

ethanol

37-ethanol (CAS# 64-17-5)															
Table 1a. Sub-lethal acute poisoning (single dose): Clinical observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to recovery): h
1	SPC 1982:2	1	Ad,M		240	E	1		5117	111000			0h: DC, MA; 5h: RM	0h: ST, AR	7
		1				E	4	p	6131	133000					
2	SPC 1991:1	2	18M		NR	E	3		8900	170000			0h: C	0h: ST	6
3	RTC 1992	3	30M	A	NR		8		7100	154000			0h: C; 12h: MS	0h: ST, UL, FD	72
		3					14		1600	34700					
		4	46M	A	NR		7		6800	147500			0h: R; 11h: MS	0h: ST, UL, FD	24
		4					27		500	10850					
		5	31M	A	NR		6.5		5300	115000			0h: LP; 1h-ba: DC; 1h: R	0h: ST, UL, FD;	24
		5											1h: AR		
4	RTC 1993	6	17M	A	NR		10		4200	91100			0h: C; 2h: R, LP;	0h: ST;	104
		6					17.5		770	16700			4h: MA; 34h: MS	2h: AR, UL	
		7	46M	A	NR		3.5		6600	143200			0h: C; 3h: R, MA;	1h: ST, UL;	240
		7					14.5		2800	60700			17h: MS; 36h: CP;	8h: AR	
		7											54h: AP		
		8	31M	A	NR		4		6800	147500			0h: C; 0.5h: MA	0h: ST, UL, FD	27
		8					8.5		2400	52100					
		9	30M	A	NR	(a)	5		4800	104100			0h DC, R; 2h: MA;		104
		9											11h: MS; 59h: P	0h: ST, UL, FD	
		10	49M	A	NR		9.5		6400	140000			0h: R; 1h: MA; 6h: CF;	0h: ST, UL, FD,	96
		10											8h: DC; 28h: MS	AR	
		11	38M	A	NR		6		12000	260300			0h: L, P, C; 1.5h: MS	0h: ST, UL, FD	24
		12	44M	A	NR		8		5500	119300			0h: R; 1h-ba: DC;		
5	Hammond 1973	13	23F		308	(a), (b)	2		7800	169260			0h: C; 4h: RM	0h: ST, FD	12
		13					4		7300	158410					
		13					5		5200	112840					
		13					11		2000	43400					
6	Elliott 1974	14	23M		160	E, (c)	2		4650	100905			0h: C, MA; 2h: DC	0h: ST, AR	16
		14				E	7	m	4440	96348				5h: HD for 8.5h	
		14				E	15.5		300	6510					
7	Poklis 1977	15	52M		NR	(a), (d)	1.5		6500	141050			0h: C	0h: ST	10
8	David 1979	16	18M	A	150		5		3400	73780			0h: C, V, (f)	0h: ST	96
		16					10		2900	62930					
		17	18F	A	120	E (e)	3		3400	73780			0h: C, (f)	0h: ST, AR	72
		17				E	15		1900	41230					

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9	Berild 1981	18	59M	S	590	E, (d), (g)	1		11270	245000			0h: DC, (f), MA; 6h: CA;	0h: ST, AR, AB;	672
		18				E	13		5660	12300			l: PA, CP, PN, G, KF	6h: CR	
10	Jung 1983	19	30F	X, A, S	367	(g)	4		7000	151900			0h: C I: L	0h: ST, AR,	24
		19					11		3400	73780				HD for 6.5h	
11	O'Neill 1984	20	30M	NR	300	E, (a), (d)	1		15000	332000			0h: DC, MA; 8h: RM	0h: ST, FI, PD for 8h	12
		20				E	9		3500	75950					
12	Atassi 1999	21	64F	NR	NR	E	2		6280	136500			0h: C, LP, R	0h: ST; 4-7h: HD	NR
		21				E	6		5230	113700					
		21				E	9		1780	38700					
		21				E	12		1000	21700					
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW ethanol = 46.1															
FI = Fructose infusion															
(a) alcoholic.															
(b) over 2 hours.															
(c) quickly ingested.															
(d) over 3h.															
(e) plus some salicylate (1.6 mg/dl).															
(f) hypothermia.															
(g) a non-alcoholic															

