

Modafinil for long-term use?

Global TL;DR of the complete Rapamycin.news thread, checked against consolidated literature and current guidelines

BOTTOM LINE

Modafinil is an evidence-based wake-promoting drug for diagnosed narcolepsy and selected hypersomnolence disorders. It is not an evidence-based longevity intervention, and chronic use by a healthy older adult has no demonstrated healthspan benefit. For this specific profile - age 65.9, lean, low hunger, active, and potentially using rapamycin - the thread's proposed daily/cycling experiments create more unresolved risk than plausible longevity value.

SCOPE	CAPTURE	OUTPUT
Posts 1-87 86 replies	17 Dec 2024 - 20 Jul 2026	Thread synthesis + evidence audit + action protocol

Executive decision

THE ONE-SENTENCE ANSWER

Do not treat modafinil as a daily anti-aging supplement: reserve it for a diagnosed sleep-wake disorder or a narrowly defined, clinician-supervised performance indication, and do not combine it casually with rapamycin, thyroid hormone, caffeine, sedative counter-stacks, or escalating self-experiments.

Question	Current answer	Confidence
Does it treat pathological daytime sleepiness?	Yes. Strong guideline support for adult narcolepsy; US guidance also supports idiopathic hypersomnia. [2-6]	HIGH
Does it help a healthy, rested person think better?	Sometimes, but average benefits are small/inconsistent and domain-specific. Effects are clearest when sleep deprived. [7,8]	LOW-MOD
Is long-term symptom control possible?	Yes for some patients, but evidence is mainly open-label/observational and much shorter than a lifespan horizon. [12,13]	MODERATE
Does it extend lifespan or healthspan?	No human evidence. No guideline endorses it for longevity; mechanistic and animal signals are not a geroprotection program.	NONE
Is chronic use benign?	No. Most adverse effects are manageable, but serious skin/hypersensitivity, psychiatric, cardiovascular, sleep and interaction risks remain. [2,5]	HIGH

Personalized conclusion

- At 65.9 years, drug clearance may be lower; the US label advises considering lower doses and close monitoring in older people. [2]
- With BMI 22, about 8% body fat and low hunger, appetite suppression or meal displacement is a liability: it can erode protein/energy intake, recovery and lean mass rather than create a longevity advantage.
- If rapamycin/sirolimus is in use, modafinil's CYP3A4 induction may lower sirolimus exposure. The magnitude for this exact pair is not established; the mechanism is credible enough to require prescriber/pharmacist review and, when clinically appropriate, sirolimus trough monitoring. [2,15]
- Low blood pressure is not the expected pharmacologic signature. Modafinil more often raises heart rate or blood pressure; a reproducible BP fall should prompt a review of timing, hydration, meals, other drugs, device technique and arrhythmia rather than be interpreted as proof of safety.
- The best default for a healthy longevity-focused user is no routine modafinil. If excessive sleepiness is real, diagnose its cause before suppressing the symptom.

This report distinguishes evidence for licensed disease treatment from off-label performance enhancement. It does not convert a forum protocol into a prescription.

1. The complete thread - global TL;DR

The 87-post discussion is best read as a collection of self-experiments, not a clinical cohort. Participants differ in diagnosis, dose, formulation, caffeine use, thyroid status, sleep debt and expectations. Positive and negative reports are therefore informative as signals, but cannot establish incidence, causality or long-term safety.

What participants consistently observed

Recurring observation	Thread signal	Interpretation
Wakefulness and task persistence	Often strong, sometimes described as smooth or unusually productive; especially useful after poor sleep.	Consistent with the drug's approved pharmacology. Wakefulness is not restoration of sleep physiology.
Large individual variability	Experiences ranged from no effect or lethargy to profound activation; brands and day-to-day response were debated.	Plausible, but confounded by sleep debt, food, co-stimulants, formulation, expectations and metabolism.
Dose and timing matter	Many preferred 25-100 mg early; 200 mg more often prolonged stimulation or disrupted sleep.	Anecdotally coherent with an effective half-life near 15 hours. Adult labeling is fixed-dose, not body-weight dosing. [2]
Repeated-use friction	Some daily users remained enthusiastic; others developed reduced effect, irritability, hangover, poor sleep or a 'zombie' state after days to months.	Possible tolerance, accumulated sleep debt or cofactor effects; forum reports cannot distinguish them.
Cardiovascular heterogeneity	Some saw no HR change; others saw marked tachycardia, especially with caffeine. One user stopped after low BP readings.	Both drug and context matter. Controlled data and labeling support HR/BP monitoring, not cardiovascular indifference. [2,10]
Long-term anecdotes	Reports included decades of therapeutic use for narcolepsy, years of intermittent use, and second-hand celebrity use.	Reassuring for individual tolerability, but selected survivorship anecdotes do not measure mortality, healthspan or rare harm.

