

Extension (Optional)

About Retinitis Pigmentosa

Scenario

An airline company is about to offer pilot-in-training positions to several young adults. These training sessions will last several weeks and are quite a large investment for the airline company. Therefore, before a formal job offer and the intensive training, the company wants to test each prospective pilot for some of the most common mutations that cause retinitis pigmentosa. If the genetic test yields a positive result, the company plans to not hire or train that person. The symptoms of retinitis pigmentosa develop quite gradually—over many years. In other words, at the point of genetic testing, the pilot would likely not be experiencing any symptoms, so passenger safety is not an issue. Once symptoms developed, the pilot would be removed from his or her post to ensure passenger safety. By not hiring prospective pilots who test positive for this vision disorder, the company will not be investing training money in pilots whose careers could be cut short by retinitis pigmentosa.

Facts about Retinitis Pigmentosa



Normal vision.



Vision with retinitis pigmentosa.

Photo: Courtesy National Eye Institute, National Institutes of Health

Scientific Question	Answer
What is retinitis pigmentosa (RP)?	RP is a gradual loss of vision caused by the death of photoreceptor cells in the eye.
What causes RP?	RP is an inherited disease. Mutations may be autosomal dominant, autosomal recessive, or X-linked recessive.
What are the symptoms?	One of the first symptoms is often a loss of night vision. Other early symptoms may include an inability to identify colors. Eventually, peripheral vision is almost entirely lost (see picture above). It is rare for a person with RP to become completely unable to see.
How old are people when they get RP?	Symptoms of RP often develop in adolescence or early adulthood, though people with RP are not usually legally blind until their 40s.
How common is RP?	RP is quite rare and only affects about 1 in every 4,000 people in the United States.
What can be done to help people with RP?	Vitamin A supplements and sunglasses may help delay the progression of RP. However, there is no cure.

Sources: Foundation Fighting Blindness. 2008. What is retinitis pigmentosa? Retrieved online March 29, 2008, at <http://www.blindness.org/content.asp?id=45>. Griggs, P. 2006. Retinitis pigmentosa. Retrieved March 29, 2008, from <http://www.nlm.nih.gov/medlineplus/ency/article/001029.htm>.