

**Schweizerisches Toxikologisches Informationszentrum  
Centro Svizzero d'Informazione Tossicologica  
Centre Suisse d'Information Toxicologique  
Swiss Toxicological Information Centre**

**Yearly Report 1996**



Emergency calls	++ 41 1251 51 51
Other calls	++ 41 1251 66 66
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<b>Support</b>	<p>The Swiss Toxicological Information Centre (STIC) is supported by a private foundation for public benefit, as well as by the Swiss Cantons. The traditional supporting organizations are:</p> <ul style="list-style-type: none"> <li>- The Swiss Society of Pharmacists</li> <li>- The Swiss Society of Chemical Industries</li> <li>- The Swiss Federation of Physicians.</li> </ul> <p>Additional substantial aid comes from</p> <ul style="list-style-type: none"> <li>- The Swiss National Accident Insurance Fund</li> <li>- The Swiss Association of Private Health and Accident Insurances</li> <li>- The Association of the Swiss Health Insurances Companies.</li> </ul> <p>Important donations and contributions come from private companies and individuals (p. 44).</p>	
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<b>Advisors</b>	<p>Numerous specialists, mainly from hospitals, institutes and state as well as federal offices act as honorary advisers.</p>	

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## **Dear Reader**

Now that so much information can be found on the Internet, why do Poisons Centres still get all these calls?

Is it because the number of Internet users is still too small, or for any other reasons?

The answer is quite simple: even when all of us will have access, through our interactive TV set, to an unlimited wealth of data, there will be no easy answer to the question of what to do, or not to do, in an individual emergency situation with all its particularities.

Poisons Centres are here for immediate decision support. More often than not, they will tell you that no heroic action is needed, because the risk you are confronted with can be assessed as minimal. In high-risk situations, on the other hand, they will quickly indicate what you should do next.

Immediate risk assessment and management advice is a very difficult task, requiring a high, continuously maintained level of competence, infrastructure and preparedness.

Smaller centres, that were not able to meet these requirements, have been closed, mainly in the U.S.A.

Larger centres, throughout the world, are struggling for the funds they need to secure the knowledge and the quality of services that makes them useful, able to make sure that what is necessary is done and what is unnecessary is not done.

The Swiss Poison Centre makes no exception to this rule. It is, however, co-supported by many private institutions and donors, as you will notice in this report. We are grateful for this aid and will try to convince our supporters, by our services, to maintain it.

Our next step in serving the community will be the organisation of the next International Congress of Poisons Centres and Clinical Toxicologists in Zurich, in March 1998.

In the meantime, please give us your opinion and your suggestions as to what we should particularly work on. The card on the back of this report is there for your answer. Thank you very much for your contribution.

Dr. Franz Merki  
President of the Foundation Council

# **Report**

## **1 Information service**

29'496 calls were answered in 1996 (previous year: 29'788, p. 9). This represents, for the third consecutive year, a stabilisation after the continued rise of calls in former years.

### **1.1 Well documented cases**

Detailed consultation reports were established by our physicians in 16'546 cases (previous year: 16'247). The calls came, as usual, from all regions of the country, with a slight predominance of our home canton, Zurich (pp. 10-11). 53% of the calls came from the general public, 40% from hospital physicians and practitioners.

The patients were 15'707 humans and 903 animals (p. 12). A more detailed analysis of these cases, including patient characteristics, agents, circumstances and severity is given on pp. 12-31. Children were involved in 47% of the cases, adults in 53% (fig. 1). The children were mainly preschoolers (82%). Among the adults, women were, as usual, somewhat more represented than men (p. 12).

Among the products involved, medicinal drugs continued to be the most important group (40%, fig. 2). The majority of severe cases (61%, p. 13) was also related to drugs (mainly drug combinations). The most frequent severe intoxications from single drugs were due to psychopharmaceuticals and hypnotics (pp. 27).

Household products and pesticides were second in frequency (pp. 19-24). Their generally low rate of severe outcomes dropped for the first time below 1% (p. 13). The third group, technical and occupational products (pp. 18-19), by contrast, had a significantly higher rate of severe cases (3.9%, p. 13). Poisoning by plants (pp. 14-15), while mostly benign, is on the rise (6.3% in 1994, 7.4% in 1995, 8.5% in 1996).

Accidental poisoning was still the predominant situation (p. 30 and fig. 3). Intentional poisoning, however, was registered slightly more frequently than the year before (23 vs. 20%).

The outcome (p. 31 and fig. 4) was evaluated on the basis of written reports received from treating physicians (3'930, previous year: 4'493). The proportion of severe and fatal cases has been relatively stable in the recent past (1993: 12.7%, 1994: 12.2%, 1995: 10.5%, 1996: 11.3%).

Fatal poisoning is rare in our statistics. One of the main reasons for this is that our centre is seldom called when a victim is found dead.

Fig. 1

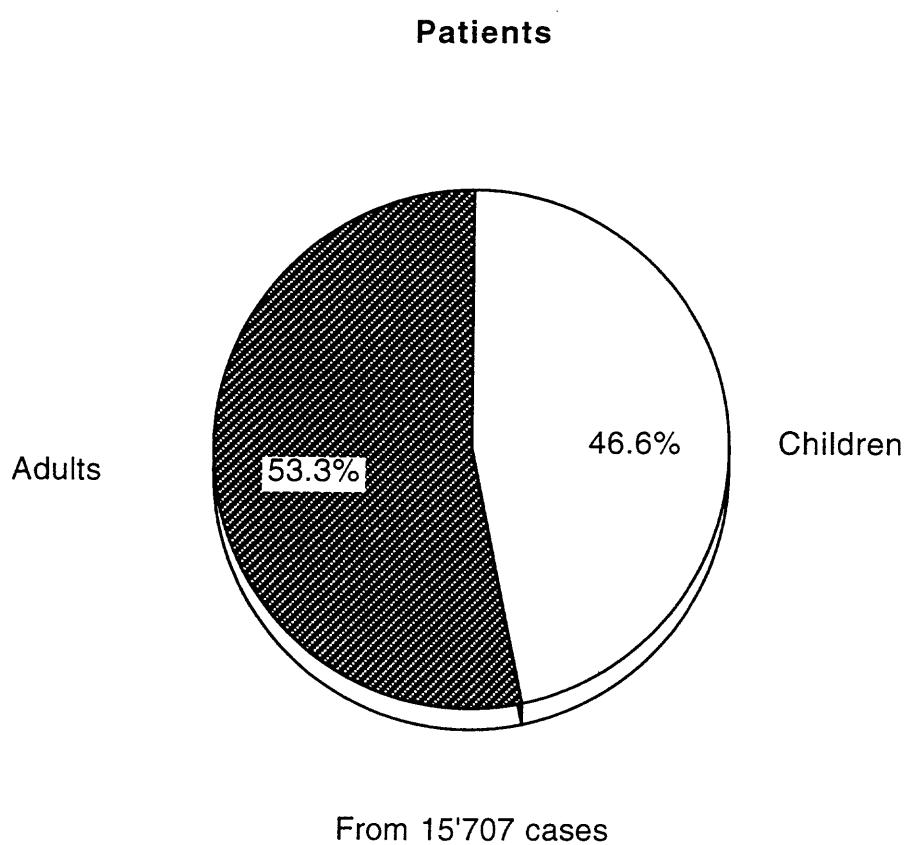
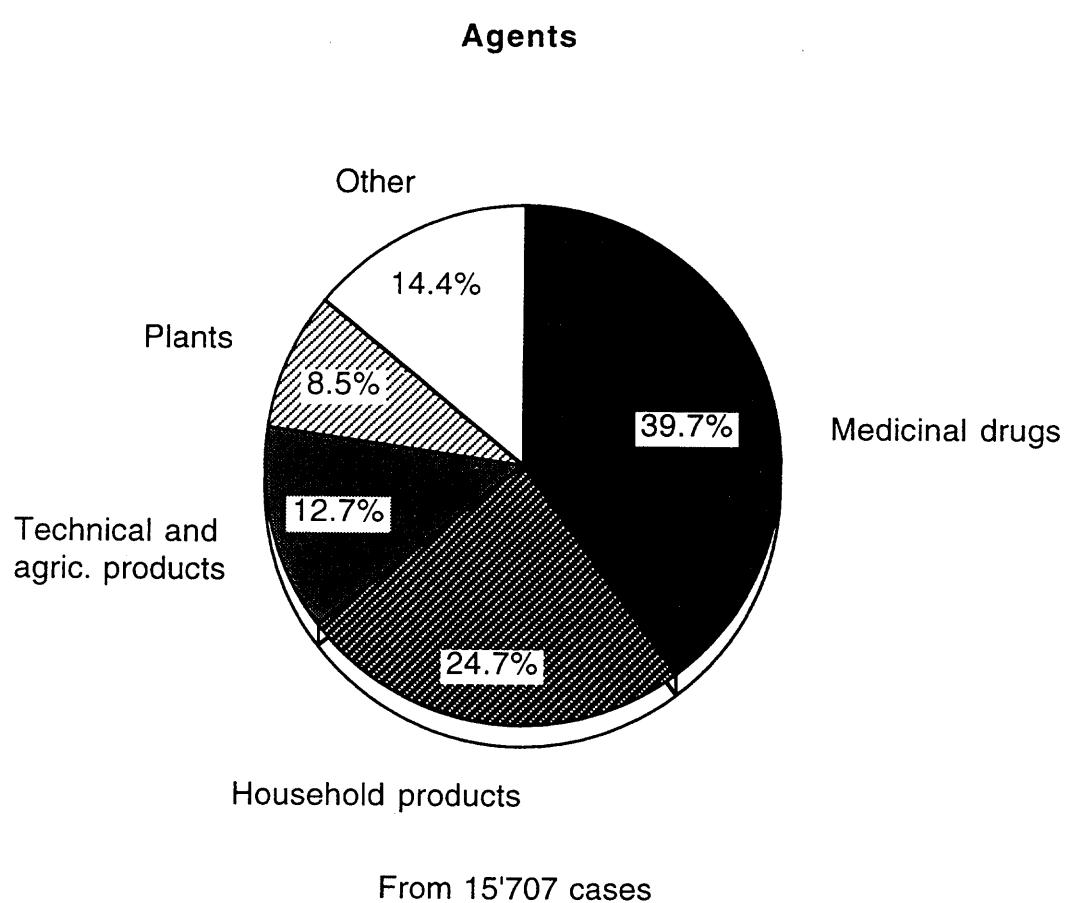