Where the thread drifted beyond evidence

- Daily healthy-person use was repeatedly inferred to be safe from the experience of people with narcolepsy. That is not a valid generalization: baseline sleep-wake biology, benefit size and acceptable risk differ.
- Appetite suppression, mTOR/NLRP3 changes, antioxidant effects and mitochondrial effects were assembled into a longevity story. The cited signals are heterogeneous cell/animal or disease-model findings, sometimes bidirectional, and do not establish a human anti-aging effect.
- Escalating doses until 'overexcited,' then cycling down, has no validated rationale or safety basis. Neither does adding a sedative, acetylcholinesterase inhibitor or elaborate supplement stack to neutralize an adverse effect.
- The claim that modafinil is 'not a stimulant' is false in practical and regulatory terms. It is an atypical wake-promoting CNS stimulant, is Schedule IV in the US, blocks dopamine transporters at clinical doses and can be reinforcing. [2,9]
- Post 82, the conversation largely became a general blood-pressure-medication tangent. Those posts add little to the modafinil question.

2. Claim-by-claim evidence audit

Forum claim	Verdict	Evidence-grounded correction
'Long-term use is established as safe.'	OVERSTATED	Years of clinical experience and limited extensions are reassuring for many treated patients. They do not establish lifetime safety in healthy users or effects on cancer, dementia, cardiovascular events or mortality. [11-13]
'It is safer than Adderall.'	PARTLY	Modafinil generally has lower classic sympathomimetic and misuse burden than amphetamines, but no robust long-term head-to-head morbidity/mortality trial in healthy adults justifies an absolute safety ranking.
'It is not a stimulant and does not affect HR.'	FALSE	It is a wake-promoting stimulant with DAT blockade. Average changes may be small, yet clinically important tachycardia or BP effects occur in susceptible people and with co-stimulants. [2,9,10]
'Early dosing removes sleep risk.'	PARTLY	Early dosing reduces risk but cannot erase a roughly 15-hour effective half-life. With a simple half-life model, about 48% of drug remains 16 hours after dosing; plasma amount is not identical to subjective effect. [2]
'Dose should scale with body weight.'	UNSUPPORTED	Adult clinical dosing is not routinely mg/kg. Age, hepatic function, CYP phenotype, interacting drugs and diagnosis matter more than a simple body-weight multiplier. [2]
'Daily use depletes dopamine/serotonin.'	UNPROVEN	DAT blockade and higher extracellular dopamine are demonstrated, but the thread's neurotransmitter-depletion explanation for day-4/5 'hangover' is speculative. Sleep debt and adaptation are alternatives. [9]
'Narcolepsy users prove no tolerance.'	PARTLY	Open-label studies show maintained symptom control over months and some multi-year experience, but do not exclude tolerance in every patient or translate cleanly to healthy enhancement. [12,13]
'It improves longevity through appetite, mTOR or inflammation.'	NO EVIDENCE	No human lifespan, healthspan, aging-clock or longevity-outcome trial supports the proposition. Preclinical effects are context-specific and sometimes contradictory.
'It worsened my LDL/A1c, so it is metabolically harmful.'	SIGNAL ONLY	The temporal observation is worth retesting, but a single uncontrolled change cannot establish causation. A diabetic-rat high-dose result is not confirmation in humans. [14]
'A rash is a minor inconvenience.'	DANGEROUS	Serious rash, SJS/TEN, DRESS, angioedema and multiorgan hypersensitivity are rare but label-defining. Stop at the first rash unless clearly non-drug-related and seek urgent assessment for systemic/mucosal signs. [2]
'Take a sleep drug or supplements to cancel insomnia.'	POOR TRADE	Counter-stacking can mask the dose/timing problem and adds falls, cognitive, dependency or interaction burden. Persistent sleep impairment is a reason to revise or stop the wake-promoter.
'Use an escalating M-W-F cycle to create lasting brain gains.'	UNSUPPORTED	No controlled evidence validates that protocol, its endpoint or its claim of persistent neural benefit. Escalating until overactivation is an adverse-event strategy, not a biomarker-guided one.

