

## **APPENDIX A**

### **Summary of Botulism Cases Reported in 2005**

A total of 145 cases of botulism intoxication were reported to CDC in 2005. Among the 18 cases of foodborne intoxication, toxin type A accounted for 7 (39%) cases, toxin type B for 1 (5%) case, and toxin type E for 10 (56%) cases. The median age of patients was 35 years. Two deaths were reported. There were four multi-case outbreaks. They were caused by fish (type unspecified), stinkfish, stinkhead, and an unknown food, respectively.

There were 96 reported cases of infant botulism. Toxin type B accounted for 52 (54%) cases and toxin type A for 44 (46%) cases. The median age of patients was 17 weeks; no deaths were reported.

There were 28 reported cases of wound botulism. Toxin type A accounted for 25 (89%) cases, toxin type B for 2 (7%) cases, and unknown toxin type for 1 (4%) case. All cases occurred in injecting drug users. The median age of patients was 45 years; no deaths were reported.

There were 3 reported cases of botulism of other or unknown source. Toxin type F accounted for 2 (67%) cases, and type A accounted for 1 (33%) case. One toxin type F case was associated with adult intestinal colonization. The sources of the type F cases and the type A case were unknown. The case patients were 56, 84, and 74 years of age respectively; 1 death was reported.

**Table 1. Summary of Reported Botulism Cases - 2005**

**Foodborne**

18 cases

Median age: 35 years (range: 1-82 years)  
Death: 2 confirmed  
Gender: 10 (56%) male, 8 (44%) female  
Toxin type: 7 (39%) type A, 1 type B (5%), 10 (56%) type E

4 multi-case outbreaks

**Infant**

96 cases

Median age: 17 weeks (range: 2 - 60 weeks)  
Death: 0 confirmed  
Gender: 53 (55%) male, 43 (45%) female  
Toxin type: 44 (46%) type A, 52 (54%) type B

**Wound**

28 cases

Median age: 45 years (range: 28 - 57 years)  
Death: 0 confirmed, 2 without information  
Gender: 23 (82%) male, 5 (18%) female  
Toxin type: 25 (89%) type A, 2 (7%) type B, 1 (4%) unknown

**Other, Unknown**

3 cases

Median Age: 74 years (range: 56-84 years)  
Death: 1 confirmed  
Gender: 3 (100%) female  
Toxin type: 1 (33%) type A, 2 (67%) type F (*Clostridium baratii*)

**Table 2. Cases of Botulism by State and Type  
January 1 - December 31, 2005**

<u>State/District</u>	<u>Food</u>	<u>Wound</u>	<u>Infant</u>	<u>Other</u>	<u>Total</u>
AK	8				8
AL			1		1
AZ			1		1
CA	3	24	42		69
CO			1		1
DE			2		2
FL			1		1
ID			1		1
IL			1	1*	2
KY			1		1
LA			1		1
MA	1				1
MD			5		5
MI	1				1
MO			1		1
MT				1**	1
NC	1		1		2
NH			1		1
NJ	2		9		11
NM			1		1
NV			1		1
NYC			4		4
OK	1		1		2
OR			2		2
PA	1		11		12
TX			1	1*	2
UT			3		3
VA			1		1
WA		4	2		6
Total	18	28	96	3	145

\*Unknown source

\*\*Adult intestinal

**Table 4. Cases of Infant Botulism by Month (N=95)  
January 1 - December 31, 2005**

<u>Month</u>	<u>State</u>	<u>Onset Age (weeks)</u>	<u>Sex</u>	<u>Toxin Type</u>	<u>Death</u>
July	DE	40	M	B	No
	LA	3	M	B	No
	NV	60	F	A	No
	PA	22	M	B	No
	AL	5	M	B	No
	CA	16	M	A	No
	CA	19	F	B	No
	CA	30	M	A	No
	CA	6	F	B	No
	NH	17	F	B	No
August	NJ	21	M	B	No
	NJ	17	M	B	No
	AZ	13	M	A	No
	CA	4	F	B	No
	CA	20	F	B	No
	CA	16	M	B	No
	CA	10	F	B	No
	CA	20	M	A	No
	MD	3	M	B	No
	NJ	4	M	B	No
September	WA	31	M	A	No
	CA	24	F	A	No
	CA	23	F	B	No
	CA	14	M	A	No
	CA	20	F	A	No
	CA	4	F	A	No
	OR	16	F	A	No
	OR	19	F	A	No
	TX	10	M	A	No
	CA	17	F	A	No
October	CA	46	F	A	No
	CA	9	F	A	No
	CA	6	M	A	No
	CA	30	M	A	No
	ID	16	M	A	No
	NJ	4	F	B	No
	NYC	19	M	B	No
	PA	2	F	B	No
	PA	17	F	B	No
	CA	8	F	A	No
November	CA	9	F	A	No
	CO	8	F	A	No
	NYC	6	F	B	No
December	CA	5	M	B	No

**Table 4. Cases of Infant Botulism by Month (N=95)**

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January 1 - December 31, 2005**