Fig. 2



## 1.2 Cases with short reports

6'812 cases were considered as non-toxic exposures (previous year: 7'066). Children were involved in 79%, adults in 21%. The agents mentioned were mainly household products (36%), followed by medicinal drugs (26%), plants (18%) and food (12%). These calls came mostly from the general public (84%). This indicates, once more, that a Poisons Centre is very often in a position to prevent unnecessary hospitalisations.

6'138 calls were not related to any exposure (previous year: 6'475). They came from the general public in 73% of the cases and from physicians and other professionals in 27%. They were related to:

- General informations about medicinal drugs (formula, indications, contra-indications, interactions, adverse effects, toxicity, dependence potential: 20%); household products (14%); plants and mushrooms (14%); food products (8%); other agents (10%).
- Environmental toxicology (gases, vapours, smoke, and dust indoors and outdoors, disposal of chemicals, water contamination, risks from chemical treatment of products: 11%).
- Documentation (publications, leaflets, individual reports, slides and other educational assistance: 6%).
- Various (antidotes, analytical facilities, abuse problems, toxic risks in pregnancy and lactation, decontamination and first aid, tablet identification, regulation, prevention: 9%).
- Questions not related to toxicology, mostly redirected to other institutions: 8%.

## 2 Other services

### 2.1 Traditional services

After having consulted our centre, physicians received 5'908 written reports. In particularly complex and urgent cases, protocols or literature excerpts were sent by fax, or there was an additional consultation with one of our senior toxicologists.

Written information requests were answered partly in writing, partly by phone (reviews of the experience with particular substances, mainly for industry, authorities and other professional bodies). In addition, more than 12'100 leaflets on first aid and poison prevention were sent on demand to health care groups and individuals.

Severe cases of poisoning with products registered under the Swiss Poison Law were communicated - in anonymized form - to the Federal Health Office, as well as to the interested manufacturers. Severe cases due to poisoning with medicinal drugs were also communicated, in the same way, to the respective manufacturers.

Fig. 3

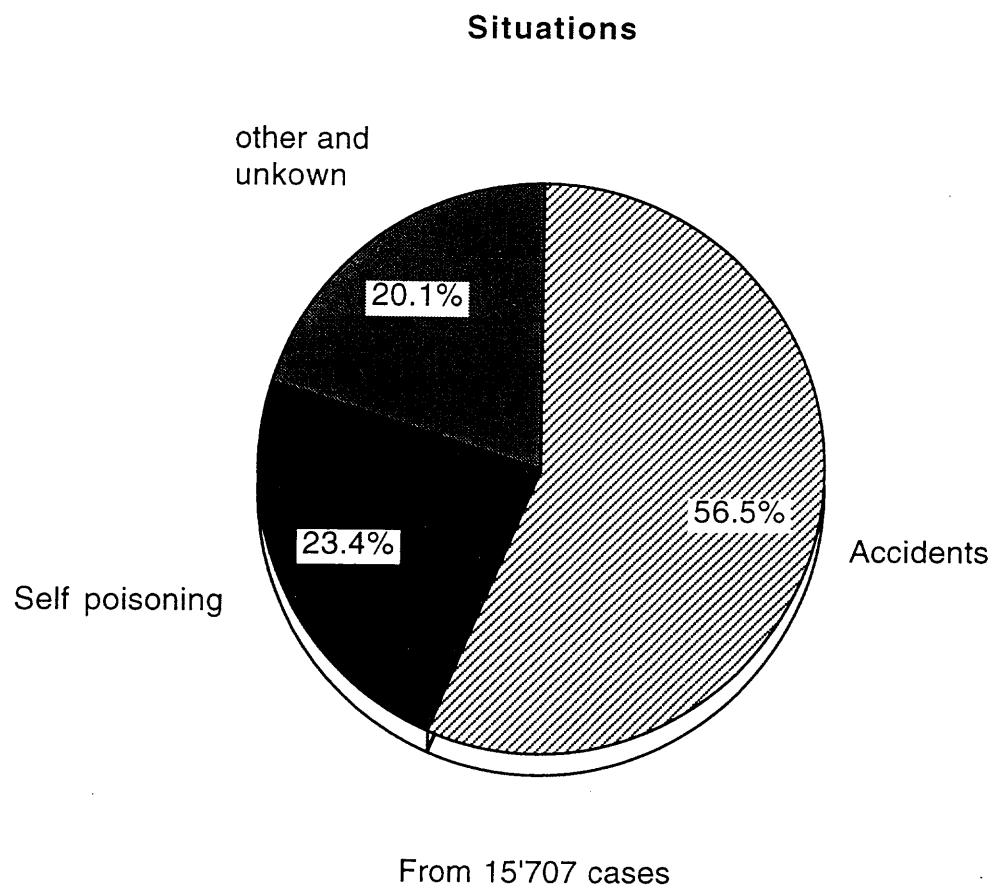
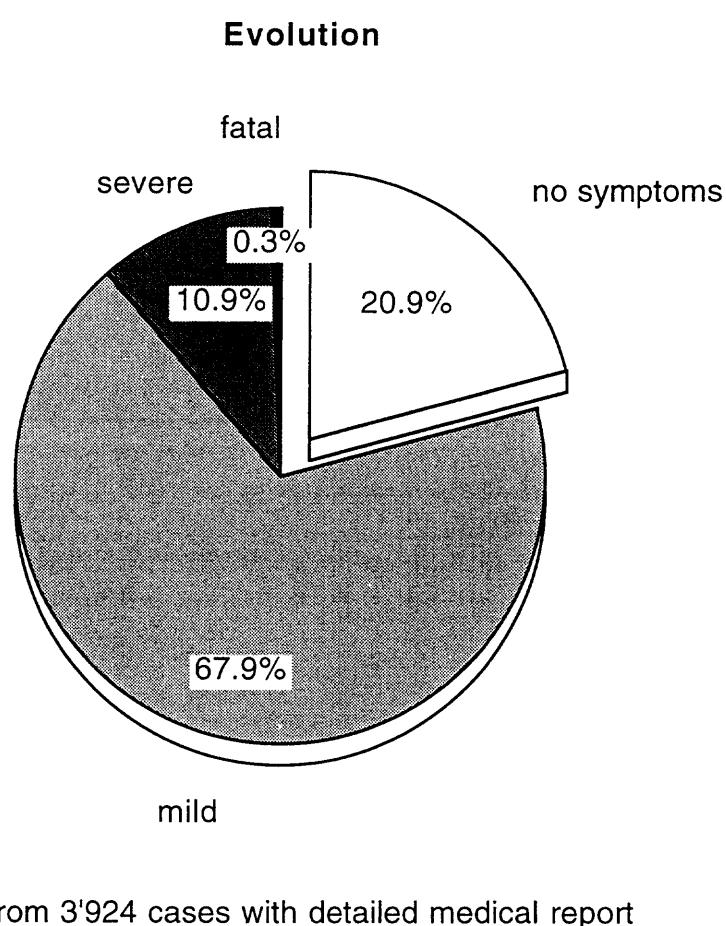


Fig. 4



Some additional contracts were proposed to exporting chemical manufacturers, in order to enable them, for a fee, to include our emergency number, ++41 1 251 51 51, in their safety sheets, thus ensuring immediate response in case of emergencies occurring abroad. This type of cooperation is operational in six cases, and might be expanded soon.

The internal synthesis of collected human experience led to the determination of critical doses for a number of frequent drug overdoses.

51 lectures were held for different communities, mainly physicians, students and health care groups.

The publications are listed on pp. 33-37. The reedition of the antidote list was of particular practical value (a condensed version is being reprinted on pp. 39-41). The other papers, congress reports and dissertations were devoted mainly to a better risk assessment and management in acute situations. Medicinal drugs were discussed in 13 contributions, other agents in 8. Reprints or photocopies are available at no charge (yearly report and theses excepted).

## 2.2 New services

The most innovative step for better and faster services was the implementation of a comprehensive in-house information system called **Toxi**. This system, introduced in May 1996, is now the main working tool of our physicians on duty. It offers - on two double-page screens per working station, immediate, synoptical access to the product data, case reports and evaluations needed for instant advice in case of emergency. **Toxi** is also a tool for detailed registration of every call and will therefore serve for a better assessment and fulfillment of upcoming information needs.