3. State of the art: where evidence is strong

Guidelines and regulators

The regulatory picture depends on jurisdiction and indication. In the United States, the current label covers excessive sleepiness associated with narcolepsy, obstructive sleep apnea (as an adjunct, not treatment of the obstruction) and shift-work disorder. AASM guidance strongly recommends modafinil for adult narcolepsy and for adult idiopathic hypersomnia. [2,3]

In Europe, the indication was restricted to narcolepsy after a benefit-risk review removed idiopathic hypersomnia, obstructive sleep apnea and shift-work indications. The 2021 European narcolepsy guideline gives modafinil a strong recommendation for adult excessive daytime sleepiness, alongside other disease-specific options. The distinction matters in Italy: healthy cognition and longevity are outside the licensed rationale. [4-6]

Efficacy in narcolepsy

A 2026 systematic review/meta-analysis of nine studies (five randomized; 997 adults) found short-term improvements versus placebo in both objective wakefulness and subjective sleepiness: mean Maintenance of Wakefulness Test improvement of 3.56 minutes and Epworth Sleepiness Scale reduction of 3.34 points. The evidence confirms symptom efficacy, not disease modification or longevity. The review also highlights a sparse modern trial base and a major long-term evidence gap. [7]

Healthy cognition and sleep deprivation

A systematic review/meta-analysis of healthy, non-sleep-deprived adults concluded that the cognitive-enhancement potential is limited and variable. Under acute sleep deprivation, modafinil can sustain or restore alertness and some performance domains; it does not repay sleep debt or reproduce sleep's metabolic, immune and neural functions. [8]

Long-term treated-patient data

A 40-week open-label narcolepsy extension reported maintained benefit without a clear population-level tolerance signal. An earlier French observational series included longer exposures and did not identify dependency as a dominant problem. These findings are useful but selected, uncontrolled and focused on symptomatic patients; they are not a clean safety experiment for healthy aging. [12,13]

Outcome	What is known	Critical gap
Wakefulness in narcolepsy	Consistent short-term improvement; strong guidelines.	Comparative long-term outcomes, disease subtypes, aging populations.
Healthy cognition	Small/inconsistent domain-specific effects; better signal under sleep loss.	Sustained real-world benefit in rested older adults.
Tolerance/dependence	Lower classic addiction burden than amphetamines; some maintained efficacy.	Years-long controlled data, healthy users, stopping after chronic enhancement.
Cardiovascular events	Monitoring warranted; claims analyses do not show a consistent overall signal.	Randomized event trials and high-risk older populations. [11]
Longevity/healthspan	No qualifying human evidence.	Everything that would be needed to support the claim.

4. Pharmacology and biomolecular reality

Mechanism: an atypical stimulant, not a clean 'energy molecule'

Modafinil's complete mechanism is unresolved. The best-established human molecular action is low-potency inhibition of the dopamine transporter (DAT), increasing extracellular dopamine in striatum and nucleus accumbens. It is not a direct dopamine-receptor agonist, and no single high-affinity receptor agonism explains the clinical effect. Downstream changes in orexin/hypocretin, histamine, glutamate, GABA and catecholamine networks vary by brain region and model. [2,9]

That pharmacology explains the useful wakefulness, but also why anxiety, insomnia, reinforcement and autonomic activation are not surprising. It does not establish that chronic dopaminergic perturbation accelerates or slows aging.

