Motion passed by the Vermont Board of Medical Practice on November 6, 2019, regarding a study of the concept of revising the scope of practice of optometrists to include what is referred to as "advanced procedures" in Section 13 of Act 30 of 2019.

- Ophthalmologists receive extensive training during medical school and residency training. The quantity of training is much greater than that given to optometrists, and the vast majority of optometrists have not been trained to perform the surgical procedures that are proposed for inclusion in the optometry scope of practice.
- Generally surgical procedures of the eye present a risk of complications. For many of those procedures, recognizing when the procedure should not be done is a challenging and important aspect of being able to do the procedure.
- More education of health care professionals focused on surgical procedures leads to greater probability that the procedures will be performed only when necessary and appropriate, and in the safest manner possible.
- Allowing individuals who have less education and training than ophthalmologists to perform surgical procedures on Vermonters' eyes will subject Vermonters to greater risks.
- There is less information available to patients about adverse history of optometrists than there is about physicians. Vermont law requires public posting of adverse information about medical doctors, but not optometrists. Patients should have such information available when making decisions about something as serious and potentially risky as surgical procedures on the eye and surrounding structures.
- There is no evidence of justification for accepting greater risk on behalf of Vermont patients. The evidence shows no problem with access to care for the procedures at issue.
- Additionally, the Board has concerns about the law on the business structure of optometric practices. 26 V.S.A. § 1708(c)(1) prevents the Board of Optometry from limiting ownership of optometric practices to licensed optometrists. The Board does not have information about ownership of optometric practices, but believes that patients are best served by having decisions about carrying out "advanced procedures" made by a health care provider who is employed by a non-profit hospital or FQHC, or a part of a physician-led professional corporation made up of licensed health care professionals who are subject to standards of professional conduct and ethical standards of their profession.

Additional descriptions of "advanced procedures" under consideration

- Anterior segment laser procedures

"Laser procedures to create a capsulorrhexis prior to cataract surgery"

- this refers to FLACS (Femtosecond Laser Assisted Cataract Surgery)

The creation of the capsulorrhexis is arguably the key step of cataract surgery and considered the most difficult to master. This is a procedure that is performed in the operating room. The natural lens in our eye is like an M&M- it has a thin membrane (shell) around it (approximately 10-14 microns (0.0014 cm) thick) and inside is the lens (chocolate) which helps focus the image inside of the eye. As we age the natural lens gets thicker and becomes discolored and causes decreased vision, decreased color perception, decreased contrast, and glare. In order to access the cataract inside of the thin capsule for cataract removal a circular opening must be made in the capsule. This opening is made manually in the far majority of cataract surgeries across the nation. FLACS involves using a laser to make the opening and to initiate incisions into the eye. It is not uncommon for the laser to make an incomplete opening and incisions. The surgeon then has to use a blade to cut into the eye and complete the capsulorrhexis and incisions manually. If this is done incorrectly then a laundry list of complications can ensue, requiring that the patient have subsequent surgery, loss of vision, or loss of the eye. No part of cataract surgery should by performed by someone who has no surgical training in cataract surgery.

It is important to note that this laser used for this purpose **does not exist in the state of Vermont and that no surgeon in the state of VT is performing FLACS**. It is also important to note that FLACS requires an out of pocket cost to the patient into the thousands of dollars. It is not covered by Medicare or by private insurance. Finally, studies have shown that patients' satisfaction and outcomes after cataract surgery are no different with FLACS compared to standard cataract surgery.

Cataract surgery:

https://www.youtube.com/watch?v=J1SdWjUDDOg&feature=youtu.be

FLACS:

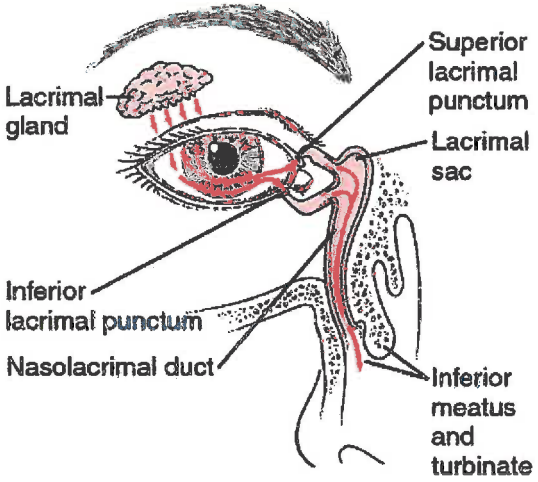
https://www.youtube.com/watch?v=xOPp__u3Soc

Injections of the eye ("not intraorbital"- is this supposed to read "not intraocular"?) **and adnexa**

- Injections of the eye – two primary reasons to have injections inside of the eye are for intraocular infection (endophthalmitis) for which the standard of care is to refer to a Retina specialist for biopsy of the vitreous (fluid inside the back of the eye) and/or aqueous (fluid inside the front of the eye) followed by an injection of antibiotics into the front and/or back of the eye. Other intraocular injections are of steroids and special chemotherapeutic drugs used in the treatment of diabetic eye disease, macular degeneration, and a host of others.

