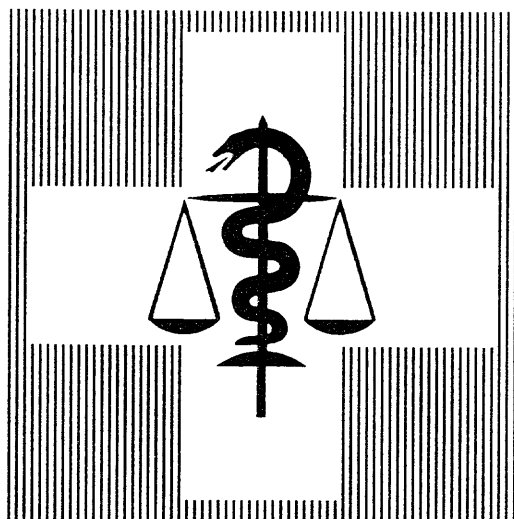


Schweizerisches Toxikologisches Informationszentrum  
Centro Svizzero d'Informazione Tossicologica  
Centre Suisse d'Information Toxicologique  
Swiss Toxicological Information Centre

Yearly report 1995



Emergency calls	++ 41 1251 51 51
Other calls	++ 41 1251 66 66
Fax	++ 41 1252 88 33
E-mail	stic@access.ch
Address	Klosbachstrasse 107 8030 Zurich
Post account	80-26074-7

**Support**

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:

- The Swiss Society of Pharmacists
- The Swiss Society of Chemical Industries
- The Swiss Federation of Physicians.

Additional substantial aid comes from

- The Swiss National Accident Insurance Fund
- The Swiss Association of Private Health and Accident Insurances.
- The Association of the Swiss Health Insurances Companies

Important donations and contributions come from private firms and individuals (p.44).

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**Advisors**

Numerous specialists, mainly from hospitals, institutes and state institutions as well as federal offices act as honorary advisers.

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## Dear Reader

The Swiss Poison Centre is now thirty years old and obviously more necessary than ever. Last year, it answered almost 30'000 calls, more than ever before. Some general thoughts on the role of Poison Centres in Public Health (p. 3-5) may therefore be justified.

Is it enough that our physicians can give life-saving advice around the clock? The answer is clearly no. Our centre has developed, over the years, a range of additional activities, some of which are unique in the world.

One of the most important additional activities is the collection and evaluation of case reports from the treating physicians. The benefice of this ambitious activity is fourfold: 1) optimization of advice in the most dangerous situations; 2) communication of the most severe cases (in an anonymized form) to health authorities and industry; 3) identification of the numerous situations where the centre can help to avoid costly and potentially dangerous medical interventions; 4) continued improvements in the risk assessment of poisoned patients.

This, however, is still not enough. If it is true that one of the best therapies is prevention, then a national centre must also be able to contribute to a reduction of the rate of accidents by disseminating appropriate information about the main dangers and how to avoid them.

Prevention, though, is a field in which additional resources are necessary. I am confident that it will be possible to achieve progress in this field by cooperating with numerous, already active, prevention-oriented organizations.

No reasons, then, for anything else than optimism? Not quite so: expense cuts of the cantons and financial problems of private supporting organizations are menacing our budget, and, worse, the solidarity among our sponsors. This is quite alarming, because we should not endanger our preparedness for emergency service, or the accessibility of the centre by devoting still more of our energy to the raising of funds. One of our main aims will therefore be to convince our traditional supporters that the swiss model of Poison Control is efficient and economical.

Your judgement, dear reader, your wishes and your suggestions are essential for the future of this enterprise. Please give us your opinion and use the card on the back of this report!

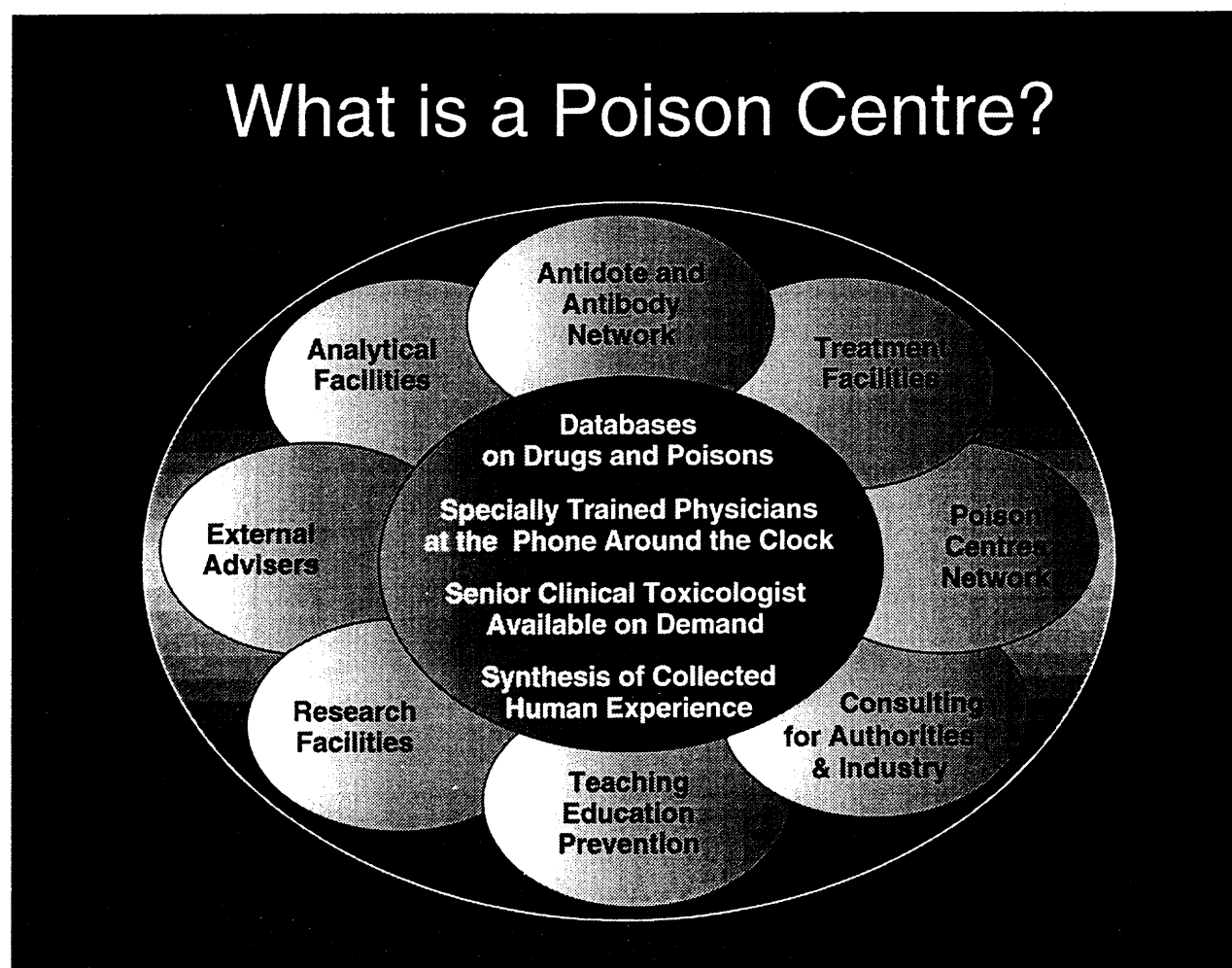
Dr. Franz Merki  
President of the Foundation Council

## What is a Poison Centre? Some remarks

The still relatively short history of Poison Centres (a few decennia) is one of considerable diversity. Their main aim, though, is quite consistent (provide instant information about what to do in cases of acute or potential poisoning, promote prevention). Their methods and means, however, remain largely disparate up to the present day. While some centres serve mostly the general public, others serve only physicians. The respondents are physicians here and non-physicians there. Some centres are affiliated to hospitals, others not. Their funding varies from all-state to mainly private.

What, then, is a Poison Centre? The discussion on what is essential and what is merely good to have (Fig. 1) goes on.