PK/ADME snapshot

Parameter	Evidence-grounded summary	Practical implication
Absorption	Peak concentrations about 2-4 hours; food can delay the peak about 1 hour without materially changing total exposure.	A later peak can be mistaken for a weak dose and provoke unsafe redosing.
Effective half-life	About 15 hours.	Morning dosing can remain pharmacologically relevant near bedtime; repeated daily dosing accumulates toward steady state.
Distribution	Apparent volume about 0.9 L/kg; about 60% protein-bound.	Simple body-weight dose scaling is not validated.
Metabolism	Extensively hepatic; less than 10% excreted unchanged. R-modafinil clears more slowly than S-modafinil.	Liver function, age, genetics and interacting drugs influence exposure.
Elimination	About 80% of radiolabeled dose recovered in urine, mainly metabolites; about 1% in feces.	Severe renal disease increases an inactive metabolite; clinical interpretation remains limited.
Older age	Clearance may decline; small studies show higher exposure in older groups.	At 65.9, use only with a lower-dose/closer-monitoring mindset under a prescriber.
Hepatic impairment	Severe impairment roughly halves clearance and doubles steady-state concentration.	Label recommends half the usual dose in severe hepatic impairment.

WHY 'I SLEEP FINE' IS NOT ENOUGH

Using the label half-life as a simple model, the fraction remaining 16 hours after a dose is $2^{(-16/15)} = 0.48$. Subjective sleep onset can look normal while sleep architecture, next-day recovery or cumulative exposure still changes. This calculation is illustrative, not a personalized concentration estimate.

5. Safety: common, uncommon and non-negotiable

Common trial adverse effects

In pooled placebo-controlled trials in the US label, headache occurred in 34% versus 23% with placebo; nausea 11% versus 3%; nervousness 7% versus 3%; anxiety and insomnia each 5% versus 1%. Hypertension was reported in 3% versus 1%, palpitations and tachycardia in 2% versus 1%. Headache and anxiety were dose-related. About 8% discontinued for an adverse event versus 3% on placebo. [2]

Rare but serious

Risk	What to know	Action
Serious rash / SJS / TEN / DRESS	Usually appears in the first 1-5 weeks but can occur later; no reliable predictor separates benign from dangerous early rash.	Stop at first rash unless clearly unrelated; urgent assessment for fever, mucosal/eye lesions, facial swelling or systemic symptoms.
Angioedema / anaphylaxis	Swelling, breathing or swallowing difficulty can progress quickly.	Stop and seek emergency care.
Psychiatric activation	Anxiety/insomnia are commoner; postmarketing mania, psychosis, aggression and suicidality are reported.	Stop and urgently review marked mood/behavior change, hallucinations or suicidal thinking.
Cardiovascular	Tachycardia, BP elevation, chest symptoms and rare arrhythmia concerns; caution with structural heart disease and prior CV disease.	Stop/examine chest pain, syncope, sustained tachycardia or new irregular rhythm; monitor BP/HR.
Persistent sleepiness	Wake-promoting treatment does not guarantee normal alertness.	Do not drive or perform hazardous tasks until response is known.

Interaction map

Mechanism / combination	Expected direction	Practical handling
CYP3A4/5 induction	May reduce exposure to sirolimus, steroid contraceptives, cyclosporine, triazolam/midazolam and other sensitive substrates.	Check the full medication list. Do not assume a chronic modafinil change leaves other doses valid. [2]
CYP2C19 inhibition	May increase omeprazole, diazepam, phenytoin, propranolol and some antidepressant exposures.	Review dose/monitoring with pharmacist or prescriber. [2]
Warfarin	Potential anticoagulation variability.	Increase INR surveillance when starting/stopping. [2]
Caffeine / stimulants / T3	Additive wakefulness, anxiety, tachycardia, BP and sleep effects.	Do not introduce together; thyroid hormone is not a fatigue enhancer without an endocrine indication.
Alcohol / sedatives / sleep drugs	Unpredictable impairment and a push-pull cycle; sedative risks may be hidden by subjective alertness.	Avoid using a second drug merely to cancel modafinil's duration.

