glucose: 120	
Blood pressure systolic: 141 mm Hg		Total cholesterol: 202	
Blood pressure diastolic: 92 mm Hg		HDL cholesterol: 67	

Medications:

Antidepressant
Proton-pump inhibitor for heartburn

Health Concerns:

Insomnia
Overweight/obesity
Monitoring blood pressure and cholesterol

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MEET STEVE



Steve is a 39-year-old man living with his three children in a rural suburb. He has been amicably divorced for five years and maintains joint custody with his ex-wife, who takes the kids every other week and some weekends. He works in sales for an insurance company and frequently picks up night and weekend shifts that vary his schedule.

According to Steve, he has struggled with his health for most of his life. He grew up eating processed foods and started smoking and drinking when he was 18 years old. Though he quit smoking before his first child was born, he continues to consume at least one to two beers in the evening to help him relax, and occasionally more on the weekends when he doesn't have his kids or work.

During the day, Steve works a stressful job sitting at a desk and drinks caffeinated coffee or soda to help stay alert. His diet consists mostly of breakfast pastries, sandwiches, chips, and cookies, which he eats at his desk in between sales calls. After work at about 6 p.m., he picks up his kids or heads home, where he typically cooks a meat-and-potatoes-based dinner, followed by a beer, trail mix, and ice cream while watching television or using his cellphone. If he's on his own for dinner, he may order takeout or purchase frozen dinners for convenience.

In his free time, Steve said he always puts his kids first, driving them to sports practices or other activities. They rely on fast-food and caffeine while on-the-go. When he doesn't have his kids, he works on his car or goes out for drinks with his friends. He does not exercise and when he does make time to go to the doctor every couple of years, he said he has been "called out" for his weight and monitored for high blood pressure, high cholesterol, and pre-diabetes.

Overall, Steve said he has low energy, feels depressed, and finds himself "going through the motions." He was diagnosed with gastroesophageal reflux disease about three years ago after increased heartburn episodes throughout the day and prescribed a medication that he said makes him feel drowsy. He said there have been instances where he wakes up in the

middle of the night with heartburn or coughing and a burning sensation in his throat. His doctor has suggested meeting with a registered dietitian and exercising, but Steve said he hasn't felt motivated or had time to do so.

In the past year, Steve said he has had increased difficulty sleeping. While he said he almost always feels tired and frequently dozes off on the couch in the evening, when he's in bed, he tosses and turns, feels excessively hot, wakes up sweating with his heart pounding, and lays in bed for what he said seems like hours before nodding off. On average, he said he gets about six to seven hours of sleep per night, with less than two being deep, restful sleep. He said he recently noticed he was jolting awake, as if stunned, at least once per night, and has become more sensitive to shoulder, neck, and low back pain. When his alarm goes off in the morning, he often hits snooze if he can.

His primary care doctor has recommended taking an over-the-counter antihistamine to help sleep in the short-term, which Steve tried for over a week and said was not effective. He said he now feels tired to the point where he can barely keep his eyes open during the day and loses productivity at work. He doesn't have energy to take care of his kids and worries he's not being a good parent. This has motivated him to seek help and try to improve his sleep and health habits.

Steve said he does not want to explore expensive surgeries or diagnostic procedures and is hoping for a "quick and convenient" fix. He has agreed to meet with an integrative healthcare professional to discuss potential next steps.

The following report looks at how three integrative practitioners might approach Steve's case, including a first visit, initial care plan, and long-term goals for the patient. ○

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CATHERINE'S PERSPECTIVE



Catherine Darley, ND

Catherine wants to establish a therapeutic alliance with Steve, applauding his desire to be the best parent he can be since that is a motivating factor for seeking care. In the past, Steve has felt judged when visiting doctors so the focus would be on meeting him where he is and working within the constraints he has set, because if he does feel called out, he could potentially forego care despite having serious health concerns.

FIRST VISIT

During the first visit, Catherine would want to immediately assess the safety issues in his history and address appropriately. For example, Steve said he feels tired to the point where he can barely keep his eyes open during the day, which Catherine said is a red flag for sleep-related accidents. This is of particular concern as he spends a fair amount of time driving his children around, so it isn't only relevant for his own personal safety but also the safety of his loved ones.