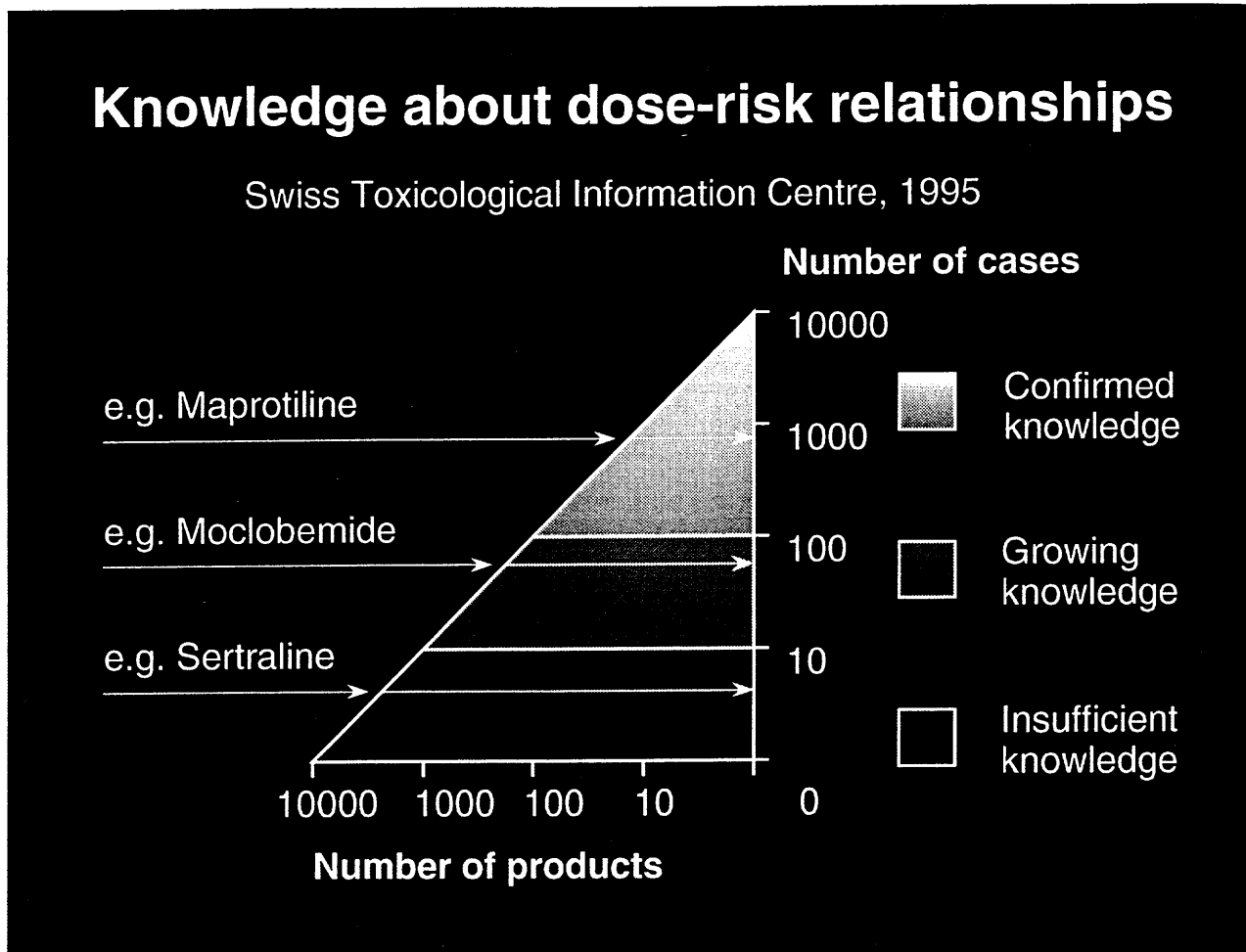
Fig. 1



The swiss concept is traditionally based on medical advice to everybody - and on eliciting substantial, written feed-back from all treating physicians served. This has led to a database of more than 100'000 unpublished clinical experience reports, which is a permanently growing basis for the assessment of poisoning and treatment effects, with particular emphasis on dose-risk relationships.

Some of the poisoning risks today are diminishing in severity. This is partly due to regulations and the development of less toxic compounds. A large number of new compounds, however, awaits human experience and misuse data as a prerequisite for an adequate assessment of toxicity. This is where Poison centres can be at the edge of new, practical knowledge (Fig. 2). The electronic explosion is no comparable help in answering the most essential question in every single exposure: what to do, or not to do, now!

Fig. 2

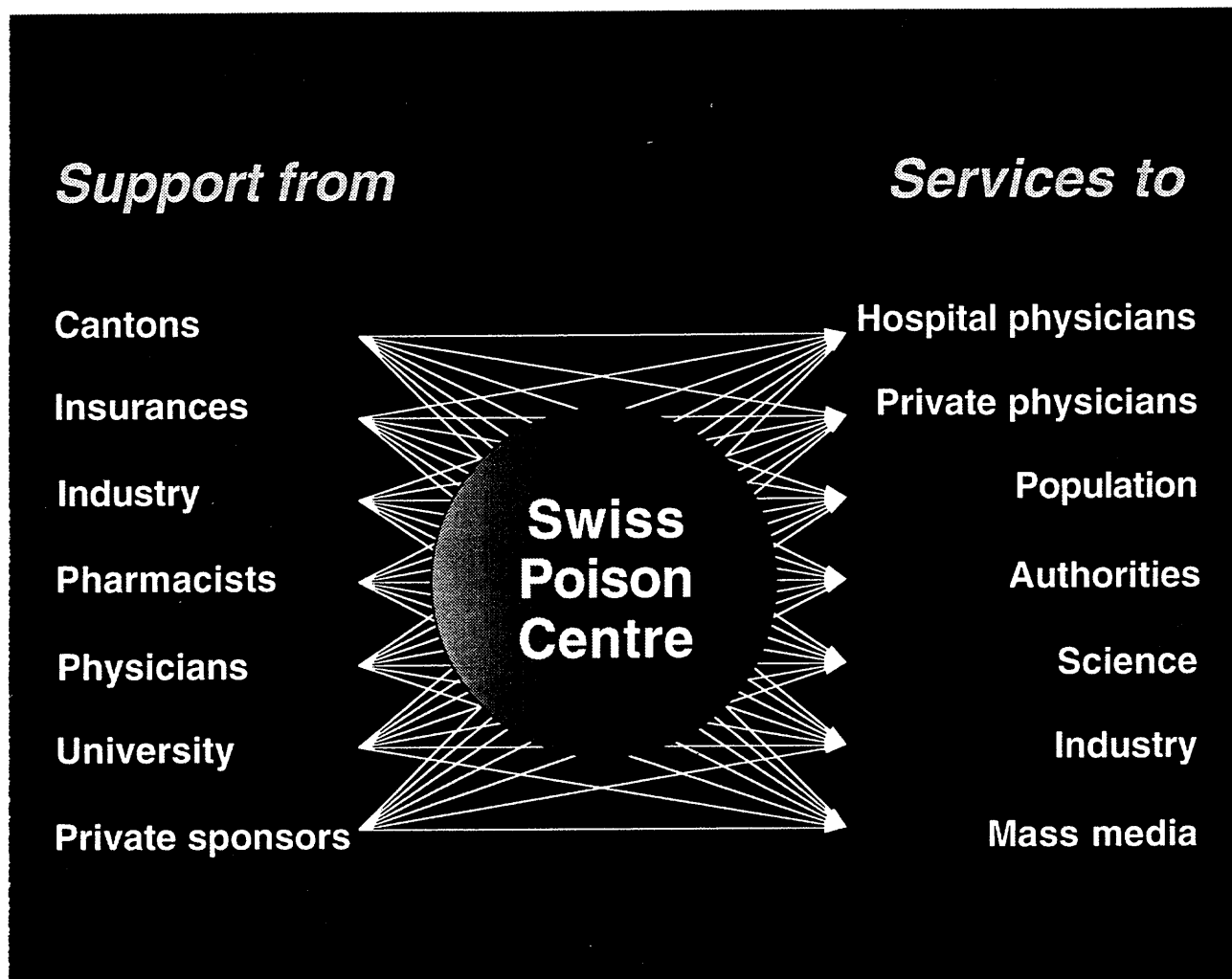


Poison Centres able to provide individual risk assessment and management advice at any time are therefore not running out of work. Some of them, however, are in serious difficulties because the States or hospitals funding them are out of money and/or insufficiently aware of their value.

This situation has not only deleterious effects. Quality assurance in services provided is growing. Some centres are coming up with evidence of their damage- and health-costs-cutting value. Others are developing quite an array of fund-raising initiatives. New problems, of course, are likely to emerge if some centres should go as far as making emergency advice dependent from immediate payment, or should systematically question their callers about circumstances and details only to serve the interests of the sponsoring manufacturers or governing bodies.

The Swiss Centre continues to favor a well-balanced, comprehensive set of mainly institutional contributors (Fig. 3), in order to provide equally balanced and effective services to everybody, without having to limit its emergency response to any fund-raising necessities, and without loosing the benefit of a national substantial clinical information feed-back, which is required to further develop Risk Assessment and Prevention in Clinical Toxicology.

Fig. 3



We are confident that this approach will continue to provide a generally acceptable and therefore fundable basis, a) for life-saving emergency advice, b) for the management of less than lethal risks, and c) for the adequate assessment of a large number of no-risk situations, with its obvious consequences for the reduction of health-care costs. A positive spin-off of these activities will also be a growing competence in promoting reasonably-sized and promising prevention projects.

J.P. Lorent  
Administrative Director

## **Announcements**

### **Scientific Meeting of the European Association of Poison Centres and Clinical Toxicologists Oslo, July 2 - 4, 1997**

Contact: Elsa Wickstrøm  
National Poisons Information Centre  
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### **North American Congress of Clinical Toxicology St. Louis, Mo, Sept. 13 - 16, 1997**

Contact: Mr. M. Thompson  
Regional Poison Center  
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1465 South Grand Bd,  
St. Louis MO 63104

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**

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# Report

## 1 Information service

29'788 calls were answered in 1995 (previous year: 29'534, p. 13). This represents a certain stabilization after the continued rise of the number of calls in former years.

### 1.1 Well documented cases

Detailed consultation reports were established by our physicians in 16'247 cases (previous year: 15'580, p. 14). The calls came, as usual, from all regions of the country, with a slight predominance of our home canton, Zurich. 52% of the calls came from the general public, 42% from hospital physicians and practitioners.

The patients were 15'675 humans and 852 animals. A more detailed analysis of these cases, including patient characteristics, agents, circumstances and severity is given on pp. 16-35.

Children were involved in 46,7% of the cases, adults in 53,3% (fig. 1). The children were mainly preschoolers (79%). Among adults, women were slightly more represented than men (p. 16).

Among the products involved, medicinal drugs continued to be the most important group (41%, fig. 2). The majority of severe cases (62%, p.17) were also related to drugs (mainly drug combinations). The most frequent severe intoxications from single drugs were due to psychopharmaceuticals and hypnotics (pp. 29-31).

Household products and pesticides were second in frequency, with a relatively low rate of severe outcome (pp. 23-28). The third group, technical and occupational products (pp. 22-23), in contrast, had a significantly higher rate of severe cases (p. 17). Poisoning by plants (pp. 18-19), while mostly benign, was more frequent than the year before (7.4% vs. 6.3%), and generated more serious cases as well (17 vs. 9).

Accidental poisoning was, as usual, the predominant situation (almost 60%), while intentional self-poisoning was involved in approximately 20% of the cases (p. 33 and fig. 3).

The outcome (p. 34 and fig. 4) was evaluated on the basis of written reports received from treating physicians (4'493, previous year: 4'526). In these reports, we found a lower proportion of severe and fatal cases than before (1993: 12.7%, 1994: 12.2%, 1995: 10.5%).

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. The Federal Office of Statistics, however, registered not less than 700 cases of fatal acute poisoning in 1994. These cases have been reported in some detail in our last yearly report. For 1995, according data will be missing until next year, due to a major change in classification.

