Kratom & 7-OH (7-Hydroxymitragynine): A Clinician's Quick Guide

Recognizing and treating opioid-type dependence and withdrawal • Emphasis: buprenorphine, starting low

Why this matters now: Effective **August 1, 2026, South Carolina moves 7-OH to Schedule I**, and the DEA has begun temporary federal Schedule I placement of concentrated/synthetic 7-OH.[1,2] As legal access is suddenly cut off, expect a **rise in patients presenting in withdrawal**. Neither kratom nor 7-OH appears on routine urine drug screens — diagnosis is clinical, by history.[3,4]

1 WHAT IS KRATOM / 7-OH?

Kratom (*Mitragyna speciosa*) is an unregulated botanical from Southeast Asia. It is **stimulant-like at low doses and opioid-like at higher doses**. Its main alkaloid is mitragynine.[3,4]

7-OH (7-hydroxymitragynine) is a minor kratom alkaloid and active metabolite that is a potent **μ-opioid receptor agonist** — with up to **~22× the μ-receptor affinity of morphine**.[3,5] The FDA describes 7-OH as "an opioid that can be more potent than morphine."[6]

Concentrated, semi-synthetic **7-OH is now sold as tablets, gummies, drink shots, and edibles** in smoke shops, gas stations, and online.[3,6] Because products are unregulated, **labeled content and purity cannot be trusted**, and potency varies widely.[3,4]

Key clinical points

- Higher 7-OH potency → dependence can develop faster and withdrawal can be more severe than with raw leaf.[5]
- No FDA-approved medical use; exposure confirmed by history (ingredients not guaranteed accurate).[3,4]
- Reported complications of heavy use: hepatic and renal injury, seizures, cardiac arrest, overdose, death.[3]

2 THE WITHDRAWAL SYNDROME

An **opioid-type withdrawal**. Given the short half-life of these products, onset is typically **~6–24 h after last use**, peaks over the first few days, and resolves over roughly a week (longer for psychological symptoms).[4,7] Severity can be **quantified with the Clinical Opiate Withdrawal Scale (COWS)** — a validated 11-item clinician-rated tool that grades withdrawal from mild to severe and guides the timing of buprenorphine.

Physical

Myalgias/arthralgias, rhinorrhea, lacrimation, yawning, diaphoresis, piloerection, mydriasis, nausea/vomiting, diarrhea, abdominal cramps, GI distress, and insomnia.[4,7]

Psychological (often prominent)

Marked anxiety, agitation, irritability, restlessness, dysphoria, and craving.[3,7]

Red flags — escalate care: rare but reported severe cases include **delirium, rhabdomyolysis, and complex withdrawal** with neurologic/electrolyte/hepatic derangement. Check CK, renal function, and electrolytes if severe.[3,8]

COWS at a glance

11 clinician-rated items: resting pulse, sweating, restlessness, pupil size, bone/joint aches, runny nose/tearing, GI upset, tremor, yawning, anxiety/irritability, gooseflesh skin.

Score: 5–12 mild | 13–24 moderate | 25–36 mod-severe | >36 severe

Initiate buprenorphine once in the moderate range (**COWS ≥ 8–12**) *with* objective signs and ≥ 12 h since last use (≥ 24 h safer).

3 TREATMENT — BUPRENORPHINE FIRST-LINE

Buprenorphine is the preferred treatment for kratom/7-OH dependence, given its established efficacy and safety in opioid use disorder and regulated manufacturing standards.[3,8] Manage as you would OUD, individualizing to the patient.

1. **Wait for OBJECTIVE withdrawal — at least 12 h.** Delay the first dose until ≥ 12 h since last use *and* a COWS in the moderate range (COWS ≥ 8–12); **waiting ~24 h is safer** to avoid precipitated withdrawal. Onset varies and may be longer with 7-OH concentrates or heavy use, so **confirm objective signs** (mydriasis, diaphoresis, piloerection, rhinorrhea/lacrimation, GI upset, yawning) — not subjective complaints alone. Dosing too early risks precipitated withdrawal; 7-OH's high μ-affinity makes this a real risk.[5,8]
2. **Start low.** Give an initial dose of 2–4 mg buprenorphine, observe 1–2 h.[8] *(Low-dose "micro-induction" — overlapping small buprenorphine doses while the patient still uses — is an alternative when precipitated withdrawal is a concern.)*
3. **Titrate to symptom control.** Repeat/increase in 2–4 mg steps to a Day-1 total of roughly 8–12 mg as needed.[8]
4. **Maintain.** Typical maintenance 8–16 mg/day. Heavier prior use generally needs higher doses (see table).[8]

Suggested starting dose by prior kratom use[8]

Prior kratom use	Initial buprenorphine/naloxone*
< 20 g/day	4/1 – 8/2 mg/day
20–40 g/day	8/2 – 12/3 mg/day
> 40 g/day	12/3 – 16/4 mg/day

*From Broyan et al. case series (dose–requirement correlation r ≈ 0.84). Ranges are a starting guide, not a substitute for titration to the individual patient.[8] No formal consensus guideline for kratom/7-OH yet exists.

Adjunctive & symptomatic medications

- **Nausea/vomiting:** ondansetron.
- **Myalgias/headache:** NSAIDs (ibuprofen) / acetaminophen.
- **Abdominal cramps:** antispasmodic (dicyclomine). **Diarrhea:** loperamide.
- **Autonomic symptoms** (sweating, tachycardia, restlessness): **clonidine**.
- **Anxiety/agitation & adjunctive pain: gabapentin**.[3] *Avoid benzodiazepines* — sedation/respiratory-depression risk with buprenorphine.

Also consider

- **Duration:** anticipate **long-term — possibly indefinite** — maintenance to prevent return to use.[3,8]
- **Always provide harm reduction & naloxone.** Distribute take-home **naloxone** to every patient and counsel on overdose risk. 7-OH overdose responds to naloxone, but **repeat dosing may be needed** due to its longer half-life.[5]

4 REFERRAL

Refer as you would for any opioid use disorder. Link patients to addiction medicine / office-based buprenorphine, behavioral health and counseling, and opioid treatment programs (OTPs) as needed — ideally with a **warm handoff**. Manage per the ASAM National Practice Guideline for OUD.[9]

The **X-waiver is no longer required**: any clinician with a standard DEA registration may prescribe buprenorphine, so many providers can **initiate and continue treatment directly** rather than only referring.[10]

Find treatment: SAMHSA locator at findtreatment.gov or 1-800-662-HELP (4357).[10]

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