

Experiences from Sweden of the long road to a fair and appropriate legislation regarding visual abilities and driving in Sweden

Visual requirements for driving are a complex subject as it has been difficult to find clear links between visual function and traffic safety. Visual acuity has only a weak correlation with accident risk. Drivers with visual field defects have shown poorer driving performance in some studies, while others have not found any clear connections. As a result, the legal vision requirements for driver's licenses show significant global variation. The requirements in the European Union is currently regulated by the European Driving License Directive from 2009, but all member states also have the possibility to formulate supplementary regulations. Sweden, relatively speaking, has stricter visual field requirements than many other countries, with criteria defined by both monocular threshold perimetry and binocular suprathreshold perimetry.

In order to provide the opportunity for a practical driving test in exemption cases, a simulator test was introduced in Sweden in 2016. Despite the high cost of the test, the interest was very high, and more than 300 people completed the test, of which about two-thirds received a passing score and regained their driver's license. No differences were seen between the two major groups, stroke and glaucoma. Nor were there differences in traffic safety between different types of visual field defects post-stroke. However, in 2018, the test was paused for evaluation, and in April 2020, it was determined that the simulator did not reliably show if a person is safe to drive, as it had not been validated against on-road driving and lacked sharp curves and roundabouts in the test scenario.

Following this, Sweden's vision requirements for driver's licenses have undergone a revision. A new proposal has been presented, which is expected to come into effect in the autumn of 2024. In this new proposal, the requirements for threshold perimetry are removed and replaced solely with binocular suprathreshold perimetry according to Esterman. At the same time, an investigation is ongoing to present a practical driving test, expected to be presented by the summer of 2025. A preliminary study of practical driving tests with individuals with visual field defects who passed the simulator test showed no differences in driving ability compared to normally sighted controls. Thus, constructing fair and appropriate legislation regarding visual abilities and driving still remains an unresolved issue.