Catherine would have Steve complete the [Epworth Sleepiness Scale \(ESS\)](#) assessment, which is used to assess daytime sleepiness and asks a patient to rank on a scale of 0 to 3 the chance of dozing off during regular activities, such as sitting in a public place, watching television, or in a car while stopped in traffic. A score of zero to 10 is considered normal, while 10 or more is classified as excessive sleepiness and 16 or more can indicate safety risks. Catherine would walk Steve through this assessment, document the results to track over time, and educate him about his ranking.



Catherine would look closely at Steve's insomnia and identify potential patterns.



Next, Catherine would want to address Steve's history of depression. She would assess his current depressed mood and determine if he's at any risk for suicide, noting middle-aged men are one of the higher-risk groups for suicide.

Once safety concerns are addressed, Catherine would do a full evaluation for sleep problems, including obstructive sleep apnea and periodic limb movement disorder (PLMD). Patients who have a movement disorder will report the tossing and turning Steve is experiencing in the beginning of the night, Catherine said, so she would want to rule out restless leg syndrome and possible PLMD.

Catherine would look closely at Steve's insomnia and identify potential patterns. She would consider the night of the week, related work hours, whether he has his children with him or if he's on his own, and other similar factors to help understand the cause of his insomnia. She would also find out about any family history of insomnia or other sleep disorders.

Steve says he wants a quick and convenient fix, so Catherine said the initial care plan would focus on addressing things that would make the most impact quickly, to help him feel successful and motivated from the start and hopefully keep him engaged in the process as they start to address long-term goals.

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CATHERINE'S PERSPECTIVE

CARE PLAN

Catherine would send Steve for an overnight sleep study, evaluating him for obstructive sleep apnea and possible PLMD. Though Steve said he wants to avoid expensive testing, Catherine would emphasize the importance of the sleep study and talk through what to expect, any concerns he might have, and how to make the test most comfortable.

From there, Catherine said his treatment plan would address five points:

1. Circadian disruption
2. Gastroesophageal reflux disease (GERD)
3. Family environment
4. Caffeine and alcohol
5. Diet and nutritional status

Firstly, Catherine would address Steve's circadian disruption. As his schedule is inconsistent, Catherine would talk to him about how health is best supported by regularity, without disregarding his reality. For example, Steve frequently works overtime on the weekends, so Catherine would educate him on taking overtime within the hours he usually works, which will be beneficial for his health long-term, while also meeting financial needs. Additionally, Catherine would recommend all meals as well as waketimes and bedtimes be within the same hour each day, including weekends and any days without kids. She would encourage limiting electronic light for at least an hour before bed and, in lieu of using the television or phone in the evening, suggest similar passive entertainment without blue light exposure, like listening an audio book or podcast. She would also ask Steve to start getting outside light in the morning when he gets up – ideally 20 minutes or more.

To target the GERD, as well as circadian factors, Catherine would recommend no food after dinner or 7 p.m. to 7:30 p.m. She would find out if Steve's evening snacking is due to not eating enough at dinner or if he needs something to do with his hands. Catherine would suggest a crossword puzzle or game to address that need for activity.

Steve is only sleeping six to seven hours per night. Catherine would have Steve make sure he is giving himself enough time in bed, at least eight hours total. They would discuss his inherent circadian rhythm and aim for sleep during that time. His bedtime schedule would be adjusted over the course of treatment as Catherine learns more about Steve and his wellbeing improves.

Additionally, Catherine would want to acknowledge the family environment. Parents' sleep hours are often shaped by kids' routines, and Steve has kids spanning developmental stages, with the 7-year-old likely getting up and needing to go to bed early and the 13-year-old getting up and falling asleep later. Steve's window of sleep opportunity is likely compressed, so Catherine would discuss that and identify strategies to meet his sleep needs.

The caffeine and alcohol Steve uses are also known to disrupt sleep, but he relies on them as a coping mechanism. Ideally, Catherine said he would not have any caffeine until he has been awake for an hour and then none after noon, because, depending on the person's physiology, caffeine can stay active up to 10 hours. With alcohol, there is also a wide range in sensitivity as it relates to sleep. Catherine would recommend no alcohol after having one beer with dinner. Alcohol drops core body temperature, which causes sleepiness. However, once alcohol is metabolized, core body temperature increases. Catherine said this could be, in part, why Steve wakes up and is not able to fall back asleep.

