

Botulism

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Botulism is a rare, but serious paralytic illness caused by a nerve toxin, botulin, that is produced by the bacterium *Clostridium botulinum*. Botulinic toxin is one of the most powerful known toxins: about one microgram is lethal to humans. It acts by blocking nerve function and leads to respiratory and musculoskeletal paralysis. There are three main kinds of botulism: * Foodborne botulism is caused by eating foods that contain the botulinum toxin. * Infant botulism is caused by consuming the spores of the botulinum bacteria, which then grow in the intestines and release toxin. * Wound botulism is caused by toxin produced from a wound infected with *Clostridium botulinum*. This is the rarest type of botulism. All forms of botulism can be fatal and are considered medical emergencies. Foodborne botulism can be especially dangerous as a public health problem because many people can be poisoned from a single contaminated food source. In the United States an average of 110 cases of botulism are reported each year. Of these, approximately 25% are foodborne, 72% are infant botulism, and 3% are wound botulism. Outbreaks of foodborne botulism involving two or more persons occur during most years and are usually caused by the consumption of home-canned foods. The number of cases of foodborne and infant botulism has changed little in recent years, but wound botulism has increased because of the use of black tar heroin, especially in California. In July 2007, a widespread recall was initiated due to botulism contamination of food manufactured by Castleberry's Food Company. Shortly after in August 2007, the FDA issued a warning of botulism risk from canned French cut green beans manufactured by Lakeside Foods Inc, of Manitowoc, Wisconsin. ([From the Wikipedia article Botulism](#).)

Recent Publications on Botulism:



- [Type C botulinum toxin causes degeneration of motoneurons in vivo.](#)
All botulinum toxins (BoNTs, types A-G) inhibit synaptic transmitter... 13th November, 2009
aCenter for Neuroscience, Aging and Stem Cell Research, Burnham Institute- Neuroreport. 2009 Nov 10. ([DOI Direct Link](#))
- [First infant botulism case due to *Clostridium botulinum* type E worldwide.](#)
Clostridium botulinum type E has been associated with botulism in adults... 13th November, 2009
Centers for Disease Control and Prevention, Atlanta, Georgia, USA.- J Clin Microbiol. 2009 Nov 11. ([DOI Direct Link](#))
- [\[Botulism in Poland in 2007\]](#)
A total number of 49 foodborne botulism cases were registered in Poland in... 13th November, 2009
Zaklad Epidemiologii, Narodowy Instytut Zdrowia Publicznego-Panstwowy- Przegl Epidemiol. 2009;63(2):237-40.
- [Potent new small-molecule inhibitor of botulinum neurotoxin serotype A endopeptidase developed by synthesis-based computer-aided molecular design.](#)
Botulinum neurotoxin serotype A (BoNTA) causes a life-threatening... 11th November, 2009

- Computer-Aided Molecular Design Laboratory, Mayo Clinic, Rochester,- PLoS One. 2009 Nov 10;4(11):e7730. ([DOI Direct Link](#))
- [\[Two horses with neurological symptoms: could this be equine botulism?\]](#)
*Symptoms, diagnosis and therapy of equine botulism are discussed by the...*7th November, 2009
Divisie Bacteriologie en TSE'S, Centraal Veterinair Instituut van- Tijdschr Diergeneeskd. 2009 Oct 1;134(19):790-5.
 - [Differential staining of bacteria: endospore stain.](#)
*Endospore production is a very important characteristic of some bacteria,...*4th November, 2009
Richland College, Dallas, Texas, USA.- Curr Protoc Microbiol. 2009 Nov;Appendix 3:Appendix 3J. ([DOI Direct Link](#))
 - [Infant Botulism and Raised Intraocular Pressure.](#)
*Infant botulism is an exceedingly rare disease. Because confirmatory...*31st October, 2009
- J Pediatr Ophthalmol Strabismus. 2009 Nov 2:1-3. doi: ([DOI Direct Link](#))
 - [An efficient drug delivery vehicle for botulism countermeasure.](#)
*BACKGROUND: Botulinum neurotoxin (BoNT) is the most potent poison known to...*29th October, 2009
Division of Experimental Therapeutic, Walter Reed Army Institute of- BMC Pharmacol. 2009 Oct 27;9:12. ([DOI Direct Link](#))
 - [An algorithm for the evaluation and management of red, yellow, and green zone patients during a botulism mass casualty incident.](#)
*Botulinum toxin is one of the most toxic substances known to humankind. It...*29th October, 2009
Department of Public Health and Preventive Medicine, College of Medicine,- Am J Disaster Med. 2009 Jul-Aug;4(4):192-8.
 - [Infant botulism mimicking Hirschprung's disease.](#)
*We report a case of infant botulism presenting as primary colonic...*27th October, 2009
Division of Pediatric Surgery, Department of General Surgery, Naval- J Pediatr Surg. 2009 Oct;44(10):e5-7. ([DOI Direct Link](#))
 - [Botulism and vaccines for its prevention.](#)
*Botulism is a severe neuromuscular disease caused by toxins produced by...*20th October, 2009
Medical Countermeasures Technology, U.S. Army Medical Research and- Vaccine. 2009 Nov 5;27 Suppl 4:D33-9. ([DOI Direct Link](#))
 - [Phenotypic characterization of Clostridium botulinum strains isolated from infant botulism cases in Argentina.](#)
*Infant botulism is the most common form of human botulism; however, its...*17th October, 2009
Departamento de Patologia, Facultad de Ciencias Medicas, Universidad- Rev Argent Microbiol. 2009 Jun-Sep;41(3):141-7.
 - [A six month-old girl with botulism due to honey ingestion.](#)
*Infant botulism is the most common form of human botulism; however, its...*7th October, 2009
- Indian J Pathol Microbiol. 2009 Oct-Dec;52(4):592. ([DOI Direct Link](#))
 - [The Long-lived Nature of Clostridium perfringens Iota Toxin in Mammalian Cells Induces Delayed Apoptosis.](#)
*Mono-ADP-ribosylation of actin by bacterial toxins, such as Clostridium...*7th October, 2009
Institute of Pharmacology and Toxicology, University of Ulm Medical- Infect Immun. 2009 Oct 5. ([DOI Direct Link](#))
 - [Recombination and insertion events involving the botulinum neurotoxin complex genes in Clostridium botulinum types A, B, E and F and Clostridium butyricum type E strains.](#)
*BACKGROUND: Clostridium botulinum is a taxonomic designation for at least...*7th October, 2009
Bioscience Division, Los Alamos National Laboratory, Los Alamos, NM 87545,- BMC Biol. 2009 Oct 5;7:66. ([DOI Direct Link](#))

