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## Vermont Legislative Research Service

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### Admissibility of Drug Recognition Expert Testimony

This report provides information on the admissibility of Drug Recognition Expert (DRE) testimony in the United States. The Los Angeles Police Department created the first DRE program in 1979; the program has since expanded to all fifty states.<sup>1</sup> To become certified as a DRE, a police officer must complete seventy-two hours of training and pass twelve practice examinations.<sup>2</sup> DREs use a twelve-step protocol to assess if an individual is impaired.<sup>3</sup> Courts at the federal and state level use two main standards to determine the admissibility of DRE testimony in court, the Daubert Standard and the Frye Standard.<sup>4</sup> Both use different protocols to judge the admissibility of DRE evidence in court.<sup>5</sup> The report then examines the different standards used in Nevada, Washington, and Maine as examples of state variations in DRE admissibility. The report concludes with an overall assessment of DRE accuracy through a variety of peer-reviewed articles.<sup>6</sup>

### Background on Drug Recognition Experts

The International Association of Chiefs of Police (IACP) states, "A drug recognition expert or drug recognition evaluator (DRE) is a police officer trained to recognize impairment in drivers under the influence of drugs other than, or in addition to, alcohol."<sup>7</sup> The Los Angeles Police

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<sup>1</sup> The International Association of Chiefs of Police, "Drug Recognition Experts," accessed February 25, 2019, <https://www.theiacp.org/drug-recognition-experts-dres>.

<sup>2</sup> The International Association of Chiefs of Police, "DRE Training Process and Its Prerequisites," accessed February 25, 2019, <https://www.theiacp.org/how-to-become-a-dre>.

<sup>3</sup> "The 12-Step DRE Protocol," The International Association of Chiefs of Police, accessed February 25, 2019, <https://www.theiacp.org/12-step-process>.

<sup>4</sup> Meghan Ryan, "Daubert Standard," LII / Legal Information Institute, August 23, 2018, accessed February 25, 2019, [https://www.law.cornell.edu/wex/daubert\\_standard](https://www.law.cornell.edu/wex/daubert_standard).

<sup>5</sup> Ryan, "Daubert Standard."

<sup>6</sup> Adler and Burns, "Drug Recognition Expert (DRE) Validation Study."; Bigelow, Bickel, Roache, Liebson, and Nowowieski, "Identifying Types of Drug Intoxication."; Compton, "Field Evaluation of the Los Angeles."; Douglas J. Beirness, Erin Beasley, and Jacques Lecavalier, "The Accuracy of Evaluations by Drug Recognition Experts in Canada," *Canadian Society of Forensic Science Journal* 42, no. 1 (2009), 75-79.

<sup>7</sup> The International Association of Chiefs of Police, "Drug Recognition Experts."

Department created The Drug Recognition Expert Program, later renamed the Drug Evaluation and Classification Program (DECP) in 1979.<sup>8</sup> All fifty states have since adopted the program.<sup>9</sup>

The IACP facilitates the DRE training program.<sup>10</sup> To be certified as a DRE in the United States, a police officer must complete seventy-two hours of DRE training, and complete twelve practice evaluations with at least seventy-five percent accuracy.<sup>11</sup> DREs must be recertified every two years.<sup>12</sup>

The IACP implemented the DRE program in Vermont in 2005.<sup>13</sup> There are currently fifty-nine DREs in the state.<sup>14</sup> In 2017, DREs conducted 263 drug evaluations in Vermont.<sup>15</sup> Between 2017 and 2018, the most common drug that DREs found was cannabis, detected in twenty-nine percent of subjects.<sup>16</sup> DREs detected narcotic analgesics (opiates and synthetic opiates) in twenty-seven percent of subjects.<sup>17</sup> DREs detected central nervous system depressants (antidepressants, sleep aids and other benzodiazepines) in twenty-three percent of subjects.<sup>18</sup>