6. Special issue: modafinil + rapamycin

CLINICALLY PLAUSIBLE INTERACTION - MAGNITUDE UNKNOWN

Modafinil induces CYP3A4/5. Sirolimus is a CYP3A4 and P-glycoprotein substrate. The mechanistic prediction is lower sirolimus exposure during ongoing modafinil use, with exposure potentially changing again when modafinil stops. Direct clinical data for this exact pair are insufficient, so a numerical dose correction cannot be responsibly inferred. [2,15]

Scenario	Risk	Best response
Occasional one-off modafinil	The induction effect is likely smaller than with sustained use, but stimulant/sleep risks remain.	Still disclose use; avoid interpreting this as proof of interaction-free dosing.
Daily or repeated modafinil	More credible induction; sirolimus exposure and trough may fall. Stopping can reverse induction over time and raise exposure relative to the on-modafinil state.	Coordinate before starting/stopping. A clinician may use trough levels and clinical context rather than guesswork.
Rapamycin used without therapeutic drug monitoring	A meaningful interaction could go unnoticed; a longevity regimen lacks a validated target exposure in the first place.	Do not compensate by self-escalating rapamycin. Review whether either drug is justified.
Other CYP3A4/P-gp agents present	Net exposure becomes harder to predict; inhibitors and inducers can pull in opposite directions.	Have one pharmacist reconcile the complete list, including supplements.

Why the forum's mTOR narrative is misleading

Modafinil's preclinical effects on PI3K/Akt/mTOR, oxidative stress, mitochondria and inflammasome pathways differ by species, tissue, dose and injury model. Even if a pathway signal were reproducible, pathway movement is not interchangeable with a human outcome. There is no evidence that modafinil potentiates rapamycin's longevity effect, and the pharmacokinetic interaction could instead make rapamycin exposure less predictable.

For a longevity program, interaction control and preservation of sleep, appetite, cardiovascular stability and training recovery are more defensible priorities than assembling unvalidated pathway claims.

7. Actionable summary

Decision tree

Your situation	Action now	What would change the decision
Healthy, rested, seeking longevity or routine productivity	Do not start daily/cycled modafinil. Improve task design, light, training, sleep regularity and meal timing first.	A diagnosed sleep-wake disorder or a clearly defined, clinician-owned indication.
Repeated excessive daytime sleepiness	Run a 2-week sleep/symptom log and obtain a sleep-medicine assessment; do not simply suppress the signal.	Objective diagnosis, severity, driving/work risk, and alternative-cause review.
Already using occasionally	Document dose/time, prior sleep, caffeine, BP/HR, appetite, nighttime sleep and next-day recovery. Do not escalate from anecdotal benefit.	A prescriber review that confirms benefit exceeds sleep, CV and interaction costs.
Already using daily	Arrange medication/interaction review, especially for rapamycin. Reassess the original indication and define a supervised continuation or discontinuation plan.	Reproducible functional benefit without worsening sleep, appetite, BP/HR, mood or exposure to interacting drugs.

Before any prescription trial

- Clarify the target: pathological sleepiness, shift-related performance, or ordinary fatigue. Modafinil is not a general treatment for inadequate sleep, overtraining, depression, anemia, hypothyroidism or medication adverse effects.
- Record 14 days of bedtime, wake time, awakenings, naps, sleep opportunity, alcohol, caffeine, exercise, Epworth Sleepiness Scale and near-miss driving events.
- Review common causes: sleep restriction, obstructive sleep apnea, circadian mismatch, restless legs, alcohol, sedating medicines, depression and cardiometabolic/endocrine illness.
- Clinician-directed work-up can include examination and targeted tests such as CBC, ferritin, B12/folate, metabolic panel, TSH/free T4 and HbA1c when history supports them; sleep testing is driven by symptoms, not a universal checklist.
- Reconcile every prescription, OTC drug and supplement. Flag rapamycin/sirolimus, anticoagulants, anticonvulsants, sedatives, antidepressants, beta-blockers, PPIs, caffeine/stimulants and thyroid hormone.

If a clinician prescribes it

- Use the lowest effective clinician-selected dose, early in the waking period. Do not use body weight to self-multiply the dose, and do not redose because food delayed the peak.
- For the first trial, keep caffeine and other stimulants out of the experiment. Do not add T3 or a sleep drug to rescue the protocol.
- Predefine success as a reproducible improvement in the target symptom/function with no meaningful worsening of sleep, BP/HR, appetite/weight, mood or recovery. More stimulation is not automatically more benefit.
- At this age and leanness, protect protein/energy intake, resistance-training recovery and body weight. A falling appetite or unintended weight loss is a stop/review signal.

