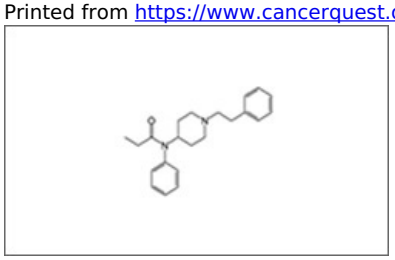
Fentanil, Fentanyl

Printed from https://www.cancerquest.org/patients/drug-reference/fentanil-fentanyl on 11/13/2026



Brand name: DURAGESIC®
Brand name: Actiq®
IUPAC: N-phenyl-N-[1-(2-phenylethyl)piperidin-4-yl]propanamide
FDA approval: Yes
Manufacturer Link
Usage:

Fentanyl is a high strength opiate used in low doses to relieve pain. Fentanyl used for pain relief can be administered as a patch placed on the skin, as an oral lozenge, and through tablets or films. Dosage depends on the form of fentanyl administered, but no form should be given more than four times per day.1

1 Fentanyl. MedlinePlus. https://medlineplus.gov/druginfo/meds/a605043.html

Mechanism:

Fentanyl is believed to bind to the mu opioid receptor, which alters the way the brain and nervous system respond to pain.1

Stick Sphere Rotate

The structure above is the 3D Fentanyl conformer.

1 Fentanyl. MedlinePlus. https://medlineplus.gov/druginfo/meds/a605043.html

Side effects:

Side effects include confusion, sedation (drowsiness), nausea and vomiting, sweating, change in mood, constipation and dry mouth. Fentanyl can cause respiratory depression. This may result in a potentially dangerous slowing of a patient's breathing rate. Fentanyl can be habit-forming. Psychological and physiological withdrawal symptoms can occur if the patient becomes drug-dependent. With prolonged use, tolerance may also become a problem, requiring higher dosages to achieve pain relief. Alcohol can intensify some of the mental and emotional side effects of fentanyl, such as drowsiness and changes in mood. Patients should avoid alcohol consumption while taking fentanyl.1

1 Fentanyl. MedlinePlus. https://medlineplus.gov/druginfo/meds/a605043.html

Contraindications:

There are a variety of precautions any patient should take when starting administration of fentanyl, which include: telling your doctor all medications, herbal treatments, alcohol use and history of drug dependency.1

1 Fentanyl. MedlinePlus. https://medlineplus.gov/druginfo/meds/a605043.html