

APPENDIX A

Summary of Botulism Cases Reported in 2003

A total of 126 cases of botulism intoxication were reported to CDC in 2003. Among the 8 cases of foodborne intoxication, toxin type A accounted for 5 (63%) cases, toxin type E accounted for 2 (25%) cases, and toxin type F for 1 (12%) case. The median age of patients was 47 years; two deaths were reported. There were two multicase outbreaks; one in Utah, in which no food vehicle was identified and the other in Alaska, in which the food vehicle was fermented fish heads

There were 86 reported cases of infant botulism. Toxin type B accounted for 53 (62%) cases, toxin type A for 32 (37%) cases, and toxin type F for 1 (1%) case. The median age of patients was 15 weeks; no deaths were reported.

There were 30 reported cases of wound botulism. Toxin type A accounted for 29 (97%) cases while toxin type was not determined for one case, due to insufficient specimen quantity. The median age of patients was 44 years; one death was reported. There was a multicase outbreak of wound botulism in Washington state among injection drug users. Black-tar heroin was the suspected vehicle.

There was one case of adult intestinal colonization in an 83-year old man from Texas. Toxin type A was identified; the patient survived. There was one case of treatment-related botulism in a 5-year old child with cerebral palsy. The condition was caused by injection of a licensed pharmaceutical preparation of toxin type B; the child survived.

Table 1. Summary of Reported Botulism Cases - 2003

Foodborne

8 cases

Median age: 47 years (range: 23-91 years)
Deaths: 2
Gender: 5 (63%) female, 3 (37%) male
Toxin type: 5 (63%) type A, 2 (25%) type E, 1 (12%) type F
2 multicas e outbreaks

Infant

86 cases

Median age: 15 weeks (range: 0 - 61 weeks)*
Deaths: 0 (7 cases without information)
Gender: 47 (55%) female, 39 (45%) male
Toxin type: 53 (62%) type B, 32 (37%) type A, 1 (1%) type F

* One 61-week old patient listed as infant botulism, although formal definition is under 1 year of age

Wound

30 cases

Median age: 40 years (range: 23 - 57 years)
Deaths: 1 (3 cases without information)
Gender: 22 (73%) male, 8 (27%) female
Toxin type: 29 (97%) type A, 1 (3%) toxin type not determined
1 multicas e outbreak

Treatment-Associated

1 case (no reported death)

Age: 5
Gender: male
Toxin type: B

Adult Colonization

1 case (no reported death)

Age: 83
Gender: male
Toxin type: A

**Table 2. Cases of Botulism by State and Type
January 1- December 31, 2003**

<u>State/District</u>	<u>Foodborne</u>	<u>Infant</u>	<u>Wound</u>	<u>Other*</u>	<u>Total</u>
AK	2				2
CA	2	31	21		54
CO	1	1	1		3
CT		1			1
DE		3			3
HI		1			1
IN		1			1
LA		1			1
MD		1			1
MO		1			1
MS		1			1
NJ		5			5
NM		1			1
NV		2			2
NY		3			3
NYC		1			1
OR		3	1		4
PA		16			16
TN		2			2
TX		1		2	3
UT	2	6			8
VA		1			1
WA	1	3	7		11
Totals:	8	86	30	2	126

*Adult intestinal and treatment-associated etiologies.

**Table 3. Cases of Foodborne Botulism by Month (N=8)
January 1 - December 31, 2003**

<u>Month</u>	<u>State</u>	<u>Age (years)</u>	<u>Gender</u>	<u>Toxin Type</u>	<u>Vehicle</u>	<u>Death</u>
January	WA	42	Female	A	home-canned beans and asparagus	No
February	CA	45	Female	F	unknown	No
	CO	49	Male	A	pumpkin butter	No
June	AK*	40	Male	E	fermented fish head	No
July	AK*	23	Female	E [†]	fermented fish head	No
October	CA	60	Female	A	commercial clam chowder	No
	UT*	87	Female	A [†]	unknown	Yes
	UT*	91	Male	A	unknown	Yes

*Cases involved in multicase outbreak

[†]Toxin type derived from epidemiologically-linked case

**Table 4. Cases of Infant Botulism by Month (N=86)
January 1 - December 31, 2003**

<u>Month</u>	<u>State</u>	<u>Age (weeks)</u>	<u>Gender</u>	<u>Toxin type</u>	<u>Death</u>
January	PA	9	Male	B	No
January	UT	16	Female	A	unknown
January	TN	12	Female	B	No
January	NJ	9	Male	B	No
January	UT	20	Male	A	No
January	PA	10	Male	B	unknown
January	CA	21	Female	A	No
January	UT	24	Male	A	unknown
January	WA	20	Female	A	unknown
February	UT	32	Female	A	No
February	HI	12	Female	B	No
February	WA	28	Male	B	No
February	MS	5	Male	B	No
February	NV	30	Male	A	unknown
February	TX	6	Female	B	No
March	NV	15	Male	A	No
March	NJ	30	Male	B	No
March	CA	28	Male	A	No
March	CO	20	Male	A	No
April	PA	21	Female	B	No
April	NY	5	Male	B	No
April	CA	28	Male	B	No
April	PA	61*	Male	B	unknown
April	NYC	13	Male	B	No
April	PA	6	Female	B	unknown
April	CA	19	Male	B	No
May	CA	24	Female	A	No
May	PA	6	Female	B	No
May	CA	11	Male	A	No
June	UT	27	Female	A	No
June	IN	42	Female	B	No
June	NJ	7	Female	B	No
June	PA	15	Male	B	No
June	UT	10	Female	A	No
June	PA	3	Female	B	No
July	NJ	9	Female	B	No
July	CA	4	Female	B	No
July	CA	7	Female	A	No

