

## *Executive summary*

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The objectives of this literature review were to ascertain the risk factors, frequency, symptoms, pathomechanism and treatment of cocaine-induced psychosis (CIP). A PubMed search was conducted in April 2018 using the keywords ‘cocaine’ and ‘psychosis’ to identify relevant articles (limits: English language, published between 1966 and 2018, human studies, abstracts available). In total, 415 papers were screened and 68 articles were included in data synthesis.

Psychotic symptoms are common amongst cocaine users. The prevalence of CIP ranged from 5% to 75% (median 53%). The most frequently reported symptoms of CIP were delusions of persecution and auditory hallucinations. Other symptoms, such as disorganised behaviour or speech, negative symptoms, confusion and stereotypies, were also reported.

Risk factors for CIP can be classified into four groups, namely demographic factors, characteristics of cocaine use, personal history of psychological or psychiatric problems and family history of psychiatric illness. The risk of CIP is dependent on dose and inversely related to the age of onset of cocaine use. It is also influenced by the chronicity, pattern, severity and route of administration of cocaine. CIP is more

common in subjects with older age, trait anxiety, antisocial personality disorder or poly drug use and in subjects with a family history of psychotic disorders.

The majority of patients with CIP recover within a few days, but some do not experience a remittance of psychotic symptoms for a few weeks. Antipsychotics are useful in the management of acute cocaine-induced psychotic symptoms. Short-term anxiolytics (benzodiazepines) or sleep medications may be useful adjunct treatment. Long-term treatment of CIP should focus on abstinence from cocaine to prevent future episodes of psychosis.

Grey matter deficits have been found in CIP, including reduced thalamus and hippocampal volumes. These findings suggest that subcortical pathology may contribute to the development of CIP. It is possible that CIP is a complex genetic disease in which environmental factors interact with dopamine genes to influence susceptibility. There is also evidence to suggest that lowered plasma levels of neurotrophin are important factors in susceptibility to CIP.

Cocaine use commonly results in the development of acute psychosis. The variation in findings between studies is likely to be due to many factors, including not only methodological differences in study design, but also cultural and demographic factors. Long-term studies of cocaine users are necessary to collect sufficient evidence to understand the relationship between cocaine use and the development of CIP.