Catherine said she would expect some push-back on the caffeine and alcohol, as that can be difficult for people to give up. She would ask Steve, "if it helps you sleep and feel better during the day, would it be worth it to make these changes?" She would position it like an experiment and have Steve try it for two weeks to see what happens before deciding what adds more to his quality of life.

Finally, Catherine said Steve is likely somewhat malnourished with the lifelong diet he's reporting, so she would recommend a comprehensive multivitamin daily and magnesium at night for sleep. Additionally, Catherine would have Steve take three milligrams of immediate release melatonin about 20 to 30 minutes before bed, along with avoiding light, to encourage natural melatonin production.



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CATHERINE'S PERSPECTIVE



CUSTOMIZING APPROACHES

Steve has several preexisting conditions, which Catherine said she would view as interrelated. For example, GERD can disrupt sleep, and the sleep disruptions change his leptin and ghrelin levels, so his appetite is altered. With insufficient sleep, his blood sugar control is worse, meaning he's at increased risk of obesity, which in turn increases his risk for obstructive sleep apnea. Additionally, the insomnia and depression can be correlated with poor nutrition status, Catherine said.

Further, caffeinated drinks can have a high sugar content, which requires more magnesium to metabolize. Catherine said she would suspect Steve is deficient in magnesium, which can impact mood and insomnia. Catherine would describe this interconnected relationship to Steve, which can be empowering for patients to understand that they can target many factors at the same time.

Catherine said it would be important for Steve to have a care team, if he's open to it, given his busy schedule with limited time for meeting providers. At the very least, Catherine would refer him to a nutritionist to help him have a better diet within his busy on-the-go lifestyle. For Steve, Catherine said asking him to cook is likely not realistic, so she would focus on helping him make better choices within takeout and shopping prepared foods, which is possible and a good starting point for his specific needs.

Steve said he wants a quick and convenient fix, so Catherine said she has a limited window to work with him and achieve some results so he can feel it's worth his time and he's

on the right track. Depending on initial discussions, Catherine would work with Steve to focus on one thread to pull to get the most impact and feeling of success, which will help foster intrinsic motivation.

Lastly, Steve identified that he is coming so he can be the parent he wants to be. Catherine would help Steve identify what he would specifically like to do or change, such as having more energy to participate in family outings, which they would then focus on with specific goals and use as a measure of success. Engaging him and having him define what success looks like is key.

» LONG-TERM

Catherine wants Steve's health to support his values and the life he wants to live, which is seemingly his motivating factor. Her goal for Steve would be for him to settle into a lifestyle that supports his sleep with dietary habits, circadian rhythm habits, and exercise, which will become part of his care plan as he progresses. Additionally, Catherine wants to see Steve model health for his children, which would become part of long-term discussions. He is clearly motivated to be a great parent, Catherine said, so she would like to see him use his own lifestyle as a model for them to avoid some of the health challenges he experienced.

Should the sleep study show obstructive sleep apnea or a sleep movement disorder, Catherine would incorporate treatment for any underlying conditions. The gold standard for sleep apnea is the continuous positive airway pressure (CPAP) machine, which Catherine would help Steve become accustomed to by ensuring proper fit and acclimation. For period limb movements, Catherine would check Steve's serum ferritin levels to ensure ranges are within optimal limits. With the diet Steve reported plus the GERD, Catherine suspects he may not have optimal iron status, so she would assess immediately. Additionally, depending on how he responds to the initial care plan and what symptoms remain, Catherine would recommend specific treatment, supplements, nutrition, and lifestyle changes. ○



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KRISTEN'S PERSPECTIVE



Kristen Allott, ND, LAc

When patients ask for a quick fix, they are often looking for control and choice in their treatment, care that is personalized, and results after the first appointment. When Steve believes Kristen is working *with* him versus *on* him, a therapeutic alliance can develop. Kristen would focus on key metrics of success based on Steve's signs and symptoms and what change he wants to experience. Then, together, they can create small, achievable experiments to address those metrics.

>> FIRST VISIT

Before a first appointment, Kristen would host a 20-minute discovery call with Steve to explain her care process, including an initial evaluation and goals discussion followed by five to six follow-up appointments. This would allow Kristen to start to establish rapport and a therapeutic framework. If Steve is agreeable, Kristen would have him come in for an initial 75-minute appointment, where they would discuss his intake forms and start to identify realistic first steps towards feeling better.

