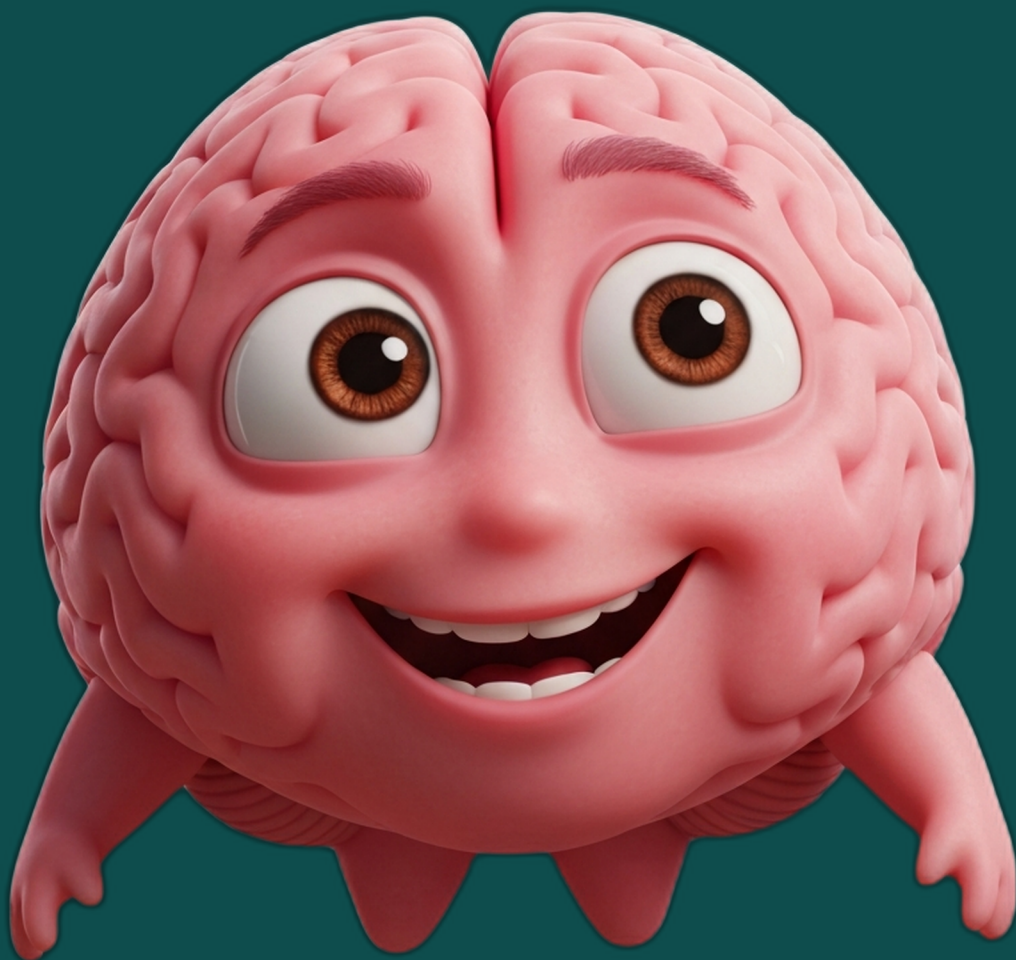


THE BRAIN STACK GUIDE

The 24-Hour Blueprint That Optimises
Your Focus, Energy, and Sleep

BACKED BY NEUROSCIENCE



@get.braindecoded

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THE BRAIN STACK GUIDE

The 24-Hour Blueprint That Optimises Your Focus, Energy, and Sleep — Backed by Neuroscience

WHAT IS THE BRAIN STACK GUIDE?

A 24-hour blueprint backed by neuroscience. Five specific windows across your day — morning, performance hours, afternoon, evening, and sleep — with exactly what to do in each to maximise focus, sustained energy, and sleep quality. Not a diet. Not a philosophy. A timing system: the same habits, done at the right time and in the right combination, produce results that most people have never experienced.

You've been doing everything right. And it's still not working.

Eight hours of sleep — still exhausted. Supplements every day — feeling nothing. Going to sleep fine — waking at 3AM like clockwork. Most of the time the problem isn't what you're doing. It's when. Your brain runs on a fixed 24-hour biological schedule — this guide maps it and fixes the five places most people are unknowingly working against it.

WHO IS THIS FOR?

For anyone who wants to feel sharper, more energised, and better rested — whether you're fixing a specific problem or just want to run at a higher level.

- Anyone who wakes up tired despite a full night's sleep
- Anyone who crashes hard every afternoon and reaches for more caffeine or sugar
- Anyone who wakes between 3–4AM for no obvious reason
- Anyone who spends money on supplements and feels no difference
- Anyone who wants sharper focus, sustained energy, and deeper sleep — with what they already have

HOW TO USE THIS GUIDE

Read end-to-end first. Start Section 01 tomorrow morning. Add one section per week from there. Individual results will vary.

