

Seeing triple at the 3-D movie? Films can cause dizziness, nausea

March 9 2010, By Evan S. Benn

Thousands of people are packing movie theaters across the country to see the new "Alice in Wonderland" in 3-D, and dozens of them will likely leave with headaches.

That's not a criticism of the film, but a fact: Doctors say those with less-than-perfect eyesight can suffer nausea, blurred vision and dizziness from 3-D [movies](#).

"The 3-D technology taps into our depth perception," said Dr. Lawrence Tychsen, ophthalmologist in chief at St. Louis Children's Hospital. "To fully appreciate depth in a 3-D movie, you need equally clear vision in both eyes. Even a small misalignment could contribute to those symptoms of discomfort."

Tychsen said relatively minor conditions such as nearsightedness, farsightedness or a [lazy eye](#) -- if not treated with glasses or contacts -- could trigger headaches and other side effects from 3-D visuals. He estimated that up to 20 percent of the population -- kids and adults -- could be affected.

"Many people are unaware that anything's wrong until they experience a 3-D movie and have these symptoms," Tychsen said.

The problem comes from so-called vision fatigue, caused when 3-D technology forces the eyes to make constant adjustments to focus on images that are simultaneously near and far away. Humans see in three

dimensions, but the exaggerated imagery of 3-D movies can cause a strain in some, according to Jeffrey Anshel, a California optometrist who has researched vision fatigue in computer users.

"Each person will experience it differently," Anshel said, adding that vision fatigue tends to be more pronounced during longer 3-D movies. "I think that a two-hour movie is fine, but going into three or more hours could lead to eye strain."

Reports of vision fatigue popped up in recent months after the release of the 3-D blockbuster "Avatar," which has shattered box office records, raking in more than \$2.5 billion worldwide and becoming the highest-grossing film of all time. Several theatergoers complained of motion sickness after watching James Cameron's epic sci-fi adventure, filmed with breakthrough digital 3-D techniques.

Despite causing discomfort in a small number of people, 3-D movies aren't going away anytime soon. Besides "Avatar," some of last year's other top-grossing films -- "Up," "Ice Age: Dawn of the Dinosaurs" and "Monsters vs. Aliens" -- were 3-D, and more than a dozen other 3-D movies are scheduled for release this year and next.

The popularity of these movies and the money they pull in -- theaters can typically charge about \$3 extra for tickets to 3-D shows -- keep them in favor with theater owners and studio executives.

Harman Moseley, who manages the Galleria, Moolah and Chase Park Plaza cinemas in the St. Louis area, said he didn't hear any complaints from people who saw "Avatar" at the Galleria. He is hoping for the same with "Alice in Wonderland," which will be the first film he shows in 3-D at the Moolah.

"For the most part, people are loving these movies -- it's what's bringing

them back to the theaters," Moseley said. "But I can understand the motion-sickness effect. I've had that experience myself at the IMAX. It can be quite a ride."

Whether your eyesight is 20/20 or less than perfect, watching a 3-D movie isn't going to cause any vision damage, according to experts like Anshel and Tychsen.

"Getting a headache at a movie isn't harmful, but it is symptomatic of subnormal vision," Tychsen said. "If it happens, that might be a good sign it's time to visit an eye doctor."

Can't get enough 3-D? Some upcoming 3-D movies and their expected release dates:

"How to Train Your Dragon": March 26

"Shrek Forever After": May 21

"Toy Story 3": June 18

"Piranha 3-D": Aug. 27

"Saw VII": Oct. 22

"Harry Potter and the Deathly Hallows": Nov. 19

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