### 1.2 Cases with short reports

7'066 cases were considered as non-toxic exposures (previous year: 8'171). 79% were children and 21% adults. Household products were involved in 38%, followed

Fig. 1

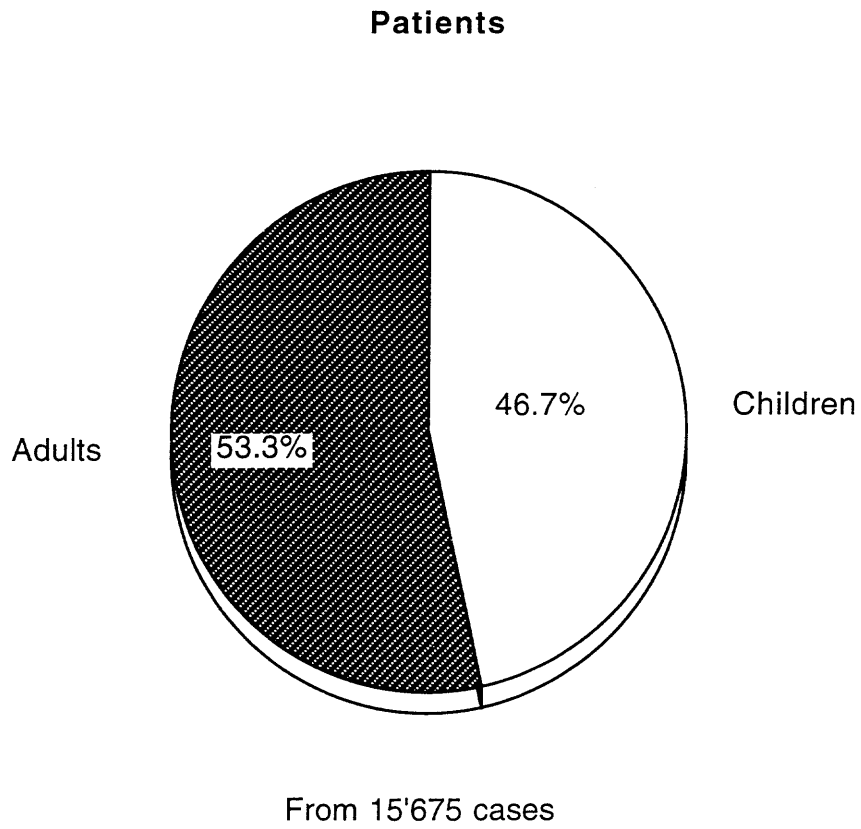
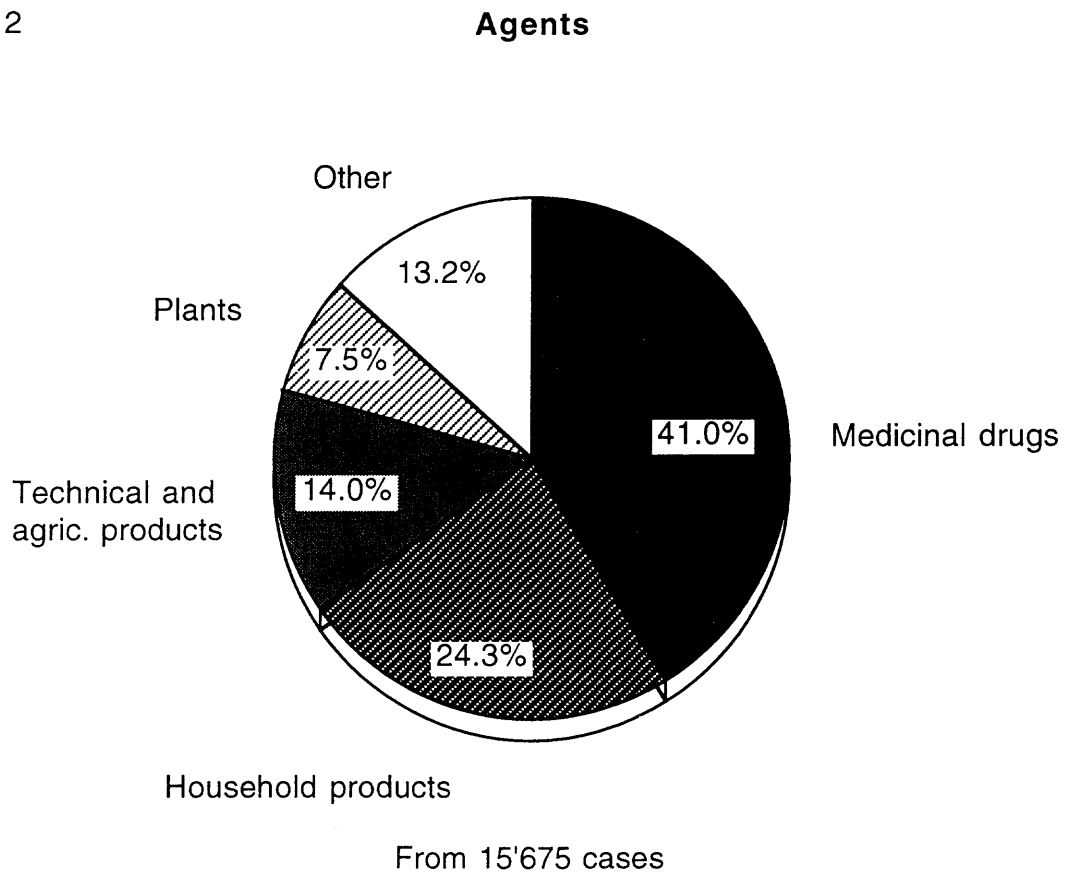


Fig. 2



by medicinal drugs (26%), plants (17%) and food (10%).

87% of the calls came from the general public. This indicates again that our centre is very often in a position to help prevent unnecessary hospitalisations.

6'475 calls were not related to any exposure (previous year: 6'783). They came from the general public in 72% of the cases and from physicians and other professions in 28%. These calls pertained to:

- General informations about medicinal drugs (formula, indications, contra-indications, interactions, adverse effects, toxicity, dependence potential: 19%); plants and mushrooms (10%); food products (7%); other products (15%).
- Environmental toxicology (gases, vapors, smoke and dust indoor and outdoor, disposal of chemicals, water contamination, risks from chemical treatments of products: 16%).
- Documentation (publications, leaflets, individual reports, diapositives and other educational assistance: 9%).
- Various (antidotes, analytical facilities, abuse problems, toxic risks in pregnancy and lactation, decontamination and first aid, tablet identification, reglementation, prevention: 11%).
- Questions not related to toxicology, mostly redirected to other institutions: 13%.

## **2 Other services**

After having consulted our centre, physicians received approximately 6'500 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 11'000 leaflets on first aid and poison prevention were sent on demand to health care groups and individuals.

Some contracts were passed again with exporting chemical manufacturers, enabling 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.

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

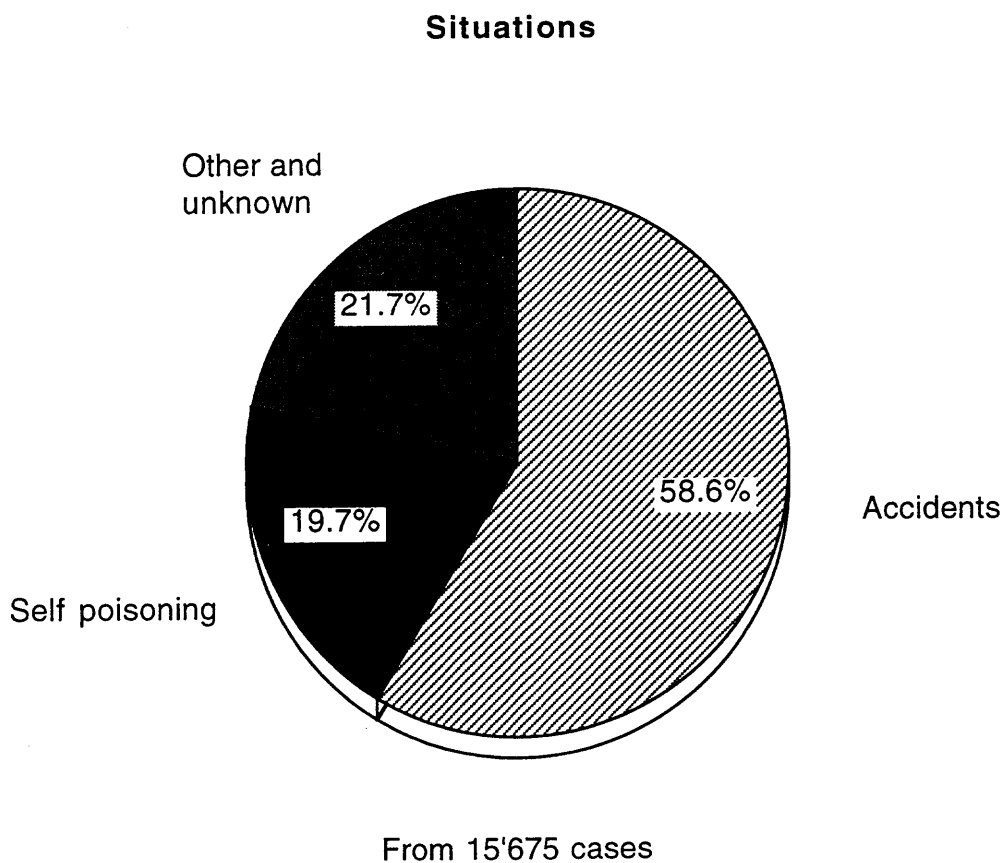
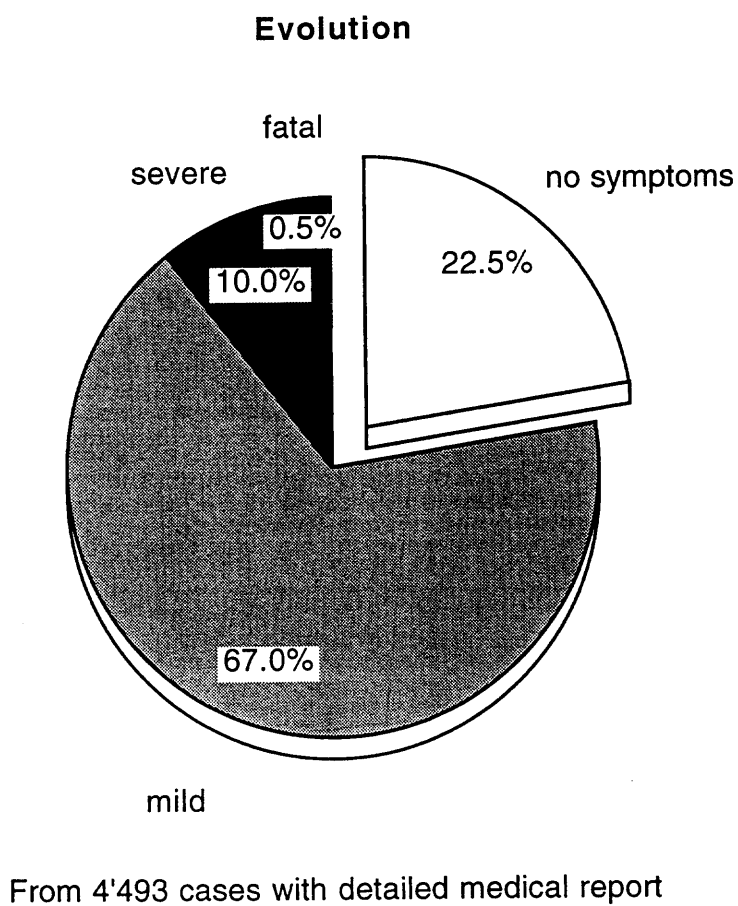