WHAT'S INSIDE

Five windows. One system. The complete 24-hour protocol.

MORNING	6 – 9 AM	Cortisol, caffeine timing, and supplement absorption
FOCUS WINDOW	9 AM – 2 PM	Deep work, phone habits, and caffeine cutoff
AFTERNOON	2 – 6 PM	The crash explained, adenosine, and afternoon reset
EVENING	6 PM – 10 PM	Dinner, blood sugar, alcohol, and melatonin
SLEEP	10 PM – 6 AM	Position, temperature, and brain maintenance

Each section covers one window of the day — what your biology is doing, what most people get wrong, and the specific fix. Start with Morning. Follow the protocol in order.

THE 5 PROBLEMS THIS GUIDE SOLVES

These are the five most common symptoms people experience — and the specific biological mechanism behind each one.

THE SYMPTOM	WHAT'S ACTUALLY HAPPENING	THE FIX IN THIS GUIDE
Not alert in the morning, even after a full night's sleep	Your body releases a powerful natural alerting hormone 30–45 min after waking. Most people immediately counter it — which builds tolerance and leaves them needing more stimulants every month just to feel the same.	The 90-minute morning window. Section 01.
Spending money on supplements and feeling absolutely nothing	Most supplements are broken down before they reach your bloodstream. One missing ingredient — and the wrong meal timing — can be the difference between 1% absorption and 2,000%.	The absorption protocol. Section 01.
3PM energy crash — every day, without fail	Not a lunch issue. A real scheduled dip in your biological clock, compounded by a tiredness molecule (adenosine) that has been accumulating since the moment you woke up.	20-minute reset that works with your biology. Section 03.
Waking between 3–4AM for no reason you can name	Blood sugar drops overnight → your body releases cortisol to raise it → cortisol is a wake signal. For many people, dinner timing is the lever — not stress or anxiety.	The dinner protocol. Section 04.
8 hours of sleep but still waking up exhausted	The most restorative part of your night — the final 2 hours — is being destroyed by what you do before bed. You can sleep 8 hours and lose 90% of the benefit without knowing it.	Sleep architecture repair. Section 05.

THE 5 BRAIN CODES

The core principles behind the 24-Hour Blueprint

BRAIN CODE · 01

Cortisol first. Caffeine second. Every time.

Your body produces its own alerting hormone every morning — more powerful than caffeine. Drinking coffee during that window builds tolerance without you noticing. The morning section shows you the exact fix.

BRAIN CODE · 02

Your phone is a slot machine. And you're pulling the lever without realising it.

Variable reward schedules — the same mechanism casinos use — keep you checking. Every check costs 23 minutes of deep focus. The focus window section fixes this.

BRAIN CODE · 03

The afternoon crash is physics. Adenosine doesn't care how motivated you are.

Caffeine doesn't remove tiredness — it blocks it temporarily. When it clears, everything that built up behind it hits at once. That's the 3PM crash. The afternoon section works with this, not against it.

BRAIN CODE · 04

One drink changes what happens at 3AM. And you won't feel it until the morning.

Alcohol suppresses REM sleep in the second half of the night — the part where memory consolidates and emotional regulation resets. The evening section shows exactly when and why this happens.

BRAIN CODE · 05

Sleep is not passive rest. It's scheduled maintenance — and your position matters.

Your brain physically cleans itself while you sleep. Position, temperature, timing, and what you do in the final hour all determine how well that process runs. The sleep section covers the mechanics.

MORNING

6 – 9 AM

Your Brain Has A Built-In Energy System. Most People Are Accidentally Overriding It.

BRAIN CODE · 01

Cortisol first. Caffeine second. Every time.

The morning is where most of this starts going wrong — and it's also where a few small changes produce the fastest, most noticeable results. Two things happen in the first 90 minutes after you wake up that determine your energy for the entire day: a hormone called cortisol peaks, and most people immediately counter it with caffeine. This section covers that timing error first. Then it covers the supplements most people take every morning that are delivering almost zero benefit — and exactly what changes to make them work.

WHY YOUR MORNING CAFFEINE WINDOW MATTERS

Within 30–45 minutes of waking up, your body releases a hormone called cortisol (see Glossary). Think of it as your brain's built-in alerting system — it's what makes you feel more awake even before you've touched your coffee. It's more powerful than caffeine, and it's completely free.

Here's the problem: when you drink coffee during this cortisol window, your brain reads the combination as "too much stimulation" and responds by producing fewer caffeine receptors. Every day you do this, your coffee works slightly less. That's why your order has gotten bigger every year — you're building tolerance without realising it.

The fix: Wait 90 minutes after waking before your first coffee or tea. Let cortisol do its job. When it starts to drop, caffeine arrives on a clean slate and fills the gap. Most people say their coffee "hits differently" within a week.

