

Doctors see eye hazard in powerful laser pointers

September 9 2010, By MALCOLM RITTER , AP Science Writer

(AP) -- A 15-year-old boy damaged his eyes while playing with a laser pointer he'd bought over the Internet, say doctors who warn that dangerously high-powered versions are easily available online.

One eye expert called it "a legitimate public health menace."

The boy's case is reported in Thursday's issue of the [New England Journal of Medicine](#) by doctors who treated him at the Lucerne Cantonal Hospital in Switzerland.

It follows two reports in June of similar accidents. British doctors said a teenager damaged his eyes with a high-powered [laser pointer](#), and a British physician said his vision was affected for several months after he was zapped by his 7-year-old son.

Laser pointers are devices that resemble pens and emit a narrow beam of laser light. They're used by lecturers to point out information during presentations, for example.

Laser pointers sold in the United States are subject to a power limit imposed by the [Food and Drug Administration](#) - one that won't cause instant eye damage, although harm is still possible with prolonged exposure.

Laser pointers that exceed the FDA restriction can be found online.

The Swiss boy's laser was 30 times more powerful than the FDA limit. He bought it to pop balloons and burn holes in paper and his sister's sneakers, his doctors said.

One day, he was playing with the pointer in front of a mirror to create a light show, and he accidentally zapped his eyes with its green light several times.

Although he noticed right away that his vision was blurry, he was afraid of telling his parents. So it wasn't until two weeks later, when he couldn't hide the problem any longer, that he saw a doctor.

The vision in his left eye was so poor that he couldn't count fingers more than three feet away. His other eye also showed severe vision loss, one that would make it difficult to read a newspaper, Dr. Martin Schmid, one of the doctors reporting the case, said in an e-mail.

Examination showed a hemorrhage in his left eye and several tiny scars in his right eye.

After four months, his vision showed some improvement but remained moderately impaired, Schmid said.

High-power devices like the one the teen bought are advertised as laser pointers and look just like low-powered versions, Schmid and colleagues wrote.

"I'm stunned that a kid can get access to ... this type of power," commented Dr. George A. Williams, chair of ophthalmology at the Oakland University William Beaumont School of Medicine in Royal Oak, Mich.

"This is a legitimate public health menace," said Williams, a spokesman

for the American Academy of Ophthalmology. "Parents should be aware there are inappropriate lasers available over the Internet."

The FDA has warned in the past that it has found laser pointers and toys that exceed the output limit of 5 milliwatts - five-thousandths of a watt. It rarely collects reports of eye-damage incidents like the case in Switzerland, said FDA health promotion officer Dan Hewett, so it's not clear how often they happen.

His agency recommends that consumers make sure laser pointer labels carry a designation of Class IIIa or lower, along with a statement of compliance with Chapter 21 CFR. Hewett suggests consumers should look on the label to make sure the power output is no more than 5 milliwatts, or 5 mW.

But he stressed that even a laser product that meets those conditions can cause [eye damage](#) if a person stares into the beam long enough.

"Just because it says 5 mW and Class IIIa, FDA is not saying you can grab this laser and stare at it," he said.

More information: New England Journal: <http://www.nejm.org>
FDA on laser products: <http://bit.ly/CurlH>

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Citation: Doctors see eye hazard in powerful laser pointers (2010, September 9) retrieved 9 April 2024 from <https://medicalxpress.com/news/2010-09-doctors-eye-hazard-powerful-laser.html>

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