

In a particular pain clinic, 10% of patients are prescribed narcotic painkillers. Overall, five percent of the clinic's patients are addicted to narcotics (including painkillers and illegal substances). Out of all the people prescribed pain pills, 8% are addicts. *If a patient is an addict, what is the probability that they will be prescribed pain pills?*

There are 1% of people have a certain genetic defect. 90% of tests for the gene detect the defect (true positives). 9.6% of the tests are false positives. If a person gets a positive test result, **what are the odds they actually have the genetic defect?**