In the first visit, Kristen would review Steve's concerns indicated in his intake forms. This would allow her to assess his level of energy, mental clarity, pain, depression, anxiety, agitation, and irritation. She would evaluate his eating, movement, and sleep patterns, social support, skills and interests, alcohol or other drug use, history of trauma, and other signs and symptoms. From this information, Kristen would develop metrics of progress, which would typically include improvements in energy, mental clarity, and sleep quality. Kristen would focus on creating a common language with Steve and clarify short and long-term goals.

In each appointment, Kristen would help Steve identify a small, achievable experiment to address a specific goal or problem, with the overarching goal of improving energy. These experiments would include specific next steps for Steve to take action. Kristen would incorporate at least 20 minutes for education to help Steve have a better understanding of his brain and body and offer tools and referrals to other practitioners as needed.

Kristen would wait to order labs or provide supplements. By the third visit, patients typically begin to develop clear tools for improving energy and mental clarity. Once Steve starts on the path to recovery and develops foundational skills, Kristen would order blood panels to identify potential nutrient deficiencies and look at inflammation, hormonal regulation, glucose control, prediabetes or diabetes, autoimmune disease, and other physiological processes contributing to his lack of energy, mental clarity, mimic mental health conditions, and contribute to the signs and symptoms Steve presents with. Kristen would use these markers as a motivational tool to track Steve's progress.

Additionally, Kristen would then perform a comprehensive physical exam to identify system imbalances that may contribute to or mimic fatigue, depression, anxiety, and other mental health concerns. She would assess balance, visual coordination, and neck range of motion. Often people with history of traumatic brain injuries and whiplash present with disturbances that mimic mental health and vagus nerve problems, which she suspects might be true for Steve. She would also offer acupuncture if appropriate and depending on Steve's willingness to try.

CARE PLAN

In her practice, Kristen creates small achievable experiments with patients over the course of five or six appointments, focusing on improving energy, mental clarity, and reduction of signs and symptoms. Steve is extremely fatigued, which Kristen said would make any significant change difficult. Therefore, in his first appointment, Kristen would start by stabilizing his

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KRISTEN'S PERSPECTIVE

blood glucose, with the ultimate goal of restoring his energy levels. While this may not directly target Steve's concerns, Kristen said it is a reasonable starting point for all patients. When glucose levels are stable, many signs and symptoms improve.

During the first appointment, Kristen would explain the importance of using food to stay in his responsive pre-frontal cortex versus his reactive limbic brain. By staying out of his limbic system, his decision-making and emotional tone will improve. After eating only carbohydrates, the brain starts to run out of fuel within two hours and adrenaline starts to seep into the system, making the individual anxious or irritable and tired, worsening heart burn and blood pressure.

Kristen would recommend an experiment to consume protein every three hours throughout the day. For Steve, she would suggest at least 70 grams of protein divided throughout the day, with the following example intake:

70 GRAMS OF PROTEIN

▼ UPON WAKING

20 grams of protein, roughly the size of a deck of cards, with carbohydrates, fiber, and fat

▼ 3 HOURS LATER

A small, protein-filled snack, like a handful of nuts

▼ LUNCH

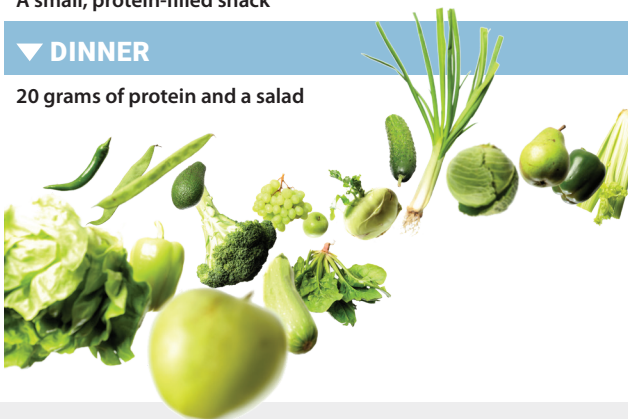
20 grams of protein with carbohydrates, fiber, and fat

▼ 3 HOURS LATER

A small, protein-filled snack

▼ DINNER

20 grams of protein and a salad



Protein could come from a variety of sources and may include takeout or convenience foods. Kristen said she would negotiate with Steve as long as he meets the total protein requirement divided throughout the day for three days total.