Table 1b. Sub-lethal acute poisoning (single dose): Clinical observations (without time information)																
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: (case, dose, time) g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to recovery): h	
1	SPC 177: 14/11	1	31M	NR					6000	128000			0h: DC; 4h: RM	0h: ST, AR		
2	SPC 1981:1	2	41F	NR					5750	125000			0h: DC	0h: ST		
3	SPC 1986:2	3	18M	NR	360				5658	123000			0h: DC, SZ	0h: ST, AR		
4	SPC 1992:1	4	38M	NR					7544	164000			0h: C			
5	Wieth 1961	5	57M	NR		(a)			2840	61628			0h: C	0h: ST, AB, HD for 4h	4	
		5							460	9982						
6	Lindblad 1976	6	47M	NR					7820	170000			C			
		7	24M	NR		(b)			7130	155000			MS			
		8	63M	NR						6900	150000			C		
		9	34M	NR						6900	150000			C		
		10	42M	NR						6900	150000			C		
		11	43M	NR						6900	150000			C		
		12	25F	NR						6900	150000			MS		
		13	54M	NR						6210	135000			MS		
		14	63M	NR						6210	135000			MS		
		15	29M	NR						6210	135000			C		
		16	52M	NR						6210	135000			C		
		17	23M	NR						5980	130000			C		
		18	39M	U,A			240			5980	130000			MS		
		19		19	22F	NR		(c)			5520	120000			MS	
20	47M			NR					5290	115000			MS			
21	36M			NR					5290	115000			MS			
7	Pons 1976	22	45M	NR				5300	115010			0h: MS				
8	Urso 1981	23	NR	NR				5400	117180			0h: MS				
9	Johnson 1982	24	24F	NR		sr		15100	327670			0h: MS	0h: ST	48		
10	Eilam 1991	25	49M	NR		E			9580	207886			0h: HA, CA, (d)	0h: CR, ST		
		25							5360	116312						
11	Wells 1996	26	42M			(a)			6480	140616			0h: C, AP			
		27	35F			(a)			6530	141701			0h: C			
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]																
MW ethanol = 46.1																
FI = Fructose infusion																
(a) alcoholic.																
(b) 0.75 gm was taken the same day.																
(c) three tablets of LSD were taken the same day.																
(d) hypothermia.																

Table 2a. Lethal acute poisoning (single dose): Clinical observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: (case, dose, time) g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	AAPCC 1987:2	1	15M	U,A	270		1		5120	111104			0h: CA, RA, (a), MA; 8h: SZ; l: B	0h: AR, CR; l: HD for 1h; 8h: AC	120
		1					5	p	5300	115010					
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW ethanol = 46.1															
Fl = Fructose infusion															
(a) hypothermia 31°C.															
Table 2b. Lethal acute poisoning (single dose): Clinical observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: (case, dose, time) g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	AAPCC 1988:3	1	35	NR					6100	132370					
2	AAPCC 1988:4	2	38	NR					3150	68355					
3	AAPCC 1988:7	3	48	S					4800	104160			ba:CA		
4	AAPCC 1990:2	4	20	NR					3690	80073			ba:CA		
5	AAPCC 1990:6	5	51	S					4140	89838					
6	AAPCC 1991:5	6	39	NR					7200	156240					
7	AAPCC 1991:7	7	54	NR					4660	101122					
8	AAPCC 1991:21	8	26	NR					4970	107849			ba: CA		
9	AAPCC 1992:10	9	43	NR					4200	91140			ba: CA		
10	AAPCC 1993:1	10	17	A					4000	86800			ba: CA		
11	AAPCC 1993:2	11	30	Z					1860	40362					
12	AAPCC 1995:2	12	20	A					2900	62930					
13	AAPCC 1995:3	13	23	NR					1820	39494					
14	AAPCC 1995:4	14	25	A					4560	98952					
15	AAPCC 1995:5	15	36	A					3420	74214					
16	AAPCC 1996:2	16	23	A					3300	71610					
17	AAPCC 1997:2	17	20	A					6000	130200					
18	AAPCC 2000:13	18	62	NR					4000	86800					
19	AAPCC 2001:4	19	45	NR					3890	84413					
20	AAPCC 2001:5	20	48	A					5140	111538					
21	AAPCC 2002:6	21	62	NR					2910	63147					
22	AAPCC 2003:6	22	>19	NR					2050	44485					
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW ethanol = 46.1															
Fl = Fructose infusion															