DREs conduct a twelve-step process to determine whether or not a subject is under the influence of a substance.<sup>19</sup> The process begins with the arresting officer administering a breath alcohol test during the initial traffic stop.<sup>20</sup> If the officer determines that alcohol is not the cause of impaired driving, the officer requests a full DRE examination.<sup>21</sup> The DRE then conducts several tests, such as taking the subject's pulse, checking their muscle tone, and checking their pupil size, in order to determine which substance is influencing the subject.<sup>22</sup> The DRE also interviews the subject about their drug use.<sup>23</sup> The final step of the process is a toxicology examination for additional evidence to support the opinion of the DRE.<sup>24</sup>

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<sup>8</sup> The International Association of Chiefs of Police, "Drug Recognition Experts."

<sup>9</sup> The International Association of Chiefs of Police, "Drug Recognition Experts."

<sup>10</sup> The International Association of Chiefs of Police, "DRE Training Process and Its Prerequisites."

<sup>11</sup> The International Association of Chiefs of Police, "DRE Training Process and Its Prerequisites."

<sup>12</sup> "Drug Recognition Experts Program," Vermont State Highway Office, accessed February 25, 2019. <https://ghsp.vermont.gov/programs/dre>.

<sup>13</sup> Vermont State Highway Office, "Drug Recognition Experts Program."

<sup>14</sup> Vermont State Highway Office, "Drug Recognition Experts Program."

<sup>15</sup> Vermont State Highway Office, "Drug Recognition Experts Program."

<sup>16</sup> Vermont State Highway Office, "Drug Recognition Experts Program."

<sup>17</sup> Vermont State Highway Office, "Drug Recognition Experts Program."

<sup>18</sup> Vermont State Highway Office, "Drug Recognition Experts Program."

<sup>19</sup> The International Association of Chiefs of Police, "The 12-Step DRE Protocol."

<sup>20</sup> The International Association of Chiefs of Police, "The 12-Step DRE Protocol."

<sup>21</sup> The International Association of Chiefs of Police, "The 12-Step DRE Protocol."

<sup>22</sup> The International Association of Chiefs of Police, "The 12-Step DRE Protocol."

<sup>23</sup> The International Association of Chiefs of Police, "The 12-Step DRE Protocol."

<sup>24</sup> The International Association of Chiefs of Police, "The 12-Step DRE Protocol."

## Federal and State Standards:

**Frye Standard:** This standard comes from the case, *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).<sup>25</sup> Under the Frye standard, courts accept testimony if experts in the field generally accept the methods that were used in obtaining the evidence.<sup>26</sup> The newer standard that courts in more states widely accept is the Daubert Standard, which incorporates the Frye Standard within its criteria, but adds four more standards of review.<sup>27</sup>

**Daubert Standard:** This standard comes from the case, *Daubert v. Merrell Dow Pharmaceuticals Inc.*, 509 U.S. 579 (1993).<sup>28</sup> This standard created five factors that DREs need to satisfy in order for their evidence to be admissible:

1. whether the theory or technique in question can be and has been tested;
2. whether it has been subjected to peer review and publication;
3. its known or potential error rate;
4. the existence and maintenance of standards controlling its operation; and
5. whether it has attracted widespread acceptance within a relevant scientific community<sup>29</sup>

All Federal courts use the Daubert Standard.<sup>30</sup> State courts use either the Daubert Standard or its predecessor, the Frye Standard, or in some cases a variation of one of the two standards.<sup>31</sup>

## State Policies

This section of the report examines examples of the admissibility of DRE evidence in three states: Nevada, Washington, and Maine. Nevada's standard is unique in that it uses a variation of the two standards discussed above.<sup>32</sup> Washington was one of the first two states to legalize marijuana, and its use of the Frye Standard may provide lessons for other states considering marijuana legalization.<sup>33</sup> Finally, this report examines the standard used by Maine because it is similar in land size and population to Vermont.

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<sup>25</sup> Ryan, "Daubert Standard."

<sup>26</sup> Ryan, "Daubert Standard."

<sup>27</sup> Ryan, "Daubert Standard."