Don't drink coffee? The same 90-minute rule applies to any caffeinated drink — green tea, matcha, yerba mate. If you drink none of these, simply delay your first meal to around the 30-minute mark to align with your cortisol peak.

WHAT YOU DO	WHAT ACTUALLY HAPPENS
Coffee within 30 min of waking	Caffeine + cortisol stack simultaneously. Brain compensates by producing fewer receptors. Tolerance builds. You need more coffee every month just to feel the same.
Coffee 90 min after waking	Cortisol rises and falls naturally. Caffeine arrives on a clean slate. Receptors preserved. Same alertness with less caffeine and no tolerance build-up.

WHAT GOES INTO YOUR MORNING STACK

While you're waiting for that 90-minute window, this is also when you take your morning supplements. The Brain Stack is three compounds: turmeric (curcumin), lion's mane mushroom, and black pepper extract. Most people already own one or two of these. The problem is how they're taking them — in a way that delivers almost zero benefit. The reason is surprisingly simple, and the fix costs nothing.

TURMERIC: WHY YOURS PROBABLY ISN'T WORKING (AND THE \$3 FIX)

Turmeric is one of the most well-researched anti-inflammatory compounds in the world, with strong evidence for reducing systemic inflammation and emerging research on brain health. It's also nearly useless the way 95% of people take it — because of one enzyme in your liver that destroys it before it ever reaches your brain.

THE CURCUMIN ABSORPTION

The active compound in turmeric is called curcumin. Your liver contains an enzyme called CYP3A4 (think of it as a bouncer) that breaks down curcumin in your bloodstream before it can reach your brain. Without stopping this process, less than 1% of the curcumin you swallow actually gets absorbed. Black pepper contains a compound called piperine that directly inhibits this enzyme — like bribing the bouncer. In published clinical research, this one addition increases curcumin absorption by up to 2,000%. Not a nice-to-have. A biological requirement. Curcumin is also fat-soluble, meaning it needs dietary fat to absorb at all. Take it on an empty stomach and another 80% is lost. Take it with a fat-containing meal and you get the full effect.

The three things curcumin requires every time:

- Black pepper / piperine (minimum 5mg): Blocks the enzyme that destroys curcumin. No piperine = essentially no curcumin.
- Dietary fat in the same meal: Curcumin is fat-soluble. Without fat, 80% is wasted regardless of dose.
- Daily consistency: The neuroprotective benefits are cumulative. Taking it once does little.

ADAPTING THE MORNING STACK FOR YOUR DIET

The supplements themselves (turmeric, black pepper, lion's mane mushroom) are entirely plant-based and work for all diets. The only variable is how you provide the fat they need to absorb. Here's what that looks like for each diet:

YOUR DIET	FAT SOURCE TO TAKE WITH YOUR MORNING STACK
Omnivore / No restrictions	Eggs (any style), butter in coffee, full-fat yogurt, whole milk, avocado
Vegetarian	Eggs, ghee, olive oil drizzle over breakfast, full-fat dairy (milk, cheese, yogurt), avocado
Vegan	Avocado, coconut oil (in smoothie or coffee), almond/peanut butter, oat or soy milk with added fat
Carnivore	Eggs, butter, beef tallow, fatty cuts of meat, full-fat dairy
Dairy-free	Avocado, coconut oil, any nut butter, hemp or oat milk, flaxseed oil

LION'S MANE: THE ONE THAT TAKES 30 DAYS

Lion's mane mushroom is one of the most studied natural compounds for NGF (Nerve Growth Factor — a protein that stimulates growth of new neural connections, supports memory, and repairs nerve tissue). The mechanism is real and well-documented. But 9 in 10 people quit after a week — because they don't understand how it works.

THE LION'S MANE NGF PATHWAY

Lion's mane doesn't cross the blood-brain barrier directly. Instead, the active compounds unique to lion's mane stimulate NGF production in your gut, which then signals up through the vagus nerve (the communication highway between gut and brain) to your brain. This pathway is why effects take 2–3 weeks to appear — and why most people quit thinking it doesn't work. Daily dosing for 30 days is the minimum meaningful trial. Critical: you need fruiting body extract — not mycelium-on-grain products. Check the label: "fruiting body" must appear, and look for minimum 30% beta-glucans.

"You don't have an energy problem. You have a timing problem."

WHEN	DO THIS	WHY IT WORKS
Wake up	No caffeine yet — water only	Cortisol already working. Don't override it.
+10 min	500ml water	Glymphatic system needs hydration after overnight
+30 min	Breakfast with fat (any fat source, see table)	Required for curcumin absorption
+30 min	Turmeric + black pepper + lion's mane	Always with food + fat = absorbed
+90 min	First coffee / tea / matcha	After cortisol drops — works on a clean slate
Every day	Lion's mane without skipping	Vagus nerve pathway needs 30 days consistency

REMEMBER THIS

Wait 90 min for caffeine. Always take curcumin with piperine + fat. Lion's mane: 30 days minimum.

