

**Table 7.1. Safety Ratio and Dependence Potential of Psychoactive Drugs<sup>1</sup>**

<i>Substance</i>	<i>Effective Dose</i>	<i>Lethal Dose</i>	<i>Safety Ratio</i>	<i>Dependence Potential</i>
<i>Narcotics</i>				
Heroin (iv) <sup>2</sup>	8 mg	50 mg	6	Very high
Morphine (or)	20 mg	300 mg	15	High
<i>Depressants (sedative hypnotics)</i>				
<i>Barbiturates</i>				
Pentobarbital (or)	250 mg	5 g	20	Moderate/high
<i>Benzodiazepines</i>				
Rohypnol (or)	1 mg	30 mg	30	Moderate
<i>Alcohol</i>				
Ethanol (or)	30 mg <sup>3</sup>	300 mg	10	Moderate
<i>Stimulants</i>				
Caffeine (or)	100 mg <sup>4</sup>	10 g	100	Moderate/low
Cocaine (in)	80 mg <sup>5</sup>	1.2 g	15	Moderate/high
Ephedra (or)	25 mg	3.5 g <sup>6</sup>	140	Moderate
MDMA (or)	125 mg	2 g	16	Moderate/low
Nicotine (sm)	1 mg <sup>7</sup>	50 mg	50	High
<i>Anesthetics</i>				
Ketamine (in)	70 mg	2.7 g (?)	38 (?)	Low
Nitrous oxide (inh)	3.5 liters	525 liters <sup>8</sup>	150	Moderate/low
<i>Hallucinogens</i>				
LSD (or)	100 mcg	100 mg	1000	Very low
Mescaline (or)	350 mg	8.4 g (?)	24 (?)	Very low
Psilocybin (or)	6 mg	6 g (?)	1000 (?)	Very low
<i>Cannabis</i>				
Marijuana (sm)	15 mg	> 15 g	>1000	Moderate/low

<sup>1</sup> Adapted in part from Gable (2004a,b). The information presented here should not be used as a dosage guide. Significant differences exist with respect to a person's physiological and psychological reactions. The dosage indicated is the estimated median quantity for a 70kg adult human who has not developed tolerance to the substance.

<sup>2</sup> Routes of administration: in = intranasal (insufflation/snorting), inh = inhaled, iv = intravenous, or = oral, sm = smoked.

<sup>3</sup> Approximately two 12-ounce beers or malt liquor at 5.5 percent by volume, or equivalent ethanol in other alcohol drinks.

<sup>4</sup> Approximately 1.5 cups of 148 ml (5 oz.) of fluid coffee per cup.

<sup>5</sup> Assumes three "lines" containing between 20 and 30 mg cocaine each.

<sup>6</sup> Lethal dose not clearly established; estimate based on nonhuman animal studies.

<sup>7</sup> Approximately one cigarette.

<sup>8</sup> Nitrous oxide—when used with sufficient oxygen—has not been demonstrated to be lethal.

# Active/Lethal Dose Ratio and Dependence Potential of Psychoactive Drugs

