

Results from 145 samples checked

March 9 – 22, 2024

Key findings

- 19% of the expected¹ fentanyl samples⁵ were known to be **associated with an overdose**: almost all of these samples contained a high-potency opioid (an opioid as strong as or stronger than fentanyl) – many contained multiple high-potency opioids, as well as benzodiazepine-related drugs and veterinary tranquilizers
- 69% of the expected¹ fentanyl samples⁵ **contained multiple high-potency opioids**, including fentanyl, fluorofentanyl, a methylfentanyl-related drug, nitazene opioids, and/or carfentanil
- 61% of the expected¹ fentanyl samples⁵ **contained fluorofentanyl** (up to 2 times stronger than fentanyl)
- 61% of the expected¹ fentanyl samples⁵ **contained a methylfentanyl-related drug** (roughly as strong as fentanyl)
- 59% of the expected¹ fentanyl samples⁵ **contained a benzodiazepine-related drug** – 17% of these samples contained multiple benzodiazepine-related drugs
- 25% of the expected¹ fentanyl samples⁵ **contained a veterinary tranquilizer** – 17% contained xylazine and 8% contained [medetomidine](#)
- 3% of the expected¹ fentanyl samples⁵ **contained a nitazene opioid** (up to 25 times stronger than fentanyl)
- 2% of the expected¹ fentanyl samples⁵ **contained carfentanil** (up to 100 times stronger than fentanyl) – the last time we identified carfentanil in Toronto's unregulated drug supply was January 12, 2024, and we have only identified it 5 times since April 1, 2023
- 31% of the expected¹ fentanyl samples⁵ **did not contain fentanyl** – most of these samples instead contained fluorofentanyl, a methylfentanyl-related drug, and/or nitazene opioids
- We released two communications on emerging trends in Toronto's unregulated opioid supply: [N-desethyl etonitazene and protonitazepyne: "New" nitazene opioids circulating in Toronto's unregulated opioid supply](#) and [Nitazene opioids in Toronto opioid samples that are not expected to contain high-potency opioids](#)

- Amount of drugs found in expected¹ fentanyl drug samples²:

In 12 expected¹ fentanyl drug samples²:

3.3% was the **average³ amount of fentanyl found** **1.5 – 7.8%** was the **range⁴ of fentanyl found** in half of the drug samples²

In 12 expected¹ fentanyl drug samples²:

1.8% was the **average³ amount of fluorofentanyl found** **0.7 – 6.6%** was the **range⁴ of fluorofentanyl found** in half of the drug samples²

In 14 expected¹ fentanyl drug samples²:

2.2% was the **average³ amount of bromazolam found** **0.6 – 3.2%** was the **range⁴ of bromazolam found** in half of the drug samples²

In 5 expected¹ fentanyl drug samples²:

3.7% was the **average³ amount of xylazine found** **2.9 – 7.3%** was the **range⁴ of xylazine found** in half of the drug samples²

Expected fentanyl drugs samples

- 66% (29) of the expected¹ fentanyl drug samples⁶ **contained fentanyl and other drugs**, including:
 - 100% (29) contained caffeine
 - 83% (24) contained at least one additional high-potency opioid (!):
 - 62% (18) contained fluorofentanyl (!)
 - 62% (18) contained a methyلفentanyl-related drug (!)
 - 3% (1) contained metonitazene (!)
 - 3% (1) contained carfentanil (!)
 - 72% (21) contained at least one benzodiazepine-related drug (!):
 - 69% (20) contained bromazolam (!)
 - 7% (2) contained flualprazolam (!)
 - 3% (1) contained flubromazepam (!)
 - 24% (7) contained at least one veterinary tranquilizer (!):
 - 14% (4) contained medetomidine (!)
 - 10% (3) contained xylazine (!)
 - 3% (1) contained acetyl fentanyl (!)
 - 3% (1) contained phenacetin (!)

