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[Addict Biol.](#) 2005 Dec;10(4):325-7.

## Dextromethorphan psychosis, dependence and physical withdrawal.

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### + Author information

#### Abstract

As part of a synthesis of evidence regarding the abuse and addiction liability of dextromethorphan (DM), an over-the-counter cough medicine available in over 140 preparations, an uncommonly published case of dextromethorphan dependence (addiction) is described, with specific, rarely published complications. The individual was interviewed and several medical databases were also reviewed (Medline, 1966-present; PubMed) for all content relating to the Keywords: dextromethorphan, abuse, dependence, cough medicine, addiction, withdrawal, psychosis. The patient evidenced history suggesting substance dependence, substance-induced psychosis and substance withdrawal in relation to DM. A literature review revealed that DM has specific serotonergic and sigma-1 opioidergic properties. Dextrorphan (DOR), the active metabolite of DM, has similar properties; however, DOR is a weaker sigma opioid receptor agonist, and a stronger NMDA receptor antagonist. DM and DOR display specific biological features of addiction, and are capable of inducing specific psychiatric sequelae. A specific, reproducible toxidrome with significant psychiatric effects occurred, when DM was abused at greater than indicated doses, with more profound and potentially life-threatening effects at even higher doses. DM withdrawal appears evident. DM's active metabolite, DOR, has pharmacodynamic properties and intoxication effects similar to dissociatives, and may be more responsible for the dissociative effect that this DM abuser sought. However, it is this same metabolite that may be fraught with the potentially life-threatening psychoses and dissociative-induced accidents, as well as addiction. While DM has been hypothesized as the most commonly abused dissociative, health-care providers seem largely unaware of its toxidrome and addiction liability.

PMID: 16318953 [PubMed - indexed for MEDLINE]



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