**Toxi**, however, is not designed to finally replace the dialogue between the information seeker and its respondent. The dialogue will remain essential for optimal handling of the situation whenever a potentially toxic exposure has occurred. On the other hand, **Toxi** will enable the centre to generate more information spin-offs for general, unmediated use.

The most recent news from our centre can be found on the Internet since December 1996 (<http://www.access.ch/toxi>). The first version of this site included the announcement of publications, congress reports and coming events, as well as practical information on how to proceed in case of emergency. The site has since been updated at least every month and is designed to react rapidly to changing demands.

## 3 Special findings

Accidental severe poisoning in children with petroleum products, which had raised concerns since 1991, is clearly diminishing (1992 and 1993 20 cases, 1994 18 cases, 1995 10 cases, 1996 9 cases). Repeated warnings, the introduction of safety

caps and new regulations for lighter fluids and lamp oil may have been the main reasons for this improvement.

In adults, severe accidental poisoning by acids and alkalis from occupational surroundings, which had lost its importance in earlier years, seems to be coming back (1993 10 cases, 1994 and 1995 13 cases, 1996 18 cases). The cases of severe damage from corrosive substances of the past 15 years have therefore been analysed in the framework of a dissertation (C. Rauber, University of Zurich, 1997). The transfer of acids and bases into beverage bottles appears to be a relevant source of such accidents.

#### **4 Acknowledgments and perspectives**

The cooperation with related institutions of other countries was again helpful. The Congress of the European Association of Poison Centres and Clinical Toxicologists in Marseille was a good starting point for the planning of the next congress of this association, which will be held in Zurich in March 1998.

The interactions with authorities, hospitals, practitioners, the industry and prevention-oriented organisations were again fruitful. Our particular gratitude goes to our main supporting institutions and sponsors (pp. 43-44), as well as to our staff. Special thanks go to Dr. P.A. Wyss, who is now engaged in a new activity at the Department of Health of the Canton of Zurich. We are also welcoming a new and competent senior resident, Dr. H. Kupferschmidt.

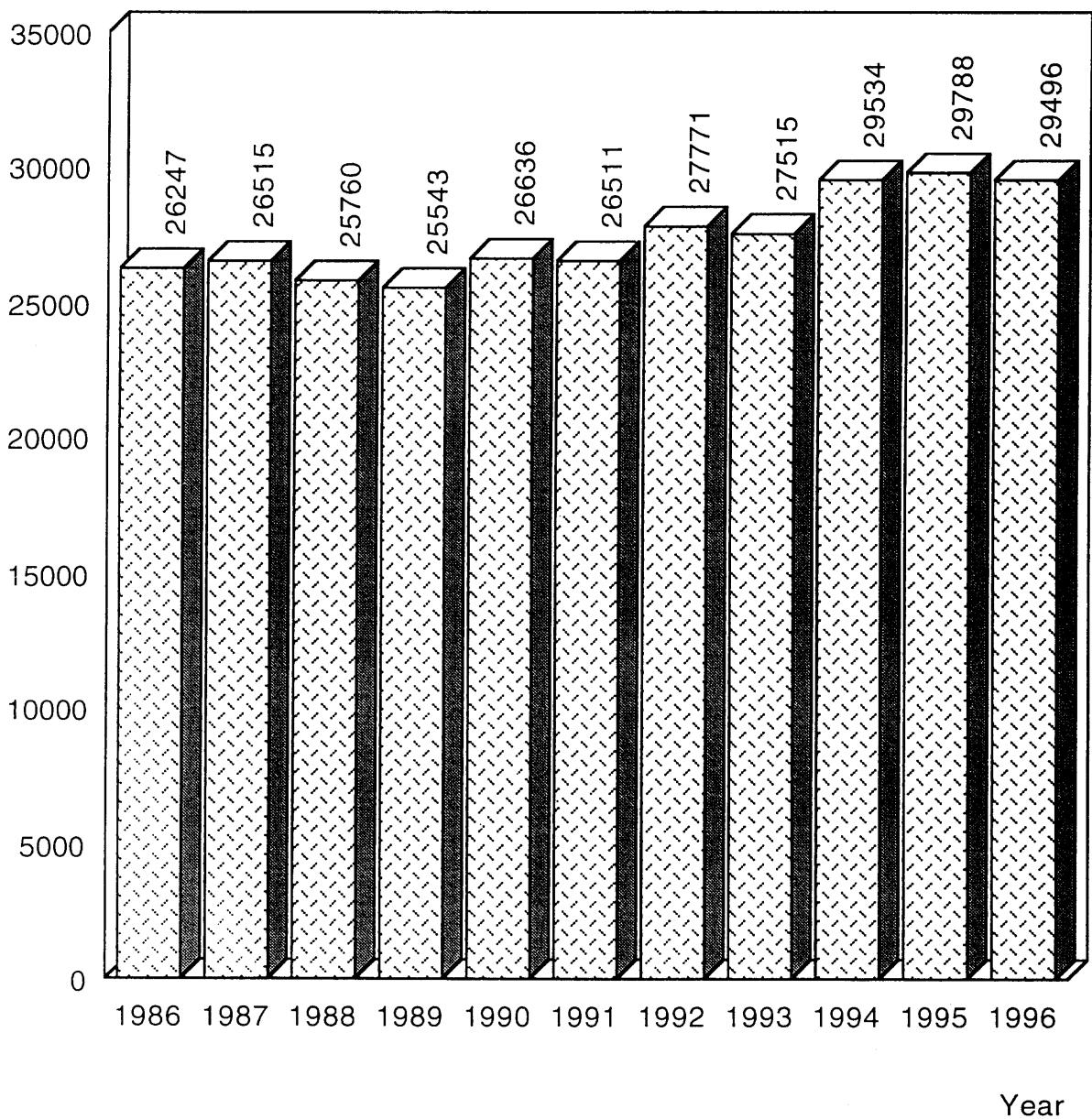
The perspectives of our centre are still somewhat darkened on the financial side, but we expect new chances for better services and assistance at a planned new location, which has been proposed by the Canton of Zurich in the vicinity of the University Hospital.

Prof. Dr. P.J. Meier-Abt  
Medical Director

J.P. Lorent  
Administrative Director

# 1 Frequency of calls to the centre

Calls



## 2 Origin of inquiries (detailed reports)

Origin	Foreign countries	FL 31'400	AG 528'900	AI 14'800	AR 54'100	BE 942'000	BL 252'300	BS 195'800	FR 224'600	GE 395'500	GL 39'400	GR 185'100	JU 69'200	LU 340'500
Number of inhabitants														
General public		87	18	702	18	47	1159	254	245	234	381	36	175	40
Hospitals (Total)		378	1	269	2	25	623	115	130	201	418	25	75	67
Cantonal Hospitals		12		126		25	166	105	54	131	293	25	31	167
Children's Hospitals		52		13			50	2	49		68	3	12	6
Other Hospitals		314	1	130	2		407	8	27	70	57	41	67	
Practitioners (Total)		17	6	103	5	9	239	57	45	36	71	10	48	11
General Medicine		5	4	63	3	7	138	38	19	22	34	7	35	8
Surgery			1	1	1		1							60
Dermatology							1							
Gastroenterology								1						
Gynecology									1					
Internal Medicine		2		9	1	1	31	4	6	5	5		2	11
Cardiology									1					
Neurology									2					
Ophthalmology										1				
ORL											1			
Pediatry		2		17		1	44	11	9	4	16	3	7	15
Psychiatry							1	1	2	3				2
Psychiatry (children)									1					
Rheumatology										1				1
Various		8	1	11			21	2	5	2	12	4		3
Veterinarians, Vet. Hospitals		2		30		3	95	25	4	12	15	1	12	2
Pharmacies			2	19			27	6	10	11	27	4	4	4
Emergency services (Total)		8		1			3		4	1	14			1
Medical centres								2		3	1	14		1
Drug advisory services								1		1				
Poison centres		8												
Civil authorities, institutes							4	1	2	1	7	1	3	
Chemist's shops							2		5				2	1
Military physicians							1							
Dentists														
Various organizations		1	1	14	1	3	43	4	11	5	23	1	2	2
Total		493	28	1145	26	88	2196	462	456	501	952	73	318	126
Total in %		2,98	0,17	6,92	0,16	0,53	13,27	2,79	2,76	3,03	5,75	0,44	1,92	0,76
Expectation in %							7,49	0,21	0,77	13,34	3,57	2,77	3,18	5,60
												0,56	2,62	0,98
													4,82	

