

The 2024 Dr. Martin Avi Hurwitz z"l Memorial Shiur: Ethics of Corneal Transplants and Ophthalmic Emergencies Through the Lens of Halacha

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This past year I have been working at an ophthalmology clinic as an ophthalmic technician, a sort of assistant to the doctors on staff. I performed diagnostic exams, scribed notes, took histories and helped with surgeries. One Monday afternoon, I arrived for work after a relaxing weekend, and I found the office abuzz with excitement. A patient had called on Friday night, describing that he was experiencing a shade over his vision, which is an indication of a retinal tear. A retinal tear occurs when the membrane at the back of the eye called the retina (Figure 1) - consisting of nerves which can sense light - breaks away from the back of the eye and ceases to send signals to the brain. If this is not treated quickly it can lead to total blindness in the affected eye.

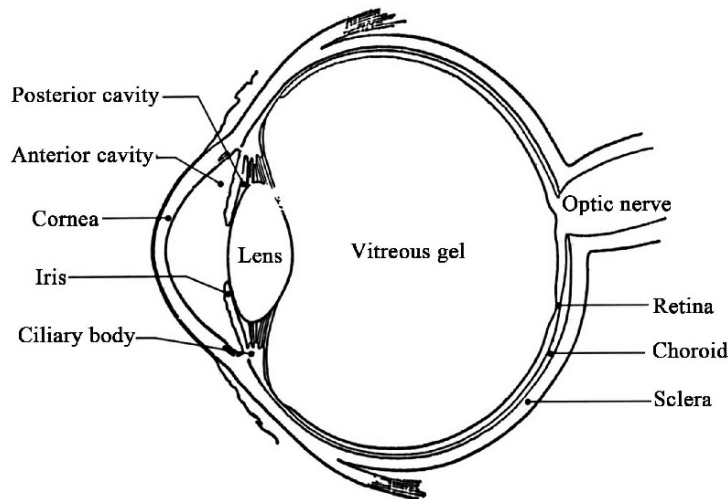


Figure 1: Cross-sectional diagram of the eye. The retina is a thin membrane of nerves at the back of the eye that transmits images to the brain. If it tears and is not attended to, the tissue will die and the eye will be irreparably blind.

The retinal specialist working for us at the time, an Orthodox Jew, went into the operating room that night and performed the necessary surgery to save the eye and restore the man's vision. Thinking of the dozens of *melochos* both *d'rabanan* and *d'oraissa* which the doctor must have violated in order to complete the procedure drove home to me how valuable health and life are in halacha. I was deeply moved by the whole episode and I decided I wanted to investigate the reasoning and sources that supported the doctor's decision to break shabbos to save his patient's vision. I will present four approaches here.

Approach #1

It turns out the most directly applicable and primary source for this scenario is the following Gemara:

אמר רב זוטרא בר טוביה אמר רב צין שמרדה מותר לכוחלה בשבת סכור מיניה הני מילי הוא דשחקי סמנין
מאתמול אבל משחק בשבת ואחויי דרך רשות הרבים לא א"ל ההוא מרבנן ורבי יעקב שמיא לדידי מיפרשא

זיני' דרב יהודה אפילו מישחק בשבת ואחויי דרך רשות הרבים מותר ... היא היא אמתא דהואי כי מר
שמאל דקדחא לה עינא בשבתא צדחא וליבא דאשגה בה פקנא עינא למחר נפק מר שמאל ודרש עין שמרדה
מותר לכחלה בשבת מאי טעמא דשוריני דעינא באוכנתא דליבא תלו
(עבודה זרה כת:)

Rav Zutra Bar Tuvia said: a rebellious eye can be smeared with blue eyeshadow on Shabbos. The initial premise was that this was said if the herbs had been ground yesterday, but to grind them on Shabbos and to bring them through the public domain would not [be permitted]. A rabbi named Rabbi Yakov responded: this was explained to me by Mar Shmuel even to grind them on Shabbos and to bring them through the public domain would be permitted... There was a maid in the household of Mar Shmuel who had a flaming pain in her eye on Shabbos. She screamed and no one paid attention to her. Her eye fell out. The following day, Mar Shmuel went out and announced: a rebellious eye may be smeared with blue eyeshadow on Shabbos. Why? The vision of the eyes is connected to the heart.