Unexpected noteworthy drugs found in other expected drug samples

- 8% (7) of the remaining drug samples,⁶ meaning drug samples² that weren't expected¹ to be fentanyl, **contained an unexpected noteworthy drug**, including:

- 13% (1) of **expected¹ methamphetamine drug samples²** contained phenacetin (!)
- 50% (1) of **expected¹ crack cocaine drug samples²** contained phenacetin (!)
- One **expected¹ carfentanil drug sample²** contained fentanyl (!), a methylfentanyl-related drug (!), benzodiazepine-related drug bromazolam (!), and veterinary tranquilizers medetomidine (!) and xylazine (!)
- **We are observing an increase in the presence of high-potency opioids in samples expected to be oxycodone (OxyContin), Percocet, hydromorphone (Dilaudid), hydrocodone, and oxymorphone** – the risk of overdose may be further increased for people who use these drugs, as compared to people who use fentanyl, because their opioid tolerance may be lower:
 - **One expected¹ Percocet drug sample² that did not contain⁸ oxycodone or acetaminophen** contained fentanyl (!)
 - **One expected¹ Percocet drug sample² that did not contain⁸ oxycodone or acetaminophen** contained isotonitazene/protonitazene⁷ (!)
 - One **expected¹ oxycodone (OxyContin) drug sample² that did not contain⁸ oxycodone** contained N-desethyl etonitazene (!)
 - One **expected¹ oxymorphone drug sample² that did not contain⁸ oxymorphone** contained N-desethyl etonitazene (!)

Not sure what some of these substances are?

View our drug dictionary: www.drugchecking.community/drug-dictionary/

Notes

1 | Expected (drug): When a sample is submitted to be checked, the drug that sample was bought or got as is recorded. We call it the "expected drug". Knowing the expected drug helps us tailor our harm reduction advice. It also helps us understand contamination to drugs rather than combinations of drugs (e.g., fentanyl was found in a heroin sample rather than fentanyl and heroin were found together).

2 | Drug samples: Could be a small amount of powder, crystals, rocks, blotter, or liquid, or a crushed bit of a pill.

3 | Average amount: We arrange the amounts of a substance found as a proportion of the total fentanyl drug sample from smallest to largest, determine the median (i.e., the middle number), and use that number as the "average". More information about the amounts of substances found as a proportion of the total sample submitted can be found on [our website](#).

4 | Range: Known as the interquartile range, represents the middle 50% of the amounts of a substance found as a proportion of the total fentanyl drug sample. More information about the amounts of substances found as a proportion of the total sample submitted can be found on [our website](#).

5 | Samples: Includes both drugs and used drug equipment. Drugs could be a small amount of powder, crystals, rocks, blotter, or liquid, or a crushed bit of a pill. Used equipment could be a used cooker or filter, or leftover liquid from a syringe.

6 | Reason for reporting only drug samples: While Toronto’s Drug Checking Service checks both drugs and used equipment, drug equipment – like cookers – are often re-used. The mass spectrometry technologies used for this drug checking service are so sensitive that very trace amounts of substances may be found. This means that when equipment is re-used, substances from past use may present in the results for the sample that is being checked. This can interfere with up-to-date drug market monitoring, so we’ve noted when we exclude used equipment from this report.

7 | Reporting similar substances together: These substances have a very similar chemical structure, and it is not currently possible for Toronto’s Drug Checking Service to differentiate between them. For this reason, we report these substances together. For more information on these substances, view [our drug dictionary](#).

8 | Drug samples that unexpectedly contain high-potency opioids or benzodiazepine-related drugs and not the expected drug: Our reports highlight unexpected noteworthy drugs found in all checked drug samples. When high-potency opioids or benzodiazepine-related drugs are found unexpectedly in a drug sample and the expected drug is not present, we flag it but are hesitant to consider it contamination of the expected drug. Instead, we assume there is an issue with the expected drug: the person who sold or provided the drugs accidentally mixed up their drugs, the service user accidentally mixed up their drugs, or the expected drug was recorded incorrectly during sample collection. These samples require special consideration.

(!) | Unexpected noteworthy drug: “Noteworthy drugs” are drugs that (i) are linked to overdose or other adverse effects, (ii) are highly potent or related to highly potent drugs, or (iii) may not be desired by some service users. Noteworthy drugs are flagged when they are unexpectedly found in checked samples.

[Toronto's Drug Checking Service](#) is a free and anonymous public health service that aims to reduce the harms associated with substance use and, specifically, to prevent overdose by offering people who use drugs timely and detailed information on the contents of their drugs. Beyond educating individual service users, results for all samples are collated and analyzed to perform unregulated drug market monitoring, then translated and [publicly disseminated every other week](#) to communicate unregulated drug market trends to those who cannot directly access the service, as well as to inform care for people who use drugs, advocacy, policy, and research. [Sign up](#) to receive reports, alerts, and other information on Toronto’s unregulated drug supply.

(email) hello@drugchecking.community | (X) [@drugcheckingTO](https://twitter.com/drugcheckingTO) | (IG) [@drugchecking](https://www.instagram.com/drugchecking)