- Injections of the adnexa –

Definition of adnexa - eyelids, eyebrows, lacrimal apparatus (punctum, canaliculi, lacrimal sac, nasolacrimal duct)



Generally refers to injection of numbing (anesthetic) medicines above/within/under the skin/fat/muscle in those areas. Improper injections can cause excessive bleeding and bruising; if the patient moves or the positioning is incorrect the needle may enter the eye or enter a blood vessel around the eye and cause blindness. Injections of steroids into chalazia ("styes") may also be included in this category but are rarely done. (Treatment is warm compresses and sometimes drops/ointment in the acute phase, incisional surgery in the chronic phase if the patient is symptomatic).

- Injections into the subconjunctival space (see photo)

These are injections under the thin membranous layer covering the surface of the white shell (sclera) of the eye. These may be used by some surgeons prior to intravitreal injections. Other than that, they are rarely used unless for surgery for eyeball tumors.

- Intramuscular injection – these are injections into the muscle of the body. Included in these could be a tetanus shot, Botox into the neck for migraines (something Anesthesia physicians and Neurologists do), Botox around the eye, Botox injections into the extraocular muscles- the muscles that attach the eyes to the bones around the eye (done only by Pediatric Ophthalmologists for lazy eye treatment).
    a. Subcutaneous injection (like getting allergy shots at the Allergist's office)- unclear what this would be used for

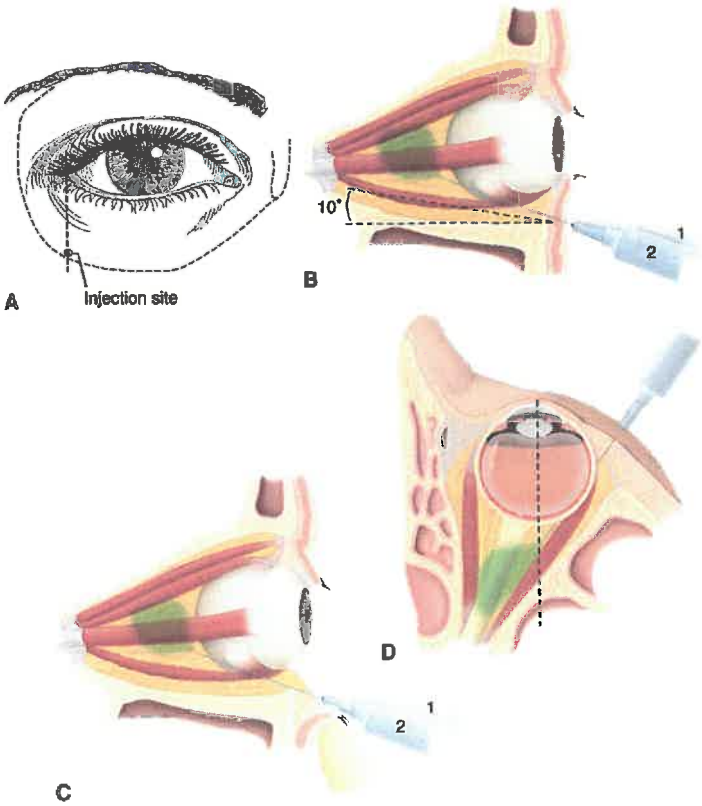
- Intravenous injections
    a. For allergic reactions – this would be liquid epinephrine given by IV to treat anaphylactic shock or cardiovascular collapse/cardiac arrest. Administering this medication can kill a person if done incorrectly. This is performed by an Anesthesiologist/Hospital Code Team/Emergency Room physician to save a patient's life.

    (Another example of IV injections utilized in surgery is conscious sedation/monitored anesthesia care/general endotracheal anesthesia which is done in an operating room. Ophthalmologists never utilize this type of Anesthesia in an office setting)

- Local anesthesia – local anesthesia is not administered with an IV

- Regional anesthesia- as it relates to the eye: a retrobulbar block- injecting medicine behind the eyeball to numb the eye and keep it from moving during incisional or laser surgery. This is done by a trained surgeon or trained Anesthesiologist. (A spinal block- epidural- given by an Anesthesiologist during labor and delivery is another example of regional anesthesia).

Retrobulbar block procedure:



Complications of retrobulbar blocks

Retrobulbar hemorrhage – bleeding behind the eyeball- blindness

Central retinal artery occlusion – loss of oxygen to the nerve/retina of the eyeball- blindness

Penetration or perforation (through one side and out the other with the needle) of the globe - blindness

Strabismus (lazy eye) – if the injection goes into a muscle connected to the eye

Central spread of local anesthetic (to the brain) – death

Decreased heart rate - death

Optic nerve damage - if injected into the covering of the nerve or causes bleeding around the nerve - blindness

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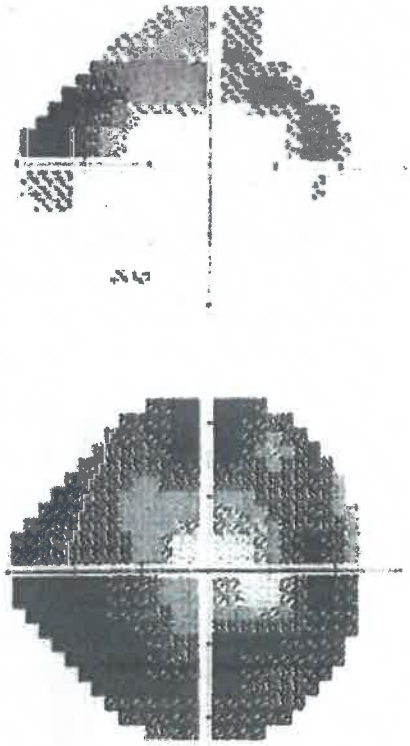
Discussion of Laser Surgery Authorized by HB 36

Glaucoma and Capsular Opacity after Cataract Surgery

HB 36 authorizes optometrists to perform laser surgery to treat glaucoma, including peripheral iridotomy (LPI) for the prophylactic treatment of angle closure glaucoma, and therapeutic lasers used for posterior capsulotomy secondary to cataract surgery.