Fig. 4



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

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

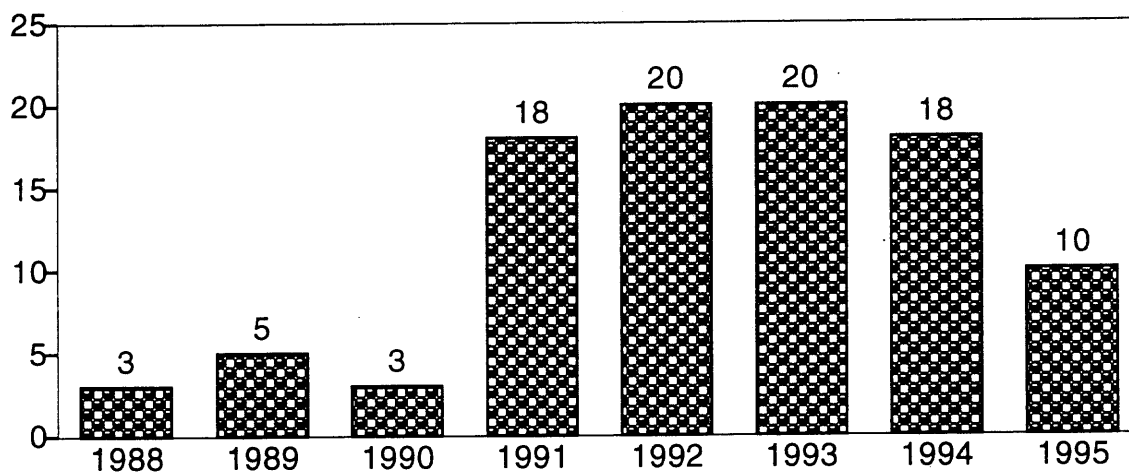
The publications are listed on pp. 37- 39. Among them, the reedition of the antidote list (in french and german) is of particular practical value. Reprints or photocopies are available at no charge (yearly report and theses excepted).

### 3 Special findings

For the first time in five years, the number of serious accidental poisonings in children with petroleum compounds (mainly lighter fluids and lamp oil) has clearly diminished (fig. 5). It is difficult to appreciate the actual role played by the introduction of safety caps, a more strict regulation and an intensified information in this domain.

The overall number of accidental severe poisonings in children remains fairly constant, while in adults, the tendency is rather rising. The cases from the last five years have now been studied in the framework of a thesis (B. Pfister, University of Zurich, 1996). This study indicates that most severe accidents occur at the work place, while approximately 35% occur at home. Acid and base ingestion (often stored in beverage bottles) was most frequently involved.

Fig. 5 Pneumonias or lung infiltrations following ingestion of petroleum distillates by small children



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

The cooperation with related institutions of other countries was again helpful. The meeting of the Governing body of the European Association of Poison Centres and Clinical Toxicologists in Zurich, as well as the Meeting on Computer Aids in Poison Centres in Lille provided numerous suggestions for further work and for the International Congress 1998 in Zurich.

The interactions with authorities, hospitals, practitioners, the industry and prevention-oriented organizations were fruitful. Our particular gratitude goes to our main supporting institutions and sponsors (pp. 43-44), as well as to our staff.

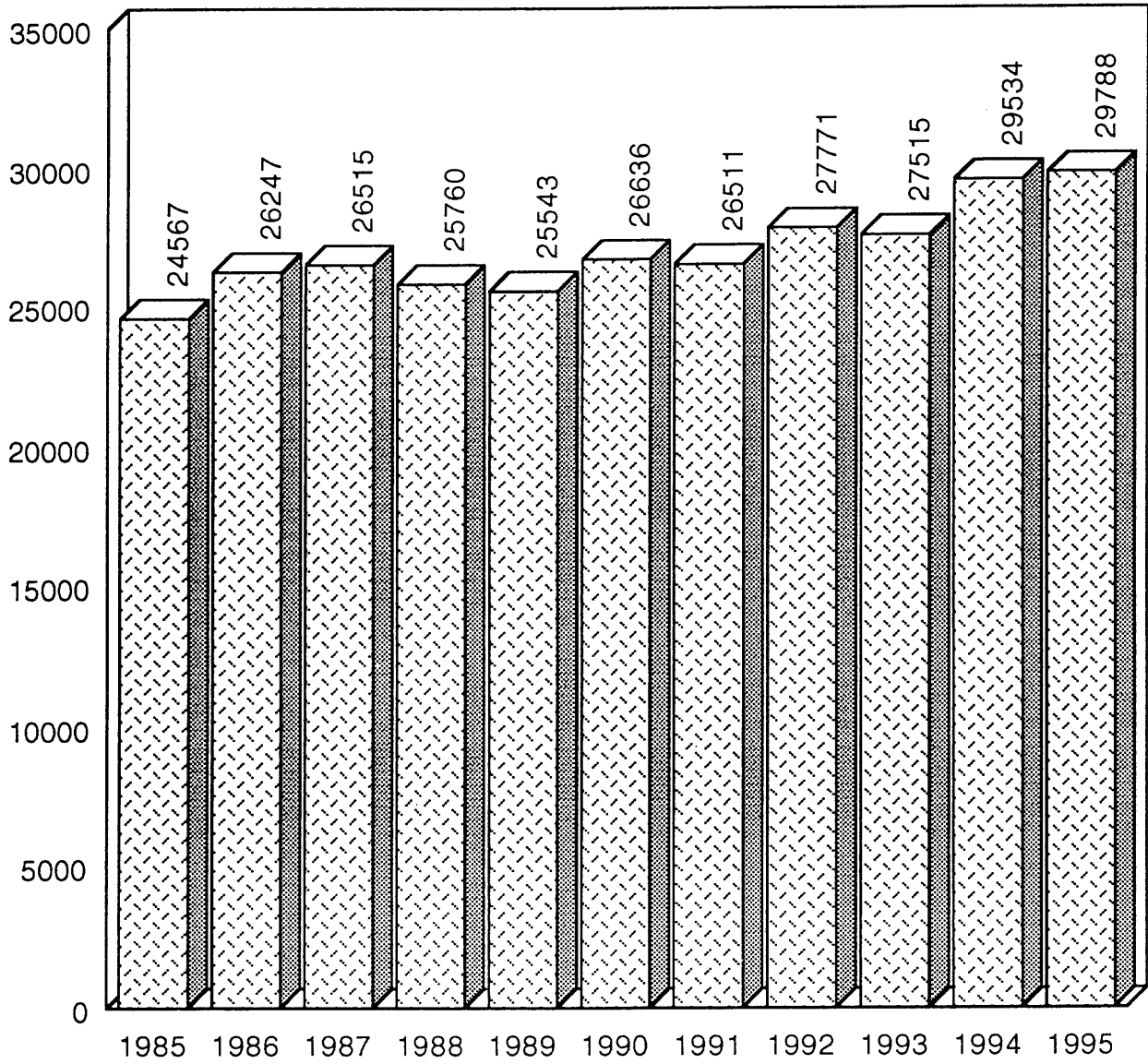
The prospect of additional progress in the control and prevention of toxic risks is actually darkened by financial problems of some of our funding institutions. We are therefore on the look-out for additional support, with the aim of strengthening the drug and chemical safety in our country.

