

STROMA LASER: “A (BROWN)
EYE FOR A (BLUE) EYE”

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The Iris

- “The iris is a thin, circular structure in the eye responsible for controlling the diameter and size of the pupils and the amount of light reaching the retina.”
- The colors of the eyes include: green, blue, and brown. In some cases it can be hazel (a combination of light brown, green and gold), grey, violet, or even pink, in response to the amount of light entering the eye.

Cause of Melanin

- Melanin is caused by the absence of pigmentation in the iris.
- The color of the iris is shown as brown or black when it has melanin in the stroma (the front pigmented fibrovascular tissue) of the iris; blue or green when they do not.
- This is caused by ocular diseases such as ;
 - chronic iritis
 - diffuse iris melanoma
 - injury, inflammation
 - the use of certain eye drops

Heterochromia

- Is the difference in coloration found in the skin hair and iris.



Previous solutions

- Heterochromia was previously handled by wearing contact lenses.

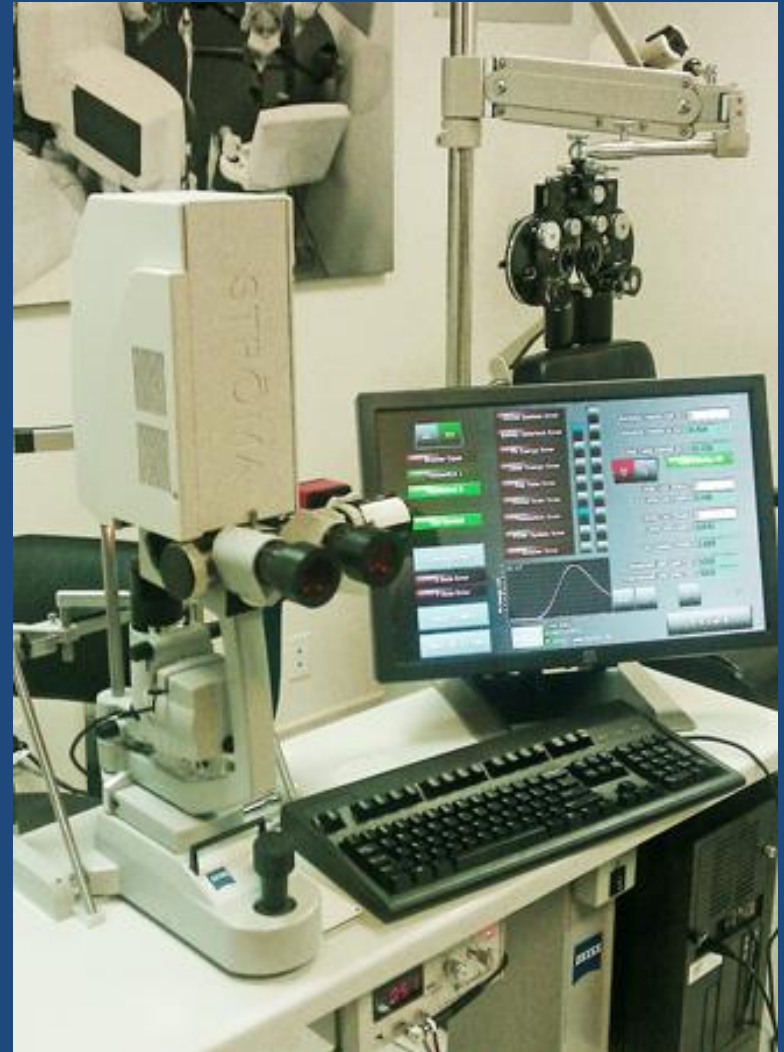


Hope for Heterochromia

- The stroma laser was created by doctor Gregg Homer, a former lawyer and a biologist who first came up with the idea in the 1990s. After having a discussion with a friend who specialized in lasers, Homer came to the conclusion that laser can change eye color.
- When Stroma Medical, a company in California was found, Gregg Homer started to work on his vision.

Stroma Laser

- The Stroma uses lasers with combination of wavelength to vaporize and ablate melanin in the stroma and change eye color.
- The pigment is removed by the natural tissue elimination process initiated by laser exposure.
- The pigment is released gradually in microscopic particles that are small enough to pass easily through the trabecular meshwork.
- The procedure is about 20 seconds.



Time of used

- The technology is expected to come out in three years in the United States.
- 18 months outside of the of the United States

Pros and Cons

Pros

- The procedure is non-invasive
- There are no incisions or injections of any kind.
- There is no contact with the patients' eyes.

Cons

- Stroma laser does not correct vision because Stroma laser treats only the iris. It has nothing to do with the pupils.

Works Cited

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- "Iris (anatomy)." *Wikipedia, the Free Encyclopedia*. Web. 27 Nov. 2011. <[http://en.wikipedia.org/wiki/Iris_\(anatomy\)](http://en.wikipedia.org/wiki/Iris_(anatomy))>.