To address his difficulty sleeping, Kristen would suggest Steve eat some protein before he goes to bed and keep a quarter cup of fruit juice and a handful of nuts by the bed if he wakes up in the middle of the night. Kristen said she finds patients often wake up because their brain has run out of glucose and the resulting adrenaline release causes racing thoughts in the early mornings. The fruit juice would replenish the glucose in the brain, while the protein from the nuts would help the brain and body absorb the fuel more slowly and prevent Steve from waking up again.

Typically, after the protein experiment, Kristen said patients feel better and have more energy. This, in turn, helps her motivate and gain patients' trust as they are in a better mental state to engage in other small goals or experiments. For Steve, increasing his protein would likely improve his sleep and energy so they can take further, more targeted action. It would also begin to address and improve his pre-diabetes, hypertension, high cholesterol, and heart burn.

For Steve, Kristen would want to understand the root cause of his fatigue. Once his energy levels start to improve through increased protein intake, she would suggest the next experiment be incorporating some form of movement, whether that's walking 10 minutes a day or chair squats and wall push-ups. Kristen would provide Steve with ongoing education, support, and resources to continue to improve his energy through nutrition and other lifestyle modifications. Additionally, she would educate Steve about his brain and body, using motivational interviewing techniques to co-create experiments.

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KRISTEN'S PERSPECTIVE

CUSTOMIZING APPROACHES

To keep Steve motivated despite his desire for a quick fix solution, Kristen would be clear with him up front about how she operates her practice, and communicate that change takes both time and patience. She would emphasize her role as a partner in creating his treatment plan.

In the beginning, she would focus on adding to his lifestyle until she gains his trust and they are working well together, including recommending supplement plans, diet plans, exercise plans, and sleep hygiene plans that are simple but have tremendous impact.

Once Steve has experienced some improvement, understands that he can say "no," and that the goal is not to be a perfect patient, Kristen would start to address reducing caffeine and alcohol intake. This would all be done as a short-term experiment to see if he gets a return in his investment of time and effort.

If Steve is still looking for a quick fix, Kristen would discuss with him that there are medications that provide such results, if that is what is truly needed. Kirsten and Steve would decide

together if medications are necessary, and she would educate him about his options and refer him to his primary care provider if needed.

LONG-TERM

Over the six months following the initial appointment, Kristen would encourage Steve to improve his diet, develop an exercise routine, establish a sleep routine, observe patterns of stress, and appropriately address negative emotions related to his divorce and childhood. Kristen would work with him to create reasonable goals for himself. She would check in every two weeks to make sure he's moving forward with his goals.

If Steve was not receiving the improvements that she would expect from the lifestyle changes and supplement plan, Kristen would consider removing wheat from his diet. She would hold off on a food elimination option until she had a strong relationship with Steve, to avoid triggering past behaviors and hindering his continued progress. ○



In the beginning, she would focus on adding to his lifestyle, until she gains his trust and they are working well together, including recommending supplement plans, diet plans, exercise plans, and sleep hygiene plans that are simple but have tremendous impact.

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KATE'S PERSPECTIVE



Kate Garden, BSc(Hons), Dip ION, IFMCP

Kate wants to help motivate Steve to reach his health goals by focusing more on himself and making small changes to his diet and lifestyle built over time.

FIRST VISIT

The first visit for Steve would be centered on building rapport and a therapeutic connection with Kate to allow him to trust her suggestions and establish foundational support. Kate would collect further information and data and set short- and long-term goals with Steve.

The consultation would involve reviewing the details of his case and intake forms, including a sleep questionnaire and sleep apnea questionnaire. Kate would perform a comprehensive nutritional physical exam, including observing his nails, skin, hair, tongue, and waist-to hip ratio. She would review Steve's case history and order blood work, which may include hemoglobin A1C, fasting insulin, and some nutrient levels such as iron and B12.

