Botox in Dentistry
Alec S. Griffin, DDS



New and Scary

- We tend to fear things we don't understand.
- The more informed we are about a topic more appropriate and logical decisions can be made
- · I recommend an in depth evidence based approach
 - Literature review
 - Continuing education
 - Study of political climate

DOPL & State Legislature

- Larry Marx: The current law does not address Botox or dermal fillers. The use of these products by dentist is neither prohibited or specifically permitted in the statute or rule. The Utah Dental Licensing Board does not make laws or recommend law changes to the Utah Legislature. To have Botox or dermal fillers specifically allowed for cosmetic use by dentist the Legislature would be the ones to add language in the Dental Practice Act... The key portions of the above statutory language are in (7)(a)(i). If a dentist feels the treatment they are providing is within the definition of dentistry and they are within their competency based on education, training and experience they may perform treatment.
- Stuart Adams: Larry Marx explains well the reasons why we cannot give this practitioner a perfect answer on Botox. The law doesn't always perfectly define what may or may not be done. When that is the case, we generally try to take a liberal reading of the statute to favor people trying to do business in Utah. I think you will see in Larry Marx's email that he responded much better than bureaucratically, even telling them "The current law does not address Botox or dermal fillers. The use of these products by dentist is neither prohibited or specifically permitted in the statute or rule." Larry further guided them by saying, "The key portions of the above statutory language are in (7)(a)(i). If a dentist feels the treatment they are providing is within the definition of dentistry and they are within their competency based on education, training and experience they may perform treatment." In other words, when the law is unclear, we try to advise them to read the law and decide how to proceed themselves.

Can Dentists Administer Botox?

O Dr. Engar - PIE covering Botox and dermal fillers for cosmetic purposes and therapeutic uses as long as provider can prove they are properly trained.

BENERAL DENTISTS AND BOTOX

Recently DOM: has determined, after review by the Anatom feeters? within, that the Persicle has and fairly recently fittle decisis having sucking that should or would preclude premi occasis in both them being able to see Alman or man demail Given in, the hand and seek region for eather proposes Therefore, DOM: how fairly prior places destricts for particle file to restrict about provides own they have necessical present.

Mery of two may worker while appear if any, this development, he are spur III, a nazuma sorieties. We have elemented that the upon of strated litters will be convered like my state domain procedure and their was in an est administrat presented surgest or designate who start their gibbs procedure. However, we self-trainer administration was non-indicated to see the certain filters was administration who considerated to see for strated littles was factors, we share he was presented as a total and and a considerate to show mer lawly that will have little in a full development wow seed by an expectations with a tilt of their strategies and their strategies of the strategies of a strategies of a format place and a present their strategies.

Source any plan to develop and formula an enformed consent form for decrease in the before they perform these procedures, but at the meaningle was suggested that you take forms that the course of the meaning to be suggested to the procedure of the course of the course

DOM, administrators have influenced one than regularizated details one of dental fillers will hantenly be complaint effects absorbing decision who perform those providence, should have what they will be provided to the providence of the provided that what when the provided the performance of the providence having and statistical

In Gord We Trust

- Nebraska Dental Association Recommended the use of Botox and Dermal fillers in dentistry.
- O VA GPR: Teaches Botox administration
- Nebraska ADA meeting I attended in 2015
 - I remembered Dr. Christiensen saying, 'Dentists are uniquely qualified to administer Botox. Who gives more injections in the face?'
 - I wanted to make sure I was remembering that correctly so he is not misrepresented.
 - I sent an E-mail to Dr. Christensen's assistant Toni Wengreen to make sure I remembered correctly.

Dr. Gordon Christensen

Total Wengreen

10: Alec Griffin

RE: Botes in Utan

September 30, 2016 of 8:22 Ass All Mail + opto (20)



New contact into found to this estable son! Wengion add...

Dear Dr. Griffin: Here is Gordon's response to your email.

Alec: Congratulations on your involvement with the UDArelative to the Botox challenge. I feel that the entire subject is only political and that dentists, properly educated, are THE MOST appropriate practitioner for many of the uses of Botox and derma fillers.

Go for It!

Regards, Gordon

Toni C. Wengreen
Chief Operations Officer - Practical Clinical Courses

Administrative Director - CR Foundation www.cliniclansument.org 3707 N Canyon Road, Stc. 3D Provo, Utah 84504

Dr. Louis Malcmacher

President, AAFE (American Academy of Facial Esthetics)

- O Dr. Christiensen Recommended
- AAFE courses: "fulfill medical and dental state regulatory board requirements for adequate training and have been accepted as fulfilling proper training needed for injectables."
- "I have personally worked with many of the state medical boards and dental boards around the country in this area for the last 10 years. This includes Utah when I had a number of conversations with Noel Taxin from the DOPL at that time who oversaw the medical and dental boards in Utah..."
- Malpractice insurance: "TDIC, Medical Protective, at this time most dental liability insurances either cover it or have a rider available."

