

National Enteric Disease Surveillance: Botulism Annual Summary, 2010

Botulism Annual Summary, 2010

Summary of Botulism Cases Reported in 2010

A total of 112 laboratory-confirmed cases of botulism were reported to CDC in 2010. Foodborne botulism accounted for 9 (8%), infant botulism for 85 (76%), wound botulism for 17 (15%), and botulism of unknown or other etiology for 1 (<1%) cases (Table 1).

The 9 cases of foodborne intoxication were reported from five states (Table 2). Of these, toxin type A accounted for 3 (33%), toxin type B for 3 (33%), and toxin type E for 2 (22%); the toxin type was unknown for 1 (11%). The median age of patients was 47 years, with a range of 36–77 years; 5 (56%) were male. No deaths were reported. There were two outbreaks (events with two or more cases). One was caused by seal blubber (associated with two cases in Alaska) and the other by an unknown food vehicle (associated with two cases in Alaska) (Table 3).

The 85 cases of infant botulism were reported by 24 states. Toxin type A accounted for 30 (35%), toxin type B for 54 (64%), and toxin type F (produced by *Clostridium barattii*) for 1 (1%). The median age was 18 weeks with a range of 2–51 weeks; 46 (54%) were male. No deaths were reported (Table 4).

The 17 cases of wound botulism were reported by two states (California [16 cases], and Arkansas [1]). Toxin type A accounted for 15 (88%) and toxin type B for 1 (6%); the toxin type was unknown for 1 (6%). All but one were injection drug users; one was associated with a wound sustained in a motorcycle accident. The median age was 44 years with a range of 29–60 years; 16 (94%) were male. No deaths were reported (Table 5).

The one case of botulism of unknown or other etiology was reported by Kentucky. An unknown toxin type was identified. The age of the male case was 25 years; he survived (Table 6).

Table 1. Summary of reported botulism cases – United States, 2010

Foodborne (9 cases)	
Median age	47 years (range: 36-77 years)
Death	0 confirmed
Gender	5 (56%) male, 4 (44%) female
Toxin type	3 (33%) type A 3 (33%) type B 2 (22%) type E 1 (11%) type unknown
Outbreaks*	2
Infant (85 cases)	
Median age	18 weeks (range 2-51 weeks)
Death	0 confirmed
Gender	46 (54%) male, 39 (46%) female
Toxin type	30 (35%) type A 54 (64%) type B 1 (1%) type F
Outbreaks	None
Wound (17 cases)	
Median age	44 years (range: 29-60 years)
Death	0 confirmed
Gender	16 (94%) male, 1 (6%) female
Toxin type	15 (88%) type A 1 (6%) type B 1 (6%) type unknown
Outbreaks	None
Unknown, Other (1 cases)	
Median age	25 years
Death	0 confirmed
Gender	1 (100%) male
Toxin type	1 (100%) type unknown
Outbreaks	None
*outbreaks defined as two or more cases resulting from a common exposure	

Table 2. Cases of botulism by state and type (n=112) – United States, January 1 – December 31, 2010

	Foodborne	Wound	Infant	Unknown, Other
Alaska	5			
Arkansas		1		
California	1	16	20	
Colorado	1		3	
Delaware			3	
Florida			1	
Georgia			1	
Hawaii			1	
Idaho			1	
Kentucky				1
Maryland			4	
Massachusetts			1	
Minnesota			1	
Mississippi	1			
Montana			1	
New Jersey			6	
New Mexico	1		1	
New York			1	
New York City			2	
North Carolina			1	
Ohio			2	
Oklahoma			2	
Oregon			1	
Pennsylvania			16	
Texas			8	
Utah			1	
Virginia			1	
Washington			3	
West Virginia			3	
Total	9	17	85	1

Table 3. Cases of foodborne botulism by month (n=9) – United States, January 1 – December 31, 2010

Month	State	Age (years)	Gender	Toxin Type	Vehicle	Death
March	AK*	47	Male	E	Seal blubber	No
March	AK*	46	Female	E	Seal blubber	No
April	MS	70	Female	B	Home-canned beets	No
May	CO	48	Male	A	Baked potato [†]	No
August	NM	77	Male	A	Home-canned foods [†]	No
September	AK	45	Female	Unknown [§]	Stinkheads ^{†,¶}	No
October	CA	47	Male	A	Home-canned tuna	No
December	AK*	44	Female	B	Unknown	No
December	AK*	36	Female	B	Unknown	No

*Cases involved in multi-case outbreaks

[†]Toxin not detected from food; food vehicle implicated based on epidemiologic evidence

[§]Serum quantity not sufficient for toxin typing

[¶]Stinkheads are fermented whitefish heads, a traditional Alaska Native food

Table 4. Cases of infant botulism by month (n=85) – United States, January 1 – December 31, 2010