8. Monitoring and stop rules

Lean monitoring dashboard

Domain	Baseline	Early review	Ongoing if continued
Target symptom	Epworth score + specific functional problem	Daily log for 1-2 weeks	Reassess at 4-8 weeks, then periodically
Sleep	Timing, duration, awakenings, restedness	Each dose day + following day	Watch for cumulative drift, not just sleep onset
BP / pulse	Validated cuff; seated protocol; repeated days	Pre-dose and near expected peak on several initial days	Periodic home checks; review sustained change
Rhythm / cardiac	History, exam; ECG if symptoms/history warrant	Capture palpitations, chest pain, syncope	Repeat assessment if new symptoms
Mood / behavior	Anxiety, insomnia, bipolar/psychosis history	Daily observation during initiation/change	Ask about irritability, compulsion, hypomania
Nutrition / weight	Weight trend, hunger, protein/energy intake	Weekly weight and appetite	Protect lean mass and training recovery
Laboratory context	Targeted to cause/comorbidities	Not a substitute for clinical response	CMP/liver, glucose/HbA1c, lipids when clinically indicated
Rapamycin exposure	Dose/timing, co-drugs, prior trough if used	Coordinate before modafinil start/stop	Trough monitoring if the treating clinician judges it useful

Non-negotiable stop / urgent-review triggers

STOP AND SEEK URGENT ASSESSMENT

Any rash with fever, mouth/eye/genital sores, facial swelling or systemic illness; trouble breathing or swallowing; chest pain, fainting, sustained marked tachycardia or a new irregular rhythm; hallucinations, mania, severe aggression or suicidal thinking.

STOP OR REASSESS PROMPTLY

Persistent sleep disruption, next-day impairment, escalating dose-seeking, material anxiety/irritability, unintended weight loss, loss of training recovery, sustained BP change, or an interaction that cannot be monitored safely.

The practical verdict for McCoy

The expected value is unfavorable for routine healthy-use modafinil: the putative longevity upside is unmeasured, while sleep, appetite, cardiovascular and drug-interaction costs are real and unusually relevant to this profile. If the actual problem is abnormal daytime sleepiness, the high-value move is diagnosis; if the goal is marginal productivity while rested, the high-value move is to keep modafinil out of the daily longevity stack.

9. Scope, limitations and sources

How to read this synthesis

- Forum content was reviewed from post 1 through post 87. It was coded thematically, not statistically; identities, diagnoses, adherence and outcomes were not independently verified.
- Preference was given to current labels, professional guidelines, systematic reviews and primary human studies. Animal/cell findings were used only to test mechanistic claims, not to infer human longevity.
- Long-term evidence means months to several years of symptom treatment in selected patients, not randomized lifetime exposure. Absence of a clear signal is not proof of absence for rare or delayed outcomes.
- US and European indications differ. The report uses the European/Italian regulatory position when making the jurisdiction-specific practical recommendation.

References

- [1] Rapamycin.news. Modafinil for long-term use? Complete thread, posts 1-87. Accessed 20 Jul 2026. [Source](#)
- [2] US National Library of Medicine / DailyMed. PROVIGIL (modafinil) prescribing information; updated 16 Oct 2025, revision Feb 2025. [Source](#)
- [3] Maski K et al. Treatment of central disorders of hypersomnolence: an American Academy of Sleep Medicine clinical practice guideline. J Clin Sleep Med. 2021. [Source](#)
- [4] Bassetti CLA et al. European guideline and expert statements on the management of narcolepsy in adults and children. Eur J Neurol. 2021. [Source](#)
- [5] European Medicines Agency. European Medicines Agency recommends restricting the use of modafinil. 2010. [Source](#)
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- [7] Samal S et al. Efficacy of modafinil in patients with narcolepsy: a systematic review and meta-analysis. Sleep Medicine X. 2026;16:100185. [Source](#)
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- [12] Mitler MM et al. Long-term efficacy and safety of modafinil for excessive daytime sleepiness associated with narcolepsy. Sleep Med. 2000. [Source](#)
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Evidence current to 20 July 2026. Quantitative results and safety frequencies are reported only where supported by the cited source. Mechanism-based interaction statements are explicitly labeled as predictions when direct pair data are absent.