<u>Month</u>	<u>State</u>	<u>Onset Age (weeks)</u>	<u>Sex</u>	<u>Toxin Type</u>	<u>Death</u>
January	CA	7	M	B	No
	CA	29	M	A	No
	CA	12	F	A	No
	NJ	50	F	B	No
	NYC	11	M	B	No
	PA	13	F	B	No
	PA	16	M	B	No
	UT	20	F	A	No
February	CA	18	M	B	No
	CA	34	M	A	No
	CA	43	F	A	No
	NJ	12	F	A	No
	PA	28	M	B	No
	PA	20	M	B	No
	UT	16	M	A	No
	CA	14	M	A	No
March	CA	8	M	A	No
	DE	39	F	B	No
	FL	34	F	A	No
	MD	25	F	B	No
	OK	10	F	A	No
	PA	20	M	B	No
	CA	12	F	B	No
	PA	16	F	B	No
April	CA	24	M	B	No
	CA	6	F	A	No
	CA	3	M	A	No
	IL	12	M	A	No
	KY	12	M	B	No
	MD	28	M	B	No
	MD	13	M	B	No
	NJ	15	F	B	No
May	NJ	12	M	B	No
	NYC	22	F	B	No
	PA	24	M	B	No
	PA	21	F	B	No
	UT	10	M	A	No
	VA	21	M	B	No
	CA	26	M	A	No
	CA	19	M	B	No
June	CA	23	F	A	No
	CA	28	F	B	No
	CA	19	M	A	No
	CA	20	M	A	No

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January 1 - December 31, 2005**

<u>Month</u>	<u>State</u>	<u>Onset Age (weeks)</u>	<u>Sex</u>	<u>Toxin Type</u>	<u>Death</u>
July	DE	40	M	B	No
	LA	3	M	B	No
	NV	60	F	A	No
	PA	22	M	B	No
	AL	5	M	B	No
	CA	16	M	A	No
	CA	19	F	B	No
	CA	30	M	A	No
	CA	6	F	B	No
	NH	17	F	B	No
August	NJ	21	M	B	No
	NJ	17	M	B	No
	AZ	13	M	A	No
	CA	4	F	B	No
	CA	20	F	B	No
	CA	16	M	B	No
	CA	10	F	B	No
	CA	20	M	A	No
	MD	3	M	B	No
	NJ	4	M	B	No
September	WA	31	M	A	No
	CA	24	F	A	No
	CA	23	F	B	No
	CA	14	M	A	No
	CA	20	F	A	No
	CA	4	F	A	No
	OR	16	F	A	No
	OR	19	F	A	No
	TX	10	M	A	No
	CA	17	F	A	No
October	CA	46	F	A	No
	CA	9	F	A	No
	CA	6	M	A	No
	CA	30	M	A	No
	ID	16	M	A	No
	NJ	4	F	B	No
	NYC	19	M	B	No
	PA	2	F	B	No
	PA	17	F	B	No
	CA	8	F	A	No
November	CA	9	F	A	No
	CO	8	F	A	No
	NYC	6	F	B	No
December	CA	5	M	B	No

**Table 4. Cases of Infant Botulism by Month (N=95)**

<b><u>Month</u></b>	<b><u>State</u></b>	<b><u>Onset Age (weeks)</u></b>	<b><u>Sex</u></b>	<b><u>Toxin Type</u></b>	<b><u>Death</u></b>
	CA	19	F	B	No
	CA	24	M	A	No
	MD	15	M	B	No
	MO	9	F	A	No
	NC	12	M	B	No
	NJ	10	M	B	No
	NM	52	M	B	No
	WA	17	M	A	No

**Table 5. Cases of Wound Botulism by Month (N=28)  
January 1 - December 31, 2005**

<u>Month</u>	<u>State</u>	<u>Age (years)</u>	<u>Gender</u>	<u>Toxin Type</u>	<u>Exposure*</u>	<u>Death</u>	
January	CA	38	F	A	IDU	No	
	WA	37	M	A	IDU	Unknown	
	WA	50	M	A	IDU	Unknown	
February	CA	28	M	A	IDU	No	
March	CA	47	M	A	IDU	No	
	CA	43	M	B	IDU	No	
	CA	57	M	A	IDU	No	
	CA	43	M	A	IDU	No	
	WA	34	F	A	IDU	No	
	May	CA	51	F	A	IDU	No
	June	CA	40	M	A	IDU	No
July	CA	48	M	A	IDU	No	
	CA	38	M	B	IDU	No	
	CA	53	M	Unknown <sup>†</sup>	IDU	No	
	CA	35	M	A	IDU	No	
	August	CA	43	M	A	IDU	No
		CA	49	M	A	IDU	No
CA		51	M	A	IDU	No	
CA		34	M	A	IDU	No	
CA		50	F	A	IDU	No	
September	CA	30	M	A	IDU	No	
	CA	51	M	A	IDU	No	
	CA	53	F	A	IDU	No	
	CA	36	M	A	IDU	No	
October	CA	56	M	A	IDU	No	
	CA	36	M	A	IDU	No	
November	CA	46	M	A	IDU	No	
	WA	51	M	A	IDU	No	

\*IDU = injection drug user

† Serum quantity not sufficient for toxin typing

**Table 6. Cases of Botulism, Other (N=3)**  
**January 1 - December 31, 2005**

<u>Month</u>	<u>State</u>	<u>Age (years)</u>	<u>Gender</u>	<u>Toxin Type</u>	<u>Exposure</u>	<u>Death</u>
March	MT	56	F	F ( <i>C. baratii</i> )*	Unknown	N
June	IL	84	F	F( <i>C. baratii</i> )*	Unknown	Y
September	TX	74	F	A	Unknown	N

\* Botulinum toxin Type F produced by *Clostridium baratii*