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| **Cocaine/Crack-Cocaine** |
| **Common Names:** Coke, Coca, Joy dust, Stardust, Bianca, Perico, Nieve, Soda, Blow, Bump, Candy, Rock, Snow, Speedball (cocaine combined with heroin)2http://s.hswstatic.com/gif/crack-5.jpg |
| **Characteristics****(Stimulant)** | **Cocaine*** Inhibits dopamine and serotonin reuptake, stimulating the brain’s reward pathway3
* Onset of action and plasma half-life varies depending on route of use (i.e IV peaks in 30 sec, half-life 54 min; snorting peaks in 15-30min, half-life 75 min).3
* Cocaine’s metabolite benzoylecgonine can be found in the urine for 2-5 days after a binge. The metabolite remains detectable in the urine of heavy users for up to 10 days 4

**Crack-Cocaine*** Free based and a more potent form of cocaine (volatilized and inhaled)3
* May be used with heroin (“dynamite”, “speedballs”), morphine (“whizbang”), or cannabis (“cocoa puffs”) for increased intensity3
* Powerful psychological dependence occurs; dysphoria can last for weeks or months
 |
| **Presentation during Intoxication** | **Common signs and symptoms of intoxication may include3:**

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| --- | --- | --- |
| * Rapid euphoria
 | * Insomnia
 | * Delusions
 |
| * Increased energy
 | * Anxiety
 | * Hallucinations
 |
| * Anorexia
 | * Agitation
 | * Nausea
 |
| * Vomiting
 | * Headaches
 | * Tachycardia
 |
| * Hypertension
 | * Chest Pain
 | * Pyrexia
 |
| * Diaphoresis
 | * Mydriasis
 | * Ataxia
 |
| * Increased alertness
 | * Tactile hallucinations
 | * Depression
 |

**Extreme intoxication signs and symptoms may include**3,6:* Toxic effects include hypertension, paroxysmal atrial tachycardia, hyperreflexia, irregular respiration, hyperthermia, seizures, unconsciousness, and death
* Fatalities are more common with IV use.
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| **Monitoring and support during intoxication****Monitoring and support during intoxication***(Continued)* | **Monitor 6,11*** Assess level of disorientation and if possible time of last ingestion and amount consumed
* Monitor for falls risk
* Monitor vitals every 15 minutes initially and less frequently as acute symptoms subside
* Monitor respiratory pathways
* Monitor risk for seizures
* Monitor mental status

**Supportive Interventions**3,11* Provide reassurance and comfort
* Ensure a quiet room with minimal stimulation
* Provide privacy if possible to preserve dignity and ensure safety
* Institute seizure precaution strategies
* Control of elevated body temperature if warranted with hydration, sedation, cold water, ice packs or in extreme cases a hypothermic blanket
* Treat sustained hypertension to prevent CNS haemorrhage
* Seizures may be controlled with doses of IV diazepam of 5 to 20mg injected very slowly and repeated as required
* CT scans and lumbar puncture may be performed in the confused or unconscious patient to rule out cerebral haemorrhage
* Excretion of cocaine can be hastened through acidification of the urine with 500mg ammonium chloride orally every 3-4 hours
* Low doses of an antipsychotic such as haloperidol may be used to manage psychosis (extra monitoring required due to increased seizure risk)
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| **Withdrawal presentation**(Withdrawal effects peaks in 2-4 days 3, 6Dysphoric symptoms may persist for up to 10 weeks 6) | **Withdrawal Symptoms may include3,6:**

|  |  |  |
| --- | --- | --- |
| * Anxiety
 | * Chronic fatigue
 | * Craving
 |
| * Distorted Sleep
 | * Irritability
 | * Depression
 |
| * Vivid, unpleasant dreams
 | * Difficulty concentrating
 | * Suicidal or homicidal ideation
 |
| * Paranoia
 | * Anorexia
 | * Myalgia
 |
| * Nausea
 | * Hunger/Increased appetite
 | * Diaphoresis
 |
| * Diarrhea
 | * Insomnia/hyperinsomnia
 | * Convulsions 3, 6
 |