Month	State	Age (weeks)	Gender	Toxin Type	Death
January	NJ	29	Male	B	No
January	WV	26	Female	A	No
January	PA	3	Male	B	No
January	CA	20	Male	B	No
February	TX	20	Male	B	No
February	PA	12	Male	B	No
February	CA	33	Female	A	No
February	NJ	12	Male	B	No
February	NYC	35	Female	B	No
February	PA	24	Female	B	No
February	NJ	23	Male	B	No
February	NJ	3	Female	A	No
March	CA	13	Female	B	No
March	MD	7	Female	B	No
March	PA	27	Female	B	No
March	OK	21	Female	B	No
March	CO	51	Female	B	No
March	MT	15	Male	A	No
April	CA	22	Male	B	No
April	CO	24	Male	A	No
April	PA	18	Male	B	No
April	DE	9	Female	B	No
April	TX	18	Female	A	No
April	NY	7	Male	B	No
April	TX	5	Male	B	No
April	CA	18	Female	A	No
April	WA	7	Male	A	No
April	CA	25	Male	A	No
May	PA	6	Female	B	No
May	OK	28	Female	A	No
June	CA	24	Female	A	No
June	PA	23	Female	B	No
June	UT	14	Male	A	No
June	CA	31	Female	A	No
June	DE	14	Male	B	No
June	MD	15	Female	B	No
June	NJ	20	Female	B	No
July	HI	30	Male	B	No
July	CA	7	Female	B	No
July	NJ	15	Female	B	No
July	NYC	23	Female	B	No
July	PA	7	Male	B	No
July	PA	22	Female	B	No

(continued)

Table 4. Cases of infant botulism by month (n=85) – United States, January 1 – December 31, 2010

(continued)

Month	State	Age (weeks)	Gender	Toxin Type	Death
July	OH	14	Female	B	No
July	GA	5	Female	A	No
July	WA	20	Male	A	No
August	CA	8	Male	F	No
August	CA	22	Male	B	No
August	PA	23	Male	B	No
August	MD	24	Female	B	No
August	CA	16	Female	A	No
August	PA	20	Male	B	No
August	TX	18	Male	A	No
September	CA	8	Female	A	No
September	CA	16	Female	A	No
September	NM	6	Male	A	No
September	WA	21	Female	B	No
September	NC	19	Male	B	No
September	TX	11	Female	A	No
September	PA	17	Female	B	No
September	CA	2	Female	B	No
September	CA	19	Female	A	No
September	ID	7	Female	A	No
September	WV	5	Male	B	No
September	VA	17	Male	B	No
September	OR	13	Male	A	No
October	PA	18	Female	B	No
October	PA	22	Female	B	No
October	CA	19	Male	A	No
October	CA	34	Male	B	No
November	PA	26	Female	B	No
November	PA	15	Female	B	No
November	FL	15	Female	A	No
November	DE	5	Male	B	No
November	MA	23	Female	B	No
November	MD	7	Male	B	No
November	TX	15	Male	A	No
November	TX	20	Female	A	No
November	TX	3	Male	B	No
December	CO	24	Male	A	No
December	CA	27	Female	A	No
December	WV	20	Male	B	No
December	PA	23	Female	B	No
December	MN	20	Male	B	No
December	CA	14	Male	B	No
December	OH	5	Female	B	No

Table 5. Cases of wound botulism by month (n=17) – United States, January 1 – December 31, 2010

Month	State	Age (years)	Gender	Toxin Type	Exposure *	Death
January	CA	35	Male	A	IDU	No
March	AR	59	Male	Unknown [†]	Motorcycle accident	No
April	CA	56	Male	A	IDU	No
May	CA	51	Male	A	IDU	No
May	CA	39	Male	A	IDU	No
May	CA	39	Male	A	IDU	No
July	CA	51	Male	A	IDU	No
August	CA	44	Male	B	IDU	No
August	CA	44	Male	A	IDU	No
August	CA	48	Male	A	IDU	No
August	CA	46	Male	A	IDU	No
September	CA	44	Female	A	IDU	No
November	CA	29	Male	A	IDU	No
November	CA	40	Male	A	IDU	No
November	CA	37	Male	A	IDU	No
December	CA	60	Male	A	IDU	No
December	CA	49	Male	A	IDU	No
* IDU = injection drug user						
† Serum quantity not sufficient for toxin typing						

Table 6. Cases of Unknown or Other botulism by month (n=1) – United States, January 1 – December 31, 2010

Month	State	Age (years)	Gender	Toxin Type	Exposure	Death
September	KY	25	Male	Unknown*	Unknown	No
*Serum quantity not sufficient for toxin typing						

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