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

J.P. Lorent  
Administrative Director

# 1 Frequency of calls to the centre

Calls



Year

## 2 Origin of inquiries (detailed reports)

Origin	Foreign countries	FL 30'600	AG 528'000	AI 14'800	AR 54'300	BE 941'200	BL 252'100	BS 195'400	FR 224'900	GE 396'000	GL 39'500	GR 184'900	JU 69'300	LU 340'300
General public	53	36	643	21	43	1103	276	217	229	439	34	177	40	268
Hospitals (Total)	356	2	251	3	33	628	124	183	152	365	21	86	73	166
Cantonal Hospitals	13		124		32	170	112	97	99	305	21	29		153
Children's Hospitals	71		9			46	1	69		14		5		10
Other Hospitals	272	2	118	3	1	412	11	17	53	46		52	73	3
Practitioners (Total))	21	11	85	2	19	304	56	42	44	60	8	72	8	100
Anesthesia														
Cardiology						2								
Dermatology						2		1		2				
Gastroenterology						1								
General Medicine	4	10	46	2	14	200	28	14	28	28	5	52	3	77
Gynecology										1				
Immunology			1											
Internal Medicine	1		9		1	26	8	5	7	4	1	5	2	9
Neurology								4						
Ophthalmology			2			1		1			1			
ORL						1				1				
Pediatriy	3	1	21		3	54	15	3	6	14	1	11	2	9
Psychiatry						6	3	3	1	1				
Psychiatry (Children)			1					1		1				2
Rehabilitation			1					1				1		
Rheumatology								4				1		
Surgery			1			4				2				
Various	13		3		1	7	2	5	2	6		2	1	3
Veterinarians, Vet. Hospitals	3	1	30		5	90	19	4	12	12	1	9	2	16
Pharmacies		1	14			26	6	6	9	26		5	3	5
Emergency services (Total)	11					2		4		10				2
Medical Centres						2		4		10				1
Drug advisory services														1
Poison centres	11													
Civil authorities, institutes			3			8		1		1		1		2
Chemist's shops						1	1							
Military physicians						4				1				2
Dentists														
Various organizations	1		10		2	28	3	13	2	12	1	3		14
Total	445	51	1036	26	102	2194	485	470	448	926	65	353	126	575
Total in %	2,74	0,31	6,37	0,16	0,63	13,50	2,99	2,90	2,76	5,70	0,40	2,17	0,78	3,54
Expectation in %			7,48	0,21	0,77	13,33	3,57	2,77	3,19	5,61	0,56	2,62	0,98	4,82



NE 165'000	NW 36'600	OW 31'100	SG 442'700	SH 74'100	SO 238'900	SZ 122'200	TG 223'500	TI 305'400	UR 36'000	VD 606'000	VS 271'500	ZG 91'700	ZH 1'174'900	unclassifiable	Total 7'090'900	Total in %
127	23	22	410	72	249	92	249	170	23	606	210	77	2445	160	8514	52,40
156	4	11	278	39	156	45	123	230	11	451	210	56	755		4968	30,58
4	4	11	182	39	99		104		11	166		45	241		2061	12,69
			53					1		33	2		114		428	2,63
152			43		57	45	19	229		252	208	11	400		2479	15,26
35	10	7	149	28	61	32	80	43	12	109	59	22	298	10	1787	11,00
			1									1			1	0,01
			1							1					3	0,02
															7	0,04
															1	0,01
17	6	6	106	15	43	21	59	25	8	64	42	15	187		1125	6,93
								1		1			1		4	0,02
															1	0,01
3			10	3	5	2	5	4	2	11	4	1	28		156	0,96
							2	1					1		8	0,05
			1	1		1						1	7		16	0,10
										1					3	0,02
11	4		25	8	9	6	12	9		18	6	3	43	1	298	1,83
2										1			8		25	0,15
			1		1								2	1	10	0,06
													1		4	0,02
										1			1		7	0,04
					1			1		2	3		4		18	0,11
2		1	4	1	2	2	2	2	2	9	4	1	15	8	100	0,62
8			36	8	9	4	17	6	4	34	11	5	59	1	406	2,50
10			5	1	3	1	2	4		34	15	2	37	2	217	1,34
			1				1			6	1		17		55	0,34
			1				1			6	1		16		42	0,26
													1		2	0,01
															11	0,07
			1		2			1		6	1		19	1	47	0,29
			1												3	0,02
											2		1	2	12	0,07
2													2		4	0,02
2			13	1	2		6	3		16	3	4	90	5	234	1,44
340	37	40	894	149	482	174	478	457	50	1262	512	166	3723	181	16247	100%
2,09	0,23	0,25	5,50	0,92	2,97	1,07	2,94	2,81	0,31	7,77	3,15	1,02	22,91	1,11		100%
2,34	0,52	0,44	6,27	1,05	3,38	1,73	3,17	4,33	0,51	8,58	3,85	1,30	16,64			

### 3 Patients

Age		Patients	in %
Children	Total	7316	46.7
	0 - 4 years	5759	36.7
	5 - 9 years	613	3.9
	10 - 15 years	558	3.6
	unknown	386	2.5
Adults	Total*	8359	53.3
	female	4495	28.7
	male	3498	22.3
	unknown	366	2.3
Total		15675	100%

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

Information was requested from **veterinarians** in 406 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):

418 dogs, 168 cats, 70 cattle, 51 horses, 27 sheep, 23 goats, 18 rabbits, 17 hens, 13 birds, 11 guinea-pigs, 8 pigs, 6 donkeys, 5 fishes, 4 bears and several other species.

**Fatalities in large animals:** A horse died from several hundred bee stings. Three cases involved cows having ingested urea. In five cases, toxic concentrations of lead were found in the blood of rapidly perishing cattle. An ox died after ingesting a silage product, a calf from absorbing an organophosphate pesticide. A bear in an animal park died from ingesting branches of yew.

**Fatalities in small animals:** Snail bait and a fungicide were fatal to dogs. A guinea-pig perished in an insecticide bath, another one after ingesting oleander leaves.

## 4 Toxic agents

Severe and fatal  
cases

	Total number	in %	Total	in %	
4.1	Plant toxins	1169	7.4	17	1.5
4.2	Poisonous animals	374	2.4	3	0.8
4.3	Food toxins and contaminants	706	4.5	3	0.4
4.4	Recreational and abused agents	747	4.8	37	5.0
4.5	Technical and occupational products	1306	8.3	58	4.4
4.6	Household products	4403	28.1	57	1.3
4.6.1	Extra-professional hazards of inhalation	308	2.0	5	1.6
4.7	Medicinal drugs	6430	41.0	290*	4.5
4.8	Unclassifiable	232	1.5	1	0.4
Total		15675	100 %	471	3.0 %

\* 62 % 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
	0	L	SD	0	L	SD	
<i>Aconitum napellus</i> /Monk's hood	2			1		1	4
<i>Aesculus hippocastanum</i> /Buckeye	11						11
<i>Allium ursinum</i> /Ramsons	4			3			7
<i>Anthurium spec.</i> /Flamingo flower	7						7
<i>Arum maculatum</i> /Lords-and-Ladies	19	2		3			24
<i>Atropa belladonna</i> /Deadly nightshade	4	1		1	5	2	13
Cactaceae/Cactus family	7			5			12
<i>Capsicum annum</i> /Spanish pepper	3	1		12	1		17
<i>Clivia miniata</i> /Scarlet kaffir lily	8						8
<i>Colchicum autumnale</i> / Common autumn crocus	3			2			5
<i>Convallaria majalis</i> /Lily-of-the-valley	27			4	1		32
<i>Cotoneaster sp.</i> /Cotoneaster	30	1					31
<i>Daphne mezereum</i> /Mezereon	10			3			13
<i>Datura stramonium</i> /Thorn-apple	1			2	4	1	8
<i>Datura suaveolens</i> /Angel-tears datura	3	1	2	4	8	1	19
<i>Dieffenbachia seguine</i> /Dumb cane	24	2		10	1	1	38
<i>Epipremnum pinnatum</i> /Devil's ivy	6						6
<i>Euonymus europaeus</i> /Spindle tree	8						8
<i>Euphorbia cyparissias</i> /Cypress spurge	1		1	3			5
<i>Euphorbia pulcherrima</i> /Poinsettia	19			4			23
<i>Euphorbia sp.</i> /Spurge sp.	20	2		21	2		45
<i>Fagus silvatica</i> /European beech	4			2			6
<i>Ficus sp.</i> /Fig sp.	27			4			31
<i>Hedera helix</i> /English Ivy	23			2			25
<i>Heracleum mantegazzianum</i> / Giant Hogweed	7	1	1	11		2	22
<i>Hippeastrum vittatum</i> /Amaryllis, Barbados lily	8						8
<i>Ilex aquifolium</i> /English holly	10			2			12
<i>Laburnum anagyroides</i> /Golden chain	8	1		1	1		11
<i>Ligustrum vulgare</i> /Common privet	24						24
<i>Lonicera sp.</i> /Honeysuckle	26	1		1			28
<i>Mahonia aquifolium</i> /Oregon-grape	8						8
<i>Muscari racemosum</i> /Starch grape hyacinth	5	1		3			9
<i>Narcissus pseudonarcissus</i> /Daffodil	10			6	1		17
<i>Nerium oleander</i> /Oleander	8			5	1		14
<i>Parthenocissus sp.</i> /Wild grape	4						4
<i>Phaseolus vulgaris</i> /Kidney bean	3			1			4
<i>Philodendron sp.</i> /Philodendron	9						9
<i>Physalis alkekengi</i> /Cape gooseberry	4			1			5
<i>Prunus laurocerasus</i> /Cherry laurel	41			4			45
<i>Prunus sp.</i> /Plum	6				1		7
<i>Pyracantha coccinea</i> /Firethorn	8			1			9
<i>Ranunculus sp.</i> /Buttercup sp.	4			1			5
<i>Rosa rugosa</i> /Rugosa rose	3			1			4

## Plants (end)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Rumex acetosa/Garden sorrel	4			1			5
Sambucus nigra/European elder	9	1		6		1	17
Sambucus racemosa/Red elder	3	1		1			5
Solanum sp./Nightshade	16			5			21
Sorbus aucuparia/Mountain Ash	14			1			15
Spatiphyllum sp./White sails	8	1		1			10
Symphoricarpos albus/Snowberry	6						6
Syngonium podophyllum/ African evergreen	7						7
Taxus baccata/Yew	39	1		7			47
Thuja occidentalis/White cedar	5	2		3		1	11
Viburnum opulus/Guelder rose	8			1			9
Yucca aloifolia/Aloe yucca	7			2			9
Various plants	158	2		56	4		220
Berries	72			4		1	77
Flower-bulb	3			4			7
Water from a vase	2			2			4
Combinations, unclassifiable cases, unknown plants	39			14	1	2	56
<b>Total</b>	<b>867</b>	<b>22</b>	<b>4</b>	<b>232</b>	<b>31</b>	<b>13</b>	<b>1169</b>