NE 165°300	NW 36°500	OW 31°300	SG 442°400	SH 74°000	SO 239°300	SZ 122°400	TG 223°400	TI 305°200	UR 35°900	VD 605°700	VS 271°300	ZG 92°400	ZH 1°175°500	unclassifiable	Total 7'094°200	Total in %	
150	28	25	412	97	256	119	234	188	24	690	220	100	2201	270	8722	52,71	
108	3	10	256	45	134	52	112	275	3	404	239	49	821	7	5032	30,41	
4	3	10	164	38	54	1	102		3	117	43	1	270	1	1938	11,71	
104			47							43		88		6	429	2,59	
			45	7	79	52	10	275		244	238	12	463		2665	16,11	
20	7	6	120	21	60	37	56	44	11	84	68	19	344	14	1661	10,04	
10	3	3	84	10	41	25	36	1	25	8	49	46	11	190	984	5,95	
			2			1				2	1	5			15	0,09	
										1		1			4	0,02	
															1	0,01	
2	3		13	3	4	4	7	4	2	4	5	2	29		159	0,96	
															2	0,01	
															5	0,03	
															9	0,06	
3	1	2	18	6	10	7	7	10	1	13	12	3	60		1	0,01	
		1				1				2		5			17	0,10	
															6	0,04	
5		3	2	2		3	3		12	2	2	3	44	14	162	0,04	
															7	0,98	
21	1	1	22	11	7	5	10	6	1	19	9	4	75			404	2,44
13			2	3	3	2		14		43	19		48	1	262	1,58	
									2		6	1			77	0,47	
									2		6	1			63	0,38	
												3			6	0,04	
															8	0,05	
									1		4	2	14			42	0,26
																13	0,08
1									1					2		5	0,03
																2	0,01
6		1	14	1	4	4		10		25	3	7	119	2	326		1,97
318	40	43	826	178	466	220	413	541	39	1275	561	179	3663	294	16546		100%
1,92	0,24	0,26	4,99	1,07	2,82	1,33	2,50	3,27	0,24	7,71	3,39	1,08	22,14	1,78			100%
2,34	0,52	0,44	6,26	1,05	3,39	1,73	3,16	4,32	0,51	8,58	3,84	1,31	16,64				

### 3 Patients

Age		Patients	in %
Children	Total	7322	46.6
	0 - 4 years	5420	34.5
	5 - 9 years	669	4.3
	10 - 15 years	537	3.4
	unknown	696	4.4
Adults	Total*	8385	53.4
	female	4513	28.7
	male	3257	20.8
	unknown	615	3.9
Total		15707	100%

\* Adolescents 16-19 years of age were considered adults.

Information was requested from **veterinarians** in 404 cases. When a phone call was related to "several" animals without an exact number, we have estimated the number to be 3. The following animals were involved (phone calls from the public are included in these figures):

457 dogs, 172 cats, 70 cattle, 46 horses, 32 rabbits, 22 guinea-pigs, 21 goats, 20 birds, 17 sheeps, 11 pigs, 6 moles, 5 chinchillas, 5 rats, 3 fishes, 3 toads, 3 tortoises, 3 swans, 2 ducks, 2 hedgehogs, 1 donkey, 1 hamster and 1 unknown animal.

#### Fatalities in animals:

A cow died after ingesting a fertilizer (urea). 5 dogs died after ingesting a snail bait (metaldehyde), one from a fertilizer. 2 cats perished after an erroneous treatment (insecticide for dogs). 2 chinchillas died after ingesting green potatoes, one guinea-pig from common oleander and 2 goats from Kalmia latifolia.

## 4 Toxic agents

Severe and fatal cases

		Total number	in %	Total	in %
4.1	Plants	1340	8.5	6	0.4
4.2	Poisonous animals	297	1.9	13	4.4
4.3	Food toxins and contaminants	685	4.4	4	0.6
4.4	Recreational and abused agents	734	4.7	38	5.2
4.5	Technical and occupational products	1422	9.1	55	3.9
4.6	Household products	4449	28.3	40	0.9
4.6.1	Extra-professional hazards of inhalation	302	1.9	13	4.3
4.7	Medicinal drugs	6236	39.7	272*	4.4
4.8	Unclassifiable	242	1.5	2	0.8
Total		15707	100 %	443	2.8 %

\* 61 % of all severe intoxications refer to medicaments

In this and the following tables patients are classified according to:

- 1 The total number of persons involved
- 2 The severity grading in cases with written medical feedback

The following symptoms are considered severe:

- 1 Major impairment of consciousness
- 2 Long lasting or serious neurological disturbances
- 3 Major cardiovascular disturbances
- 4 Major respiratory disorders
- 5 Liver and kidney injury
- 6 Deep burns
- 7 Serious complications of poisoning

Possibly serious cases lacking medical feedback, as well as questionable cases are not reported as severe in the following tables.

## 4.1 Plants

	Children			Adults			Total
	N	M	SF	N	M	SF	
Aconitum napellus/Monk's hood	3	1			1		5
Aesculus hippocastanum/C. horse chestnut	8			2			10
Agave sp./Agave	1			3	1		5
Anthurium sp./Flamingo flower	6						6
Arum maculatum/Lords-and-Ladies	31	1		3			35
Atropa belladonna/Deadly nightshade	10			2	6		18
Begonia sp./Begonias	10						10
Buxus sempervirens/Common box	2	1		2			5
Cactaceae/Cactus family	5			9			14
Capsicum annuum/Spanish pepper	5			7			12
Clematis vitalba/Traveller's joy	4			1			5
Clivia miniata/Scarlet Kaffir lily	9						9
Colchicum autumnale/ Common autumn crocus	5			4			9
Convallaria majalis/Lily-of-the-valley	32			3			35
Cornus sp./Dogwood	3	1		2			6
Cotoneaster sp./Cotoneaster	29						29
Daphne sp./Daphne	9			1	2		12
Datura stramonium/Thorn-apple	2			5	1	1	9
Datura suaveolens/Angel's-trumpet	9	1		9	4	3	26
Dieffenbachia sp./Dumbcane	21	1		9			31
Dracaena sp./Dragon	5						5
Epipremnum pinnatum/Devil's ivy	6	1					7
Euonymus europaeus/Europ. spindle tree	10	1		1			12
Euphorbia pulcherrima/Poinsettia	16	1		6			23
Euphorbia sp./Spurge sp.	18			24	2	1	45
Ficus sp./Fig sp.	41	1		5			47
Hedera helix/English Ivy	20			2			22
Heracleum mantegazzianum/ Giant Hogweed	5			5	1		11
Hippeastrum vittatum/Amaryllis, Barbados lily	6						6
Hyoscyamus sp./Henbane						1	1
Ilex aquifolium/English holly	11			1			12
Laburnum anagyroides/Golden chain	8	1		2			11
Ligustrum vulgare/Common privet	20						20
Lonicera xylosteum/Honeysuckle	24	2					26
Mahonia aquifolium/Oregon-grape	8						8
Narcissus pseudonarcissus/Daffodil	15			11			26
Nerium oleander/Common oleander	8			3			11
Phaseolus vulgaris/Kidney bean	9			3			12
Philodendron sp./Philodendron	11			1			12
Physalis alkekengi/Cape gooseberry	7			3			10
Prunus laurocerasus/Cherry laurel	63	1		5			69
Prunus sp./Plum	3			6	1		10

## Plants (end)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Ranunculus sp./Buttercup sp.	8						8
Rhododendron sp./Azalea	8	1					9
Sambucus nigra/European elder	17			5			22
Sambucus sp./Elder	4	2		3			9
Schefflera sp./Umbrella tree	9						9
Solanum sp./Nightshade	14			5			19
Sorbus aucuparia/Mountain Ash	22						22
Spatiphyllum sp./White sails	19						19
Tagetes sp./Marigold	2			3			5
Taraxacum officinalis/Common dandelion	5						5
Taxus baccata/Yew	43	3		4	2		52
Thuja occidentalis/White cedar	3			3			6
Tulipa gesneriana/Tulip	7			3			10
Viburnum opulus/Guilder rose	13			1			14
Yucca sp./Yucca	10						10
Various plants	146	5		48	8		207
Berries	105			1	1		107
Flower-bulb				14			14
Water from a vase		1					1
Combinations, unclassifiable cases, unknown plants	63	2		29	1		95
Total	1017	27		259	31	6	1340

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

## 4.2 Poisonous animals

	Children			Adults			Total
	N	M	SF	N	M	SF	
Bees, wasps, hornets	30	3		53	1	2	89
Poisonous snakes		4	2	7	3	6	22
Various snakes	4	1		6	4		15
Poisonous fishes				6	2	2	10
Spineless invertebrates				9	4		13
Various	52	2	1	91	2		148
Total	86	10	3	172	16	10	297

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning



**Bei  
Knollenblätter-  
pilzvergiftung**

# Legalon® SIL

**Legalon® SIL**

**Zusammensetzung:** 1 Durchstechflasche mit 598,5 mg Trockensubstanz enthält: Silibinin-C-2',3-dihydrogensuccinat, Dinatriumsalz 528,5 mg (entsprechend 350 mg Silibinin). **Anwendungsgebiet:** Leberintoxikation durch Knollenblätterpilze. **Nebenwirkungen:** In einzelnen Fällen kann es während der Infusion zu Hitzegefühl (Flush) kommen. **Darreichungsform und Packungsgröße:** Packung mit 4 Durchstechflaschen Trockensubstanz SFR 755.75

MADAUS AG, Köln

**BIO/MED**  
**NATUR & WISSEN**  
Biomed AG, 8600 Dübendorf

### 4.3 Food toxins and contaminants

	Children			Adults			Total
	N	M	SF	N	M	SF	
Food of immanent toxicity							
identified mushrooms (see below)	17	2	1	81	22	2	125
unidentified mushrooms	71	3		81	18	1	174
Food presumably contaminated by toxins producing bacteria	54	2		179	13		248
Molding food	17			21			38
Various (incl. doubtful cases)	57	1		41	1		100
Total	216	8	1	403	54	3	685

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

#### Identified mushrooms

	Children			Adults			Total
	N	M	SF	N	M	SF	
Agaricus sp./Agaric sp.	4			8			12
Amanita pantherina/Panther cap				3	3		6
Amanita phalloides/Death cap	2			1	2	2	7
Amanita sp./Amanita sp.	1			3			4
Armillaria mellea/Honey mushroom				3	4		7
Boletus edulis/Yellow boletus				11	2		13
Boletus sp./Bolete sp.	1	1	1	7	1		11
Cantharellus cibarius/Chanterelle				4			4
Clitocybe sp./Clitocybe sp.	1			2	1		4
Coprinus sp./Ink mushrooms	1			2			3
Morchella esculenta/Edible morel	1			8			9
Psilocybe sp./Psilocybe		1		11	2		14
Rhodophyllus sinuatus				6	3		9
Secale cornutum/Ergot alkaloids				3	2		5
Tylopilus felleus/Bitter tylopilus	1			3			4
Various	5			6	2		13
Total	17	2	1	81	22	2	125

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

#### 4.4 Recreational and abused drugs

	Children			Adults			Total
	N	M	SF	N	M	SF	
Tobacco, mostly accidental ingestion	277	23		12	3		315
Alcoholic beverages	30	2		45	12	10	99
Cannabis	8	5		40	18	1	72
Cocaine				16	4	4	24
Heroin and opiates	1			19	2	1	23
LSD	2			10	6	2	20
Vapors and gases ("sniffing")				4	1		5
Various hallucinogens				47	9	3	59
Combinations		1		46	25	16	88
Various	3			20	5	1	29
Total	321	31		259	85	38	734

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

The registered number of alcoholic intoxications remains insignificant, since there is rarely a need of information in the treatment of such cases. Moreover, because of a large number of unknown cases, the numbers concerning other drugs of abuse are not representative either.