Table 3a. Post-mortem observations (time related)																	
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h		
1	Jetter 1943	1	37M			(a)			7200	156182			0h: C, OL: H		1		
		2	53M			(a), (b)			2800	60740			0h: C		4		
		3	38M						400	8677					18		
2	Linck 1950	4	36 cases		210	(c), (d)		4250	92225					6.5			
3	Kaye 1957	5	8 cases			(e)		5800	125860						E1.5		
		6	7 cases			(e)		5300	115010					E2			
		7	15 cases			(e)		4700	101990					E5.5			
		8	14 cases			(e)		4300	93310					E5.5			
		9	13 cases			(e)		3900	84630					E8			
		10	18 cases			(e)		3300	71610					E8			
		11	15 cases			(e)		2800	60760					E10			
		12	4 cases			(e)		2200	47740					E13			
		4	Christopoulos 1973	13	NR	A	300			6620	143654						E2, (f)
				14	NR	A	NR			6800	147560						E2, (f)
15	NR			A	>320			17660	383222						E2, (f)		
5	Marcinkowski 1974	16	51M	NR		(a)		6360	138012					E2, (f)			
6	Odesanmi 1979	17	47M	NR				4260	92442						E2, (f)		
		18	57M	NR			(a)		5080	110236					E2, (f)		
		19	59M	NR					3310	71827					E2, (f)		
		20	67M	NR			(a)		3750	81375					E4		
		21	31M	A					4200	91140					E2, (f)		
		22	48M	NR			(a)		7670	166439					E4		
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]																	
MW ethanol = 46.1																	
(a) alcoholic.																	
(b) 18h coma and subsequent death after 21 days of heavy drinking.																	
(c) several cases, with death (3h) caused by late aspiration = 4000 mg/l, 3 cases with death (1h) caused by early aspiration (during the absorption phase) = 4650 mg/l, 3 cases with suffocation (by the tongue) as the cause of death = 2750 mg/l.																	
(d) average 6.5 h, range 2-12h time from exposure and death.																	
(e) mostly male, 25-50 year alcoholics.																	
(f) death during absorption phase.																	

Table 3b. Post-mortem observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	Mallach 1961	1	13 cases						4160	90272					
2	Christopoulos 1973	2	NR	NR					7960	172732					
		3	NR	NR					4950	107415					
		4	NR	NR					9150	198555					
		5	NR	NR					6150	133455					
		6	NR	NR					4230	91791					
		7	NR	NR					5150	111755					
		8	NR	NR					5450	118265					
3	Marcinkowski 1974	9	30M	NR					6550	142135					
		10	29M	NR					5220	113274					
		11	NR	NR					5250	113925					
		12	NR	NR					5440	118048					
4	Pach 1978	13	72 cases						3860	83762					
5	Kerde 1978	14	20 cases						3550	77035					
6	Mallach 1980	15	19 cases						3540	76818					
		16	49F	A		(a)			5630	122171					
		17	42F	A		(a)			5380	116746					
7	Paterson 1985	18	23 cases						4890	106113					
8	AAPCC 1997:3	19	20	A					3400	73780					
9	AAPCC 1998:2	20	37	A					2500	54250					
10	AAPCC 2003:3	21	43	A					3200	69440					
11	Christopoulos 1973	22	NR	NR		(b)			3750	81375					
		23	NR	NR		(b)			3340	72478					
		24	NR	NR		(b)			3120	67704					
		25	NR	NR		(b)			3630	78771					
		26	NR	NR		(b)			3380	73346					
		27	NR	NR		(b)			4750	103075					
		28	NR	NR		(b)			3200	69440					
		29	NR	NR		(b)			3020	65534					
		30	NR	NR		(b)			3160	68572					
		31	NR	NR		(b)			3920	85064					
		32	NR	NR		(b)			4510	97867					
		33	NR	NR		(b)			3000	65100					
		34	NR	NR		(b)			4190	90923					
		35	NR	NR		(b)			3490	75733					
		36	NR	NR		(b)			3910	84847					
		37	NR	NR		(b)			4220	91574					
		38	NR	NR		(b)			2880	62496					
12	Hieda 2005	39	45M	A	1000	(c)			8140	176638					
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW ethanol = 46.1															
FI = Fructose infusion															
(a) high blood/urine ratio indicating acute dosage.															
(b) violent deaths from other causes than alcohol.															
(c) ml.															