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| **Monitoring and support during withdrawal** | **Goal11*** Reduce drug cravings and manage depression

**Monitor**11* Mental status (including suicide risk and agitation)
* Physical status (including vital signs, hydration, electrolytes, seizures and possible serotonin syndrome)

**Interventions**3,10* Provide a calm and quiet environment
* Allow client to eat and sleep as much as desired
* Use calming techniques/ reassurance/ supportive measures
* Suicide precautions may need to be established
* Supportive care of excessive sympathomimetic stimulation may be required
* Benzodiazepines have been used for severe agitation and seizure prevention
* High potency antipsychotics have been used for psychotic symptoms
* Antidepressants have been used to treat depression following withdrawal, and to decrease craving.
 |
| **Potential Complications** | * Chronic use can lead to panic disorder, paranoia, dysphoria, irritability, agitation, and delirium3
* Snorting can lead to stuffy nose, runny nose, eczema around nostrils, atrophy of nasal mucosa, bleeding, and perforated septum.3
* Sexual dysfunction is common3
* Chronic use of crack can lead to microvascular changes in the eyes, lungs and brain.
* Respiratory symptoms include asthma, pulmonary hemorrhage and edema3.
* Dehydration can occur due to effect on temperature regulation, with possible hyperpyrexia.3
 |
| **Notable Interactions****Notable Interactions**(Continued) |

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| **With Cannabis8*** Using cannabis with cocaine may lead to tachycardia
* Cannabis-induced vasodilation of nasal mucosa may increase cocaine absorption

**With Beta-Blockers (Propranolol especially)8*** Greater coronary vasoconstriction in combination with cocaine, may lead to myocardial infarction

**With Dihydroergotamine9*** Increases blood pressure

**With Carbamazepine8,9*** Combination may lead to large elevations in blood pressure and heart rate (increase cardiac side effects)

**With MAOIs8*** May lead to hypertensive crisis

**With St. John's Wort8*** May lead to serotonin syndrome

**With Hyaluronidase8*** Anesthetic hyperreactivity

**With Amphetamines, MDMA8*** Blood pressure elevation

**With TCAs9*** Arrhythmia -> Avoid!

**With Trazodone9*** Minor physiological effects

**With Citalopram/Escitalopram, Sertraline, Fluvoxamine, Paroxetine9*** May lead to serotonin syndrome
 | **With Aripiprazole, Risperidone, Paliperidone9*** May lead to dystonia

**With Clozapine9*** May increase concentration of cocaine leading to syncope

**With Haloperidol9*** May lead to cardiac toxicity

**With Methadone9*** Reduce concentration of methadone
* May increase QTc prolongation, when used in combination

**With Buproprion9*** May lead to seizures

**With Buprenorphine9*** May reduce buprenorphine concentration

**With Disulfiram9*** Increase concentration of cocaine and lead to paranoia

**With Benzodiazepines, Zopiclone, Zolpidem2*** Lead to increased sedation

**With Alcohol3*** Co-occurring use leads to tachycardia, increase in plasma levels of cocaine and elevated blood pressure. May increase risk of cardiovascular toxicity.
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| **Psychiatric effects** | * Stimulants can cause euphoria, exhilaration, alertness, improved task performance, and exacerbation of obsessive-compulsive symptoms3
* During cocaine intoxication, individuals can present with delusions, paranoia, hallucinations (especially tactile), delirium and severe anxiety. Symptoms may persist for months after the person has stopped using cocaine.
* Paranoid delusional disorders and other types of psychoses have been linked with chronic cocaine use.
* Cocaine can also induce severe depression and increase the risk of suicide.
* Concurrent cocaine and alcohol use increase the risk of depression1
 |

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