FOCUS WINDOW

9 AM – 2 PM

This Is Your Brain's Peak. Most People Spend It On Email.

BRAIN CODE · 02

Your phone is a slot machine. And you're pulling the lever without realising it.

WHY THIS WINDOW IS THE MOST VALUABLE PART OF YOUR DAY

After your cortisol window and first caffeine, your brain has approximately 4–5 hours at its best. Working memory is up. Reaction time is faster. Problem-solving is sharper. This is the most cognitively valuable real estate in your entire day — and most people spend it on email. Four protected hours, consistent every day, compounds to roughly 1,000 hours a year. That's the difference between people who feel like they're always catching up and people who seem to get more done in less time.

THE PHONE PROBLEM (AND WHAT TO DO IN AN OFFICE)

THE VARIABLE REWARD & DOPAMINE

Social media and messaging apps use a variable reward schedule: sometimes there's a notification, sometimes there isn't. The unpredictability — not the content — is what keeps you checking. Dopamine spikes more from anticipating a reward than from receiving one. This is the exact mechanism used by slot machines, and it was designed that way. Every time you check your phone during a task, it takes an average of 23 minutes to return to the same depth of focus. Three checks in a 5-hour window eliminate most of your productive capacity. And a 2017 University of Texas study found that even having your phone on the desk face-down reduces working memory — your brain automatically uses cognitive resources to suppress the urge to check it.

WHAT TO DO IN AN OFFICE

You don't need to put your phone in another room. Here are three realistic options, in order of effectiveness: 1. Phone face-down, all notifications silent, Focus Mode or Work Mode enabled — only emergency contacts allowed through. 2. Grayscale mode: colours drive dopamine-seeking behaviour. Black and white screens are measurably less compelling. 3. Schedule two 15-minute "phone windows" (e.g. 10:30AM and 12:30PM) instead of checking continuously — same information, a fraction of the attention cost.

THE 90-MINUTE FOCUS RHYTHM

Your brain naturally cycles through peaks and troughs of alertness every 90 minutes throughout the day — the same ultradian rhythm that structures your sleep cycles. At the end of each 90-minute deep work block, you'll notice a natural dip. This is not a willpower failure. It's your nervous system asking for a brief reset. A 10–15 minute non-screen break (short walk, eyes closed, fresh air) allows the next 90-minute block to start at full capacity.

CAFFEINE CUTOFF: EARLIER THAN YOU THINK

Caffeine has a half-life of 5–6 hours in most people. A coffee at 2PM means half that caffeine is still active at 8PM — interfering with your ability to fall into deep, restorative sleep, even if you don't feel wired. Feeling tired enough to fall asleep is not the same as achieving restorative sleep. Last caffeine: by 1PM. For caffeine-sensitive people, 12PM is safer.

"Four protected hours a day becomes 1,000 hours a year. That's the compounding most people miss."

WHEN	DO THIS	WHY IT WORKS
9 AM – 1 PM	Hardest cognitive task first	Peak working memory and creativity
All morning	Phone face-down + Focus Mode on	Eliminates the dopamine anticipation loop
9–11 AM	No social media	Protects dopamine baseline for the day
Every 90 min	10–15 min non-screen break	Works with ultradian rhythm, not against it
By 1 PM	Last coffee or tea	5–6hr half-life still active at 7–8PM
1–2 PM	Email, admin, low-stakes tasks	Save for when the peak is naturally fading

REMEMBER
THIS

Focus Mode on, not phone away. Last caffeine by 1PM. 90-min blocks with breaks.

AFTERNOON

2 – 6 PM

The 3PM Crash Has Nothing To Do With Your Lunch. Here's What's Really Happening.

BRAIN CODE · 03

The afternoon crash is physics. Adenosine doesn't care how motivated you are.

WHAT ADENOSINE IS AND WHY IT BUILDS UP ALL DAY

While you're awake, your brain continuously produces a molecule called adenosine (see Glossary) — a natural byproduct of neural activity. As adenosine accumulates, it binds to receptors in your brain and progressively creates the feeling of tiredness. Think of it like sand filling an hourglass: the longer you're awake, the more has accumulated.

THE ADENOSINE ACCUMULATION

Caffeine doesn't remove adenosine — it blocks the receptors that adenosine binds to, so you don't feel it. The adenosine keeps accumulating behind the caffeine block. When caffeine clears (5–6 hours), the built-up adenosine hits all at once. That's the "caffeine crash" — not blood sugar, not willpower, not lunch. Physics. The 2–3PM dip is also a real circadian dip (a scheduled drop in your biological clock) that happens at roughly the same time every day, regardless of what you eat. Your body is designed to want a brief rest here. Working against it with more caffeine only delays the crash and damages tonight's sleep.