<sup>28</sup> Ryan, "Daubert Standard."

<sup>29</sup> Ryan, "Daubert Standard."

<sup>30</sup> Ryan, "Daubert Standard."

<sup>31</sup> Ryan, "Daubert Standard."

<sup>32</sup> Ryan, "Daubert Standard."

<sup>33</sup> National Conference of State Legislatures, "Marijuana Overview," Accessed February 25, 2019.

<http://www.ncsl.org/research/civil-and-criminal-justice/marijuana-overview.aspx>.

## Nevada

The State of Nevada uses a variation of the Frye Standard and a standard derived from the case, *Higgs v. Nevada State* (2010), when weighing DRE testimony.<sup>34</sup> In *Higgs v. Nevada State* (2010), the Supreme Court of Nevada ruled against a rigid approach to admissibility of expert witness testimony, including the use of strict checklists for determining admissibility.<sup>35</sup> For this reason, Nevada has not accepted the stricter Daubert Standard.<sup>36</sup> The Supreme Court of Nevada found that as long as the expert was qualified, and the testimony was reliable, the decision to accept expert testimony or not should be left to judicial discretion.<sup>37</sup>

## Washington

The State of Washington is in the minority of states that still use the Frye Standard.<sup>38</sup> In the case, *State of Washington, Appellant, v. Baity and Arnestad* (2000), the Supreme Court of Washington reversed the previous decision and ruled in favor of the DRE testimony as admissible evidence.<sup>39</sup> The court adhered to Frye Standard because they accepted the evidence of the DRE arguing that it was “generally accepted in the scientific communities.”<sup>40</sup>

## Maine

The state of Maine has adopted the Daubert Standard.<sup>41</sup> Under the state statute 29-A M.R.S.A. § 2525, if a registered DRE conducts a drug impairment assessment, the testimony regarding the assessment is admissible in court as evidence.<sup>42</sup> It also states that blood or urine test results confirming the assessment are admissible as evidence in court.<sup>43</sup>

### Accuracy of Drug Recognition Experts

In a study published in the *Canadian Society of Forensic Science Journal*, researchers analyzed 1,349 cases with complete data on DRE testimony.<sup>44</sup> They divided their statistical findings into five different categories: sensitivity, specificity, false alarm rate, miss rate, and overall rate of

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<sup>34</sup> Jeffrey Stempel, “Expert Witness: The Nevada Supreme Court Clarifies Adherence to NRS 50.275 And Judicial Discretion, Expressly Declining to Embrace The Federal Daubert Approach,” UNLV School of Law (2010), accessed February 25, 2019, <https://scholars.law.unlv.edu/cgi/>.

<sup>35</sup> Stempel, “Expert Witness.”

<sup>36</sup> Stempel, “Expert Witness.”

<sup>37</sup> Stempel, “Expert Witness.”

<sup>38</sup> *State of Washington, Appellant v. Baity and Arnestad*, 991 P.2d 1151 (2000).

<sup>39</sup> *State of Washington, Appellant v. Baity and Arnestad*, 991 P.2d 1151 (2000).

<sup>40</sup> *State of Washington, Appellant v. Baity and Arnestad*, 991 P.2d 1151 (2000).

<sup>41</sup> 29-A M.R.S.A. § 2525, accessed February 25, 2019, <http://legislature.maine.gov/statutes/29-A/title29-Asec2525.html>.

<sup>42</sup> 29-A M.R.S.A. § 2525.

<sup>43</sup> 29-A M.R.S.A. § 2525.