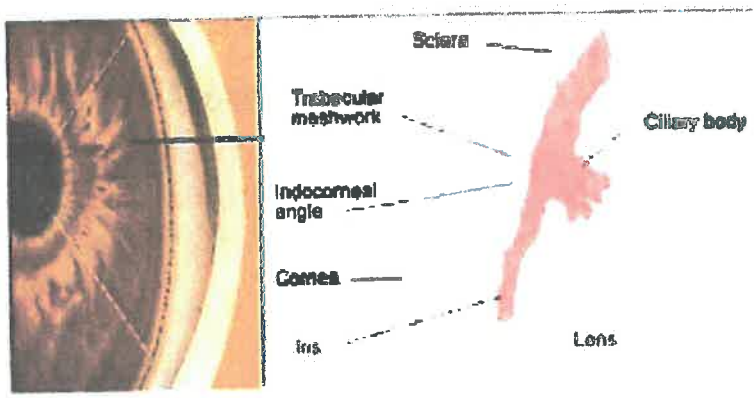
Glaucoma

Glaucoma is a blinding disease that causes damage to the optic nerve that results in visual field loss, typically starting in the periphery (outer areas) of vision (upper image) and eventually leading to central visual loss (lower image). The optic nerve damage is associated with increased intraocular (inside the eye) pressure, and treatments are typically targeted at lowering that pressure.



The diagrams below show the structures of the front of the eye related to production of aqueous humor (the fluid inside the front of the eye), which is made by the ciliary body. The blue line "follows" the aqueous pathway to the drainage structures at the iridocorneal (junction of the iris and cornea) angle that contains the ***trabecular meshwork***. Pressure rises if more fluid is produced than the angle can drain in the same time period.

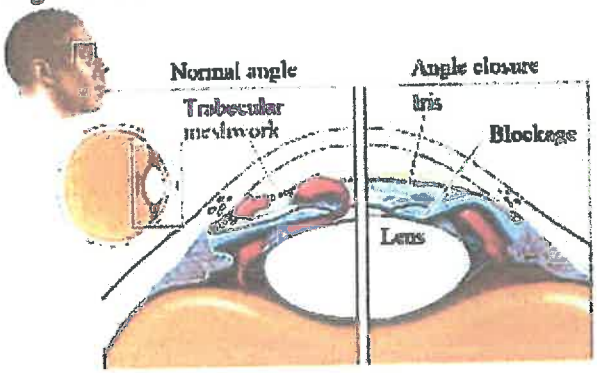
The meshwork is the primary target of laser treatment.



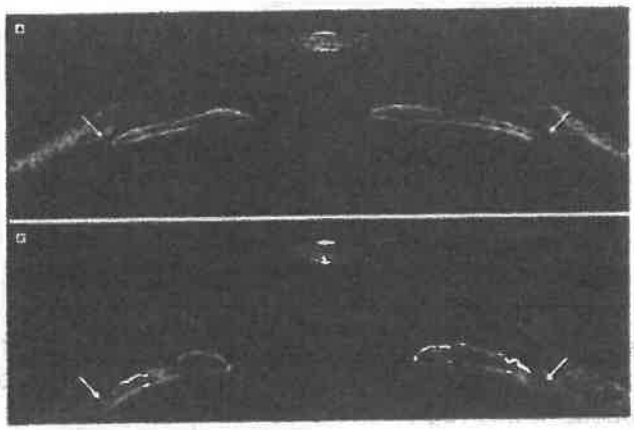
Narrow Angles and Angle-Closure Glaucoma

When a person has "narrow" angles, this refers to the fact that the iris and the domed cornea happen to be very close together, creating an angle of less than the normal 45 degrees. Since the drainage structures are located in this junction, should the iris actually **cover** the drainage structures (including the trabecular meshwork), the pressure in the eye can rise rapidly and, unless the iris and cornea are quickly separated, the drainage structures become permanently obstructed leading to permanent blindness, unless a surgical passage (basically a hole) to the outside of the eye can be created (trabeculectomy).

To help avoid that circumstance, patients with ***narrow angles that are determined to be "occludable"*** (i.e., you can demonstrate with instruments that the trabecular meshwork can't be seen under certain conditions), or if someone has a suspiciously high pressure when the angle appears narrow, an ***iridotomy*** (basically a hole in the iris) can be placed near the angle to allow free flow of fluid from behind the iris to the front chamber and drainage structures. This flow tends to allow the iris to fall back from the cornea, limiting the ability of the angle to close.

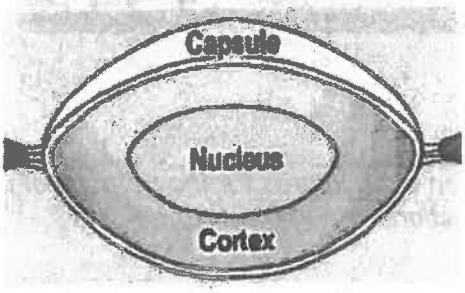


In this photo taken with a special microscope, the arrows mark the trabecular meshwork. Note the relatively wide space near those structures in the upper picture compared to the iris covering the same area in the lower image.