A NOTE ON LUNCH TIMING

For most people, lunch happens between 11:30AM and 1:30PM — which means your protein and fat intake for the afternoon actually happens during your performance window, not after. That's ideal. If you've had a protein-rich lunch, you're already protected for the afternoon. If you skipped protein at lunch and went for carbs, that's the main reason your 3PM crash hits harder — the blood sugar spike from a carb-heavy lunch compounds directly with the circadian dip.

THE COFFEE NAP: HOW TO GET BOTH MECHANISMS WORKING TOGETHER

Caffeine takes 20–30 minutes to reach peak concentration in your bloodstream after drinking it. A brief rest during that window lets some adenosine clear from your receptors. When you wake, the caffeine arrives on a partially cleaner slate. Research from Loughborough University showed measurably better alertness from a coffee nap versus either coffee or a nap alone. How: drink an espresso or strong coffee, lie flat immediately, set alarm for 17 minutes. Wake before you hit deep sleep.

CAN'T NAP AT WORK? OFFICE ALTERNATIVES THAT WORK

A coffee nap isn't realistic in every environment — especially in office cultures where lying down is unusual. These achieve a similar reset through different pathways:

- 10-minute walk outside: Movement clears adenosine through a physical pathway and natural light resets your circadian alertness signal. Most effective alternative.
- 5 minutes of box breathing: Inhale 4 counts, hold 4, exhale 4, hold 4. Shifts your nervous system state and measurably improves alertness.
- Cold water on face and wrists: Triggers the diving reflex, reducing heart rate and producing a sharp, brief increase in alertness. Choose whichever fits your environment. The goal is the same: a brief recovery before the adenosine hits full force.

WHEN	DO THIS	WHY IT WORKS
2–3 PM	Coffee nap (17 min) or walk outside	Adenosine clearance before it peaks
2–6 PM	Protein snack if not eaten at lunch	Stabilises blood sugar through the dip
All day	1 glass of water per hour	1–2% dehydration measurably reduces cognition
After 1 PM	No more caffeine (see Section 02)	Cutoff is 1PM — half-life still active at 7–8PM
3–5 PM	Admin, emails, creative review	Work with the dip — not all tasks need full capacity

REMEMBER THIS

Protein at lunch. Walk or nap at 2PM. Last caffeine by 1PM — not 3PM.

EVENING

6 PM – 10 PM

What You Do In These 4 Hours Decides The Quality Of The Next 8.

BRAIN CODE · 04

One drink changes what happens at 3AM. And you won't feel it until the morning.

WHAT ALCOHOL REALLY DOES TO YOUR SLEEP

Alcohol is a CNS depressant that helps you fall asleep faster — which is why people believe it helps them sleep. Here's what's actually happening in the second half of your night.

THE ALCOHOL & REM SUPPRESSION

Alcohol is a CNS (central nervous system) depressant that helps you fall asleep faster and deepens early slow-wave sleep. This is why people believe it helps them sleep. Here's what actually happens: as your liver metabolises the alcohol (roughly one standard drink per hour), it creates a rebound effect in the second half of the night. REM sleep (Rapid Eye Movement — the dream phase where memory consolidation and emotional processing happen) is concentrated in the last 2 hours of an 8-hour night. Just one drink suppresses this by 20–24%. The first half of your night feels completely normal. The damage happens while you're asleep. You wake after 8 hours feeling unrestored — and your brain has no idea why, because it "got its sleep."

WHAT YOU DO	WHAT ACTUALLY HAPPENS
One drink, then 8 hours of sleep	First half: normal. Second half: REM suppressed 20–24%. Wake feeling unrestored. Memory consolidation incomplete. Emotional reactivity higher than normal.
No alcohol, same bedtime	Full REM architecture in final 2 hours. Memory consolidated. Emotional regulation restored. Prefrontal cortex at full function by morning.

WHY YOU WAKE AT 3AM — THE REAL CAUSE

Waking between 3–4AM gets blamed on stress. Sometimes stress is the trigger. But for many people, the cause traces back to what they ate at dinner, hours earlier — not to stress or anxiety.

THE BLOOD SUGAR & CORTISOL AT 3AM

Blood sugar naturally drops in the early morning hours. If dinner was high in refined carbohydrates (white rice, pasta, bread, sweets), the overnight drop is steeper and faster. Your body responds to low blood sugar by releasing cortisol — which raises blood glucose. Cortisol is also a wake signal. For many people, high-carbohydrate dinners contribute to a 3AM cortisol spike that disrupts sleep. Your brain may interpret this as anxiety or restlessness — but the lever to pull is at dinner, not at 3AM.

WHAT TO EAT AT DINNER (AND WHY GARLIC AND ONION MATTER)

95% of your serotonin — the molecule associated with mood, wellbeing, and calmness — is produced in your gut, not your brain. Specific dietary fibres trigger this production overnight, and the serotonin signals back to your brain through the vagus nerve. What you eat at dinner directly affects how you feel the next morning.