**Substitutes** like cough drops, analgesics, asthma cigarettes, tranquilizers and solvents are not included here; they can be found under the respective headings in the following chapters.

#### 4.5 Technical and occupational products

	Children			Adults			Total
	N	M	SF	N	M	SF	
Acids	12	4		83	21	9	129
Adhesives	1			12	1	2	16
Alkalies	10	4	1	49	7	9	80
Anti-rust products				1	1		2
Chlorine gas	9			22	8		39
Cleaning products	7	2	1	32	7	1	50
Combustibles (gasoline, fuel oil, petroleum and lamp oil)	74	21	6	52	3	4	160
ingestion				11	2		15
inhalation	2						
other routes	10			8	3		21
Cyanides	3			7	6	1	17
Disinfectants (occupational)	17	2		41	7		67

## Technical and occupational products (end)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Halogens				3			3
Hardeners			1	4	1	1	7
Industrial salt	6						6
Irritant gases	7			20	9	1	37
Laboratory reagents	1			11	2	1	15
Lime, slaked				2			2
Lime, unslaked					1		1
Lubricating oil	15	1		2	1		19
Metals							
Lead and mercury compounds	23	1		19	1		44
Other metal compounds	10			29	1		40
Paints and varnishes for technical use	4			24	2		30
Plastics	2			8	2		12
Preservatives	4			6			10
Silage products and gases	1			1		1	3
Soldering and welding products, incl. vapors	3			29	10	2	44
Solvents for occupational use	3	1		19	8	1	32
Thinner (for artificial resins and paints)	5			12	1		18
Various gases, vapors, dust at work	15	2	1	130	19	3	170
Various occupational and industrial agents	7	1	1	57	25	6	97
Combinations	209*			20	6	1	236
Total	460	39	11	713	155	44	1422

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

\* 200 persons at the same incident abroad.

A clear distinction between occupational and non occupational poisoning was not always possible. Some occupational exposures may be shown under 4.6 (household products).

## 4.6 Household products

Specific household products	Children			Adults			Total
	N	M	SF	N	M	SF	
Adhesives	59	3	1	34	6		103
Air fresheners (mostly essential oils)	62	3		4	1		70
Batteries/Battery content	93	3		12			108
Bleaching agents (particularly Javelle water, H <sub>2</sub> O <sub>2</sub> )	42	13		68	17		140

# FLATULEX®

## Kautabletten und Tropfen

### Antiflatulans

#### Zusammensetzung

##### 1 Kautablette enthält:

Wirkstoff: Simethiconum 42 mg. Hilfsstoffe: Aromatica: Carvi aetheroleum, Foeniculi aetheroleum, Menthae piperitae aetheroleum, Excipiens pro compresso.

##### 1 ml Tropfen (2 Pumpstöße) enthält:

Wirkstoff: Simethiconum 41,2 mg. Hilfsstoffe: Cyclamas, Aromatica, Conservans: E 200. Excipiens ad solutionem.

#### Eigenschaften/Wirkungen

Der Wirkstoff von Flatulex ist Simethicon, ein aktiviertes Dimethylpolysiloxan. Simethicon ist physiologisch inert und führt auf rein physikalischem Weg durch seine oberflächenaktiven und entschäumenden Eigenschaften zur Elimination von Darmgasen.

#### Pharmakokinetik

Simethicon wird nicht resorbiert und deshalb unverändert in den Faeces ausgeschieden.

#### Indikationen/Anwendungsmöglichkeiten

Zur symptomatischen Behandlung aller Formen übermässiger Gasansammlung oder Gasbildung im Magen-Darm-Bereich, wie Meteorismus (auch postoperativ), Flatulenz, Aerophagie und gastrokardialer Symptomenkomplex.

Zur Prämedikation vor röntgenologischen und sonographischen Untersuchungen im Bauchbereich zur Reduktion von Gasschatten.

#### Als Antidot bei peroralen Vergiftungen mit Detergenzien.

#### Dosierung/Anwendung

Uebliche Dosierung bei der symptomatischen Behandlung:

Zu oder nach jeder Mahlzeit und vor dem Schlafengehen

Erwachsene: 1 - 2 Kautabletten oder 2 - 4 Pumpstösse

Schulkinder: 1 Kautablette oder 2 Pumpstösse

Säuglinge und Kleinkinder: 1 - 2 Pumpstösse.

**Kontraindikation:** Ileus.

#### Unerwünschte Wirkungen

Infolge Nichtresorption treten selbst bei Einnahme hoher Dosen keine Nebenwirkungen auf.

**Packungen** mit 50 und 200 Kautabletten und Flasche mit Dosierpumpe zu 50 ml.

Weitere Angaben entnehmen Sie bitte der Packungsbeilage oder dem Arzneimittel-Kompendium der Schweiz.

#### Vertrieb:

Globopharm AG, 8700 Küsnacht ZH



**GLOBOPHARM AG**

## Household products (cont'd.)

Specific household products	Children			Adults			Total
	N	M	SF	N	M	SF	
Car and bicycle products (polish, defroster etc.)	25	2		23	2		52
Cleaning agents							
for artificial teeth	1	1		10	1		13
for carpets and upholstery	8	1		2	2		13
for contact lenses	7			7			14
for cooking-stove and oven	15	3	1	11	5		35
for floors (except oil of turpentine)	8		1	5	1		15
for laundry (including fabric softener and starch)	156	12		10	2		180
for metals	4			7	4		15
for toilets (including drain, bathtub and sink)	60	3		17	3		83
for windows	28	3		9			40
dishwashing agents: manual	182	9		47	4		242
dishwashing agents: automatic	120	6		17	1	1	145
multipurpose cleaners	106	8		20	7		141
nitro thinners	30	6		27	13	1	77
oil of turpentine and turpentine substitutes	10	3	1	13	2		29
rust removers	5	2		2			9
solvents (except oil of turpentine)	18	4	2	81	18	2	125
stain removers	7	2	1	3			13
various	46	4		39	6	2	97
Cooling liquids	9			104	15		128
Decalcifying agents	97	2	1	115	10	4	229
Disinfectants for household purpose	20		2	11	6	1	40
Fertilizers	41	2		23	2		68
Fire extinguisher contents	5			6	4		15
Floor polish	4	1		2	1		8
Furniture polish	19	3		3			25
Impregnating agents	10	3		7	1		21
Insulating and sealing agents	4			17	2	2	25
Leather dressings (also shoe polish)	13			1			14
Light sources	1	1		9			11
Photochemicals and photo- print liquids				12			12
Products to set fire: solid	18	1					19
liquid	29	5	1	23	13	1	72
Toilet articles and cosmetics							
bath additives and soap	196	2		20			218
care of the skin and make-up	38			3		1	42
eau de Cologne	18	1		4			23

## Schwermetalle

wie z.B. Quecksilber oder Blei können sowohl zu chronischen wie auch akuten Vergiftungen mit unterschiedlichsten klinischen Symptomen führen. Eine möglichst rasche Diagnose mit dem Nachweis des Schwermetalls sind die Voraussetzung für eine erfolgreiche Therapie.

### Dimaval® (DMPS) und DMPS - Heyl®

sind effektive Antidota zur Therapie verschiedener Schwermetallvergiftungen. Der Wirkstoff DMPS (2,3-Dimercapto-1-propansulfonsäure), ein Komplexbildner aus der Gruppe der vicinalen Dithiole, bildet mit den Schwermetallen stabile Komplexe, die vorwiegend über die Nieren ausgeschieden werden. Bei frühzeitiger Gabe von DMPS können die klinischen Symptome einer akuten Schwermetallvergiftung weitgehend vermieden werden.