- [Botulism baby is stable in hospital](#)
The Courier: Nov 6 2009 5:07AM Matching: botulism
- [Paralysing condition puts baby in hospital](#)
The Courier: Nov 5 2009 7:57AM Matching: botulism
- [Health Highlights: Oct. 20, 2009](#)
National Womens Health Information Center: Oct 20 2009 6:34PM Matching: botulism

Botulism Clinical Trials:



- [Botulism Antitoxin Effects on Paralysis Induced by Botulinum Neurotoxins in the EDB Muscle](#)

Botulism Patents:



- 7524938- [Antibodies and pharmaceutical compositions containing same useful for inhibiting activity of metalloproteins](#)
- 7547536- [Method for detecting bacterial spores](#)
- 7547662- [Target recognizing binding agents](#)
- 7551279- [Systems and methods for detecting normal levels of bacteria in water using a multiple angle light scattering \(MALS\) instrument](#)
- 7553446- [Biological agent decontamination system and method](#)
- 7553504- [Feeds containing hop acids and uses thereof as supplements in animal feeds](#)
- 7553651- [Crystal structure of SNAP-25 in complex with botulinum neurotoxin and uses thereof](#)
- 7556817- [Clostridial toxin activatable Clostridial toxins](#)
- 7560113- [Inactivating organisms using carbon dioxide at or near its supercritical pressure and temperature conditions](#)
- 7560251- [Media for Clostridium bacterium](#)
- 7560534- [Molecular conjugates comprising human monoclonal antibodies to dendritic cells](#)
- 7544978- [Lipid nanotube or nanowire sensor](#)
- 7542138- [Sample container and system for a handheld spectrometer and method for using therefor](#)
- 7541434- [Polypeptide for a TRP channel family member, TRP-PLIK2, and splice variants](#)
- 7527765- [Consumer food testing device](#)
- 7527966- [Gene regulation in transgenic animals using a transposon-based vector](#)
- 7531179- [BoNT/A peptides and methods of predicting and reducing immunoresistance to botulinum toxin therapy](#)
- 7531183- [Biologically active hemagglutinin from type A Clostridium botulinum and methods of use](#)
- 7531366- [Bead based assays using a liquid crystal reporter](#)
- 7534431- [Methods and compositions for administering therapeutic and diagnostic agents](#)

- 7534779- [Quinol compound and pharmaceutical composition](#)
- 7534803- [Method of treating demyelinating diseases or conditions](#)
- 7534863- [Leucine-based motifs and enhanced biological persistence of clostridial neurotoxins](#)
- 7537577- [Low-profile, radial nerve splint with interchangeable resilient digit extensor elements and supination adjustment means](#)
- 7563874- [Therapeutic monoclonal antibodies that neutralize botulinum neurotoxins](#)
- 7564245- [NMR device for detection of analytes](#)
- 7595192- [Process for the production of temperature-induced tumor cell lysates for use as immunogenic compounds](#)
- 7597886- [Tumor necrosis factor-gamma](#)
- 7598027- [Botulinum toxin screening assays](#)
- 7598348- [Adiponectin receptor variant, AdipoR2v2](#)
- 7601745- [Heterocyclic NF-kB inhibitors](#)
- 7605236- [Antibodies that immunospecifically bind to B lymphocyte stimulator protein](#)
- 7605238- [Human CTLA-4 antibodies and their uses](#)
- 7608451- [Gene regulation in transgenic animals using a transposon-based vector](#)
- 7611856- [Mass spectrometry-based methods for detection and differentiation of botulinum neurotoxins](#)
- 7612040- [Lefty polypeptides and derivatives thereof](#)
- 7595160- [Analyte detection using barcoded polymers](#)
- 7595038- [Methods of treatment using antibodies to follistatin-3](#)
- 7592010- [Albumin fusion proteins](#)
- 7566533- [Clinically intelligent diagnostic devices and methods](#)
- 7569384- [Albumin fusion proteins](#)
- 7569850- [Lipid bilayers on nano-templates](#)
- 7572618- [Polynucleotides encoding novel PCSK9 variants](#)
- 7572781- [Prodrugs for use as ophthalmic agents](#)
- 7578969- [Decontamination system for mail and other articles](#)
- 7579010- [Botulinum toxin pharmaceutical compositions with a recombinant human serum albumin](#)
- 7582438- [EphB receptor-binding peptides](#)
- 7587030- [System and method for providing centralized emergency management](#)
- 7588885- [Use of biocistronic DNA constructs for identifying compounds that inhibit IRES-dependent translation](#)
- 7613515- [High frequency vagal blockage therapy](#)

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