<sup>44</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,” 75-79.

accuracy.<sup>45</sup> The researchers concluded that sensitivity (hit rate), which measures whether the DRE will correctly detect a drugged driver, was 95.3 percent.<sup>46</sup> They concluded that the “specificity,” which measures whether a DRE will correctly detect the specific drug being used, was 80.0 percent.<sup>47</sup> The false alarm rate, which measures the percentage of cases in which a DRE made a false-positive, was 2.0 percent.<sup>48</sup> The miss rate, which measures the percentage of cases in the DRE has failed to detect a drugged driver, was 4.7 percent.<sup>49</sup> Overall, the study concluded that the DRE program was 94.8 percent accurate.<sup>50</sup>

Three independent researchers found similar results regarding the DRE protocol's accuracy.<sup>51</sup> Bigelow found that the DRE protocol had a sensitivity rate of 98.7 percent and a specificity rate of 91.7 percent.<sup>52</sup> Compton stated, "when the DREs claimed that other drugs other than alcohol were present they were almost always detected in the blood (94 percent of the time)."<sup>53</sup> Adler concluded that DRE decisions were supported by toxicology reports 83.5 percent of the time.<sup>54</sup>

Critics of the DRE Program claim that many studies generalize the term “drug.”<sup>55</sup> Psychoactive “drugs” that warrant the attention of DRE programs are numerous and have unique effects on the human mind.<sup>56</sup> Since there are many types of impairment, it is difficult to measure how effective DREs are in detecting specific types of drug use.<sup>57</sup> For example, a DRE has less difficulty detecting a driver under the influence of phencyclidine (PCP) than a driver under the influence of cannabis (THC).<sup>58</sup> The Canadian Society of Forensic Science analyzed the accuracy of DREs in detecting cannabis, stimulants, narcotics, and depressants.<sup>59</sup>

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<sup>45</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,”75-79.

<sup>46</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,”75-79.

<sup>47</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,” 75-79.

<sup>48</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,” 75-79.

<sup>49</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations”,75-79.

<sup>50</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,” 75-79.

<sup>51</sup> *Phoenix: Arizona Governor’s Office of Highway Safety*, (1994).

<sup>52</sup> Bigelow, Bickel, Roache, Liebson, and Nowowieski, "Identifying Types of Drug Intoxication."; Compton, “Field Evaluation of the Los Angeles.”; Adler and Burns, “Drug Recognition Expert (DRE) Validation Study.”

<sup>53</sup> Bigelow, Bickel, Roache, Liebson, and Nowowieski, "Identifying Types of Drug Intoxication.”

<sup>54</sup> Compton, “Field Evaluation of the Los Angeles.”

<sup>55</sup> Adler and Burns, “Drug Recognition Expert (DRE) Validation Study.”

<sup>56</sup> Kane, "The Methodological Quality" 12

<sup>57</sup> Kane, "The Methodological Quality," 12.

<sup>58</sup> Kane, "The Methodological Quality," 12.

<sup>59</sup> Kane, "The Methodological Quality," 12.

<sup>60</sup> Beirness, Beasley, and Lecavalier, “The Accuracy of Evaluations,”75-79.

**Table 1: DRE Accuracy by Specific Drug Use:**

|             | Cannabis | Stimulants | Depressants | Narcotics |
|-------------|----------|------------|-------------|-----------|
| Sensitivity | 79.0%    | 92.6%      | 56.8%       | 85.8%     |
| Specificity | 98.2%    | 92.8%      | 97.5%       | 95.5%     |
| False Alarm | 1.8%     | 7.2%       | 2.5%        | 4.5%      |
| Miss Rate   | 20.9%    | 7.4%       | 43.2%       | 14.1%     |
| Accuracy    | 87.3%    | 89.3%      | 86.7%       | 88.5%     |

Source: Douglas J. Beirness, Erin Beasley, and Jacques Lecavalier, "The Accuracy of Evaluations by Drug Recognition Experts in Canada," *Canadian Society of Forensic Science Journal* 42, no. 1 (2009), 75-79.

