**Levator muscle** – main muscle in the upper eyelid responsible for raising the eyelid

Meige syndrome – a form of facial dystonia named after Henri Meige, in which blepharospasm is associated with involuntary movements of the mid and lower facial muscles; symptoms include forceful contractions and thrusts in the mouth, jaw or tongue causing difficulty in opening and closing the mouth and can affect chewing and speech. It is now often called cranial dystonia.

**Movement disorder** – neurological condition that affects the ability to control muscle movement; common disorders are Dystonia, Essential Tremor, and Parkinson's disease

Myectomy (limited or radical) – surgical procedure to remove some or most of the muscles that close the eyelids; sometimes performed on patients for whom BoNT is not effective; often BoNT injections are still needed

**Orbicularis oculi muscle** – the main muscle that closes the eyelid; it is shaped like an ellipse encircling the whole eye

**Oromandibular (OMD)** – pertaining to the mouth, jaw or tongue.

**Pathophysiology** – the functional changes that produce a particular syndrome or disease

**Patho** – Greek word meaning relating to disease

**Physiology** branch of biology that deals with the normal functions of living organisms

**Phenotype** – the set of observable characteristics of an individual resulting from the interaction of its genotype with the environment

**Photophobia** – extreme sensitivity to light; **not** the fear of light

**Plasticity** – the quality of being shaped or molded; the adaptability of an organism to changes

Ptosis – (pronounced \to-ses\, drooping or falling of eyelid(s) that limits the ability to fully open the eye which can result in decreased vision

**Ptosis crutches** – elevate the eyelid and allow the eye to be opened; mounted on the top inside of eyeglasses to help hold the upper lid open

**Procerus muscle** – a small pyramidal slip of muscle deep to the superior orbital nerve, artery and vein; its Latin meaning – tall or extended

**Punctal Plugs** – also known as tear duct plugs or lacrimal plugs, these are small medical devices inserted into the tear duct (puncta) to treat dry eye. They block the duct and prevent drainage of liquid from the eye; used to treat dry eye. Artificial tears are usually still required

**Residual functional capacity** – the most you can do despite physical or mental limitations that affect what you can do in a work setting

**Spasm** – involuntary contraction of muscles that can be sudden

**Synapse** – a junction between two nerve cells or between a nerve and muscle, consisting of a minute gap across which chemical signals (neurotransmitters) pass

**Thalamus** – a deep midline brain region that relays sensory and other information to higher levels of the brain (cerebrum) helping to control voluntary movements and higher mental functions

## Benign Essential Blepharospasm Research Foundation

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A Reference for BEBRF Patients



Benign Essential Blepharospasm Research Foundation



Apraxia of eyelid opening – a neurologic condition characterized by difficulty keeping the eyes open because the muscles that open the eyes don't work, not because of spasms of the muscles that close the eyes

**Artane®** (generic term, trihexyphenidyl) – An anti-movement drug taken by mouth that is used to treat some patients with Blepharospasm or Meige syndrome; said to help about 30% of patients

**Artificial tears** – lubricant eye drops used to treat the dryness and irritation associated with deficient tear production (dry eyes)

**Basal ganglia** – areas deep inside the brain that are believed to play a major role in the coordination of voluntary muscle movement

**Benign** – does not kill; is not fatal or malignant

Benign Essential Blepharospasm (BEB) – see "Blepharospasm"

Blepharo - Greek word meaning eyelid

Blepharitis – an infection of the eyelid

**Blepharospasm** – involuntary forcible closure of the eye by the eyelid muscles

**Primary blepharospasm** – usually occurs

without the symptoms of any other neurological or metabolic disease; considered to be caused by changes in the brain that have not yet been identified; most common type of blepharospasm

Secondary blepharospasm – attributed to an outside factor such as physical trauma, exposure. to certain medications, or additional neurological or metabolic diseases; sometimes associated with brain lesions or drugs

Botulinum neurotoxin (BoNT) — a biologic nerve toxin derived from bacteria which when injected directly into the muscles, temporarily weakens the muscle fibers so they remain relaxed and no longer contract, thus preventing uncontrollable muscle spasms. Note: This is the BEB "treatment of choice." It is known to wear off in about 3 months so injections need to be repeated. Individual patients will spasm differently and therefore require different dosages at different intervals.

**Brow pin** – a micro-screw device surgically implanted to help hold open the eyelids

**Chemodenervation** – used to describe BoNT injected into overactive muscles to paralyze or weaken them

**Deep Brain Stimulation (DBS)** – continuous, high–frequency electrical stimulation in the brain by means of an implanted electrode controlled by a battery just below the clavicle; these signals block those from the brain that cause spasms and tremors; most successful on larger muscles

**Dopamine** – neurotransmitter chemical found in the brain and believed to play a role in many dystonias

**Dry eye syndrome** – an ocular surface condition in which there is a decrease in the quality or quantity of tears, resulting in drying out of the ocular surface causing discomfort, visual disturbance, secondary tearing, or a foreign body sensation

**Dystonia** – a neurological movement disorder in which involuntary, sustained and repetitive muscular contractions result in abnormal movements. Some frequent types: blepharospasm (eyes), cranial (mouth & jaw), cervical dystonia or torticollis (neck), spasmodic dysphonia (larynx), writer's cramp (hand), and generalized (throughout the body)

**EMLA cream** – An anesthetic cream that can be used to reduce the discomfort of BoNT injections; applied to the injection sites 45 minutes before the injections are to be performed

**Epiphora** – Another word for "tearing"

**Essential** – the isolated critical feature

**Etiology** – the cause, set of causes, or manner of causation of a disease or condition

**Focal dystonia** – a subtype of dystonia in which a <u>single</u> body part is affected with contractions; with BEB it is in the eyelid muscles

**FL-41 glasses** – a special type of rose colored lenses that filter certain wavelengths of light and which might reduce symptoms of photophobia

**Functional blindness** – although the term "functional" has many meanings, in this context it means blindness that limits or prevents daily functions or activities (example: driving)

**Genotype** – the complete set of genes or genetic material present in a cell or organism

**Idiopathic** - of unknown cause

Hemifacial spasm – a neuromuscular disorder characterized by spasming seen on only one side of the face; this is not a dystonia but rather thought to be caused by compression of the facial nerve; treatment sometimes similar to BEB; surgery might relieve symptoms for some patients

**Klonopin**® (generic, clonazepam) – An anti-movement drug taken by mouth that is used to treat some patients with blepharospasm or Meige syndrome.