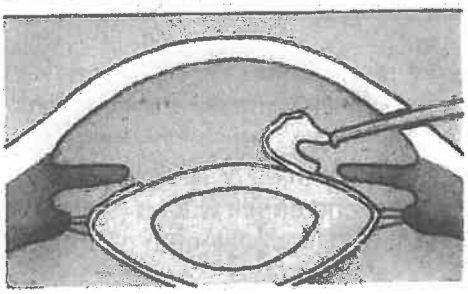


Capsular Opacity after Cataract Surgery

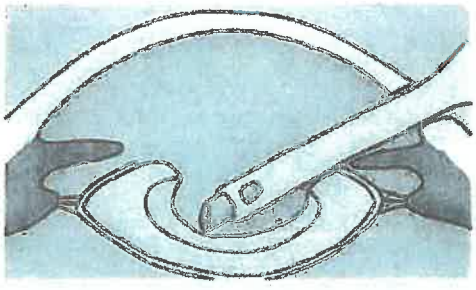
Cataract is a clouding of vision that results from aging changes to the crystalline lens, which is suspended by extremely fine stand-like structures in the space behind the iris. The lens is composed of a very thin, clear, membrane-like capsule that encloses regularly-arranged fibers making up the cortex and the nucleus that allow passage of light with minimal disruption. As the fibers become irregular or compressed with aging, the resulting limitation of vision can be restored by their removal and replacement with an artificial lens.



During the typical cataract extraction, the front part of the capsule is removed to gain access to the cloudy material inside.



Special tools are then used to remove the cloudy material, leaving the rest of the capsule or ***"bag" to hold the artificial lens***.



With time, small ***pockets of cells*** that couldn't be completely removed likely divide and migrate, to the back of the "bag," obscuring vision. [In some cases, the specific type of cataract may include deposits in this region which remain present after the basic surgery.]

Surgical Considerations

Functional Anatomy: *Education in structures for the purpose of understanding their function with regard to movement and action.*

Surgical Anatomy: *Education in structures for the purpose of understanding their physical interconnections to allow alteration and avoid collateral damage.*

> ***The latter is not truly understood until one actually acquires EXPERIENCE doing surgery.***

The Laser as a Surgical Tool

Lasers produce "collimated" light, that affect the molecules of tissue they strike to achieve ablation (vaporization), coagulation (coagulation), and shock waves (disruption), among other options. These are to a great degree dependent on the wavelength of the light they produce.

Argon laser is well absorbed by pigments and tends to have glaucoma uses for ***trabeculoplasty*** (applied to a specific part of the trabecular meshwork resulting in "tightening"), and to either perform ("burn through") or prepare (tighten or partially destroy to allow a second laser to be more effective on) a darkly pigmented iris for an ***iridotomy***.

YAG (Yttrium-Aluminum-Garnet) ***lasers*** for glaucoma purposes are absorbed by pigment as well, but are more diffusely applied (e.g., over all angle structures. They can also produce "shock waves" to perform an iridotomy or to treat a cloudy capsule after cataract surgery.

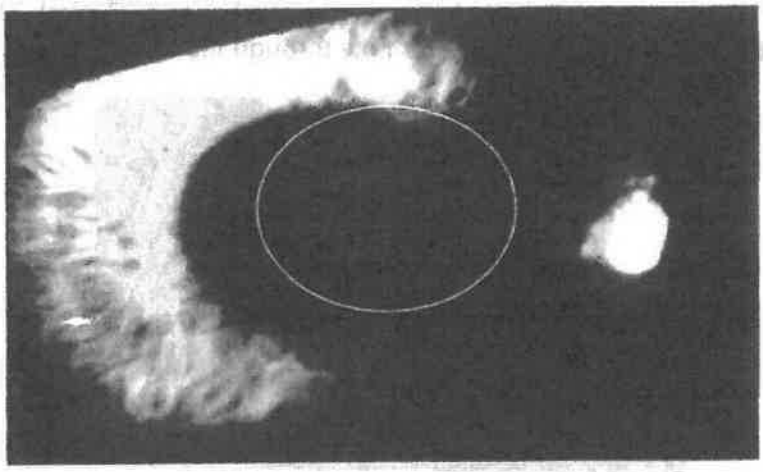
Femtosecond lasers disrupt or vaporize tissue and, when focused within a structure, can divide the tissue into two parts, in a defined plane such as to construct an entrance into the eye – femtosecond laser cataract surgery.

An excimer laser is used to specifically ablate (vaporize) tissue along its surface. This is the laser used to create the flattening or steepening of the cornea to treat nearsightedness or farsightedness (respectively).

Commonality of Laser Treatment

The one thing they all have in common is that they deliver ***ENERGY*** to achieve their effect. This impacts the way tissue – ANY tissue – heals, and thus a laser treatment can produce both ***good and harmful effects***.

Several refractive surgery techniques would be authorized by HB 36. Refractive surgery complications are ***similar to the complications caused by other types of lasers authorized by the bill.*** Consider the following cornea showing scarring (haze inside the circle) in the visual axis. The scarring results from excessive healing in response to laser energy that must be properly modulated through careful patient selection (meaning a decision in advance NOT to do the surgery) or with medications to avoid or limit this complication.



Put simply, other structures of the eye treated with energy are ***not spared*** the potential side effects simply because the changes are not easily seen.