From there, Kate would work out a baseline medical symptom questionnaire (MSQ) score to demonstrate to Steve high-scoring areas such as weight, emotions, and energy, which would then be used to track progress. Any indications of sleep apnea

would be referred to a sleep specialist. Kate would apply his symptoms to the [functional medicine matrix](#), which organizes a patient's clinical imbalances into seven categories:

Patient's clinical imbalances

1. Assimilation
2. Defense and repair
3. Energy
4. Biotransformation & elimination
5. Transport
6. Communication
7. Structural Integrity



Kate would explain to Steve how many of his symptoms could be underlying imbalances in these areas and relate how his daily diet and lifestyle can play into his clinical presentations. Kate would acknowledge his main goal of having more energy and better sleep so that he could take care of his kids. By initially supporting his energy levels to make him feel better in the short-term, this would likely motivate long-term changes.

As his gastroesophageal reflux disease (GERD) is affecting his sleep and ability to absorb nutrients, which could

have downstream effects on his mood and energy, Kate would also prioritize assimilation. She would recognize his desire to be a good father and role model for his children as a motivating factor to take care of himself but explain that resolution of health issues may take time to address, change, and rebalance.

Additionally, Kate would identify Steve's triggers, including a sedentary job and irregular schedule, that could have contributed to weight gain and reliance on processed food and caffeinated beverages. She would discuss ways that he can be more active and maintain a more regular schedule.

Steve's energy imbalance and sleep struggles are likely due to poor blood glucose control, which impacts energy, sleep, cardiovascular health, and mood. Kate would explain to Steve how this can lead to a cycle of feeling lethargic and relying on quick-releasing sugars and stimulants for energy. Medications may suppress his symptoms, but Kate would help him understand that they do not address the root cause and often come with side effects.

If Steve is willing to make some initial changes to his diet to manage

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KATE'S PERSPECTIVE

blood sugar levels, Kate would be confident that many of his issues would improve and his overall health would rebound.

CARE PLAN

Kate's initial care plan for Steve would prioritize his energy and assimilation by focusing on three key areas to improve his overall cardiovascular health:



To address Steve's diet and energy, Kate would start Steve on a cardiometabolic meal plan of about 1,800 to 2,000 calories, which is a modified version of the Mediterranean diet that is high in protein and fiber from fruits, vegetables, nuts, and seeds, and low-glycemic. She would work to offer education and provide Steve with simple ideas and recipes, focusing on his blood sugar control and adding in nutritious breakfasts and protein-based snacks.

To assist his glucose management and sleep quality, she would encourage Steve to reduce caffeine intake to two drinks per day before noon and to have alcohol-free days at least three times per week. To help assimilate and digest his food, she would suggest eating all meals and snacks at the table and focusing on chewing and enjoying food, rather than eating while watching television. Additionally, Kate would suggest Steve increase his water intake to at least 50 ounces per day to gradually replace the soda beverages that are likely impacting his glucose control and adding additional calories and contributing to weight gain.

To cover nutritional bases and support Steve's blood sugar control and digestion, Kate would start him on a comprehensive multivitamin and glucose manager, high

in B vitamins, especially B12, as well as a digestive enzyme. Additionally, she would prescribe 400 milligrams of magnesium one hour before bedtime to support his sleep.

For exercise, Kate would discuss with Steve possible easily-achieved interventions, such as fast-paced walking 10 minutes every morning around the block. This would not require any equipment and could be done with his kids. After one week of walking, Kate would have Steve transition to 15 minutes of fast-paced walking for weeks two, three, and four. At a follow-up visit, Kate would assess whether Steve could manage a small high intensity interval-training workout twice per week, possibly with his kids. Making exercise a regular, fun, and achievable daily event would be key for Steve's compliance.

Many of the dietary and supplement recommendations and increases in exercise would begin to help improve Steve's sleep, but to offer further support Kate would recommend reducing blue light exposure after 9 p.m. by avoiding screens, a simple guided meditation or breathing exercise before bed, and Epsom salt baths on non-alcohol nights and when children are away.

Kate would check in briefly with Steve at three weeks to encourage motivation and answer questions. She would assess his progress at five weeks by sending another MSQ and monitor body mass index (BMI), waist-to-hip ratio, blood pressure, and vital signs. Additionally, Kate would check blood lab work to monitor progress and make further interventions as needed.



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KATE'S PERSPECTIVE

CUSTOMIZING APPROACHES

Steve's plan would be personalized and appropriate for the level of support that he requires. Kate would focus on developing elements of his plan that he enjoys and involve his children when possible to encourage his motivation.