At dinner, include:

- Protein + fat: Slows digestion and stabilises overnight blood sugar — preventing the 3AM cortisol spike
- Garlic and onions: Rich in inulin (a prebiotic fibre) that feeds gut bacteria responsible for serotonin production overnight
- Apples, carrots, or cooled potato/legumes: Pectin and resistant starch — more prebiotic fibre for overnight gut serotonin
- Fermented food (kefir, kimchi, yogurt): Supports the microbiome diversity that underpins the gut-brain serotonin loop
- Lower refined carbs at dinner: Prevents the blood sugar drop that triggers 3AM cortisol

THE BLUE LIGHT PROBLEM

Your body uses light as the primary signal for when to produce melatonin (the hormone that signals sleep readiness). Blue light from phone and computer screens mimics daylight — it tells your body "it's still daytime." One hour of screen use before sleep delays melatonin onset by 60–90 minutes. Phone off or on grayscale at least 1 hour before sleep.

"Dinner decides 3AM. Phone decides when melatonin starts. One drink removes 20% of the night's most important sleep. The evening isn't wind-down time — it's setup time."

WHEN	DO THIS	WHY IT WORKS
Dinner	Protein + fat + garlic/onion + fibre	Stable blood sugar + overnight serotonin
Dinner	Reduce refined carbs (rice, bread, pasta)	Prevents 3AM blood sugar drop + cortisol
Within 4hr sleep	Minimise or skip alcohol	1 drink = 20–24% less REM in second half
1hr pre-sleep	Phone off or grayscale mode	Delays melatonin onset 60–90 min if you don't
30 min pre-sleep	Stop eating	Digestion raises core temp → disrupts sleep onset

REMEMBER
THIS

Protein + garlic at dinner. Phone off at 9PM. One drink costs 20% of your REM.

SLEEP

10 PM – 6 AM

Your Brain Runs Active Maintenance While You Sleep. Most People Are Disabling It.

BRAIN CODE · 05

Sleep is not passive rest. It's scheduled maintenance — and your position matters.

THE GLYMPHATIC SYSTEM: YOUR BRAIN'S NIGHTLY CLEANING CYCLE

While you're awake, your brain accumulates metabolic waste. Sleep is the only time it cleans itself — and how you sleep determines how well that happens.

THE GLYMPHATIC CLEARANCE

While you're awake, neurons fire continuously and produce metabolic waste — including a protein called beta-amyloid, associated with neurodegeneration in long-term research. This waste accumulates all day. During deep sleep, brain cells physically shrink by approximately 60%, opening channels between them. Cerebrospinal fluid flows through these channels and flushes the waste into your lymphatic system. This process — called glymphatic clearance — only activates during sleep. There is no waking substitute.

WHY 6 HOURS REMOVES 90% OF YOUR REM

Sleep doesn't distribute evenly across the night. Your first 4–5 hours are dominated by NREM sleep (Non-Rapid Eye Movement — the deep, slow-wave phase where your body physically restores itself). Your last 2–3 hours are dominated by REM sleep (Rapid Eye Movement — the dreaming phase where your brain consolidates memories, processes emotions, and restores prefrontal cortex function). These are not interchangeable.

WHAT YOU DO	WHAT ACTUALLY HAPPENS
Sleeping 6 hours instead of 8	You don't lose 25% of your sleep. You lose 60–90% of your REM. Memory consolidation, creativity, and emotional regulation happen in the REM-heavy final hours — and you've specifically removed those.
8 hours after one drink	Functionally similar to sleeping 6 hours sober. Alcohol suppresses second-half REM by 20–24%. Duration and quality are both gone.

MAGNESIUM GLYCINATE: THE BEST SLEEP SUPPLEMENT MOST PEOPLE HAVEN'T TRIED

THE MAGNESIUM & GABA RECEPTORS

Magnesium glycinate binds to GABA receptors in your brain — the same receptors that alcohol and sleeping tablets target to induce relaxation. The key difference: magnesium does this without suppressing REM sleep. It also directly regulates melatonin production and lowers cortisol at night. 300–400mg of magnesium glycinate taken 30–60 minutes before sleep measurably reduces time-to-sleep and improves sleep quality in multiple peer-reviewed trials. Unlike melatonin (most effective for jet lag), magnesium improves the architecture of sleep itself. Glycinate form specifically — it's better absorbed and gentler than oxide or citrate forms.

WHAT DISRUPTS DEEP SLEEP

- Alcohol: Suppresses REM in the second half of the night (see Section 04)
- Room temperature around 19°C (66°F): Your core body temperature must drop 1–2°C to enter deep NREM sleep. Keeping the room at or below this temperature supports that shift directly.
- Blue light within 1 hour of sleep: Delays melatonin onset by 60–90 minutes
- Caffeine after 1PM: 5–6 hour half-life means still active at 7–8PM
- Eating within 30 minutes of sleep: Digestion raises core temperature and disrupts early sleep stages
- Inconsistent wake time: Your circadian rhythm anchors to your wake time. Varying it by more than 1 hour fragments sleep architecture.