Overview of Surgical Process

- ***Pre-operative care***
  - *Evaluate the patient*
  - *Use knowledge base to define the differential diagnosis*
  - *Determine that surgical approach is required*
  - *Evaluate medical status, appropriateness for surgery*
  - *Obtain consent for procedure including risks, benefits, alternatives, and potential complications.*

- ***Surgery (Actual Procedure)***
  - *Create sterile field (sterile instruments to be placed on the eye)*
  - *Achieve local anesthesia (topical to allow toleration of anylens).*
  - *Application of laser energy*
  - *Application of antibiotics and prophylactic pressure lowering medication (topicale)*

- ***Post-operative care***
  - *Monitor for complications (pressure rise, intraocular lens dislocation, retinal detachment, etc).*
  - *Possible re-operation if inadequate result or complication.*
  - *Determine if any additional care is required, referral for other types of therapy (retinal surgery, etc.)*

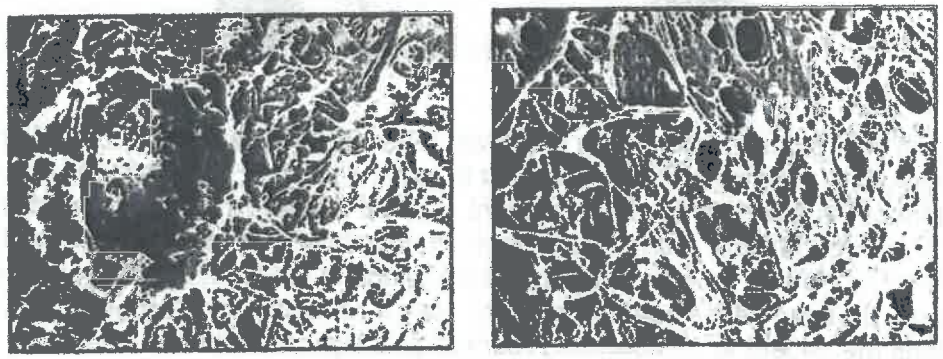
Argon and Selective Laser Trabeculoplasty

Laser energy is applied to the trabecular meshwork of patients who have failed medical therapy (drops) in terms of controlling their eye pressure at a "target" level. This is believed to "tighten" the structures and allow more fluid to flow through them.

A lens with special mirrors is used to direct the light energy into the angle of the eye.

"Spots" of energy are placed along the desired structures. Argon laser trabeculoplasty requires a much finer spot. Selective laser trabeculoplasty a more "diffuse" spot.

Electron microscopy shows the "focal" damage to the tissues caused by argon laser trabeculoplasty (on the left) while more "diffuse" treatment limits the structural damage with selective laser trabeculoplasty.



It should be kept in mind that significant ***overtreatment*** (including from wrong settings on the devices) with ***either*** technique would likely damage the structures and ***limit*** their function, meaning the pressure could actually ***rise*** from treatment.

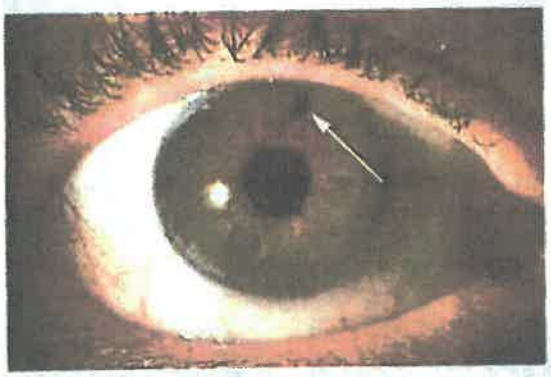
Similarly, if energy were either not delivered at all or delivered inadvertently to surrounding structures, there would likely be ***NO pressure lowering effect*** and possibly unpredictable effects from the damage caused to those unintended structures.

Complications include:

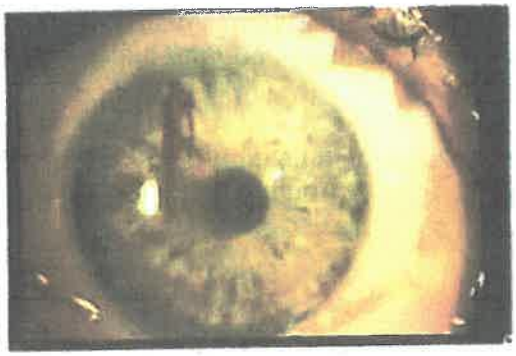
- Severe post-operative intraocular pressure rises, possibly "snuffing out" an already damaged/weakened optic nerve in severe glaucomas.
- Iritis (inflammation of the iris)
- Corneal abrasion/infection/ulcer (from contact lens)
- Conjunctivitis
- Reactivation of ocular herpes
- Corneal decompensation
- Corneal abrasions from the lens used to apply laser
- Cataracts