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	42	7		105	5	1	160
Poisonous snakes	4	4		14	10	2	34
Various snakes					2		2
Unknown snakes	1	1		6	4		12
Poisonous fishes				8			8
Spineless invertebrates	1			3			4
Various	53	2		96	3		154
<b>Total</b>	<b>101</b>	<b>14</b>		<b>232</b>	<b>24</b>	<b>3</b>	<b>374</b>

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



**Bei  
Knollenblätter-  
pilzvergiftung**

# Legalon<sup>®</sup> SIL

**Legalon<sup>®</sup> 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

**BIO/MED**

**NATUR & WISSEN**

MADAUS AG, Köln

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		99	27	1	146
unidentified mushrooms	62	8		96	17		183
Food presumably contaminated by toxins							
producing bacteria	55	1		121	6		183
Molding food	14			17			31
Various (incl. doubtful cases)	46	2		108	5	2	163
<b>Total</b>	<b>194</b>	<b>13</b>		<b>441</b>	<b>55</b>	<b>3</b>	<b>706</b>

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

#### Identified mushrooms

	Children			Adults			Total
	0	L	SD	0	L	SD	
Agaricus sp./Agaric sp.	2			18			20
Amanita muscaria/Fly-agaric, fly-poison amanita						1	1
Amanita phalloides/Death cap				1			1
Amanita sp./Amanita sp.				6	2		8
Armillaria mellea/Honey mushroom	1			2			3
Boletus edulis/Yellow boletus				17	2		19
Boletus sp./Bolete sp.		1		2	4		7
Coprinus sp./Ink mushrooms	2			2	4		8
Inocybe sp./Inocybe sp.	3			1			4
Lactarius sp./Lactarius sp.				4			4
Lepiota sp./Lepiota sp.	1	1		9	1		12
Morchella esculenta/Edible morel	1			7	2		10
Pleurotus ostreatus/Oyster mushroom				4			4
Psilocybe sp./Psilocybe	2			8	9		19
Tricholoma sp./Tricholoma sp.				2	2		4
Various	5			16	1		22
<b>Total</b>	<b>17</b>	<b>2</b>		<b>99</b>	<b>27</b>	<b>1</b>	<b>146</b>

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	
Alcohol	32	4	2	46	10	10	104
Tobacco, mostly ingested	323	19		17	6		365
Cannabis	11	5		23	16	2	57
Heroin and opiates				17	2	4	23
Cocaine				13	5		18
LSD		1		9	3		13
Vapors and gases ("sniffing")				2			2
Various hallucinogens	1	2		25	19	2	49
Combinations	1	1	1	43	31	16	93
Various	3	3		14	3		23
<b>Total</b>	<b>371</b>	<b>35</b>	<b>3</b>	<b>209</b>	<b>95</b>	<b>34</b>	<b>747</b>

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	10	2		79	19	9	119
Adhesives	2			18	4		24
Alcalies	7	24		29	6	4	70
Anti-rust products	2			2	1		5
Chlorine gas				9	12	2	23
Cleaning products	14	2	1	24	13	4	58
Combustibles (gasoline, fuel oil, petroleum and lamp oil)							
ingestion	41	22	3	77	15	3	161
inhalation	3	3		10	3	2	21
other routes	9			13	1	1	24
Cyanides	1			10	6		17
Disinfectants (occupational)	1			9	3	1	14
Explosives				1			1



## Technical and occupational products (end)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Halogens				2			2
Hardeners	1	1		8	4	2	16
Industrial salt	5			1			6
Irritant gases	23	1		21	5	3	53
Laboratory reagents	8			18	1		27
Lime, slaked		1		1	1		3
Lime, unslaked				2			2
Lubricating oil	15		1	7	3	1	27
Metals							
Lead and mercury compounds	7			65	1	1	74
Other metal compounds	8			23	1		32
Paints and varnishes for technical use	2			22	4	1	29
Plastics	1			8	1		10
Preservatives	3			5	1		9
Silage products and gases			1	4	4		9
Soldering and welding products, incl. vapors				27	11	1	39
Solvents for occupational use	18	2	1	106	19	1	147
Thinners (for artificial resins and paints)	3			11	3		17
Various gases, vapors, dust at work	8			126	28	1	163
Various occupational and industrial agents	18			31	13	9	71
Combinations	2			19	7	5	33
<b>Total</b>	<b>212</b>	<b>58</b>	<b>7</b>	<b>788</b>	<b>190</b>	<b>51</b>	<b>1306</b>

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

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	47	4		45	4		100
Air fresheners (mostly essential oils)	73	3		6	1		83
Batteries/Battery content	84	1		26	2		113
Bleaching agents (particularly Javelle water, H <sub>2</sub> O <sub>2</sub> )	42	13		67	16	1	139

## 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<sup>®</sup> (DMPS) und DMPS - Heyl<sup>®</sup>

sind effektive Antidota zur Therapie verschiedener Schwermetallvergiftungen. Der Wirkstoff DMPS (2,3-*Dim*ercapto-1-*prop*ansulfonsäure), 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<sup>®</sup> (DMPS)**; Injektionslösung: **DMPS-Heyl<sup>®</sup>**. **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 Hautausschläge (Exantheme 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	
Car and bicycle products (polish, defroster etc.)	28	4	1	18	4	1	56
Cleaning agents							
for artificial teeth	1			7			8
for carpets and upholstery	7	1		4	1		13
for contact lenses	8			15			23
for cooking-stove and oven	20	3		11			34
for floors (except oil of turpentine)	5		1	4	2		12
for flat-irons	1			2			3
for laundry (including fabric softener and starch)	164	12		18	5	1	200
for metals	8			7	2	1	18
for toilets (including drain, bathtub and sink)	51	3		17	3	1	75
for windows	38			8	3		49
dishwashing agents: manual	167	14		37	5	1	224
dishwashing agents: automatic	130	7		10	3		150
multipurpose cleaners	123	11		15	5		154
nitro thinners	15	2		12	8		37
oil of turpentine and turpentine substitutes	10	3	1	22	2		38
rust removers	1			3			4
solvents (except oil of turpentine)	7	2	1	20	4		34
stain removers	4			3	1	1	9
various	42	6		35	10	2	95
Cooling liquids	22	1		137	16	3	179
Decalcifying agents	82	6		103	15	8	214
Disinfectants for household purpose	21	1		41	9	2	74
Fertilizers	37			15	2		54
Fire extinguisher contents	2	3		3	1		9
Floor polish	3			1			4
Furniture polish	23	2		4		1	30
Impregnating agents	13	4		9	2		28
Insulating and sealing agents	8		1	20	3		32
Leather dressings (also shoe polish)	6			1			7
Light sources	5			5			10
Photochemicals and photo- print liquids				6	2		8
Products to set fire: solid	17			1			18
liquid	73	21	4	5	1	3	107
Toilet articles and cosmetics							
bath additives and soap	177	7		17	6		207
care of the skin and make-up	23	1	2	1			27
eau de Cologne	13	2		3			18

# FLATULEX®

## Kautabletten und Tropfen

### Antiflatulans

#### Zusammensetzung

##### 1 Kautablette enthält:

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

##### 1 ml Tropfen (25 guttae, resp. 2 Pumpstösse) enthält:

Wirkstoff: Simethiconum 41,2 mg. Hilfsstoffe: Cyclamas, Aromatica, Conservans: E 200. Excipients 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 25 - 50 Tropfen, resp. 2 - 4 Pumpstösse

Schulkinder: 1 Kautablette oder 25 Tropfen, resp. 2 Pumpstösse

Säuglinge und Kleinkinder: 15 - 25 Tropfen, resp. 1 - 2 Pumpstösse.

**Kontraindikation:** Ileus.

#### Unerwünschte Wirkungen

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

**Packungen** mit 50 und 200 Kautabletten. Tropfflasche zu 30 ml 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	
deodorants	8			5			13
hair care products	22		1	12	3		38
nail polish and nail hardeners	22	1		3	1		27
nail polish removers	28	1		7	1		37
perfume	72	2		2	1		77
shampoo	93			7			100
shaving lotions	6			2	1		9
skin cream	38	3		4			45
toothpaste, mouth-wash	24	1		2			27
various	24			8			32
Toilet deodorants	86	2		2			90
Toys and sport accessories (including lead bullets, tin soldiers and trick products)	120	2	1	5			128
Wood dressing products	20	1		53	4	1	79
Writing and drawing materials							
artists colours (oil- and water-colours)	7	1		1			9
coal and wax crayons for children	7			1			8
correction liquid for typewriter	3			2			5
Drawing-ink and ordinary ink	4	1		1			6
Felt pencils	6						6
Marking-ink	1						1
Varnishes, synthetic resins and paints	35			45	2	3	85
Various (textile and egg paints)	25			5	2		32
Various	38	4		36	6	1	85
Combinations (two or more products)	18			11	3	1	33
Unknown household products				1			1
Trivial cases							
candles	2						2
dessicators	4			6			10
foreign bodies	71	3		10			84
matches and match boxes	7						7
packing materials	3			2			5
thermometer content	20	1		15	1		37
Subtotal	2415	160	13	1032	163	32	3815

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	11			2			13
Formicides	35	4		3	1		43
Fungicides	3			13	6		22
Herbicides	18	2		24	1	3	48
Repellents	41	2		4			47
Insecticides							
mothballs	22			8			30
various (mostly organophosphates)	64	6	1	133	23	3	230
Rodenticides	42	1		31	2	4	80
Seed preserving products and preserved grains	2			1			3
Snail baits	28	1		1			30
Various	15			25	1	1	42
Subtotal	281	16	1	245	34	11	588
Total Household products	2696	176	14	1277	197	43	4403

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	38		16	1		60
Carbon monoxide (exhaust gases, oven gases, gas for cooking)	37	1		116	24	2	180
Manure gases		1	1	4	2		8
Nitrous gases				4			4
Propane, methane, butane gas	1			5	1	1	8
Tear gas	2	1		10	6	1	20
Various		2		19	7		28
Total	45	43	1	174	41	4	308