Kate would provide Steve with a simple checklist to track his goal progress. This checklist would offer Steve motivation, and serve as an informative tool for Kate to assess during follow-up consultations.

Kate would alter the cardiometabolic dietary plan to suit his food preferences and may tailor a different caloric goal depending on body mass index (BMI) and waist-to-hip ratio progress. She would send a copy of all recommendations and care plans to his primary care physician and would work alongside them to monitor his progress.

LONG-TERM

Kate's long-term goals for Steve would be to reverse his metabolic syndrome and reduce his blood pressure, glucose, BMI, GERD, and cholesterol through improving his diet and encouraging him with exercise. She would work with Steve by focusing on a low glycemic, nutrient-dense diet and a regular simple exercise routine that would enhance sleep quality and quantity. Additionally, she would adapt his supplements to his needs in blood markers and potentially add in fish oil.

Steve would be able to choose how many nutrition sessions he needs, but ideally would commit to the process over six to 12 months with regular follow-up visits to check in and monitor lab markers. The follow-up sessions would initially be at five-week intervals, but as the plan evolves, he would need to come in less frequently. ○



SLEEP INTAKE QUESTIONNAIRE

Patient Name: _____ Date: _____

The following information will help the practitioner determine whether you are getting the sleep you need and identify possible strategies to help improve your sleep.

SLEEP HYGIENE

1. What time do you usually go to bed? _____
2. What time do you usually wake up? _____
3. How many hours are you physically in bed? _____
4. Does your sleep schedule vary on the weekends? ☐ YES ☐ NO
If yes, please explain: _____
5. Do you feel you go to bed too late? ☐ YES ☐ NO
If yes, please explain: _____
6. Do you watch television in the evenings? ☐ YES ☐ NO
If yes, please explain: _____
7. Do you use a cell phone or other electronic device while lying in bed? ☐ YES ☐ NO
If yes, please explain: _____
8. Do you use a sleep monitoring device? ☐ YES ☐ NO
If yes, please explain: _____
9. Do you have light coming into your bedroom? ☐ YES ☐ NO
If yes, please explain: _____
10. Do you have young children who wake you up? ☐ YES ☐ NO
If yes, please explain: _____
11. What type of bed do you have and what size is it?
Please explain: _____