(Avodah Zara 28b)

Essentially all the Rishonim¹ infer from this Gemara that the only reason one would be permitted to treat and save an eye by violating *melochos d'oraissa* on Shabbos is because it is connected to the heart and the deterioration of the eye might lead to death. Therefore, it is clear that mere risk of losing a limb which will not lead to death, known in halacha as *sakanas eiver* is not grounds to break *melochos d'oraissa* and one may only break a *melocho dirabanan* in such a scenario.

Today, it is hard to think of a case of *sakanas eiver*. Nearly any limb which is threatened would -by current medical assessment -also constitute a case of threat to life.² For example, if one is at risk of losing an arm, if appropriate treatment is not provided the person is at risk of dying from infection or blood loss.

Ironically, threats to the eye, which the Gemara says explicitly is *not* a case of *sakanas river* since it could lead to death, sounds like an excellent example of *sakanas eiver* by today's assessment. A retinal tear for example, poses no risk to life, but it would destroy the person's vision.

This context leads us to two questions about the Gemara:

1. If the Gemara considered a scenario -such as an eye emergency -to be life threatening but today's doctors do not feel this is true, can we violate Shabbos for this?
2. What types of the eye emergencies would the Gemara consider life threatening? Is it only where the tissue of the eye is threatened as in the case of the maid whose eye fell out, or even if just the vision is threatened as in the case of a retinal tear?

The first issue appears at first blush to be put to rest by the *Shulchan Aruch*³ who rules that a Talmudic era allowance to heat water on Shabbos to bathe a baby before and after a *bris* is no longer relevant today since we do not feel there is any threat to life if this is not done.

¹ *Rosh* (Avodah Zara 2:10)

² *Shu"t Tzitz Eliezer* (Book 8; 15:10)

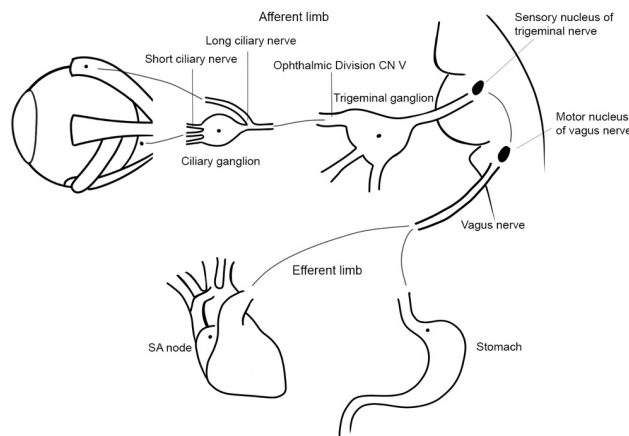
³ *Orach Chaim* (331:9)

However, there are other authorities that appear to dispute this. The *Bach*⁴ speaks of a tooth condition which the Gemara considered life threatening, and rules that if a modern doctor declares it to be safe, we should ignore this and treat the tooth on Shabbos. Similarly, Rav Kook⁵ argues that *metzitzta b'peh* must be performed today out of concern for the baby's safety, even though today's doctors do not feel this is needed. Rav Kook elaborates and explains that while the Gemara made its clinical assessments with certainty, the doctors of modern science admit that even hypotheses which have become consensus may still be overturned sometime in the future. Thus, we must give precedence to the Gemara which spoke without doubt over today's doctors who speak with doubt.

On my own, I would not feel comfortable extending Rav Kook or the *Bach* to our case of retinal tear since there may be some subtle differences between the scenarios. However, Rabbi Zilberstein,⁶ citing a different source, does make this exact argument in the case of a retinal tear.

To further corroborate this point, it is worth noting that even by the assessment of modern medicine it is not absurd to speak of a connection between the eye and the heart. The oculocardiac reflex, first observed in 1908,⁷ is a clear clinical example of such a connection. The ophthalmic branch of the fifth cranial nerve (Figure 2) innervates the muscles around the eyeball. If pressure is applied to these nerves, a signal is sent along them to the brain stem where they synapse with the vagus nerve. The vagus nerve in turn leads directly to the heart. Surgeons operating in this area around the eye need to be extremely careful not to activate the oculocardiac response since it can lead to arrhythmias and even cardiac arrest.

Figure 2: Diagram of the oculocardiac reflex. The 5th cranial nerve synapses with the vagus nerve,



connecting the eyes to the heart.