The possibility of bias in the DRE twelve-step program concerns critics of the DRE protocol.<sup>60</sup> Specifically, the fourth step of the examination, which includes the Horizontal Gaze Nystagmus Test (HGN) and the Vertical Gaze Nystagmus Test (VGN) concerns them.<sup>61</sup> The HGN test examines "rapid involuntary horizontal oscillation of the eyes when attempting to follow a target moving from side to side," while the VGN test examines the "inability to smoothly track the up and down movement of a stimulus."<sup>62</sup> In the past, defense attorneys have questioned the viability of these eye examinations as scientific evidence.<sup>63</sup> Since the VGN and HGN tests were a major component of a DRE's testimony, some individuals claimed that the HGN and the VGN tests could result in a false positive for impairment.<sup>64</sup> In *People v. Quinn* (1992), however, a Federal District Court expanded on the standard set in *Frye* and ruled in favor of both the VGN and the HGN.<sup>65</sup> Relying on testimony from nine witnesses, including medical professionals, the court claimed that the DRE protocol was an accurate way to determine if a driver was impaired.<sup>66</sup> "The court went on to say 'nothing contained in the protocol is a new invention... [it] is rather a compilation of tried and true procedures by medical science and the law enforcement community.'"<sup>67</sup> Furthermore, the National Highway Traffic Safety Administration (NHTSA), the IACP, National Safety Council's (NSC) Committee on Alcohol and Other drugs, American Bar Association (ABA), the American Civil Liberties Union (ACLU), the American Optometric Association, and other local organizations endorsed the HGN and VGN tests.<sup>68</sup>

<sup>60</sup> Kane, "The Methodological Quality," 12.

<sup>61</sup> Kane, "The Methodological Quality," 12.

<sup>62</sup> Gregory Seiders, "A Call in the Experts: The Drug Recognition Expert Protocol and Its Role in Effectively Prosecuting Drugged Drivers," *Widener Law Journal* 229, no. 26 (2017).

<sup>63</sup> Kane, "The Methodological Quality," 12.

<sup>64</sup> Kane, "The Methodological Quality," , 12.

<sup>65</sup> Seiders, "A Call in the Experts," 26; *People of the State of Michigan vs. Arthur J. Quinn*, 487 N.W.2d 194 (1992).

<sup>66</sup> Seiders, "A Call in the Experts," 26.

<sup>67</sup> Seiders, "A Call in the Experts," 26.

<sup>68</sup> Seiders, "A Call in the Experts," 26; Broward County Medical Association; Broward County Psychiatric Association; Dade County Medical Association Hawaii Medical Association.

Furthermore, skeptics of the DRE protocol claim that a test of subjective nature should not be acceptable as scientific evidence.<sup>69</sup> The 12th step of the DRE protocol requires law enforcement to support the findings of the examination with a toxicology report (toxicology reports cannot be the sole measurement of impairment because in cases with marijuana, suspects may have high quantities of THC in their system without exhibiting symptoms of impairment).<sup>70</sup> As stated previously, the accuracy of the DRE protocol ranges from 83.5 percent to 94.8 percent and the findings are always supported by a toxicology report.<sup>71</sup> In *Williams v. State* (1998),<sup>72</sup> the Court of Appeals for Florida, the court stated, “the general portion of the DRE protocol is nothing more than objective observations and simple tests which are easily performed and commonly understood.”<sup>73</sup> Therefore, the current state of knowledge supports the claims that the DRE protocol is an objective process that is considered scientific in its execution.

### Conclusion

Every state has incorporated a version of DRE protocol, and judges at both the state and Federal level have considered it admissible evidence. Despite skepticism in some parts of the academic and political communities, state courts claim that every part of the DRE process is admissible under *Daubert*, *Frye*, or a modified version of either standard. Furthermore, studies have shown that there is a relatively high rate of accuracy in both sensitivity and specificity of drugged driving. The VGN test, HGN test, and verbal communication tests combined with the toxicology report are always admissible in a court of law and research shows that they have consistently high rates of accuracy.

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<sup>69</sup> Kane, “The Methodological Quality,” 12.

<sup>70</sup> Kane, “The Methodological Quality,” 12.

<sup>71</sup> Seiders, “A Call in the Experts,” 26.

<sup>72</sup> *Joseph Williams vs. the State of Florida*, 318 So.2d 605 (1998)

<sup>73</sup> Seiders, “A Call in the Experts,” 26.