



INDIANA UNIVERSITY

BORKENSTEIN
COURSE

Center for Studies
of Law in Action

The Mouth Alcohol Effect, 5, 10, 15, 20 Minutes or More?
A Historical and Critical Literature Review and Original Data

by
J.G. Wigmore



DUI Case Law

By Roger Doherty
Florida DOT

Thanks to Trooper David Andrascik for providing information about the Superior Court of Pennsylvania reversing itself in a DUI case reported last year in this column.

Commonwealth v. Murray (2000 PA Super 84)

A panel of three judges from the Superior Court of Pennsylvania had declared that 75 Pa.C.S. Section 3731(a.1)(1)(2) was unconstitutional in the case of *Commonwealth v. Murray* during 1999. However, within weeks of the original ruling, the Court agreed to rehear the case in front of the full Court and withdrew the

panel's opinion.

Section 3731(a.1)(1)(2) states that if an adult has a BAC of .10 at the time of a chemical test and if the sample was taken within three hours after the person drove, then it is *prima facie* evidence that the person's BAC was .10 at the time of driving.

The Court addressed the following two questions:

- "1. Is 75 Pa.C.S. Section 3731(a.1) unconstitutional on its face or as applied in this case? "
- "2. Was it error for the trial court to instruct the jury that it could find appellant guilty of driving while his BAC was .10% or greater?"

Regarding the first question, the Court ruled that Section 3731(a.1) is not unconstitutional because it does not mandate a finding of guilt. It simply permits the jury to consider the evidence without "relation-back testimony" from an expert witness. In addition, the law allows the defendant to provide testimony from experts that his BAC was below .10 at the time he/she was driving.

On the second question, the Court said that the jury charge was consistent with the Supreme Court's guidelines. Since the state provided sufficient evidence to prove its case and the defendant did not present evidence to the contrary, the judgement of the trial court was affirmed. ✨

The Mouth Alcohol Effect, 5, 10, 15, 20 Minutes or More? A Historical and Critical Literature Review and Original Data

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The mouth alcohol effect is potentially the most serious problem that can affect breath alcohol analysis. This area has been studied extensively since 1867 when F.E. Anstie stated:

"It must not be tried during at least the first quarter of an hour after a dose has been taken for the mouth retains the characteristic smell even if the most moderate dose of any of the stronger smelling drinks for fully this time"

The duration and magnitude

of the mouth alcohol effect appears to be based on :

- 1) Volume and concentration of the alcohol-containing substance
- 2) Area of oral cavity exposed (e.g. gargling vs. swallowing)
- 3) Salivary flow rate
- 4) Air flow through the oral cavity (e.g. talking, multiple breath samples)
- 5) The preexisting blood alcohol concentration (BAC) of the subject

Prolonged tailing of the mouth alcohol effect beyond 20 minutes can occur in extreme situations in which alcohol-free subjects rinse or gargles with a large volume of a high percent alcoholic substance in the mouth. In the situation where the subject with a preexisting BAC swallows an alcoholic beverage such as beer, the effect of mouth alcohol on elevating the BrAC would be expected to be less than 10 minutes.

A combination of deprivation times, duplicate breath samples and mouth alcohol (e.g. slope) detectors are effective at preventing falsely high BrACs due to the mouth alcohol effect.

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IACT Executive Board Meeting April 16, 2000 Halifax, Nova Scotia, Canada Submitted by Tracy Birch

Al Eisele called the meeting to order at 3:00 p.m. Members of the Executive Board in attendance were Shirley Ezelle, Carol Wilkinson, Bill Whitmar, Phil Lively, Margy Pearson, George Weaver, Pat Harding, Bob Monserrate, Suzanne Harmon, Al Eisele, Tracy Birch, and Bill Brey. Nancy Burns attended as an invited advisor to the board.

Nancy Burns is an attorney and former active member of IACT. She has applied again as a prospective member for approval at this year's conference and was asked to attend the Executive Board meeting by Al Eisele to offer legal advise to the board. Nancy was given the November draft of revisions for the IACT constitution and bylaws prior to this meeting. She worked on the draft by making several revisions, which resulted in a more succinct, condensed, and understandable version. Nancy briefed the executive board on corporation law. She explained that by following statutory guidelines in forming a non-profit corporation IACT could move forward and protect the organization.

The requirements in each state vary somewhat. In Massachusetts, Nancy's home state, you must file an article of organization request and state the organizations purpose with a filing fee. IACT, if incorporated, must file an annual report, business meeting minutes and a financial report. In addition, an accountant will need to check IACT financial records. A non-profit corporation status gives IACT legal protection for acts that IACT does in good faith. Nancy volunteered to act as IACT's

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