Dr. Malcmacher

- Me: "I have been working on clarifying state Botox regulations in Utah. The board has asked me to put a presentation together and I wondered if you could help me with some information about yourself and if there have been any issues with general dentists administering Botox in your state!"
- Dr Malcmacher: "I am not aware of any patient clinical issues or complaints that have ever come before a dental board regarding Botox and fillers, that by itself should tell you that it is as safe if not safer than any other areas of dentistry."
- "Everyone agrees this is now within the scope of dental practice. The AAFE has given and is giving its live patient training courses at the ADA annual meeting the last few years and this coming year. I have even done a video with Dr. Gordon Christensen on the use of Botox and fillers in dentistry. Also see some articles attached. There are now constant articles about Botox and fillers in dental journals, the attached are an example."
- "The best the board will tell you is what we already know other boards have said if the dentist uses it within the scope of dental practice and they document is appropriately, it is fine. It is up to the dentist to make sure they are within the scope of dental practice. That is what the AAFE has been teaching in Utah for nearly 10 years already."



October 18-22 Honolylu

AMERICA'S DENTAL MEETING





Facebook





Louis Malcmacher

Dr. Louis Malemacher maintains as asthetic and general practice in Bay Village, Chio. He is an externationally recognized facturer and outnot, known for his catentaining and is an elementionally recognized facturer and outling, known for his entertaining size comprehensive teaching buyls, He has varie observed in total habite stribution and has taught tens of housands of healthcare professionals in the areas of amile design esthetics and facial injectible therapy. He has also included at many major medical and densal meetings throughout the US. Canada, Europe, and the Middle East. Dr. Maternacher has also been extensively featured in the general media. His interviews have been seen on CNN. Fox. ABC., CBS, NBC, 2020. Wall Street Journel, New York Times, Johne, Shape, Washington Pent, Clavedmid Plain Deator, Central Free Press, CG, Edges, Newwissek, Reador's Digest, and Merin Health. Dr. Maternacher is a master said of Life Leng Sorvice. Recipions of the Academy of Coneral Dentistry, a fellow of the International Academy of Coneral Dentist Facial Einheites, a fellow of the World Clinical Lacer Institute, and a veiling Secure at a number of Universities. Dr. Malemacher in President of the American Academy of Facial Esthebucs, the AAPE, which is a matth-desciplinary healthcure equantional regular Europus, no recent whose a manufacture and participation of statements become organization with medical and densal professionals learning auto by side the best techniques for eatheric and therapeutic facial esterics and facial pain thorapy for the best available patient treatment outcomes.

Conflict of Interest Discipaure: None reported

Presentation(s):

4205 - Botox Therapy for Every Consai Proofice Wednesday, October 17 7:00 pers - 3:00 pers



CHRISTENSEN INTERNATIONAL STUDY CLUB

MEDITERRANEAN CRUISE 2019

Dontal Assistint

Degrans and Irea

Dateount Peckages

Estretic Demistry

Inspirant Dentistry Indequan Control

Operatore Dentiern Oral Madicino

Oroll Durgery Penodenias

Preventive Dentistry

Prosidentias, Fixed

CE Coulten

Programoe Coding Monuses

Botox and Dermal Fillers in Dentistry



FPODJET DETAILS

Louis Malcmacner, DDS & Gordon Christensen, DDS, MSD, PhD

by dentists. Are you ready for some changes in your practice? Who knows more about facial esthetics, or al musculature and the psychology of facial appearance than dentists? Louis Malcrinacher is a well-recognized planeer in this area, and this video presentation includes Gordon asking Louis all of the questions that are on your mind about this subject. A clinical demonstration on a patient shows the simplicity of the concept. Topics included are:

Current providers

- Physicians
- Midlevel Providers
 - Nurse practitioners
 - Physician assistants
- Registered Nurses
 - Many providers delegate a bulk of injections to staff
- Oral and Maxillofacial Surgeons (most states)
- Dentists
 - (Vivalearning: Dr Malmacher stated that almost all states allow therapeutic botox use and over thirty now allow it for cosmetic

Pacific Training Institute

Canadian company that provides training for both Canadian and U.S. providers. According to PTI, "92% of physicians performing botulinum toxin [injections] have no formal training in the field of botulinum toxin, nor guidelines laid out by their regulatory body. Physicians are not required to take any additional training in order to provide botulinum toxin or dermal fillers." Dentists and registered nurses require postgraduate education to perform these procedures. A registered nurse may perform these services under the supervision of a physician or a dentist. These guidelines have been consistent with current legislation in the United States.

