

# Toronto's Drug Checking Service

## Results from 119 samples checked

February 10 – 23, 2024

### Key findings

- 17% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> were known to be **associated with an overdose**: all of these samples contained a high-potency opioid (an opioid as strong as or stronger than fentanyl) and most contained a benzodiazepine-related drug
- 43% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained at least one benzodiazepine-related drug**
- 40% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained fluorofentanyl** (up to 2 times stronger than fentanyl)
- 17% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained medetomidine/dexmedetomidine<sup>7</sup>** – [learn more about this “new” veterinary tranquilizer](#) circulating in Toronto’s unregulated opioid supply
- 17% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained a methylfentanyl-related drug** (roughly as strong as fentanyl)
- 10% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained xylazine** (veterinary tranquilizer)
- 37% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained multiple high-potency opioids**, including fentanyl, fluorofentanyl, and a methylfentanyl-related drug
- 20% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **did not contain fentanyl** – most of these samples instead contained fluorofentanyl or a methylfentanyl-related drug
- Amount of drugs found in expected<sup>1</sup> fentanyl drug samples<sup>2</sup>:

In 14 expected<sup>1</sup> fentanyl drug samples<sup>2</sup>:

**7.6%** was the **average<sup>3</sup> amount of fentanyl found**

**4.8 – 15.4%** was the **range<sup>4</sup> of fentanyl found** in half of the drug samples<sup>2</sup>

In 4 expected<sup>1</sup> fentanyl drug samples<sup>2</sup>:

**9.9%** was the **average<sup>3</sup> amount of fluorofentanyl found**

**7.0 – 12.3%** was the **range<sup>4</sup> of fluorofentanyl found** in half of the drug samples<sup>2</sup>

In 9 expected<sup>1</sup> fentanyl drug samples<sup>2</sup>:

**2.5%** was the **average<sup>3</sup> amount of bromazolam found**

**1.8 – 3.3%** was the **range<sup>4</sup> of bromazolam found** in half of the drug samples<sup>2</sup>

In 2 expected<sup>1</sup> fentanyl drug samples<sup>2</sup>:

**11.8%** was the **average<sup>3</sup>** amount of **xylazine found**

**9.6 – 14.0%** was the **range<sup>4</sup>** of **xylazine found** in half of the drug samples<sup>2</sup>

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## Expected fentanyl drugs samples

- 76% (16) of the expected<sup>1</sup> fentanyl drug samples<sup>6</sup> **contained fentanyl and other drugs**, including:
  - 100% (16) contained caffeine
  - 56% (9) contained bromazolam (benzodiazepine-related) (!)
  - 31% (5) contained at least one additional high-potency opioid (!):
    - 25% (4) contained fluorofentanyl (!)
    - 19% (3) contained a methylfentanyl-related drug (!)
  - 31% (5) contained at least one veterinary tranquilizer (!):
    - 31% (5) contained medetomidine/dexmedetomidine<sup>7</sup> (!)
    - 6% (1) contained xylazine (!)
  - 31% (5) contained 6-MAM (heroin-related)
  - 25% (4) contained morphine
  - 6% (1) contained acetyl fentanyl (!)
  - 6% (1) contained valeryl fentanyl (!)

## Unexpected noteworthy drugs found in other expected drug samples

- 3% (3) of the remaining drug samples,<sup>6</sup> meaning drug samples<sup>2</sup> that weren't expected<sup>1</sup> to be fentanyl, **contained an unexpected noteworthy drug**, including:
  - 13% (2) of **expected<sup>1</sup> cocaine substances<sup>2</sup>** contained phenacetin (!)
  - One **expected<sup>1</sup> methamphetamine substance<sup>2</sup>** contained fentanyl (!), a methylfentanyl-related drug (!), and benzodiazepine-related drugs bromazolam (!) and flubromazepam (!)

**Not sure what some of these substances are?**

**View our drug dictionary:** [www.drugchecking.community/drug-dictionary/](http://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.

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[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.

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