**"The last 2 hours of sleep do most of the work. Don't cut them short.
Don't drink them away."**

WHEN	DO THIS	WHY IT WORKS
Bedroom	Temperature 16–19°C (61–66°F)	Core temp must drop for deep NREM sleep
Room	Complete darkness or eye mask	Even dim light suppresses melatonin
Pre-sleep	Magnesium glycinate 300–400mg	GABA activation + melatonin + REM preserved
Every night	Same wake time — no exceptions on weekends	Circadian anchor = better architecture
Duration	8 hours in bed	Final 2 hours = 60–90% of all REM sleep

REMEMBER
THIS

Cool room (16–19°C). 8 hours. Magnesium glycinate 30 min before bed.

MY BRAIN STACK

Personalise Your 24-Hour Blueprint — Fill This In

Set your own times using the rules in this guide. Fill it in once. Use the tracker. Run it for 30 days. Then adjust.

MORNING · 6–9 AM

My wake time	_____	(set alarm here)
First water (+10 min)	_____	(e.g. 6:10 AM)
Morning stack (+30 min)	_____	(e.g. 6:30 AM — with food containing fat)
First coffee / tea (+90 min)	_____	(e.g. 7:30 AM)

FOCUS WINDOW · 9 AM – 2 PM

Deep work block	_____	(e.g. 9 AM – 12 PM)
Last caffeine	_____	(must be before 1 PM)
Focus Mode / phone face-down hours	_____	(e.g. 9–11 AM)

AFTERNOON · 2–6 PM

Afternoon reset (walk / nap / breathe)	_____	(e.g. 2:00–2:20 PM)
Low-effort admin window	_____	(e.g. 3–5 PM)

EVENING · 6 PM – 10 PM

Dinner time	_____	(protein + fat + prebiotic fibre + garlic/onion)
Phone off / wind-down starts	_____	(e.g. 9:30 PM)
Magnesium glycinate	_____	(30–60 min before sleep)
Target sleep time	_____	(e.g. 10:30 PM)
Target wake time (check)	_____	(must = sleep time + 8 hours)

The 30-Day Rule: set your times and protect them for 30 days. By week 2, the caffeine timing feels natural. By week 4, many people find early waking reduces and morning alertness shifts noticeably. The compounding is in the habit. Individual results will vary.

DAILY HABIT TRACKER

7-Day Print-and-Use Sheet — The Brain Stack 24-Hour Blueprint

ACTION	MON	TUE	WED	THU	FRI	SAT	SUN
MORNING · 6–9 AM							
Wake No caffeine yet — let cortisol work							
+10 min 500ml water							
+30 min Morning stack with fat-containing meal							
+90 min First coffee / tea / matcha							
FOCUS WINDOW · 9 AM – 2 PM							
9 AM+ Phone face-down / Focus Mode on							
Morning Deep work — hardest task first							
Every 90 min 10–15 min non-screen break							
By 1 PM Last caffeine of the day							
AFTERNOON · 2–6 PM							
2–3 PM Glass of water							
2–3 PM Walk / breathe / coffee nap if possible							
EVENING · 6 PM – 10 PM							
Dinner Protein + fat + prebiotic fibre + garlic/onion							
Evening Minimise or skip alcohol							
1hr before bed Phone off / grayscale mode							
30 min before bed Magnesium glycinate 300–400mg							
SLEEP							
Room temp 16–19°C							
Duration 8 hours in bed							

QUICK REFERENCE

The 24-Hour Brain Blueprint — Cheat Sheet

WHEN	DO THIS	THE REASON
Wake up	No caffeine yet	Cortisol is your natural stimulant — don't build tolerance on top of it
+10 min	500ml water	Rehydrates after 8hrs of overnight fluid loss — supports brain function from the start
+30 min	Meal with fat (see dietary table)	Curcumin is fat-soluble — fat required for absorption
+30 min	Turmeric + black pepper + lion's mane	Piperine inhibits CYP3A4 → 2,000% more curcumin absorbed
+90 min	First coffee / tea / matcha	Cortisol drops naturally — caffeine fills the gap
9 AM+	Phone face-down + Focus Mode	Presence on desk reduces working memory even when off
9 AM – 1 PM	Deep work, hardest task first	Peak cognitive window — don't waste it on admin
Every 90 min	10–15 min non-screen break	Ultradian rhythm — work with it not against it
By 1 PM	Last caffeine of the day	Half-life 5–6hr → still blocking sleep at 7–8PM
2–3 PM	Walk / nap / box breathe	Adenosine clearance without more caffeine
Dinner	Protein + fat + garlic/onion + fibre	Prevents 3AM cortisol spike and boosts morning serotonin
Evening	Minimise alcohol	1 drink = 20–24% less REM in hours 6–8 of your night
1hr pre-sleep	Phone off or grayscale	Blue light delays melatonin by 60–90 min
30 min pre-sleep	Magnesium glycinate 300–400mg	GABA receptor activation without REM suppression
Bedroom	Temperature 16–19°C	Core temp drop supports deep NREM sleep
Every night	8 hours in bed	Final 2 hours = 60–90% of all your REM

SUPPLEMENT GUIDE

These are the four compounds in this protocol. Each is well-researched and inexpensive. Most people either buy the wrong form or take it at the wrong time — and feel nothing.