Massachusetts 2013 Decision

- Massachusetts approved the use of botox and dermal fillers in 2013. The group created to investigate the use of these products said, "The task force unanimously felt strongly that it's an area that dentists can definitely work in and deliver without a problem, given our background and training."
- The article from the ADA newsroom also states:
- Massachusetts dentists who want to administer Botox and fillers must be board certified in oral and maxillofacial surgery or have completed a minimum of eight hours chaining in the administration of botulinum toxins and/or dermial fillers that includes instruction in the anatomy of head and neck, neurophysiology, patient selection, pharmacological effects and contraindications, management of complications, informed consent and hands-on training on the administration of the agents. The training must be offered by a continuing education provider approved by the ADA's Continuing Education Recognition Program, the Academy of General Dentistry's Program Approval for Continuing Education or another nationally recognized and accredited entity approved by the dental board.
- The ADA supports dentists performing any procedure for which they are qualified by education, training and experience and consistent with the laws of the stare in which they are practicing. The Association is aware of at least 20 states that have addressed the issue of general dentists administering Botox. (Soderlund).



Massachusetts approves Botox policy for dentists

By Holly State fluor, ADA News staff

Boston-Massachusetts denbats can administer Botox and derma Ellets to pelledis as part of their overall dental treatment plan, per a new stahr requisitory policy:

The Measurchisen's Beand of Registration in Demistry expressed his policy unanimously March 6, joining at teast 20 other shales that address the issue of purposed demissioning behalfrom boxes, the desired name for whatsi commanly known as Botox. On Mine Paul, their of the center board, and one established a paid force less year to study the proc and cons of implementing a Botox policy.

The task force unanimously felt attengly that its on area that dentists can definitely work in and deliver without a problem, given our bookground and training. "On Paul said

One of the concenents attacking the decision was based on the locus of temporomandiation grant secretars to flustion's three dental achools—Boston, horized and Turts universities—and now flustax can must the condition, Dr. Pout said.

Massachuseits electrists who want to agriturette Bobo and filters must be board certified in ord and makilipticate suggety or have consistence a trainism of eight house of training in the administration of obtainment speaks under dearers filters that includes instruction in the analoney of head and neck, nourophysicilitys, patient selectrist, phasmachiopical effects and posteriorisms, massagement of complications, informed sonsers and neather-on training on the administration of the agents. The training must be offered by a continuing education province spaceured by the ADA's Confincing Education Recognition Program, the Ada's Godeniy of General Centistry's Program Approvation Continuing Education's response to another neithorshy recognizing and piccreditio detity responsed by the serial feath.

Botox and Biosimilars

- O Botox (the eponym)
- O 1. Aboboulinumtoxin A (Dysport)
- O 2. Incobotulinumoxin A (Xeomin)
- 3. Onabotulinumtoxin A (Botox, Botox cosmetic)
- O 4. Rimabotulinmtoxin B (Myobloc)

Botox Mechanism of Action

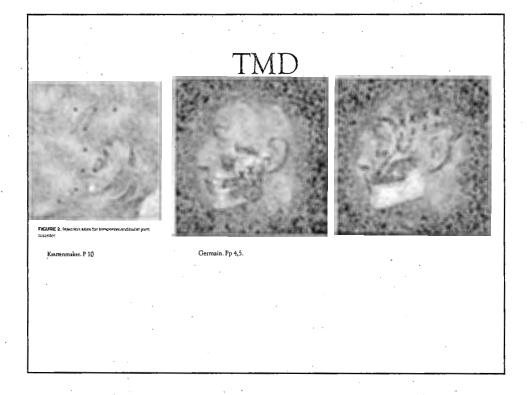
- O Botox® is considered to be in the same class as any injectable; similar to a flu shot
- O Mechanism of action:
- The botulinum toxin is a neurotoxin that acts at the neuromuscular junction. It blocks the release of acetylcholine thereby reducing neuromuscular contractility and function. The effects of the toxin wear off over time (roughly a three month period) as the docking proteins affected regenerate (Small).