Rav Zilberstein with a case over on stomach, he was already blind, I was explaining the symptoms described in the Gemara. In a sense this is the opposite case of retinal tear. Here, the vision is threatened but only the tissue is, whereas the retinal tear is vice versa. The *Zer, Zahav* describes two versions of text of the

Gemara found in the Rishonim. Some have the text: שורייני דעינא, while others have שורייקי דעינא. The

⁴ *Orach Chaim (Siman 328)*

⁵ *Shu"t Daat Kohen (Siman 140)*

⁶ *Shiurei Torah LaRofim (Book 2, Siman 105)*

⁷ https://eyewiki.aao.org/Oculocardiac_Reflex

difference between these versions is whether the Gemara is saying that the “vision” or the “strands” of the eye is connected to the heart. *Zer Zahav* thus argues that the case of loss of tissue alone is included in the life threatening case described in the gemara according to the “strands” version. Rav Zilberstien extends this argument in the other direction: according to the “vision” version, a retinal tear would be considered life threatening by the Gemara.

Approach #2

The Meiri⁸ argues with all the Rishonim and interprets the Gemara differently. He comes to the conclusion that we can violate *melochos d'oraissa* even for just *sakanas eiver*. He claims that the Gemara's mention of the connection to the heart was never intended to suggest that an eye emergency is life threatening. Rather, the Gemara merely meant to say that the symptoms of eye pain must be treated since they will quickly deteriorate and lead to the loss of the entire eye. Per this understanding, a retinal tear certainly could be treated on Shabbos since it would lead to the loss of the eye.

The *Sridei Aish* attempted to normalize this Meiri in halacha by trying to find other Rishonim that appear to agree with him. However, Rav Scachter⁹ has argued against these comparisons and believes that the Meiri stands alone in this position. Rav Waldenberg¹⁰ sought to prove the Meiri's point directly from the Gemara itself. He notes that the Gemara never says the maid died, yet the Gemara considers the fact that her eye fell out sufficient reason to permit eye treatments going forward. This argument is brilliant, but it is undercut by a version of the Gemara appearing in the Rif,¹¹ where the maid's death is mentioned.

Approach #3

Rabbi Shlomo Kluger¹² was presented with a case where a patient would go blind if he was not treated at an elite European hospital. The hospital would only admit him if he agreed to abide by their dietary schedule which included non-kosher foods. Rabbi Kluger made a very creative argument to allow the man to do this. He first cites an unconventional source for the notion that *mitzvos* can be violated to save a life: it is not a desecration of the *mitzvah* if it is broken to save a life since really the *mitzvah* will be better observed by allowing the person to live longer and keep that *mitzvah* for the rest of his life. He also notes that there is a fringe opinion that a blind person is exempt from all *mitzvos*. Putting this all together, the blind person can be allowed to break the rules of kosher so that he can retain his vision, remain obligated in the *mitzvos* of *koshrus* and continue observing them for the remainder of his life.

Approach #4

Rav Unterman¹³ cites a case in the rabbinic literature where an epileptic was permitted to be treated on Shabbos. Though there is no clinical threat to the epileptic, his lifestyle is one of constant risk. If he experiences a seizure at any number of inopportune times throughout the day -such as when climbing a

⁸ *Meiri* (Avodah Zara 28b)

⁹ *B'ikvei Hatzon* (Siman 37)

¹⁰ *Shu"t Tzitz Eliezer* (Book 8; 15:10)

¹¹ *Rif* (Shabbos 39b)

¹² *Chochmas Shlomo* (Orach Chaim 328)

¹³ *Shu"t Shevet Miyehudah* (Miluim pg 314)

staircase or crossing the street -the result could easily be life threatening. Similarly, Rav Unterman argues that a blind person also has a lifestyle of similar risk and treatment can be provided on Shabbos. (In fact, a Lancet study¹⁴ found that people with severe visual impairment have 89% higher risk than healthy people of experiencing all-cause mortality.)

Though Rav Unterman says this in the context of total blindness in both eyes, perhaps we can extend the argument to our case of retinal tear which appears to threaten a single eye. Every individual has approximately a 0.3% chance of experiencing a retinal tear during a lifetime. However, once a tear has occurred in one eye, the chances of experiencing a tear in the second eye goes up to 15%.¹⁵ In other words once a retinal tear has manifested, risk becomes 45 times more likely. This suggests that once a person has a single retinal tear they are in a sense “diseased,” and are progressing towards total blindness -which is very dangerous -if they do not receive treatment. Thus to prevent this life threatening situation which is apparent in the offing, we can break Shabbos.

