

A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

Study Finds 45% of Cocaine Positive Specimens from D.C. Arrestees Also Contain Potentially Fatal Drug Levamisole

What is levamisole? Levamisole is an anti-parasitic drug currently approved for use in the U.S. by veterinarians. Its use with humans in the U.S. was discontinued in 2000 because of serious side-effects in some people. In September, 2009, the Substance Abuse and Mental Health Services Administration (SAMHSA) issued a public health alert about the risk that substantial levels of cocaine may be adulterated with levamisole.

How often is it found in cocaine? Data from the Drug Enforcement Administration (DEA) and State testing labs indicate that the percentage of cocaine seizures containing levamisole has increased steadily since 2002. Levamisole was found in 30% of illicit cocaine samples analyzed by the DEA in October, 2008 and 70% of the illicit cocaine analyzed in July, 2009. Urinalysis monitoring has also proven helpful in identifying the use of this drug as an adulterant. A recent analysis by the D.C. Pretrial Services Agency found that 45% of 75 randomly selected cocaine-positive specimens taken from the D.C. defendant/offender population were also positive for levamisole.

What are the health effects of levamisole ingestion? Ingestion of levamisole can lead to agranulocytosis, a serious condition in which white blood cells are dramatically reduced and the body's immune system is dangerously suppressed. The person is then vulnerable to rapidly developing life-threatening infections. There have been approximately 20 confirmed or probable cases of agranulocytosis, including two deaths, associated with cocaine adulterated with levamisole.

What are the warning signs of agranulocytosis? The warning signs are high fever, chills, weakness, swollen glands, painful anal or oral sores, thrush, skin infections and abscesses, and any infection that won't go away or worsens quickly, including sore throat and pneumonia.

What should be done? Any individual who has used cocaine and is experiencing any of the above symptoms should seek medical help immediately. Suspected and confirmed cases of agranulocytosis associated with cocaine abuse should be reported to state health departments or local poison control centers (1-800-222-1222).

SOURCES: Adapted by CESAR from Substance Abuse and Mental Health Services Administration (SAMHSA), "Nationwide Public Health Alert Issued Concerning Life-Threatening Risk Posed by Cocaine Laced with Veterinary Anti-Parasite Drug," *SAMHSA News Release*, 9/21/09 (online at <http://www.samhsa.gov/newsroom/advisories/090921vet5101.aspx>); U.S. Drug Enforcement Administration, "Identification of Levamisole Impurities Found in Illicit Cocaine Exhibits," *Microgram Journal*, 6(3-4):82-89, 2008 (online at www.justice.gov/dea/programs/forensicsci/microgram/journal_v6_num34/journal_v6_num34.pdf); D.C. Pretrial Services Agency, "Presence of Levamisole in Cocaine Positive Specimens," Memo from Jerome J. Robinson, Director, Office of Forensic Research, D.C. Pretrial Services Agency to CESAR, 11/10/09. For more information on the D.C. Pretrial Services Agency findings, please contact Jerome R. Robinson at Jerome.Robinson@psa.gov.

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