

A Papule Today Can Become a Wound That Does Not Heal.

Clinical Scenario

A patient on methadone presents for a routine visit. On skin exam, the clinician notes a few raised red bumps on the forearm and a small cluster of blisters near the antecubital fossa. The findings are documented as minor skin irritation and the visit continues. Three weeks later the patient presents to the ED with a necrotic, non-healing wound at the same site requiring wound care and inpatient admission.

The Pearl

Xylazine causes tissue injury through local vasoconstrictive and direct cytotoxic mechanisms that are distinct from opioid effects and **do not respond to naloxone**. Early-stage xylazine wounds are recognizable: they present as papules, pustules, or multifocal blistering before progressing to the necrotic ulcers that define late-stage presentation. A systematic review published in the *Journal of Emergency Nursing* (2026) identifies these early dermatological signals as clinically distinct and actionable.

Importantly, xylazine wounds are not limited to injection sites. They have been documented at sites distant from where injection occurred, likely due to systemic vasoconstriction. This means a skin finding in a patient known to be using street fentanyl anywhere on the body warrants documentation and follow-up.

Why It Matters

Xylazine has been detected in the majority of fentanyl-positive drug supply samples in cities with active surveillance, and medetomidine is now displacing xylazine in some markets as scheduling pressure shifts supply composition. Both alpha-2 agonists carry wound risk via similar vasoconstrictive mechanisms; neither is detected by standard opioid urine drug testing panels without a specific add-on test. A clinician relying on the urine drug screen alone will not know whether alpha-2 adulterants are present.

The window for wound care intervention is the early papule and blister stage. Once necrosis is established, treatment becomes significantly more complex and hospitalizations are common. Early recognition creates the opportunity to: (1) initiate wound care before tissue loss; (2) educate the patient on wound hygiene and what signs require urgent evaluation; and (3) document findings and stage wounds across visits to track progression or resolution.

Bottom Line: Papules, pustules, and blistering in a patient using street fentanyl are xylazine wounds until proven otherwise. Do not wait for necrosis to document and act. A negative urine drug screen does not rule out xylazine or medetomidine exposure. Stage, document, initiate wound care, and educate at the first visit.

References

1. *J Emerg Nurs*. 2026. Systematic review on early-stage xylazine wound recognition (papules, pustules, multifocal blistering before necrosis). doi:10.1016/j.jen.2026.07.012 [Systematic Review]
2. Friedman J, et al. Xylazine spreads across the US: a growing component of the overdose crisis. *Lancet*. 2022;400(10350):437-439. doi:10.1016/S0140-6736(22)01432-4 [Epidemiology]

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