

STRAIGHT TOX

“Cheese”

by Dwain Fuller, BS, D-FTCB, TC-NRCC

In 2005, “Cheese” emerged as a major problem in the Dallas, Texas area where at least 21 deaths have been attributed to its use; most of the victims being teenagers.

The death of Karla Becerra, an 18-year-old woman, was attributed by police to snorting “cheese” and drinking alcohol, was one of the earliest published cases. A senior at L. G. Pinkston High School, Becerra was found dead by her father in their West Dallas home on April 24, 2006. On November 1 of that year, 17-year-old Keith “Tooter” Witherspoon died in nearby Mesquite. The following month in *The Dallas Morning News* profiled Witherspoon as “the first Dallas-area youth publicly known to have died of a heroin overdose since the “cheese” concerns were raised.” The death was also notable because Mesquite is located southeast of Dallas, indicating the problem had moved beyond its origins in the northwest quadrant of the city.



Oscar Gutierrez, a 15-year old eighth grader at Dallas' Marsh Middle School, died February 18, 2007, of a “cheese” overdose, the first middle-school death in published accounts. Gutierrez' brother, who tried to wake him during that morning, stated that the boy had overdosed on “cheese” on a previous occasion. Community rallies followed Gutierrez' death as parents and others urged the police and school district to become more active in fighting what was viewed as a growing problem.

Another death, on March 31st, the following month, of Fernando Cortez Jr., a Molina High School student, also led to community activism. Cortez's father said his son was at a Dallas party where he was given drugs. Initially this death was linked to “cheese” heroin on the father's comments in press reports. Although the Dallas school district would not comment on the death, two DISD security officers attended the funeral, where they spoke to Fernando Cortez, Sr., and his

wife. Cortez Sr., a minister, insisted at the time that his son had not tried drugs before and recommended that all parents watch their children closely. On April 24, the same day that results of Cortez' toxicology tests were announced, the department also announced that his sister's 19-year-old boyfriend would be charged with murder for having mixed the drugs for the younger boy. The father went on to become a speaker at community meetings within the school system.

On April 18, 2007, the body of 18-year-old Keridma "Katy" Godina was found on a porch in Balch Springs, a Dallas suburb, the day after her death, which was later determined to be caused by "cheese" heroin.

In April 2007, *The Dallas Morning News* published the results of a lengthy analysis of autopsy results between 2005 and 2007, conducted in concert with the Dallas County medical examiner's office, which suggested that as many as 17 deaths among adolescents during that period were attributable to "cheese" heroin. (This figure did not include the March 31 death because the toxicology results for that case were not yet back at the publication of the county-wide analysis.) The conclusion was based in part on the presence of both heroin and diphenhydramine in the blood of the deceased; additionally, the families of 11 victims confirmed the deceased had abused "cheese" heroin.

In mid-May, two more teen deaths — one in January and another in April — were declared by the Dallas County medical examiner's office to be connected to "cheese" heroin, based on toxicology tests. This brought the total of "cheese"-related deaths among those 18 and under in Dallas County to 21 confirmed cases in all.

"Cheese" is the street name for a mixture of heroin and Tylenol PM, which is an OTC compounding of acetaminophen and diphenhydramine. Compared with black-tar heroin which typically has a heroin concentration of 30 – 34%, "cheese" typically contains only 2 – 8% heroin. "Cheese" is usually snorted, unlike heroin which is most often injected. This along with the fact that one "hit" of "cheese", one tenth of a gram, sells for two dollars, may account for some of the appeal to teens. While the origin is uncertain, the name probably derives from the fact that the finished product resembles Parmesan cheese.

The apparent lethality of this mixture of heroin and Tylenol PM is a subject of much controversy and may be the result of several factors: First, one cannot discount the ability of the news media to make something appear to be pandemic when it is a reasonably confined occurrence. This is evidenced by the "Summer of the Shark" phenomenon in 2001, when a bull shark bit off the arm of an 8-year-old on a Florida beach. The media picked up on the story and overnight shark sightings became international news, culminating with the cover of Time magazine heralding it as the "Summer of the Shark". In fact, there were 13 fewer attacks worldwide than the year before, and that same year, only four human deaths were linked to shark bites compared to 13 in 2000. Secondly, one must remember that "cheese" is inexpensive and is being used by a population likely

to be relatively naive in respect to opiate use, both intellectually and pharmacologically. These factors notwithstanding, there may in fact be a greater lethality associated with this mixture than that of the heroin itself. While much attention in the media seems to have been focused on the acetaminophen in the "cheese" mixture, it is, of course, the diphenhydramine that is of more concern. Diphenhydramine is an antihistamine with CNS depressing properties; this alone would suggest an additive effect to the symptoms of opiate intoxication. However, it has long been this author's opinion that the diphenhydramine in the "cheese" mixture potentiates the effects of the heroin, thus increasing its lethality. Those of us who have been around awhile will remember "T's and Blues", which was the street name for the co-administration of pentazocine, an opioid, and tripeleannamine, an antihistamine. The action of the tripeleannamine was to potentiate the effects of the pentazocine. Furthermore, we are all familiar with the common clinical use of hydroxyzine, an antihistamine, to potentiate meperidine, an opioid. My opinion in this matter is not without basis, as evidenced by scholarly articles describing the potentiation capabilities of antihistamines including diphenhydramine as far back as 1982. Some of these may be found in the references that follow.

Regardless, of its lethality, either real or imagined, "cheese" is making news in North Texas, and as these things tend to do, "Cheese" will likely become an issue across the country.

1. Cheese (recreational drug), http://en.wikipedia.org/wiki/Cheese_recreational_drug
2. Deadly \$2 heroin targets teens, <http://www.cnn.com/2007/US/06/12/cheese.heroin/index.html>
3. Survey: 'Shark summer' bred fear, not facts, <http://www.cnn.com/2003/TECH/science/03/13/shark.study/>
4. 'Cheese' crisis runs deep, <http://www.dallasnews.com/sharedcontent/dws/dn/latestnews/stories/041507dnmetcheese.38c8f36.html>
5. Bluhm R, Zsigmond EK, Winnie AP, Potentiation of Opioid Analgesia by H1 and H2 Antagonists. Life Sciences, Vol 31, pp 1229-1232, 1982
6. Carr KD, Hiller JM, Simon EJ, Diphenhydramine Potentiates Narcotic but not Endogenous Opioid Analgesia. Neuroptides, 5, pp 411-414, 1985
7. Leza JC, Lizasoain I, Lorenzo P, Effects of antihistaminics on naloxone-induced withdrawal in morphine-dependent mice. Psychopharmacology, Vol 102, pp 106-111, 1990
8. Poling A, Sewell RG, Gallus JA, Nearchov NI, Lethality of Opioid and Antihistamine Combinations in Mice. Pharmacol Biochem Behav, Vol 22, pp 333-335, 1985



DWAIN C. FULLER, D-FTCB, TC-NRCC
FORENSIC TOXICOLOGY CONSULTANT

817-319-5501

DWAIN@FORENSICTOXICOLOGYCONSULTANT.COM

WWW.FORENSICTOXICOLOGYCONSULTANT.COM