**Kapseln:** Dimaval® (DMPS); Injektionslösung: DMPS-Heyl®. **Wirkstoff:** (RS)-2,3-Dimercapto-1-propansulfonsäure (DMPS) Natriumsalz, Monohydrat. **Zusammensetzung:** Eine Kapsel enthält 108,56 mg (RS)-2,3-Dimercapto-1-propansulfonsäure (DMPS) Natriumsalz, Monohydrat entsprechend 100 mg DMPS Natrium; **Sonstige Bestandteile:** Gelatine, Maisstärke, Siliciumdioxid (hochdispers), Titandioxid (E171), Wasser. 1 Ampulle mit 5 ml Injektionslösung enthält 271,4 mg (RS)-2,3-Dimercapto-1-propansulfonsäure (DMPS) Natriumsalz, Monohydrat entsprechend 250 mg DMPS Natrium; **Sonstige Bestandteile:** Wasser für Injektionszwecke. **Anwendungsgebiete:** Klinisch manifeste, chronische und akute Vergiftungen mit Quecksilber (anorganische und organische Verbindungen, Dampf, metallisches Quecksilber), chronische Vergiftungen mit Blei. Es gibt Hinweise dafür, dass DMPS auch geeignet ist zur Steigerung der Ausscheidung (Elimination) bei Vergiftungen mit Arsen (ausgenommen Vergiftungen mit Arsenwasserstoff), Kupfer, Antimon, Chrom, Kobalt. **Gegenanzeigen:** DMPS darf nicht angewandt werden bei Ueberempfindlichkeit gegen DMPS oder seine Salze. Besondere Vorsicht ist geboten bei Injektion vom DMPS-Heyl bei Patienten mit allergischer asthmatischer Symptomatik. **Nebenwirkungen:** Gelegentlich können Schüttelfrost, Fieber oder Hautreaktionen vermutlich allergischer Natur, wie Juckreiz oder Hauthausschläge (Exanthem oder Rash) auftreten, die nach Absetzen der Therapie in der Regel reversibel sind. In Einzelfällen sind schwere allergische Hauterscheinungen (z.B. Erythema exsudativum multiforme, Stevens-Johnson-Syndrom) beschrieben worden. Vor allem bei länger andauernder Anwendung kann DMPS den Mineralstoffhaushalt, insbesondere die Elemente Zink und Kupfer beeinflussen. Durch die Gabe von DMPS erfolgt eine Mobilisierung des aufgenommenen Quecksilbers im Körper. In Einzelfällen können dadurch die klinischen Symptome der Quecksilbervergiftung ausgelöst werden. In Einzelfällen kann ein erhöhter Spiegel an bestimmten Enzymen (Transaminasen) festzustellen sein. Selten kommt es nach Einnahme von Dimaval (DMPS) zu Uebelkeit, Herz-Kreislauf (kardiovaskuläre)-Reaktionen können, insbesondere bei zu schneller Injektion von DMPS-Heyl auftreten und äussern sich in Blutdruckabfall, Uebelkeit, Schwindel, Schwäche, in der Regel kurze Zeit nach der Injektion.

### Heyl

Chemisch-pharmazeutische Fabrik  
Goerzallee 253  
D-14167 Berlin



## Household products (cont'd)

Specific household products	Children			Adults			Total
	N	M	SF	N	M	SF	
deodorants	6	3					9
hair care products	22		1	11	2		36
nail polish and nail hardeners	9			3			12
nail polish removers	15	3		4	2		24
perfume	87	4		1			92
shampoo	93	2		8	1		104
shaving lotions	8						8
skin cream	48	1		4			53
toothpaste, mouth-wash	14	1		1	1		17
various	20			5			25
Toilet deodorants	95	5		3	2		105
Toys and sport accessories (including lead bellets, tin soldiers and trick products)	119	2		15	1		137
Wood dressing products	21	1		48	3	1	74
Writing and drawing materials							
artists colours (oil- and water-colours)	6			3			9
coal and wax crayons for children	9	1		1			11
correction liquid for typewriter	9			2			11
Felt pencils	7			1			8
Varnishes, synthetic resins and paints	50	3		52	3		108
Various (textile and egg paints)	18			5			23
Various	32	6		37	13	3	91
Combinations (two or more products)	10	1	1	16	12	1	41
Unknown household products	1			2			3
Trivial cases							
candles	3						3
dessicators	12			2			14
foreign bodies	56	1		40			97
matches and match boxes	9			1			10
packing materials	8			3			11
thermometer content	8			2			10
Subtotal	2409	146	13	1098	189	20	3875

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

## Household products (end)

Pesticides	Children			Adults			Total
	N	M	SF	N	M	SF	
Algicides	7	2		2			11
Formicides	28						28
Fungicides	5	2		9	1		17
Herbicides	18			28	6	2	54
Insecticides							
mothballs	22	1		11			34
various (mostly organophosphates)	76	7		110	16	4	213
Phytoregulators				1			1
Repellents	36	3		5	1		45
Rodenticides	36			39	7	1	83
Seed preserving products							
and preserved grains	8	1		1	1		11
Snail baits	19	1		2			22
Various	16	2		34	3		55
Subtotal	271	19		242	35	7	574
Total Household products	2680	165	13	1340	224	27	4449

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

### 4.6.1 Extraoccupational inhalation hazards

	Children			Adults			Total
	N	M	SF	N	M	SF	
Chlorine dioxide and ozone	5			2	1		8
Carbon monoxide (exhaust gases, oven gases, gas for cooking)	25	6	1	109	29	6	176
Manure gases	3	1	1		2	1	8
Propane, methane, butane gas	1			10	6	2	19
Tear gas	8	3		22	12	1	46
Various	6			35	3		44
Combinations			1				1
Total	48	10	3	178	53	10	302

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

## 4.7 Medicinal drugs

	Children			Adults			Total
	N	M	SF	N	M	SF	
Analeptics	7						7
Analgesics (antiphlogistics)							
opiates	8	6		44	16	3	77
paracetamol	44	4	1	65	23	1	138
salicylates	35	4		38	24		101
combinations	27	4		22	13	2	68
various	7			12	4		23
Anorectics	6	3		14	12		35
Antacids, anti-ulcer agents	11	1		11	6		29
Antiallergics (antihistaminics)	48	10		17	4	1	80
Antiasthmatics	33	6		7	5		51
Antibronchitics (external)	34	2		1			37
Anticoagulants	8	1		11	1	1	22
Antidiabetics	6			3	1		10
Antidiarrhetics	18	1		7			26
Antidotes	6			3			9
Antiemetics	21	7	1	12	6	1	48
Antiepileptics	25	4	2	40	32	3	106
Antihelmintics	7						7
Antimycotics	15	1		4	1		21
Antiparasitics (cutan.)	4			1			5
Anti-Parkinson agents	4		1	6	7		18
Antipyretics, flu preparations	3			4	1		8
Antirheumatics (oral and cutan.)	85	13	1	123	54	5	281
Antitussives, expectorants, secretolytics	149	35	2	54	20	1	261
Cardiac drugs							
antiarrythmics	3			4	1		8
beta blockers	16	1		15	7	2	41
cardiac glycosides	3	1		7	2	1	14
various	2			1			3
Chemotherapeutics							
antibiotics	37	4		28	7	1	77
antiprotozoal drugs	4		1	8	3		16
cytostatics	3			2	1		6
sulfonamides	7	1		1			9
tuberculostatics						2	2
various	1			3	1		5
Dental drugs	16	4					20
Dermatological drugs	104	6		26	5		141

# Digitalis-Antidot BM

## Das Therapieprinzip für Patienten mit schwerer Digitalisintoxikation

### Was ist Digitalis-Antidot BM?

Die Ausgangssubstanz für Digitalis-Antidot BM sind vom Schaf gewonnene Immunglobuline (IgG), die sich spezifisch nach Injektion von Digoxin/Proteinkonjugaten gebildet haben.

Wegen ihres hohen Molekulargewichts besitzen Immunoglobuline bei heterologer Anwendung starke immunologische Eigenschaften. Um die antigenbindende Wirkung zu nutzen, die immunogene jedoch zu vermeiden, bedient man sich eines «Tricks». Durch enzymatische Prozesse (Papaineinwirkung) wird das Globulin getrennt in den Fc-Anteil, verantwortlich für die komplement-aktivierende und allergene Wirkung, und in die beiden Fab-Anteile (Fragments antigen binding), die für die Bindung des Antigens verantwortlich sind. So ist auch der wissenschaftlich gebrauchte Terminus Digitalis-Antitoxin vom Schaf (Fab) zu verstehen.

Die Vorteile der Fab-Fragmente gegenüber den kompletten Immunglobulinen bei Behandlung einer Glykosidintoxikation sind:

- **rascher Wirkungseintritt**
- **bessere Verträglichkeit infolge fehlender Komplementaktivierung durch Fab und geringere Gefahr der Allergisierung**
- **schnellere Elimination infolge der Nierengängigkeit der Glykosid-Fabkomplexe**

Ausführliche Informationen entnehmen Sie bitte dem Arzneimittelkompendium der Schweiz.