12. What type of pillows do you use and how many do you use?
Please explain: _____

SLEEP INTAKE QUESTIONNAIRE

SLEEPING ENVIRONMENT

1. Do you have carpets or hardwood floors in your bedroom?

Please explain: _____

2. What type of heat is in your home?

Please explain: _____

3. Are there any unusual smells in your bedroom? ☐ YES ☐ NO

If yes, please explain: _____

4. Do you have black mold on your windowsills or in your basement? ☐ YES ☐ NO

If yes, please explain: _____

5. Do you use an air filter or purifier for your bedroom? ☐ YES ☐ NO

If yes, please explain: _____

6. How often do you clean the dust in your bedroom?

Please explain: _____

7. Do you sleep with a bed partner or animal who snores or moves around at night and disturbs your sleep? ☐ YES ☐ NO

If yes, please explain: _____

8. Do noises wake you up? ☐ YES ☐ NO

If yes, please explain: _____

9. Do you live in a noisy area that affects your sleep? ☐ YES ☐ NO

If yes, please explain: _____

10. Do you feel safe in your bed at night? ☐ YES ☐ NO

If yes, please explain: _____

SLEEP INTAKE QUESTIONNAIRE

SLEEP PROBLEMS

1. Have you been diagnosed with a sleep problem? ☐ YES ☐ NO

If yes, please explain: _____

2. Do you feel that you have a sleep program? ☐ YES ☐ NO

If yes, please explain: _____

3. Do you snore or stop breathing while you sleep? ☐ YES ☐ NO

If yes, please explain: _____

4. Have you ever had a sleep study performed? ☐ YES ☐ NO

If yes, please explain: _____

5. Do you use a CPAP machine or other device while you sleep? ☐ YES ☐ NO

If yes, please explain: _____

6. Do you ever wake up because of pain? ☐ YES ☐ NO

If yes, please explain: _____

SLEEP QUALITY

1. Do you feel well-rested in the morning? ☐ YES ☐ NO

Please explain: _____

2. Do you feel sleepy during the day or evening? ☐ YES ☐ NO

If yes, please explain: _____

3. Have you ever had an accident because you were sleepy? ☐ YES ☐ NO

If yes, please explain: _____

4. Do you take naps? ☐ YES ☐ NO

If yes, please explain: _____

If yes, do you feel rested after a nap? ☐ YES ☐ NO

Please explain: _____

SLEEP INTAKE QUESTIONNAIRE

INSOMNIA

1. How long does it take for you to fall asleep after lying in bed?

2. What do you do while trying to fall asleep (i.e. read, watch television, look at phone, etc.)?

3. Do you ever feel wired or anxious when trying to fall asleep?

4. Do you currently take, or have you tried, any sleep aids to fall asleep? ☐ YES ☐ NO

If yes, please explain and list name and frequency:

5. Do you wake up in the middle of the night? ☐ YES ☐ NO

If yes, please explain: _____

6. Do you have trouble falling back asleep when you wake up? ☐ YES ☐ NO

If yes, please explain: _____

7. Do you move your feet or legs at night in a manner that keeps you awake? ☐ YES ☐ NO

If yes, please explain: _____

8. Have you been diagnosed with Restless Leg Syndrome? ☐ YES ☐ NO

If yes, please explain: _____

9. Do you have vivid or disturbing dreams at night? ☐ YES ☐ NO

If yes, please explain: _____

SLEEP INTAKE QUESTIONNAIRE

CAFFEINE AND STIMULANTS?

Please check any of the following that you eat or drink and indicate how much, how often per day, and at what times during the day.

Coffee: How much? _____ How often? _____ When? _____

Caffeinated soda: How much? _____ How often? _____ When? _____

Caffeinated tea: How much? _____ How often? _____ When? _____

Chocolate: How much? _____ How often? _____ When? _____

Alcohol: How much? _____ How often? _____ When? _____

What medications are you currently taking and when during the day do you take them?

STRESS

1. Have you been under stress in the past few months? ☐ YES ☐ NO

If yes, please explain: _____

2. What do you do to manage stress?

Please explain: _____

3. Do you exercise? ☐ YES ☐ NO

If yes, please explain what you do, how often, and at what time during the day you exercise:

SLEEP IN PATIENT PROTOCOLS

An Integrative Medicine Case Study

About the Authors



Catherine Darley, ND

Catherine Darley is the director of The Institute of Naturopathic Sleep Medicine in Seattle. Her clinical work focuses on the treatment of sleep disorders in adults and children using behavioral and naturopathic medicine. Additionally, she regularly trains corporate employees and emergency personnel on a variety of sleep, performance and safety issues.

Darley graduated from Bastyr University in Kenmore, Washington in 2002 with her naturopathic doctorate. Currently she is adjunct faculty at Bastyr University, and National University of Natural Medicine in Portland Oregon, and has served on the board of the Washington Association of Naturopathic Physicians. You can learn more about her work at www.naturalsleepmedicine.net. In her personal time, she likes to be outside in nature with her loved ones.



Kristen Allott, ND, LAc

Kristen Allott is a naturopathic physician, national speaker, and pioneering advocate for the use of whole foods nutrition in the treatment of mental health disorders and addictions. Allott is passionate about achievable results. She trains mental health professionals, nurse practitioners, as well as organizations and courts on how to optimize their brains from better decision making, creative problem solving, and health.

Allott graduated from Bastyr University in Kenmore WA in 2002 with her naturopathic doctorate and acupuncture in 2004. In the spring of 2021, she will publish a workbook with New Harbinger Publishing on how to use food to reduce anxiety and improve decision making. You can learn about her work at KristenAllott.com and ProteinForAll.org. In her personal time, she loves being outside and playing with her family.



Kate Garden, BSc(Hons), Dip ION, IFMCP

Kate Garden is an Institute for Functional Medicine certified nutritional therapist. Based in the United Kingdom and having practiced as a nutritionist for 17 years, she runs a successful functional medicine and nutrition clinic where she and her team support a wide range of patients looking to optimize their health. In addition to her clinical work she provides corporate seminars and workshops and regularly contributes to magazines and online media.

Originally a psychology graduate, before training at London's Institute for Optimum Nutrition, Garden's main clinical focus is mental health. You can learn more about her and her work at www.kategarden.co.uk.