**Table 4. Cases of Infant Botulism by Month (N=86)
January 1 - December 31, 2003**

<u>Month</u>	<u>State</u>	<u>Age (weeks)</u>	<u>Gender</u>	<u>Toxin type</u>	<u>Death</u>
July	CA	24	Female	B	No
July	DE	4	Female	B	No
July	PA	18	Female	B	No
August	MD	20	Female	B	No
August	TN	8	Female	B	No
August	VA	8	Female	B	No
August	PA	12	Female	B	No
August	CA	27	Male	A	No
August	NY	10	Male	B	No
August	CA	8	Female	B	No
August	WA	12	Male	A	No
August	NY	15	Male	B	No
August	CA	15	Female	A	No
September	CA	8	Female	B	No
September	NM	16	Female	A	No
September	CA	24	Female	B	No
September	CA	7	Female	B	No
September	CA	19	Female	A	No
September	CA	11	Female	A	No
September	CT	14	Male	B	No
October	CA	5	Male	B	No
October	OR	5	Female	A	No
October	CA	0	Female	F	No
October	DE	16	Male	B	No
October	NY	5	Male	B	No
October	PA	11	Male	B	No
November	CA	21	Male	B	No
November	CA	24	Female	B	No
November	CA	3	Male	B	No
November	CA	19	Male	A	No
November	CA	21	Male	B	No
November	CA	46	Female	A	No
November	OR	15	Female	A	No
November	PA	14	Male	B	No
November	OR	13	Female	A	No
November	CA	16	Male	A	No
November	CA	12	Male	A	No
November	LA	11	Female	B	No

**Table 4. Cases of Infant Botulism by Month (N=86)
January 1 - December 31, 2003**

<u>Month</u>	<u>State</u>	<u>Age (weeks)</u>	<u>Gender</u>	<u>Toxin type</u>	<u>Death</u>
November	CA	3	Female	B	No
December	CA	18	Female	A	No
December	PA	15	Female	B	No
December	MO	21	Female	A	No
December	NJ	2	Male	B	No
December	CA	17	Female	A	No
December	DE	12	Male	B	No
December	PA	24	Female	B	No
December	PA	20	Male	B	No
December	CA	12	Male	A	No

*Listed as infant botulism, although formal definition is under 1 year of age.

**Table 5. Cases of Wound Botulism by Month (N=30)
January 1 - December 31, 2003**

<u>Month</u>	<u>State</u>	<u>Age (years)</u>	<u>Gender</u>	<u>Toxin Type</u>	<u>Exposure*</u>
January	CA	38	Female	A	IDU
	CO	49	Male	A	IDU
February	CA	49	Male	A	IDU
	CA	35	Male	A	IDU
March	CA	43	Female	A	IDU
April	CA	53	Male	A	IDU
May	CA	54	Male	A	IDU
	CA	54	Male	A	IDU
	CA	34	Male	A	IDU
	CA	44	Male	A	IDU
June	CA	52	Male	A	IDU
	OR	47	Male	A	IDU
July	CA	46	Male	A	IDU
	CA	40	Male	A	IDU
	CA	54	Male	A	IDU
August	CA	54	Male	A	IDU
	CA	42	Female	A	IDU
	WA	50	Male	A [†]	IDU
	WA	38	Female	A	IDU
	WA	38	Male	A	IDU
	WA	31	Female	A [†]	IDU
September	CA	57	Male	A	IDU
November	CA	40	Female	A	IDU
	CA	41	Male	unknown ^{††}	IDU
	CA	30	Female	A	IDU
	CA	49	Male	A	IDU
	CA	42	Male	A	IDU
	WA	44	Male	A	IDU
	WA	40	Male	A	IDU
	WA	23	Male	A [†]	IDU

* IDU= Injection drug use

† Toxin type derived from epidemiologically-linked case.

†† Serum quantity not sufficient for toxin typing.

**Table 6. Cases of Adult Intestinal Colonization (N=1) and Treatment-Associated Botulism (N=1) by Month
January 1 - December 31, 2003**

<u>Month</u>	<u>State</u>	<u>Age (years)</u>	<u>Gender</u>	<u>Type of Botulism</u>	<u>Toxin Type</u>	<u>Death</u>
September	TX	83	Male	Adult Intestinal	A	No
October	TX	5	Male	Treatment-associated*	B	No

* Laboratory-confirmed botulism case injected with licensed pharmaceutical preparation of toxin type B