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	8	3			1		12
Analgesics (antiphlogistics)							
opiates	5	2	3	52	15	6	83
paracetamol	66	3	1	58	29	2	159
salicylates	20	3		38	23	1	85
combinations	26	3		27	15		71
various	2	1		9	1		13
Anorectics	10	5		12	14	1	42
Antacids, anti-ulcer agents	10			7	5		22
Antiallergics (antihistaminics)	87	10		11	5		113
Antiasthmatics	41	14		4	1		60
Antibronchitics (external)	48	6		2			56
Anticoagulants	14	2		6	1	1	24
Antidiabetics	3			5	3		11
Antidiarrhetics	8		1	6	1		16
Antidotes				15	4		19
Antiemetics	29	5		5	6	1	46
Antiepileptics	19	8	1	57	22	5	112
Antihelmintics	8	1		1			10
Antimycotics	16	1		11			28
Antiparasitics (cutan.)	2			1			3
Anti-Parkinson agents	3	2		6	6		17
Antipyretics, flu preparations	3				1		4
Antirheumatics (oral and cutan.)	99	11		108	33	8	259
Antitussives, expectorants, secretolytics	169	38	2	41	18	1	269
Cardiac drugs							
antiarrhythmics	3			4		3	10
beta blockers	15			16	4		35
cardiac glycosides	2	3		4	2	1	12
various	8			2	2		12
Chemotherapeutics							
antibiotics	48	3		38	7		96
antiprotozoal drugs	3	1		14	1		19
cytostatics	3			6	2		11
sulfonamides	7			6	1		14
tuberculostatics	3	2	1				6
various	1	1		2			4
Cholagogues, choloretics, drugs against hepatopathies	2						2
Dental drugs	12	3					15
Dermatological drugs	109	6		33	5		153

## Medicinal drugs (cont'd)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Diagnostic agents	3	1		3		1	8
Disinfectants, antiseptics							
external	78	2		38	13	2	133
internal	3			2	1		6
Diuretics	11			2	3		16
Drugs against alcoholism (partly taken with alcohol)	1			12	5	1	19
Essential oils (alone and in combination)	110	10		19	2	1	142
Gastrointestinal drugs	17	1		3			21
Geriatrics, roborants	5	1		5	2		13
Gout remedies	1			3	1		5
Gynecological preparations, various (excl. hormones)	17	3		8			28
Hormone preparations							
oral contraceptives	13	4		12	2		31
cortisone and derivatives	15			9			24
various	16	2		8	2		28
Hypnotics							
barbiturates	7	3		8	4	4	26
benzodiazepines	25	20	1	130	92	15	283
diphenhydramine	5			39	55	9	108
combinations	1	2		28	29	6	66
various	1	1		5	7		14
Iron preparations	7	4		4	1		16
Laxatives	8			8	2		18
Local anesthetics	4			4	1	1	10
Migraine preparations							
ergotamine	6			2	1		9
various	3			2			5
Neurovegetative sedatives	16	4		47	32	2	101
Odontologic drugs	3			2			5
Ophthalmologics	13			5			18
ORL-preparations (incl. lozenges)	222	31		27	5		285
Psychopharmacologic drugs							
amphetamines and derivatives	3	2		5	1		11
antidepressives	29	7	1	125	84	22	268
neuroleptics	11	13	4	116	81	13	238
tranquilizers: benzodiazepines	50	37	5	218	150	8	468
tranquilizers: various	2			26	24	1	53
Spasmolytics	9	3	1	17	7		37



## Medicinal drugs (end)

	Children			Adults			Total
	N	M	SF	N	M	SF	
Vaccines, sera	11	1		13	1		26
Vascular drugs							
antihypertensives	34			15	11		60
vasodilators	24	2		4	4		34
vasopressors	10	1		3	3	1	18
venotonics	14			2			16
Veterinary drugs	33	2		27	5	1	68
Vitamin and calcium preparations	35	2		11			48
Trivial cases							
homeopathic drugs	66	1		20			87
agents for caries prophylaxis	39	3		2			44
sweetening agents	3			3			6
Various	16	1		26	2	1	46
Unidentified	14			14	2	2	32
Combinations (excl. alcohol)	79	33	4	359	716	108	1299
Combinations (incl. alcohol)	2	3		72	97	36	210
<b>Total</b>	<b>2007</b>	<b>337</b>	<b>25</b>	<b>2120</b>	<b>1676</b>	<b>265</b>	<b>6430</b>

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 monocausal poisoning.

### 4.8 Unclassifiable cases

	Children			Adults			Total
	N	M	SF	N	M	SF	
<b>Total</b>	<b>71</b>			<b>157</b>	<b>3</b>	<b>1</b>	<b>232</b>

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

# 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 Immunglobuline 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 (Papainwirkung) 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

## 5 Situations

	Children	Adults	Total	in %
Accidents	6761	2425	9186	58.60
Intentional self-poisoning	184	2910	3094	19.74
Occupational poisoning	1	978	979	6.25
Food poisoning and food allergies	75	412	487	3.11
Accidental overdosage	90	335	425	2.71
Adverse drug reactions	42	347	389	2.48
Inebriating purpose	47	267	314	2.00
Poisoning due to addiction	6	215	221	1.41
Mistakes	32	89	121	0.77
Indoor inhalation risks	38	67	105	0.67
Misdemeanour	6	11	17	0.11
Theoretical questions	24	226	250	1.59
Various and unclassifiable	10	77	87	0.56
<b>Total</b>	<b>7316</b>	<b>8359</b>	<b>15675</b>	<b>100 %</b>

Percentage of  
severe or fatal  
poisoning

Situations	Total number		Percentage of severe or fatal poisoning	
	Total number	in %	Total	in %
Accidents	9186	58.6	95	1.0
Self-poisoning	3094	19.7	272	8.8
Other	3395	21.7	104	3.1
<b>Total</b>	<b>15675</b>	<b>100 %</b>	<b>471</b>	<b>3.0 %</b>

## 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 77.1 % of these cases. 4 493 of these reports (89.8 %) could be evaluated to determine the outcome.

Outcome	Total	in %
No symptoms	1012	22.5 %
Mild	3010	67.0 %
Severe	448	10.0 %
Fatal	23	0.5 %
<b>Total</b>	<b>4493</b>	<b>100 %</b>

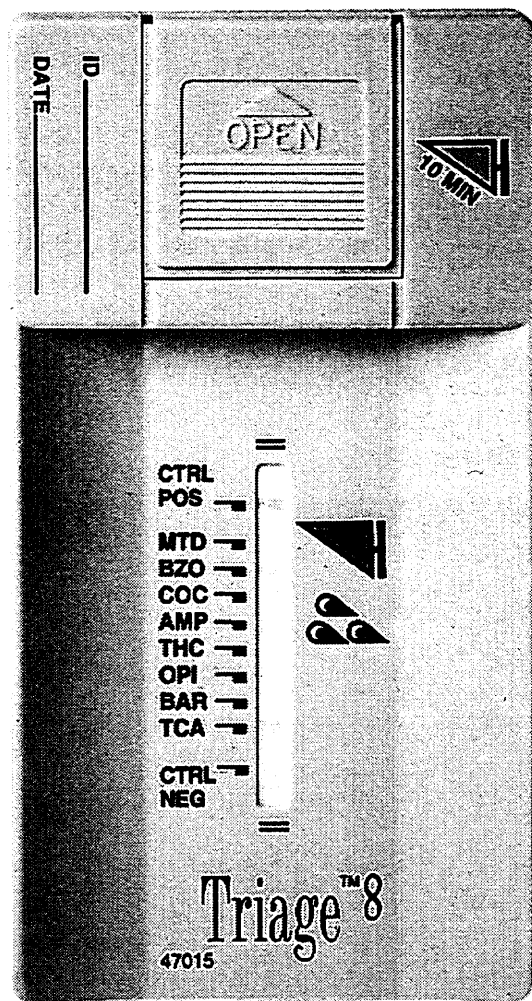
In fatal cases, a distinction is made between those with reported death *intra vitam* and those *post mortem* (\*).

Confirmed or suspected cause of death (Non-medicinal agents)	Victim	Situation
Formic acid 85 %	46 y., m.	suicide
Arsenic trioxide	19 y., f.	suicide
Methylated spirits, cologne water, sodium hydroxide, turpentine	56 y., m.	?
Decalcifying agent	44 y., f.	suicide
Stain remover with trichloroethane (*)	57 y., m.	suicide
Hydrogen sulfide	37 y., m.	accident
Hydrogen sulfide (*)	adult, m.	accident
Silage gases	2.5 y., m.	accident
Thuja occidentalis ( <i>Arbor vitae</i> )	74 y., m.	abuse?
<b>Total non-medicinal agents</b>	<b>9 fatalities (including 2 case post mortem *)</b>	

Confirmed or suspected cause of death (Medicinal agents)	Victim	Situation
Alprazolam, Diclofenac, Enalapril, Hydrochlorothiazide, Verapamil	53 y., f.	Suicide
Amitriptyline, Clotiapine (*)	50 y., f.	Suicide
Amitriptyline, Flurazepam, Promazine (*)	41 y., f.	Suicide
Benzodiazepine, Paracetamol	45 y., f.	Suicide
Chloralhydrate, Dibenzepin, Levomepromazine, Trimipramine	67 y., m.	Suicide
Clozapine	15 y., f.	Suicide
Clozapine, Clomipramine, Flunitrazepam	68 y., f.	Suicide
Difebarbamate, Febarbamate, Maprotiline, Paracetamol, Phenobarbital (*)	51 y., f.	Suicide
Haloperidol, Maprotiline	39 y., m.	Suicide
Isoflurane, Paracetamol (*)	58 y., m.	ADR
Methadone (*)	20 y., m.	Suicide?
Methaqualone	56 y., m.	Suicide
Paracetamol, Phenacetin	55 y., f.	Suicide
Trimipramine	38 y., f.	Suicide
Total medicinal agents	14 fatalities (including 5 cases post mortem *)	
Grand total	23 fatalities (including 7 cases post mortem *)	