SUPPLEMENT	DOSE & TIMING	WHAT TO BUY	WHAT TO SKIP
Curcumin / Turmeric	500–1,000mg with fat-containing meal	Min 95% curcuminoids. Contains BioPerine® or standardised piperine on label.	Generic turmeric powder with no piperine. Absorption is under 1% without it.
Black Pepper Extract	Min 5mg piperine — usually included in curcumin products	Standardised piperine. Many curcumin products include it — check the label first.	Whole peppercorns. Not enough bioavailable piperine. You need the extract.
Lion's Mane	500–1,000mg daily. Timing flexible. 30 days minimum.	Fruiting body extract. Min 30% beta-glucans. "Fruiting body" must appear on label.	Mycelium-on-grain products — grown on oats/rice, diluted with starch. Far less active.
Magnesium Glycinate	300–400mg, 30–60 min before sleep	Magnesium glycinate or threonate. Chelated forms absorb well and don't cause loose stools.	Magnesium oxide (poor absorption). Citrate works but causes digestive issues at sleep doses.

STACKING PROTOCOL

These four supplements work together. Take curcumin + black pepper + lion's mane together at breakfast with your fat source. Magnesium glycinate is separate — taken at night because it targets GABA receptors (sleep pathways) independent of the morning stack. That's the full protocol. No other supplements required.

GLOSSARY

Key Terms Used In This Guide

Adenosine	A molecule that builds up in your brain the entire time you're awake. As it accumulates, it binds to receptors and creates the feeling of tiredness. Caffeine blocks these receptors — but doesn't remove the adenosine.
Circadian Rhythm	Your body's internal 24-hour clock. It regulates when you feel alert, sleepy, hungry, and when hormone levels (like cortisol and melatonin) rise and fall. Every section of this guide is built around working with this rhythm.
Cortisol	A hormone released by your adrenal glands. Peaks naturally 30–45 minutes after waking — acting as your body's built-in alerting system, more powerful than caffeine. Stacking coffee on top of this peak builds tolerance instead of adding energy.
CYP3A4	A liver enzyme that metabolises (breaks down) many compounds before they reach your bloodstream. It's the reason curcumin has near-zero absorption without piperine — CYP3A4 destroys it first.
Curcumin	The active anti-inflammatory and neuroprotective compound in turmeric. Has less than 1% bioavailability without piperine + fat. With both, it becomes one of the most well-studied brain-protective compounds available.
GABA	Gamma-aminobutyric acid — the main inhibitory neurotransmitter in the brain. When GABA receptors are activated, it creates a calming, sedating effect. Magnesium glycinate, alcohol, and benzodiazepines all work on GABA — but only magnesium does so without suppressing REM sleep.
Glymphatic System	Your brain's waste-clearance system. Only activates during deep sleep. Brain cells shrink ~60%, allowing cerebrospinal fluid to flow through and flush metabolic waste including proteins linked to neurodegeneration.
Melatonin	The hormone that signals sleep readiness. Produced in response to darkness. Blue light from screens delays melatonin production by 60–90 minutes. Magnesium glycinate supports natural melatonin regulation.
NGF (Nerve Growth Factor)	A protein that supports growth and maintenance of neural connections. Lion's mane mushroom is one of the few natural compounds with published evidence for NGF stimulation. Takes 2–3 weeks via the gut-brain pathway before effects are noticeable.
NREM Sleep	Non-Rapid Eye Movement sleep. The deep, slow-wave phase where your body physically restores itself. Dominant in the first 4–5 hours of sleep. This is when the glymphatic system is most active.

Piperine	A compound in black pepper that inhibits CYP3A4 — the liver enzyme (the "bouncer") that destroys curcumin. In published clinical research, just 5mg increases curcumin absorption by up to 2,000%. Non-negotiable when taking turmeric.
REM Sleep	Rapid Eye Movement sleep. The dreaming phase. Dominant in the final 2–3 hours of an 8-hour night. This is when memory consolidation, emotional processing, and prefrontal cortex restoration happen. Alcohol, late caffeine, and cutting sleep short all specifically reduce this phase.
Ultradian Rhythm	90-minute cycles of peak alertness and rest that occur throughout the day — not just during sleep. Working in 90-minute focused blocks with short breaks aligns with this natural rhythm and improves sustained output.
Vagus Nerve	The main communication pathway between your gut and brain. Lion's mane stimulates NGF production in the gut, which signals through the vagus nerve to your brain. Gut-produced serotonin (from prebiotic fibre in your diet) also travels this route.

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