Iridotomy

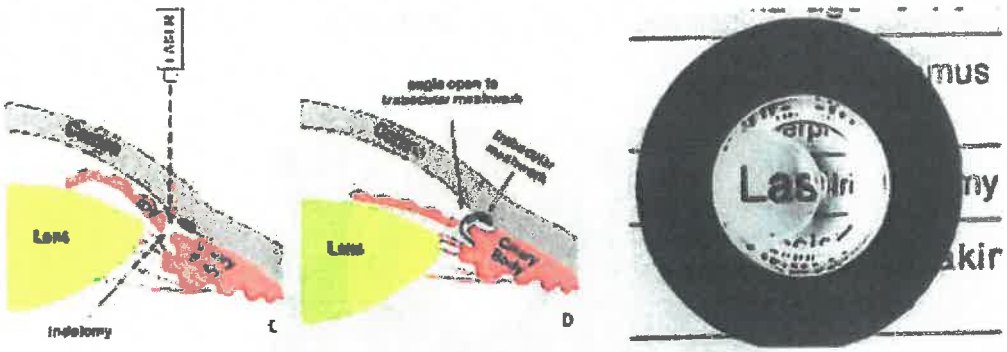
As indicated previously, in a patient with "occludable" angles or a known history of intermittent intraocular pressure rises related to angle-closure, an ***iridotomy*** (basically a hole in the iris) can be placed near the angle to allow free flow of fluid from behind the iris to in front of the iris. This flow tends to allow the iris to fall back from the cornea, limiting the ability of the angle to close.



Placement and size of the iridotomy are important to avoid ***double vision*** from a "second pupil". Energy levels must be carefully selected to avoid distorting and disfiguring the pupil. The placement of the iridotomy is also important to avoid ***bleeding*** and extreme ***pain*** from hitting nerves during the laser procedure. These photos show that bleeding from hitting a blood vessel in the iris can progress to a hyphema (blood in the front of the eye, shown in another patient) that can cause severe pressure rises if not addressed properly, occasionally requiring taking the patient to an operating room to do surgery to remove the blood.



As indicated earlier, treatment can be done with an argon or YAG laser (or a combination). This picture shows the approximate "path" of the laser energy, which is directed to the general region of iridotomy placement by special lenses that magnify the peripheral iris (unlike in treatment of the trabecular meshwork which requires a special lens and ***mirrors***).



Note, however, that the hole is made very ***close to the edge of the lens and the fibers*** (zonules) holding the lens in place. Stray laser energy can damage these structures, and can result in ***cataract*** if the iridotomy opening is not made far enough out on the iris.

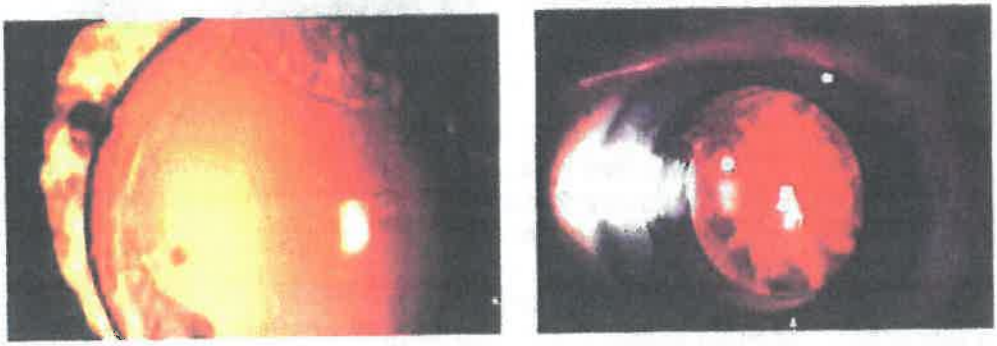
Complications

In addition to the complications possible with laser trabeculoplasty, iridotomy additionally has these potential complications:

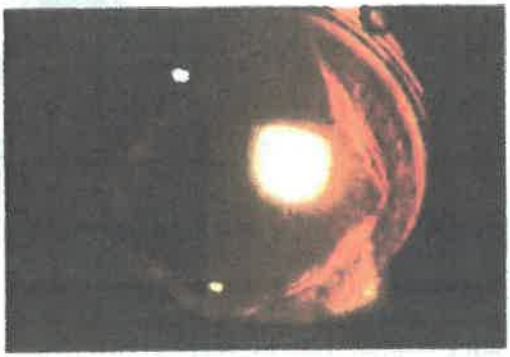
- Intraocular bleeding
- Pupil distortion
- Double images
- Glare, seeing streaking lights during night time driving
- Cataract

Posterior Capsulotomy

For this purpose, a YAG laser is used to create "shock" waves to disrupt the relatively taught cloudy posterior capsule in order to create a clear opening. The two images show variations of the "clock" technique, where the opening is made in a circle (note the "saw-tooth" pattern on the right). This can produce a free piece of material (the center of the circle) that can float in the gel inside the eye (the vitreous) and be bothersome to certain patients.

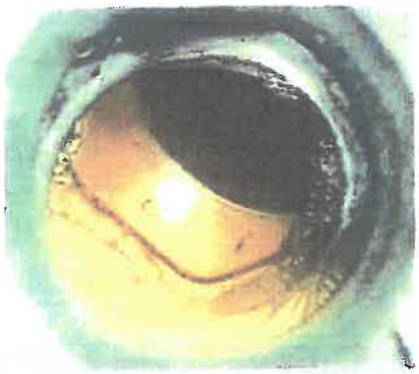


Another technique is to make a small opening in the center and to extend it horizontally and vertically in a "cross" pattern attempting to get the triangle-shaped flaps to retract and create the desired sized opening.



Both techniques (more likely the latter) can result in a serious complication ***if the tears created extend outward*** (peripherally), allowing the intraocular lens to move in the direction of weakness as shown in the left photo (the intraocular lens has moved up and to the right of the picture, the darker part being the edge of actual "lens" and the clear part next to it down and left being a "plate" that normally is supported by the edge of the "bag" on both sides. The right photo shows a similar case where a round lens with thin plastic extensions (to stabilize it in the "bag") has ***moved downward***. In some cases the lens can ***dislocate*** completely.