ADR = Adverse drug reaction

# 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, Opiate, Tetrahydrocannabinol, Methadon**

**Triage™ 8**

**MERCK**

E. Merck (Schweiz) AG

Rüchligstrasse 20, CH-8953 Dietikon, Telefon 01 745 1111, Fax 01 745 14 20

## Publications

Ordering  
number

	Annual report 1994. Swiss Toxicological Information Centre Zurich, 44 p. (1994) (g+f)	0-95
Fäh C.* Gossweiler B. Mühlebach S.* Pletscher W.* Poncet M.-F.* Wyss P.A.	Antidote bei Vergiftungen. Bulletin Bundesamt für Gesundheitswesen 95 (3), 14-18 (1995)	1-95
Gossweiler B. Lorent J.P. Meier-Abt P.J. Wyss P.A.	Kindersicherheit - was wirkt? Möglichkeiten eines Toxikologischen Informationszentrums zur Prävention von Kinderunfällen mit toxischen Produkten. Sicher Leben, Band 6, 203-214, 1995	2-95
Gossweiler B.	Les intoxications graves chez les personnes âgées vues par le Centre anti-poisons de Zurich. XXXIIIème Congrès de la Société de Toxicologie Clinique Grenoble, 12 et 13 octobre 1995	3-95
Keller-Jenelten M.	Akute Intoxikationen mit Trimipramin und Clomipramin. Dissertation University of Zurich, 43 p. (1995)	4-95
Kern S.E.	Akute Intoxikationen mit Levomepromazin. Dissertation University of Zurich, 60 p. (1995)	5-95
Krähenbühl S.* Sauter B.* Kupferschmidt H.* Krause M.* Wyss P.A. Meier P.J.	Case Report: Reversible QT Prolongation With Torsades De Pointes in a Patient With Pimozide Intoxication. American Journal of the Medical Sciences 309 (6), 315-315 (1995)	6-95

\* Authors not belonging to the STIC

# Vergiftungen beim Kleinkind

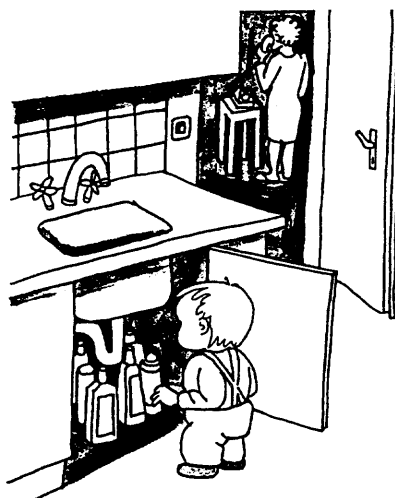
Erkennen - Behandeln - Verhüten

Von Dr. Barbara Gossweiler-Brunner,  
Schweizerisches Toxikologisches Informationszentrum, Zürich

2. Auflage 1992, 193 S., 30 Abb., 12 Tab., Fr. 26.-

**Inhalt: Allgemeiner Teil:** Angaben zur heutigen Situation - Gründe der Vergiftungen bei Kindern - Symptome von Vergiftungen - Massnahmen der Ersten Hilfe - Besondere Situationen - Nach dem Unfall - Verhütung - **Spezieller Teil:** Medikamente: Haushaltprodukte - Körperpflegeprodukte - Gartenpflege - Pflanzen - Genuss- und Rauschmittel - Nahrungsmittel - Weitere Gifte - Begriffserklärungen - Verzeichnis der Giftnotrufstellen in Deutschland, Oesterreich und der Schweiz - **Anhang:** Merkblatt für die Hausapotheke .

Aus ihrer Erfahrung als Mitarbeiterin verschiedener Giftnotrufzentralen und vierfacher Mutter vermittelt die Autorin kompetente Ratschläge zur Vermeidung von Vergiftungen. Eine Aufstellung von Vergiftungssymptomen



und Massnahmen der Ersten Hilfe ermöglicht vor allem medizinischen Laien, bei leichteren Fällen rechtzeitig und wirkungsvoll einzugreifen und dem Kind spätere Schäden oder unnötige Behandlungen zu ersparen.

In einem speziellen Teil sind rund 250 Produkte bzw. Produktgruppen mit übersichtlichen Angaben enthalten. Beschrieben wird, in welcher Weise sie dem Kind gefährlich werden können und zu welchen Vergiftungssymptomen sie führen. Hier können gezielt Massnahmen zur Behandlung und zur Unfallvorbeugung nachgeschlagen werden. Ein Verzeichnis der Giftnotrufstellen in Deutschland, Oesterreich und der Schweiz rundet den Band optimal ab. In jeder Familie ist dieser ärztliche Ratgeber die Erste Hilfe bei Vergiftungsunfällen beim Kleinkind.

GUSTAV FISCHER VERLAG

Stuttgart · Jena · New York



**Publications** (end)Ordering  
number

Krähenbühl S.* Mang G.* Meier P.J. Krause M.*	Plasma and hepatic carnitine and coenzyme A pools in a patient with fatal, valproate induced hepatotoxicity. Gut 37: 140-143 (1995)	7-95
Lorent J.-P.	Computer aids at the Swiss Poison Centre: Progress and lessons learned. 2nd E.A.P.C.C.T. Meeting on Computers as an Aid in Poison Centres, Lille, France, Dec. 6-9, 1995	8-95
Meier-Abt P.J.	Multispecificity of hepatic drug and toxin uptake systems and its clinical implications. 1995 North American Congress of Clinical Annual Meeting, September 16 - 19, 1995 Rochester, New York Clinical Toxicology, 33 (5), 119 (1995)	9-95
Wyss P.A. Gossweiler B.	Therapie akuter Vergiftungen. In: medkalender Schwabe Verlag Basel, 715-740 (1995)	10-95

\* Authors not belonging to the STIC

## Antidotes for poisoning

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

### 1. Basic kit for public pharmacies

Substance	Estimated daily dose per case of poisoning
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:

Substance	Estimated daily dose per case of poisoning
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:

Substance	Estimated daily dose per case of poisoning
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

Products for decontamination and antidotes for radionucleides are held by the Cantonal Pharmacy of Zurich, in accordance with the Swiss National Accident Insurance Fund (SNAIF). They are available to all hospitals and public pharmacies in case of necessity:

Kantonsapotheke Zürich Spöndlistr. 9 CH - 8006 Zürich	Opening hours: - Monday - Friday - Saturday - Sunday	08.00 - 12.45 08.00 - 18.00 10.00 - 12.00
	Phone Fax	++41 1255 3214 ++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 and sera for botulism and native snakes

These products are not mentioned any more on the official list. This is partly due to the cessation of production at several places. If one of these products 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 Telex Fax	++4131 980 6111 912 618 ++4131 980 6775
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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).

## Account

Income	Fr.
Contributions from the Cantons	1 036 000
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	120 000
Various (mostly from private companies and individuals)	207 474
<b>Total income</b>	<b>2 224 974</b>

Expenses	Fr.
Salaries and social contributions	1 386 485
Office and administration	93 828
Office rent	126 505
Purchases, maintenance, repairs	51 011
Periodical and books	51 510
Data processing	46 657
Telephone, Telefax	30 395
Publications, annual report	15 932
Postal and bank charges	15 421
Travel expenses	10 907
Various	10 885
Expenses for informatics project	107 043
Accrual pension plan	49 000
Accrual removal cost	80 000
Take-over of losses of prior periods	148 924
<b>Total expenses</b>	<b>2 224 503</b>

Profit 471

## Donations

	Fr.
Galenica Holding AG	20 000
Swiss Society of Druggists	15 000
City of Zurich	10 000
Interpharma	10 000
Coop Switzerland	5 000
Jubiläumsstiftung der Versicherungsgesellschaften "Zürich"-Vita-Alpina	5 000
Nestlé SA	5 000
Federation of the Swiss Dentists	3 000
Lever AG	3 000
Swiss Life Insurance and Pension Company	3 000
Association of the Swiss Department Stores	2 000
Einkaufsverband Zürcher Apotheker EVZA	2 000
Ernst Göhner-Foundation	2 000
Merck Sharp & Dohme-Chibret AG	2 000
OFAC	2 000
Orgamol SA	2 000
Pfizer AG	2 000
Unione Farmaceutica SA	1 500
Alusuisse-Lonza Holding AG	1 000
Association of the Swiss Cosmetic Industry	1 000
Association of the Swiss Soap- and Washing-powder Industry	1 000
Association of the Swiss Varnish and Colour Manufacturers	1 000
Bayer (Switzerland) AG	1 000
Biomed AG	1 000
Blaser Swisslube AG	1 000
C & A	1 000
Düring AG	1 000
Jansen AG	1 000
Ulrich Jüstrich AG	1 000
3M (Switzerland) AG	1 000
Schering AG	1 000
Sika AG	1 000
Staerkle & Nagler AG	1 000
Swiss National Insurance Company	1 000
Victorinox AG	1 000
Visura trust-company	1 000
Voigt & Co. AG	1 000
Paul Wirth AG	1 000

Smaller contributions not listed here are frequent and extremely welcome. We are very grateful to all donators.

Dear reader

Would you like to obtain additional informations from our centre? If so, please send us back the card below.

On this occasion we would like to ask you to critically comment our work. We thank you in advance for your suggestions.

Zurich, 1996

Swiss Toxicological Information Centre

- Please send the following publications to the address below:
  
  
  
  
  
  
  
  
  
  
- Remarks, suggestions

Address

Signature

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

- 1 General information leaflet (french, german)
- 2 Sticker with the emergency phone number
- 3 Diagram about structures and activities of the STIC (engl.)
- 4 Leaflet about first aid and poisoning prevention (french, german)
- 5 List of antidotes available in Switzerland (french, german)
- 6 Text on the treatment of poisoning (from Schweiz. Medizinalkalender, german)
- 7 Annual report (1990 and 1995 engl.)
- 8 Reprints from publications (see pp. 37-39 for ordering). These are provided on loan).

If you have any questions, please feel free to contact us.

SwissToxicological  
Information Centre  
Klosbachstrasse 107

CH-8030 Zurich