Adverse Reactions

- Generally Safe
- Allergic reactions
 - Rash, itching, headache, neck/back pain, muscle stiffness, difficulty swallowing, short of breath
 - Nausea, vomiting, sore throat
- O Spread to distant site (Black box warning)
- O Ptosis

Contraindications

- Pregnancy/lactation (Class C)
- Allergy to any of the Botox constituents
 - Egg protien allergy (Albumin in drug has crossreactivity)
- O Drugs that can interact
 - Aminoglycosides
 - Anticholinergic drugs (&other drugs affecting neuromuscular transmission)
 - n May potentiate the affect of Botox
- O Neuromuscular diseases .
 - Myasthenia gravis
 - Guillian-Barre Syndrome
 - Amyotrophic Lateral Sclerosis
- Psychologically unstable patients

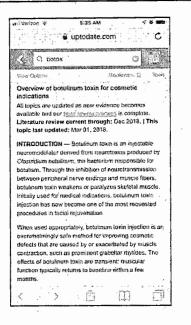


Applications

- O Botox injections have been recommended in dentistry to alleviate:
 - TMD (especially helpful for myofascial pain),
 - Bruxism.
 - Oromandbular dystonia,
 - Mandibular spasm,
 - Pathologic clenching,
 - O Trismus prevention,
 - An adjunct for dental implant integration,
 - To correct gingival excess ("gummy smile")
 - Masseteric hypertrophy (Nayyar et al.).

Applications Continued

- Other applications (to include both on and off label use):
 - Wrinkle prevention
 - Overactive bladder
 - Urinary incontinence
 - Upper limb spasticity
 - Cervical dystonia
 - Severe avillary hyperhidrosis (excess sweating)
 - Blepharospasm (eyelid spasm)
 - Strabismus (squinting)
 - Siglorihea and other secretory disorders
 - Facial nerve palsy
 - Headaches (implortant to note treating migraines should be discussed with neurology in order to rule out any headache attributed to brain pathology ie masses etc).
 - Trigeminal neuralgia
 - Facial traum
 - Adjunct to ordthodontic treatment
 - Adjunct in denture patients (Srivastava et. Al)



Conclusion

- We have a responsibility to be excellent for our patients
- Dentists have an excellent foundation
 - With appropriate training can provide excellent service
 - Understand pharmacology, anatomy, administration, and complications
- I recommend requiring training as other states have done and as PIE requires
 - 8-10 hours of hands on CE for Botox and Dermal fillers
 - Supportive statement from the board as that from the Massachusetts state board to reduce liability and make it easier to acquire the medications.

Works Cited

- PCC Dental CE Video: https://www.pccdental.com/products/ce-dvd-library/botox-and-dermal-fillers-in-dentistry-2.php
- https://www.pccdental.com/uploads/files/1034/V1570-Complete-Packet.pdf
- Cameo Collage. Esthetic Training. http://cameocollege.com/about/
- Cameo Collage Flier. http://cameocollege.com/docs/AestheticsFlyerRev.10-26.pdf
- Monheit, Gary D. et. Al. AboborulinumtoxinA: A 25-Year History. <u>Aesthetic Surgery</u> <u>lournal</u>. 2017 May; 37(Suppl 1): S4-S11. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5434488/
- Naysar, Pranav. BOTOX: Broadening the Horizon of Dentistry. <u>Journal of Clinical and Diagnostic Research</u>. Vol 8 (12), 2014 Dec 5. https://www.ncbi.nlm.nih.gov/pme/articles/PMC4316364/
- Pacific Training Institute for Facial Aesthetics. What Training is Required in Order to Provide Botos® Injections! https://ptiia.com/blog/bonulinum-toxin-training/what-training-requirements-are-necessary-in-order-to-provide-botos-injections/
- Polo, Mario. An Interview with Mario Polo. <u>Dental Press Journal of Orthodontics</u>. 2017 Nov-Dec; 22(6): 14–24. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5784812/
- Royal College of Dental Surgeons of Ontario. New position on the use of botulinum toxin and dermal fillers by Ontario dentists. Dispatch. September/August 2013. http://www.rcisco.org/Knowledge/Corter/DispatchMagazine/OnlineDispatchArchive/NewpositionontheuseofbotulinumtoxinanddermalfillershContariodentists

