**Classification:** Entactogenic, of the phenethylamine and amphetamine families; hallucinogen

**Background:** Ecstasy is a group of drugs typically consisting of MDMA, MDEA and MDA that are all psychotropic derivatives of the amphetamines drug class. MDMA is a ring-substituted derivative of methamphetamine first synthesized in 1914 and later evaluated as an adjunct to psychotherapy in the 1970s. MDA is a minor metabolite of MDMA, which can also be abused separately, first synthesized in 1910. MDEA is a close chemical analog of MDMA and is a methoxylated amphetamine derivative. In 1985 the widespread abuse of these drugs caused the U.S. Drug Enforcement Administration to classify the compounds as Schedule I drugs. There is no current prescribed use for these drugs.

**Legally Obtained With Prescription as:** None

**Legally Obtained OTC:** None

**Street Names:** E, X, Thizz, Ecstasy, Adam, XTC, STP, Eve, Molly

**Mode of Use:** Oral consumption in pill form

**Appearance:** Tablet form available in multiple colors and shapes

**Metabolism and Detection:** MDMA excretes in urine as MDMA and MDA. MDEA is largely eliminated as the parent drug. MDA is also largely eliminated as an unchanged parent drug. MDMA has a half-life of 6–9 hours and a detection window of 1–2 days.

**Physiological Effects:** Increased energy, endurance, alertness, awareness, desire, drive, motivation, analgesia and decreased pain sensitivity, jaw clenching and grinding of the teeth. Coming down from the drug causes: loss of appetite, vertigo, GI disturbances, insomnia, aches and pains, exhaustion and jaw soreness from jaw clenching.

**Psychological Effects:** Euphoria, increased sexual arousal, sense of intimacy, diminished anxiety, depression, aggression, hostility and jealousy, alteration of consciousness, feelings of empathy and compassion for others, improved self-confidence. Coming down from the drug causes: anxiety, paranoia, fatigue, depression, irritability and impaired attention and focus.

**Toxicity:** Confusion, panic attacks, hypomania, hallucinations, memory impairment, disorganized thinking, delirium/insanity, muscle twitching, hyperreflexia, rapid breathing, heart palpitations, chest pains, cardiac arrhythmias, circulatory shock, destruction of blood vessels, cardiac arrest, hemorrhage/stroke, hyperthermia, organ failure, brain damage, coma and death

**Screen Test:** Performed by enzyme multiplied immunoassay technique (EMIT)

**Confirmation Test:** Performed by LC-MS/MS

**Cutoff Levels:**
- Screening Test: 500 ng/mL
- Confirmation Test: 250 ng/mL