Citing some of these four approaches, Rav Zilberstien concludes that ideally a non-Jewish doctor should be called upon to perform the surgery, but if no one is available, the Jewish doctor may do the procedure. I would surmise that if the Jewish doctor is of superior skill -as was the case with the doctor in my clinic -it would be permitted to perform the surgery even if a non-Jew is available since the risk of a poor outcome would be mitigated this way.

Corneal Transplants

All of this closely relates to the halachic discussion of corneal transplants. Without coming to any conclusions about when corneal transplants can be performed, I would like to review here the issues involved and how the approaches mentioned here can be applied in favor of permitting corneal transplants. I also want to mention several ideas not mentioned here that would similarly support transplants. Some of this latter group were mentioned by Daniel Israel in the 2022 Weissman Lecture.

There are three halachic concerns with performing corneal transplants:

1. Desecration of the cadaver
2. Failure to bury the cadaver
3. The prohibition to derive pleasure from a cadaver

The four approaches mentioned above in the context of retinal tear can be easily transferred to here to override these issues.

Approach #1: Loss of vision is considered life threatening by the Gemara -as per the “vision” version -and if the Gemara considers a case to be life threatening we can violate Shabbos for this even against the understanding of modern medicine, as per Rav Kook. Similarly, we can violate any *mitzvah* and we can desecrate and benefit from the cadaver as needed in order to save a life.

¹⁴ [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(20\)30549-0/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30549-0/fulltext)

¹⁵ https://en.wikipedia.org/wiki/Retinal_detachment

Approach #2: Any threat of losing a limb allows for desecration of Shabbos, as per the Meiri. Similarly, we can violate any *mitzvah* and we can desecrate and benefit from the cadaver as needed in order to save the eye.

Approach #3: As per Rav Shlomo Kluger, if the patient goes blind he will be exempt from all *mitzvos*. Thus, it is not a desecration of the *mitzvos* of treating the cadaver properly since saving this person's vision will allow him to remain obligated in these *mitzvos* and he will be able to observe these for the rest of his life.

Approach #4: As per Rav Shlomo Unterman, loss of vision leads to a lifestyle which is life-threatening similar to that of an epileptic. We can desecrate and benefit from the cadaver as needed in order to prevent this.

Four additional arguments are as follows:

1. Once the cornea is transplanted it is part of a living organism. Thus it is no longer a cadaver and none of the issues apply to it.¹³
2. Removing such a tiny piece of the cadaver is not considered a desecration since it is hardly noticeable.¹³
3. The cornea is smaller than a *k'zayis* and the prohibitions of mistreating the cadaver may not apply to something smaller than this *shiur*.¹⁶
4. All three prohibitions may only be *dirabanan*. All Rishonim agree that a *dirabanan* can be violated to preserve a limb such as the eye.¹⁷

I will conclude homiletically. We often give the blessing: "may you live to 120." This, of course, comes from Moshe, who lived to exactly this age. The Torah also tells us that Moshe's eyesight was not dimmed when he died. I would then extend our common blessing to include this element too. May we all merit to live as long as Moshe, and have excellent vision, never needing any of the leniencies suggested here.

Dr. Martin Avi Hurwitz was born December 13, 1938 to Allen and Regina Hurwitz in Syracuse, New York. Despite not having a formal Yeshiva education, he had the opportunity to study Torah with local Rabbis and teachers, graduated as valedictorian in high school and attended Syracuse University. He graduated with high honors from Albert Einstein College of Medicine in 1963. Dr. Hurwitz maintained a private psychiatric practice in the Upper East Side of Manhattan. His patients appreciated his tremendous dedication, time, and expert care that he gave them. Many traveled from various parts of the tri-state area for his expertise. He often helped with ethical issues as well as medical care. He is sorely missed by his loving family and patients. This lectureship is sponsored by his brother Dr. David Hurwitz (YU '72, AECOM '75), sister-in-law Barbara and extended family.

¹⁶ *Shu"t Har Tzvi (Yoreh Deah, Siman 277)*

¹⁷ *Mishneh L'melech (Hilchos Avel 14), Tosafos (Niddah 55a), Lechem Mishneh (Hilchos Avel 12)*