Therapeutics

**BOEHRINGER MANNHEIM (Schweiz) AG**

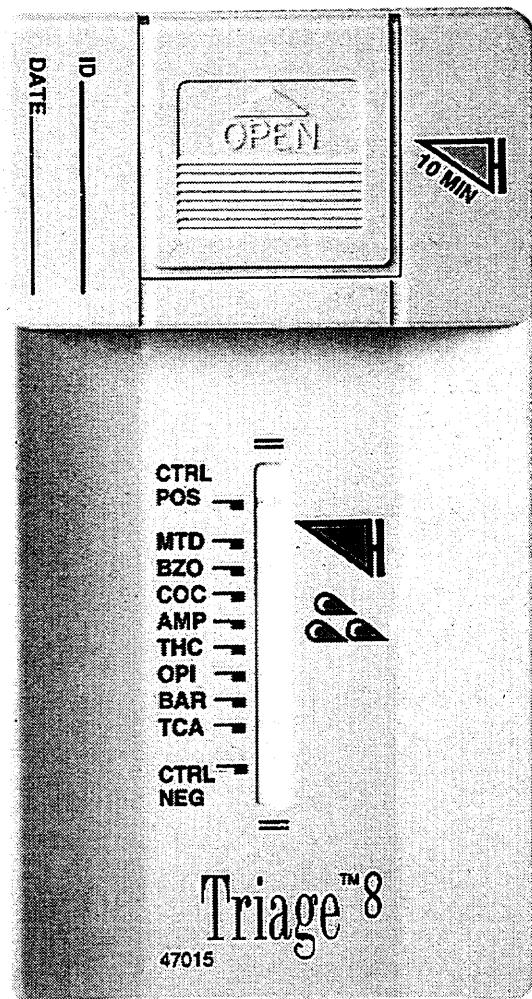
Industriestrasse 7  
CH-6343 Rotkreuz  
Schweiz

Telefon: +41 (41) 799 61 61  
Telefax: +41 (41) 799 65 45

## Medicinal drugs (cont'd)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Diagnostic agents	4	1		3			8
Disinfectants, antiseptics							
external	63	5		35	4		107
internal	3			4			7
Diuretics	8			6	2		16
Drugs against alcoholism (partly taken with alcohol)				14	8	1	23
Essential oils (alone and in combination)	106	11		18	4		139
Gastrointestinal drugs	24			3	2		29
Geriatrics, roborants	5			7			12
Gout remedies	3			3	1	1	8
Gynecological preparations, various (excl. hormones)	15	1		6	2		24
Hormone preparations							
oral contraceptives	15	1		10			26
cortisone and derivates	6			5			11
various	20	2		14	4	1	41
Hypnotics							
barbiturates	3			14	10	6	33
benzodiazepines	27	16		136	73	15	267
diphenhydramine	2			43	39	3	87
methaqualone containing combinations				9	4	1	14
various	1	1		11	12	2	27
various		1		13	6		20
Iron preparations	14	1		4	2		21
Laxatives	8	1		11			20
Local anesthetics	1			4	1		6
Migraine preparations							
ergotamine	4			6	3		13
various	4			4			8
Narcotics				2			2
Neurovegetative sedatives	7	2		51	27	1	88
Odontologic drugs	4	1		2	1		8
Ophthalmologics	21	3	2	6	1		33
ORL-preparations (incl. lozenges)	186	23		21	3		233
Psychopharmacologic drugs							
amphetamines and derivatives	5	1		8			14
antidepressives	45	8		150	113	25	341
neuroleptics	13	11		104	90	5	223
tranquilizers: benzodiazepines	51	31		207	102	5	396
tranquilizers: various	4			16	11	1	32
Spasmolytics	11	3		12	11		37

# TOX BLITZ!



Originalgrösse

**Abklären von Intoxikationen innerhalb von 12 Minuten**

**Ideale Anwendungsmöglichkeit am Einsatzort**

**Präzis ablesbare Ergebnisse ohne zusätzliches Gerät**

**Sicherheit durch integrierte Testkontrolle**

**Erkennt: Tricyclische Antidepressiva, Barbiturate, Benzodiazepine, Kokain, Amphetamin/Methamphetamin, Opate, Tetrahydrocannabinol, Methadon**

Triage<sup>TM</sup> 8

**MERCK**

E. Merck (Schweiz) AG

Rüchligstrasse 20, CH-8953 Dietikon, Telefon 01 745 11 11, Fax 01 745 14 20

## Medicinal drugs (end)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Vaccines, sera	9			9	2		20
Vascular drugs							
antihypertensives	28	2		16	2		48
vasodilators	12	4		6	4	1	27
vasopressors	7	4		10	5	1	27
venotonics	7			3	1		11
Veterinary drugs	18	3		23	2		46
Vitamin and calcium preparations	38	5		12			55
Trivial cases							
homeopathic drugs	50	1		12			63
agents for caries prophylaxis	43			1			44
sweetening agents	2			2			4
Various	16			28		1	45
Unidentified	12			20	2	1	35
Combinations (excl. alcohol)	82	29	3	620	523	116	1373
Combinations (incl. alcohol)	2	1		79	125	47	254
Total	1816	292	14	2397	1459	258	6236

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

The most frequent severe cases in this collection are due to intentionally overdosing several medicinal drugs. Psychopharmaceuticals and hypnotics are most frequently involved in severe moncausal poisoning.

## 4.8 Unclassifiable cases

	Children			Adults			Total
	N	M	SF	N	M	SF	
Total	50	1		183	6	2	242

N = No symptoms or unknown, M = Mild poisoning, SF = Severe or fatal poisoning

## 5 Situations

	Children	Adults	Total	in %
Accidents	6712	2167	8879	56.5
Intentional self-poisoning	245	3431	3676	23.4
Occupational poisoning	3	831	834	5.3
Food poisoning and food allergies	87	525	612	3.9
Accidental overdosage	62	107	169	1.1
Adverse drug reactions	41	302	343	2.2
Inebriating purpose	31	264	295	1.9
Poisoning due to addiction	1	114	115	0.7
Mistakes	22	53	75	0.5
Indoor inhalation risks	19	60	79	0.5
Mischief	24	16	40	0.2
Iatrogenic effects	3	24	27	0.2
Theoretical questions	25	166	191	1.2
Various and unclassifiable	47	325	372	2.4
Total	7322	8385	15707	100 %

Percentage of  
severe or fatal  
poisoning

Situations	Total number	in %	Total	in %
Accidents	8879	56.5	94	1.1
Self-poisoning	3676	23.4	273	7.4
Other	3152	20.1	76	2.4
Total	15707	100 %	443	2.8 %

## 6      Outcome

In cases of potential or manifest poisoning treating physicians received a written confirmation of our information together with a questionnaire. A written medical report on the outcome was obtained in 74 % of these cases. 3930 of these reports (90 %) could be evaluated to determine the outcome.

Outcome	Total	in %
No symptoms	821	20.9 %
Mild	2666	67.9 %
Severe	430	10.9 %
Fatal	13	0.3 %
<b>Total</b>	<b>3930</b>	<b>100 %</b>

In fatal cases, a distinction is made between consultations intra vitam and those post mortem (\*).

Confirmed or suspected cause of death	Victim	Situation
<b>Non-medicinal agents:</b>		
Amanita phalloides / death cap	76 y., f.	accident
Carbon oxide, hydrocyanic acid, smoke gases	3 y., f.	accident
2,4 D = 2,4-Dichlorophenoxyacetic acid	58 y., m	suicide
Gasoline	76 y., m.	suicide
Paraquat dichloride, diquat dibromide	34 y., f.	suicide
Potassium cyanide	52 y., m	suicide
<b>Medicinal agents:</b>		
Acetylsalicylic acid, nitrazepam	88 y., m.	suicide
Colchicine	26 y., f.	suicide
Diphenhydramine, carbromal, bromisoval, guaifenesin	87 y., f.	suicide
Levothyroxine (*)	33 y., m.	?
Metoclopramide, caffeine, theobromine (*)	39 y., m.	suicide
Naltrexone, heroin (*)	24 y., m.	abuse?
Trimipramine, alcohol	45 y., m.	suicide
<b>Total</b>	<b>13 fatalities</b> <b>(including 3 cases post mortem *)</b>	

## **Announcements**

### **North American Congress of Clinical Toxicology St. Louis, Mo, Sept. 13 - 16, 1997**

Contact: Mr. M. Thompson  
Regional Poison Center  
Cardinal Glennon Children's Hospital  
1465 South Grand Bd,  
St. Louis MO 63104, USA

Phone        ++ 1 314 772 83 00  
Fax        ++ 1 314 577 53 55

### **XVIIIth Congress of the European Association of Poison Centres and Clinical Toxicologists Zurich, March 24 - 28, 1998**

Contact: Prof. P.J. Meier-Abt  
Swiss Toxicological Information Centre  
Klosbachstrasse 107  
8030 Zurich, Switzerland

Phone        ++ 41 1 251 66 66  
Fax        ++ 41 1 251 88 33  
E-mail        stic@access.ch

### **ICT VIII International Congress of Toxicology Chemical Safety for the 21st Century Paris, July 6 - 11, 1998**

Contact: Prof. C. Bismuth  
Hôpital Fernand Widal  
200, rue du Faubourg St Denis  
75010 Paris, France