Works Cited

- Additional information from Canada: http://www.macleans.ca/economy/business/brush-floss-and-botox/
- Even more Canadian info: https://www.cdsbc.org/practice-resources/professional-practice/information-sheets/hotoxand-dermal-fillers-sechedule-l-drugs)
- Small, Rebecca, M.D. Botulinum Toxin Injection for Facial Wrinkles American Family Physician. 2014 Aug 1,90(3):168-175. https://www.aafp.org/afp/2014/0801/p168.html#abstract
- Soderlund, Kelly. Massachusetts Approves Botox Policy for Dentists. <u>American Dental Association News</u>. April 1, 2013. https://www.ada.org/en/publications/ada-news/2013-archive/april/massachusetts-approves-botox-policy-for-dentists
- O. Srivastava, Sanjeev et al. Applications of botulinum toxin in dentistry: A comprehensive review. <u>National Journal of Maxillofacial Surgery</u>. 2015 jul-Dec; 6(2): 152–159. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4922224/</u>
- Stewart, Kirsren. How should Utah regulate the pursuit of beauty? Salt Lake Tribune. Feb. 28, 2011. http://archive.sltrib.com/article.php?id=51305195&ivype=CMSID
- The American Association of Dental Boards (AADB). Licencing Requirements: Chart 35 "Regulation of Hyaluronic Acid and Dermal Fillers and Botulism type "A" for Dentists." https://dentalboards.org/product/thecomposite-28th-edition/.
- Additional state by state resource guide: https://www.empiremedicaltraining.com/website/docs/dental-regulations.pdf

Works Cited

- O Uptodate.com. Hyaluronic acid injections. Evidence based, physician authored clinical decision support resource. Subscription available through most hospitals.
- Wallace, Brice, Risks of Cosmetic Work Without Doctor are Noted. <u>Deserge News</u>, June 26, 2006. https://www.desergenews.com/article/640188874/Risksof-cosmetic-work-without-doctor-are-noted.com
- Winn, Washington, Jr. et.al. Koneman's Color Atlas and Textbook of Diagnosic Microbiology. 6th ed. Pp 937-938.
- Additional Articles Not Referenced
- Abdel Aly, Lobna et al. Botox as an adjunct to lip repositioning for the management of excessive gingival display in the presence of hypermobility of upper lip and vertical maxillary excess. Dental Research Journal. 2016 Nov-Dec; 13(6): 478–483. https://www.nobi.nin.nih.gov/pmc/articles/PMC.2236011.
- American Academy of Facial Aesthetics. DENTISTS DOING BOTOX? IT'S ABOUT TIME! July 10, 2014 https://www.facialesthetics.org/blop/dentists-botoxtime/
- Asutay, Fatih et al. The Evaluation of the Clinical Effects of Borulinum Toxin on Nocturnal Bruxism. Pain Research and Management. 2017; 2017: 6264146. https://www.ncbi.nlm.oih.gov/pmc/articles/PMC5516743/
- Baker, Jason S. Effectiveness of horulinum toxin type A for the treatment of chronic masticatory myofascial pain. lournal of the American Dental Association, January 2017. Volume 148. Issue 1. Pp 33-39. https://da.da.da.oru/issue/S00024817/105/000252

Works Cited

- Burger, David. Live-patient treatment courses in Borox and TMJ/facial pain lead off ADA 2015. ADA News. Septempher 29, 2015. https://www.ada.org/en/publications/ada-news/2015-archive/september/livepatient-treatment courses-in-borox-and-mulifacial-pain-lead-of-fada-2015.
- Khalifeh, Mohammag et al. Borulinum toxin type A for the treatment of head and neck chronic myofascial pain syndrome. Journal of the American Dental Society. December 2016. Volume 147, Issue 12, Pages 959–973.e1. https://daa.doi.org/article/S00028177(10387024/fullure).
- Malcmacher, Louis. Borulinum Toxin (Botox and Dysport) Use for Dental & Facial Pain Treatment.

 Dental lown.com. pp 102-107. April 201.

 http://www.dentaltown.com/images/Dentaltown/maginages/0411/DTAprilpg102.pdf
- Mock, David. Botulinum Toxin and Dentistry. <u>Dispatch</u>. November/December 2009. Pp14. http://www.endoexpertence.com/documents/Botulinumindentistry.pdf
- Roberts, Janet. Is There a Place for Botox in Dentistry? Oral Health. March 1, 2010. https://www.oralhealtheroup.com/features/is-there-a-place-for-botox-in-dentistry/
- Lavron, Thomas B. An unusual complication of Botox treatment for sialorrhoea.. 1] Surg Case Rep. 2014;5(12): 107273. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4275914/
- Sinha, Aditya et al. Botox and dermal fillers: The twin-face of cosmetic
- Dentistry. International Journal of Contemporary Dental and Medical Reviews (2015), Article ID 131214, 4 Pages. http://www.ijcdurr.com/index.php/ijcdurr/article/viewFile/117/97

Works Cited

- Krattenmaker, Kathrine. Journal of Professional Excellence: Dimensions of Dental Hygiene. The Therapeutic Use of Botox. 11/30/17.
- Germain, Lisa. Et al. Compendium. Frontline Temporomandibular Joint/Orofacial Pain Therapy for Every Dental Practice. Volume 38: No 5. May 2017. pp 2-8.