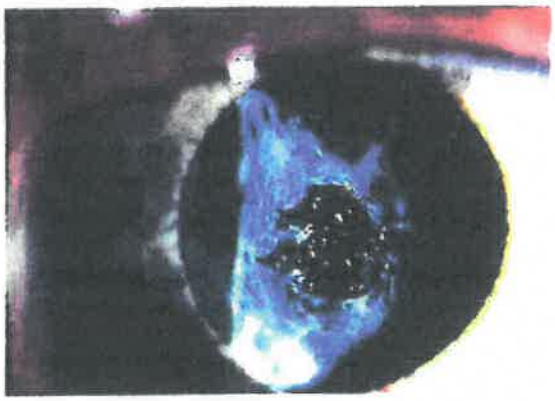
Given (in all these circumstances) the lens is no longer in the visual axis, a ***surgery to retrieve it*** and likely replace it must occur.



Because significant "shock energy" is introduced into the eye, it is possible for this energy to have secondary effects. A common effect is (a usually temporary) ***interference in the functionality of the trabecular meshwork***, causing an intraocular ***pressure spike***, most worrisome in those with preexisting optic nerve damage.

Retinal detachment is also a known complication of this surgery, likely because a tenuous preexisting retinal hole becomes aggravated by the "shock," creating an opening for fluid to seep under the retina and peel it off (create the detachment). If this extends to the center of vision, the ultimate visual potential is greatly reduced.

Additionally, the shock waves of the laser can produce ***pits*** (the white dots in the photo below) in the lens implant if energy is not precisely controlled and placed. There are reports of lens being so badly damaged that they must be ***replaced with another surgery***.



Complications

With the addition of the potential for lens dislocation and retinal detachment, these are similar to those for argon and selective laser trabeculoplasty and laser iridotomy.

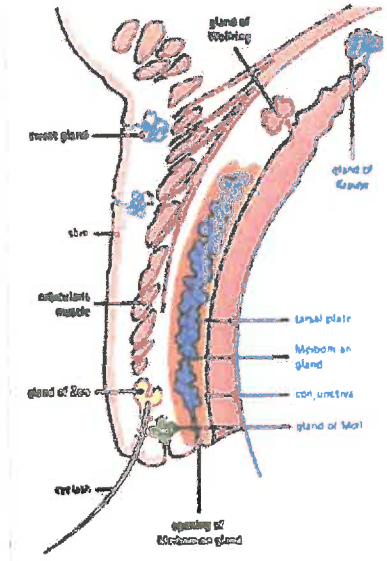
NCSEPS

Discussion of Scalpel/Suture Surgery
Authorized by HB 36

Eyelid Lesions

HB 36 authorizes optometrists to surgically remove destroy, and/or drain eyelid lesions—regardless if they are cancerous. Optometrists often describe these procedures as "minor" to remove "lumps and bumps."

Eyelid Anatomy



Eyelids are only about ***2 millimeters*** thick.

"Front Part"
- Skin
- Eyelash Follicles and Glands
- Muscle

"Back Part"
- Tarsal Plate ("Gives Stiffness")
- Meibomian Glands (in Tarsal Plate)
- Conjunctiva (Thin membrane that lines inside of lid)

Surgical Considerations

Functional Anatomy: Can be learned from books and lectures. This is education in structures for the purpose of understanding their function with regard to movement and action.

Surgical Anatomy: Can only be learned by performing surgery with an educated mentor. This is education in structures for the purpose of understanding their physical interconnections to allow alteration and avoid collateral damage.

> ***Surgical Anatomy is not truly understood until one actually acquires EXPERIENCE doing surgery.***

This lesion is very close to the ***lacrimal (tear) drainage system***. Excision must avoid these deep structures to ***prevent permanent tearing***.

This lesion (cyst) is likely close to ***muscle and nerves*** that are beneath it. Excision must avoid these deep structures to prevent damage that may cause ***ptosis*** (permanent drooping of the eyelid) or ***inability to close*** the eyelid (skin graft may be required).

Lesions Authorized Under HB 36

Benign means "Non-Cancerous," ***not*** "Small" or "Simple".

The term "Skin Tag" is ***not*** a "medical" definition, yet it is commonly used to describe skin lesions because the term sounds innocuous. However, "skin tags" are not necessarily simple or benign. Lesions are classified as "benign" or "malignant" based on their ability to ***grow***, ***invade*** deeper tissue, or ***metastasize*** (spread) to distant sites.

This lesion might be called a "skin tag" by a layperson, and is likely a benign papilloma.

This lesion also could be referred to as a "skin tag." It is likely a benign papilloma. However, from a treatment standpoint, it is larger and may require ***suture closure*** after excision, making its removal more difficult.

This lesion might also be called a "skin tag" and is likely a benign papilloma. However, from a treatment standpoint, this is located on the ***eyelid margin***, making its removal far more difficult with greater risk of functional and cosmetic side effects of removal.

This lesion is another lesion that a layperson would call a "skin tag" and it is also likely a benign papilloma or seborrheic keratosis. However, from a treatment standpoint, this is located near the ***tear drainage system***, making removal far more dangerous since ***permanent tearing*** could occur after removal.

