

DRUG TEST INFORMATION SHEET

FENTANYL

Classification: Opioid-analgesic narcotic, general anesthetic

Background: Fentanyl is a synthetic opioid analgesic developed in the 1960s. Fentanyl acts on the μ -opioid receptor, similar to morphine, but is approximately 80–100 times more potent than morphine and 40–50 times more potent than heroin. Fentanyl is used to treat patients with severe pain or to manage post-surgical pain. The transdermal patch developed in the 1990s is a popular form of delivery for palliative treatment of chronic pain. Fentanyl may also be used as an adjunct with benzodiazepines prior to general anesthesia. In addition to analgesia, fentanyl use may also result in euphoria (high), drowsiness, sedation, respiratory depression and, in high doses, respiratory arrest. Tolerance and dependence may result from chronic use.

Legal Brands: Abstral, Actiq, Duragesic, Fentora, Lazanda, Onsolis, Sublimaze, Subsys. Available as transdermal patches, transmucosal lozenges, buccal tablets and film, nasal spray, sublingual tablets and spray and as an injectable. Fentanyl is a Schedule II drug available only by prescription.

Street Names: Apache, China Girl, China White, Dance Fever, Friend, Goodfella, Jackpot, Murder 8, TNT, and Tango and Cash

Detection in Urine: Less than 72 hours

Physiological Effects: The approved use of fentanyl is for treatment of severe pain or as an adjunct to general or local anesthesia. Fentanyl may be abused in the same manner as other opiates and/or opioids like morphine, oxycodone, hydrocodone and heroin. Fentanyl is often mixed with heroin to potentiate or amplify the effects of heroin or in some cases is substituted for heroin. Many deaths attributed to heroin overdoses are actually from fentanyl spiked into heroin.

Toxicity: Severe respiratory depression, muscle rigidity, seizures, coma and hypotension. Death resulting from use of fentanyl is usually caused by respiratory arrest.

Psychological Effects: Euphoria (high), sedation, mental confusion

Cutoff Levels:

Immunoassay (EIA): 2 ng/mL

LC-MS/MS Confirmation: 1 ng/mL

Mode of Use: Smoked, injected, oral, transdermal patches that are chewed

Metabolism: Fentanyl and norfentanyl, the primary metabolites, are detected in urine. Other minor metabolites are quantitatively insignificant.