Phone        ++ 33 1 40 05 42 68  
Fax        ++ 33 1 40 05 42 67

Publications	Ordering number
Fäh C.* Gossweiler B. Mühlebach S.* Pletscher W.* Poncet M.-F.* Wyss P.A.	Annual report 1995. Swiss Toxicological Information Centre Zurich, 44 p. (1996) 0-96
Gossweiler B.	Antidote bei Vergiftungen. Bulletin Bundesamt für Gesundheitswesen 96 (3), 23-27 (1996) 1-96
Gossweiler B.	Why and among which people do mushroom poisonings occur? How frequent are they? Situation in Switzerland. XVII International Congress of the European Association of Poison Centres and Clinical Toxicologists EAPCCT, Marseille June 4-7, 1996 2-96
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Gossweiler B.	Aspiration von Erdöldestillaten beim Kind: Symptome und Verlauf. Schweizerische Medizinische Wochenschrift 126; Suppl. 81, 5S (1996) 5-96
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Kind B. Krähenbühl S.* Wyss P.A. Meier-Abt P.J.	The clinical-toxicological case (1). Dosage of N-Acetylcysteine in Paracetamol Poisoning. Schweiz. Rundschau für Medizin (PRAXIS) 85 (31/32), 935-938 (1996)	10-96
Kind B. Fattinger K.* Krähenbühl S.* Meier-Abt P.J.	The clinical-toxicological case (3). Drug-Induced Angioedema. Schweiz. Rundschau für Medizin (PRAXIS) 85 (17), 567-569 (1996)	11-96
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Kunz M.W.	Akute Intoxikationen mit Carbamazepin. Dissertation University of Zurich, 46 p. (1996)	13-96
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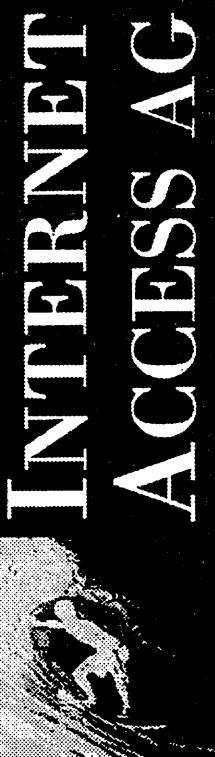
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Ordering  
number

Radovanovic D. Junghanss T.* Pletscher W.* Meier-Abt P.J.	Antivenintherapie. Schweizerische Apotheker-Zeitung 134 (19), 466-469 (1996)	19-96
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## **Antidotes for poisoning**

Translated excerpt from: Antidote bei Vergiftungen, Bulletin Bundesamt für Gesundheitswesen 96 (3), 23-27 (1996).

### **1. Basic kit for public pharmacies**

<b>Substance</b>	<b>Estimated daily dose per case of poisoning</b>
Activated charcoal	Adult 50 - 250 g Child 15 - 100 g
Amyl nitrite, 0.3 ml/amp.	1 - 10 amp.
Biperiden, 2 mg/tabl.	Adult 1 - 16 mg; child 1 - 6 mg
Calcium gluconate, hydrogel	100 - 300 g
Dimeticon, drops or tabl.	Adult 80 - 320 mg; child 40 - 200 mg
N-Acetylcysteine, powder	Adult 30 g; child 5 - 15 g
Polyethylene glycol 400	500 - 1000 ml

### **2. Basic kit for hospitals**

This kit additionally contains:

<b>Substance</b>	<b>Estimated daily dose per case of poisoning</b>
Atropine, 1 mg/ml, 1 ml/amp.	Adult 5 - 50 mg; child 0.5 - 10 mg
Biperiden, 5 mg/ml, 1 ml/amp.	Adult 2.5 - 20 mg; child 1 - 6 mg
Calcium, e.g. 0.2 mmol/ ml or 0.7 mmol/ml, 10 ml/amp.	10 - 20 mmol
Colestyramine, 4 g/sachet	12 g
Dantrolene, 20 mg dry subst./vial	10 - 20 mg/kg
Ethanol 96%	300 g
Flumazenil, 0.1 mg/ml, 5 or 10 ml/amp.	Adult 0.3 - 10 mg; child 0.1 - 2 mg
Glucagon, 1 mg/ml, 1 ml/amp.	20 mg
Magnesium, e.g. 0.4 or 0.8 mmol/ml, 5 or 50 ml/amp.	60 mmol
N-Acetylcysteine, 200 mg/ml, 25 ml/vial	Adult 30 g; child 5 - 15 g
Naloxone, 0.4 mg/ml, 1 ml/amp.	Adult 0.4 - 10 mg; child 0.1 - 0.8 mg
Neostigmine, 0.5 mg/ml, 1 ml/amp.	Adult 0.5 - 2.5 mg; child 0.25 - 1 mg
Phytomenadione, 10 mg/ml, 1 ml/amp.	5 - 20 mg
Polystyrene sulphonate, Sodium-	60 g
Pyridoxine, 50 mg/ml, 2 ml/amp.	5 - 10 g

### **3. Supplementary kit for regional centres**

This kit additionally contains:

<b>Substance</b>	<b>Estimated daily dose per case of poisoning</b>
Calcium disodium edetate, 0.19 g/ml (0.5 mol/l), 10 ml/amp.	5 - 7.7 mmol
Deferoxamine, 500 mg dry subst./vial	Adult 6 g; child 1 - 2 g
Digitalis-Antidote, 80 mg antibodies, dry subst., vial	480 mg
Dimethylaminophenol, 50 mg /ml, 5 ml/amp.	Adult 500 mg; child 50 - 100 mg
DMPS (Dimercaptopropane sulphonate), 100 mg/caps.	4.5 g
DMSA (Dimercaptosuccinic acid), 100 mg/caps.	2 g
Prussian blue, 0.5 g/caps.	15 g
Glycine, 50 mg/ml, dry subst., 100 ml bottle	40 g
Hydroxocobalamin, 4 g dry subst./vial	12 g
Ipecac alkaloids, 1.1 - 3 mg/ml Ipecac syrup	Adult 45 - 90 mg; child 15 - 30 mg
Labetalol, 5 mg/ml, 20 ml/amp.	200 mg
Methylene blue, 10 mg/ml, 5 ml/amp.	500 mg
Sodium thiosulfate, 100 mg/ml, 100 ml/perfusion bottle	Adult 10 - 15 g; child 5 - 10 g
Obidoxime, 250 mg/ml, 1 ml/amp.	Adult 500 mg; child 4 - 8 mg/kg
Phentolamine, 10 mg/ml, 1 ml/amp.	20 - 30 mg
Physostigmine, 1 mg/ml, 1 ml/dry amp.	10 - 20 mg
Silibinin, 350 mg dry subst./vial	20 mg/kg

### **4. Replacement of antidotes**

Antidotes recommended by the Swiss Toxicological Information Centre (STIC) are traditionally available at the "Apotheke Wülflingen", Winterthur, and can be ordered there directly:

C. & A. Fäh - Wunderlin, Apotheke Wülflingen, CH - 8408 Winterthur

Phone                    ++4152 222 3279  
Fax                    ++4152 222 2479

The Swiss Toxicological Information Centre (STIC) can provide additional informations.  
Rarely needed antidotes can be held at the Centre, in small quantities, on demand:

Swiss Toxicological Information Centre (STIC)  
Klosbachstrasse 107, CH - 8030 Zürich

Phone	++41 1251 6666
Fax	++41 1252 8833

## 5. Special cases

### **Antidotes for radionucleides and sera for native snakes**

Kantonsapotheke Zürich  
Spöndlistr. 9  
CH - 8006 Zürich

Opening hours:  
- Monday - Friday      08.00 - 12.45  
- Saturday                08.00 - 18.00  
- Sunday                 10.00 - 12.00

Phone	++41 1255 3214
Fax	++41 1255 4546

The pharmacist on duty can be reached anytime by calling the Emergency Door of the Zurich University Hospital, Phone ++41 1255 2333.

### **Antitoxins for botulism**

This product is not mentioned any more on the official list. If it is not available but urgently required from a medical standpoint in a particular case, one should apply to the following address:

Schweiz. Serum- und Impfinstitut  
Postfach  
CH - 3001 Bern

Phone	++4131 980 6111
Telex	912 618
Fax	++4131 980 6775

Collaborative Antidotes Group of the Swiss Toxicological Information Centre (STIC) and the Swiss Society of Official and Hospital Pharmacists (SSOHP):

Dipl. pharm. C. Fäh, Dr. med. B. Gossweiler, PD Dr. pharm. S. Mühlebach, Dr. pharm. W. Pletscher, Dipl. pharm. M.-F. Poncet, Dr. med. P.A. Wyss (head).

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Income	Fr.
Contributions from the Cantons	1 035 749
Contribution from the Swiss Society of Chemical Industries	284 000
Contribution from the Swiss National Accident Insurance Fund	145 000
Contribution from the Swiss Association of Private Health and Accident insurances	145 000
Contribution from the Association of the Swiss Health Insurances Companies	145 000
Contributions from the Swiss Society of Pharmacists and related organizations	142 500
Contribution from the Swiss Association of Physicians	60 000
Various (mostly from private companies and individuals)	175 335
<b>Total income</b>	<b>2 132 584</b>
Expenses	Fr.
Salaries and social contributions	1 456 468
Office and administration	89 144
Office rent	132 182
Purchases, maintenance, repairs	55 817
Periodical and books	45 843
Data processing	45 150
Telephone, Telefax	34 094
Publications, annual report	18 332
Postal and bank charges	17 276
Travel expenses	20 659
Various	10 868
Expenses for informatics project	90 189
Accrued removal costs	150 000
<b>Total expenses</b>	<b>2 166 022</b>
Excess of expenses	- 33 438

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Swiss Toxicological Information Centre

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The following documents are available from the Swiss Toxicological Information Centre (STIC):

- 1 Sticker with the emergency phone number
- 2 Leaflet about first aid and poisoning prevention (french, german)
- 3 Diagram about structures and activities of the STIC (engl.)
- 4 Annual report (1990, 1995 and 1996 engl.)
- 5 List of antidotes available in Switzerland (french, german)
- 6 Text on the treatment of poisoning (from Schweiz. Medizinalkalender, german)
- 7 Reprints from publications (see pp. 33-37 for ordering). Theses are provided on loan).

If you have any questions, please contact us.

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