Other lesions may or may not be called "skin tags" but would be authorized by HB 36. Examples follow:

This benign lesion in a young child is called a capillary hemangioma. It tends to regress on its own, and is only addressed if it is directly obstructing vision, which could cause amblyopia and lead to permanent vision impairment. One option for treatment is surgical excision or debulking authorized by HB 36. Attempted injection of this type of lesion has been reported to cause blindness.

Blepharochalasis is a benign process that results in excess eyelid skin (possibly fat) that may obscure vision, and that skin can be considered a "lesion." In that case a "functional" (non-cosmetic) blepharoplasty is performed to improve visual function. If improved appearance is desired, a "cosmetic" blepharoplasty is performed. Both require complex suture closure.

Chalazia are caused by inflammation in blocked meibomian glands. Although they are frequently treated without surgery, they may require surgical excision with risk of complications (note that the lesion in the upper photo is near the tear drainage system, and the lesion in the lower one is near the ducts of the lacrimal gland, which is where the majority of tears are produced. Disruption or destruction of the lacrimal gland can cause permanent dry eye syndrome and terrible discomfort.

Overview of Surgical Process

- ***Pre-operative care***
  - *Evaluate the patient*
  - *Use knowledge base to define the differential diagnosis*
  - *Determine that surgical approach is required*
  - *Evaluate medical status, appropriateness for surgery*
  - *Obtain consent for procedure including risks, benefits, alternatives, and potential complications*

- ***Surgery** (Actual Procedure)*
  - *Create sterile field*
  - *Achieve local anesthesia (injections)*
  - *Removal or biopsy of lesion by excision/incision, etc.*
  - *Coordination with pathologist (may be intraoperative) to ensure proper handling of tissue and, if malignancy suspected, clear margins (note that preoperative "clinical evaluation" may end up being wrong).*
  - *Cauterization, as needed, to achieve hemostasis (i.e. stop any bleeding)*
    Possible adjunct treatments (cryotherapy, topical anti-metabolites).
  - *Address any intraoperative "surprises." (Unexpected/abnormal anatomy, etc.)*
  - *Wound suturing/closure, as needed*
  - *Application of antibiotics and other medications (topical or injectable)*

- ***Post-operative care***
  - *Suture removal, if necessary*
  - *Monitor for complications (infection, premature separation of sutures or wound dehiscence, etc.).*
  - *Confirm diagnosis with pathologist.*
  - *Possible re-operation if residual cancer was left behind*
  - *Determine if any additional care is required, referral for other types of therapy (e.g. radiation therapy, chemotherapy, skin surveillance, survey for metastasis, etc.)*

Surgical Techniques involving Incision and (possibly) Suture Repair

Surgical removal of an eyelid lesion (per se) includes excision of the lesion with close attention to surrounding structures and achieving "clear" margins (i.e., complete removal of the lesion). Then, the defect needs to be closed with sutures or possibly skin grafts. If this is not done appropriately, the eyelid will not function correctly. The eye may be exposed, causing chronic problems, and potentially blindness. Removal of excess tissue without a skin graft can result in a "gap" between the lids and ***chronic eye dryness*** (and "exposure" that can predispose to infection).

Surgical removal of a chalazion typically involves use of a special ring shaped clamp. This clamp has a solid metal plate on one side to support the outside of the lid as it is turned outward to expose the meibomian gland on the inside of the lid. Once the gland is exposed, a scalpel is used to incise the gland. Then, a curette (looks like a melon scooper) is used to scrape residual material out of the gland. Since the eyelid is only about 2 millimeters thick, the surgeon must be extremely careful not to cut all the way through the lid with the scalpel or curette, but only into the gland itself.

Required instrumentation for surgery requires proper handling, including ***sterilization*** using heat or chemicals, and ***maintenance of required medications*** such as injectable anesthesia.

What Looks "Simple" often ISN'T

The lesion on the left looks fairly small. An inexperienced, well-meaning person might only remove the tiny lesion without realizing that this is actually a skin cancer. The photo on the right shows how extensive the needed resection was to remove this lesion entirely. This is why the optometry assertion that they will only remove benign lid lesions makes no sense at all. Unless a surgeon is checking the margins with the help of a pathologist, one cannot know by looking at the lesion if it is benign or malignant.

The four lesions below look like chalazia in different stages of their presentation, and three of them ARE. However, the lesion at the top left turned out to be a ***sebaceous carcinoma***, a very aggressive, highly malignant tumor with a ***high rate of death. This cancer was*** diagnosed when an experienced surgeon enlisted the help of a pathologist and special testing. An inexperienced optometrist cannot hope to identify cancerous lesions without surgical residency training.

Possible Complications of Eyelid Surgery

[Not All Inclusive]

- Unfavorable scarring
- Temporarily blurred or impaired vision
- Dry eyes (if tissue removal produces a gap between the lids)
- Difficulty fully closing your eyes
- Ectropion (rolling of the eyelid outwards secondary to tissue removal)
- Bleeding (hematoma)
- Poor wound healing
- Infection
- Fluid accumulation in layers beneath surgical repair
- Blood clots
- Numbness and other changes in skin sensation
- Anesthesia risks (including perforation of eye through lid as injection is performed, which can cause blindness)
- Eyelid disorders that involve abnormal position of the upper eyelids (eyelid ptosis)
- Pain, which may persist
- Skin discoloration and swelling
- Sutures may spontaneously surface through the skin, become visible or produce irritation that require removal
- Possibility of need for revision surgery
- Loss of eyesight