Breath Alcohol Testing

- Dubowski KM. Breath analysis as a technique in clinical chemistry. Clin Chem 1974;20(8):966-72.
- Dubowski KM. Absorption, distribution and elimination of alcohol: highway safety aspects. J Stud Alcohol Suppl 1985; 10:98-108
- Dubowski KM. The Technology of Breath-Alcohol Analysis. National Institute of Alcohol Abuse and Alcoholism 1991; n/a:42
- Forney RB, Hughes FW, Harger RN, et al. Alcohol Distribution in the Vascular System. Concentration of Orally Administered Alcohol in Blood from Various Points in the Vascular System, and in Rebreathed Air, During Absorption. Q J Stud Alcohol 1964; 25:205-217
- Harger RN, Forney RB, Barnes HB. Estimation of the level of blood alcohol from analysis of breath. J Lab Clin Med 1950; 36:306-318

Effects of Alcohol on Driving Performance

- Flanagan NG, Strike PW, Rigby CJ, Lochridge GK. The effects of low doses of alcohol on driving performance. Med Sci Law 1983;23(3):203-8.
- Moskowitz H, Burns MM, Williams AF. Skills performance at low blood alcohol levels. J Stud Alcohol 1985;46(6):482-5.
- Moskowitz H, Fiorentino D. A review of the literature on the effects of low doses of alcohol on drivingrelated skills. NHTSA Technical Report 2000.
- Rosen LJ, Lee CL. Acute and chronic effects of alcohol use on organizational processes in memory. J Abnorm Psychol 1976;85(3):309-17.

Widmark Calculations, Elimination Rates, and Retrograde Extrapolation

- Bogusz M, Pach J, Stasko W. Comparative studies on the rate of ethanol elimination in acute poisoning and in controlled conditions. J Forensic Sci 1977;22(2):446-51.
- Dubowski KM. Human Pharmacokinetics of Ethanol. I. Peak Blood Concentrations and Elimination in Male and Female Subjects. Alcohol Technical Reports 1976;5(4):55-63.
- Friel PN, Logan BK, Baer J. An evaluation of the reliability of Widmark calculations based on breath alcohol measurements. J Forensic Sci 1995;40(1):91-4.
- Gullberg RG. Considering measurement variability when performing retrograde extrapolation of breath alcohol results. J Anal Toxicol 1994;18(2):126-7.
- Gullberg RG, Jones AW. Guidelines for estimating the amount of alcohol consumed from a single measurement of blood alcohol concentration: re-evaluation of Widmark's equation. Forensic Sci Int 1994;69(2):119-30.
- Jones AW. Disappearance rate of ethanol from the blood of human subjects: implications in forensic toxicology. J Forensic Sci 1993;38(1):104-18.
- Lewis MJ. Blood alcohol: the concentration-time curve and retrospective estimation of level. J Forensic Sci Soc 1986;26(2):95-113.
- Montgomery MR, Reasor MJ. Retrograde extrapolation of blood alcohol data: an applied approach. J Toxicol Environ Health 1992;36(4):281-92.
- Stowell AR, Stowell LI. Estimation of blood alcohol concentrations after social drinking. J Forensic Sci 1998;43(1):14-21.
- Watson PE, Watson ID, Batt RD. Prediction of blood alcohol concentrations in human subjects. Updating the Widmark Equation. J Stud Alcohol 1981;42(7):547-56.
- Widmark EMP. Principles and Applications of Medicolegal Alcohol Determination. Biomedical Publications (reprint) 1981.
- Winek CL, Murphy KL. The rate and kinetic order of ethanol elimination. Forensic Sci Int 1984;25(3):159-66.

The Rising BAC Defense

- Breen MH, Dang QT, Jaing JT, Boyd GN. The effect of a 'one for the road' drink of hard liquor, beer or wine on peak breath alcohol concentration in a social drinking environment with food consumption. Med Sci Law 1998;38(1):62-9.
- Gullberg RG, Predmore DB. Variation in blood alcohol concentration following last drink. J. of Police Admin, 1985; (10): 289-296
- Iffland R, Jones AW. Evaluating alleged drinking after driving--the hip-flask defence. Part 1. Double blood samples and urine-to-blood alcohol relationship. Med Sci Law 2002;42(3):207-24.
- Jones AW, Neri A. Evaluation of blood-ethanol profiles after consumption of alcohol together with a large meal. Can Soc For Science 1991; pp.165-173
- Jones AW. Ethanol distribution ratios between urine and capillary blood in controlled experiments and in apprehended drinking drivers. J Forensic Sci 1992;37(1):21-34.
- Jones AW. Status of alcohol absorption among drinking drivers. J Anal Toxicol 1990;14(3):198-200.
- Levine B, Smialek JE. Status of alcohol absorption in drinking drivers killed in traffic accidents. J Forensic Sci 2000;45(1):3-6.
- Neuteboom W, Jones AW. Disappearance rate of alcohol from the blood of drunk drivers calculated from two consecutive samples; what do the results really mean? Forensic Sci Int 1990;45(1-2):107-15.
- Shajani NK, Dinn HM. Blood alcohol concentrations reached in human subjects after consumption of alcoholic beverages in a social setting. Can Soc For Science 1985;(18)1:38-48
- Winek CL, Wahba WW, Dowdell JL. Determination of absorption time of ethanol in social drinkers. Forensic Sci Int 1996;77(3):169-77.
- Zink P, Reinhardt G. [The course of blood alcohol curves after drinking large quantities of alcohol]. Blutalkohol 1984;21(5):422-42.

Blood-Breath Ratios and Comparisons

- Dubowski KM. Alcohol analysis: Clinical laboratory Aspects. Part 1. Laboratory Management, March 1982
- Harding PM, Laessig RH, Field PH. Field performance of the Intoxilyzer 5000: a comparison of bloodand breath-alcohol results in Wisconsin drivers. J Forensic Sci 1990;35(5):1022-8.
- Jones AW, Andersson L. Variability of the blood/breath alcohol ratio in drinking drivers. J Forensic Sci 1996;41(6):916-21.
- Jones AW, Norberg A, Hahn RG. Concentration-time profiles of ethanol in arterial and venous blood and end-expired breath during and after intravenous infusion. J Forensic Sci 1997;42(6):1088-94.
- Martin E, Moll W, Schmid P, Dettli L. The pharmacokinetics of alcohol in human breath, venous and arterial blood after oral ingestion. Eur J Clin Pharmacol 1984;26(5):619-26.
- Mason MF, Dubowski KM. Breath-alcohol analysis: uses, methods, and some forensic problems-review and opinion. J Forensic Sci 1976;21(1):9-41.

Mouth Alcohol

- Gullberg RG. The elimination rate of mouth alcohol: mathematical modeling and implications in breath alcohol analysis. J Forensic Sci 1992;37(5):1363-72.
- Harding PM, McMurray MC, Laessig RH, Simley DO, 2nd, Correll PJ, Tsunehiro JK. The effect of dentures and denture adhesives on mouth alcohol retention. J Forensic Sci 1992;37(4):999-1007.

- Kechagias S, Jonsson KA, Franzen T, Andersson L, Jones AW. Reliability of breath-alcohol analysis in individuals with gastroesophageal reflux disease. J Forensic Sci 1999;44(4):814-8.
- Kechagias S, Jonsson KA, Jones AW. Breath tests for alcohol in gastroesophageal reflux disease. Ann Intern Med 1999;130(4 Pt 1):328-9.
- Logan BK, Gullberg RG. Lack of effect of tongue piercing on an evidential breath alcohol test. J Forensic Sci 1998;43(1):239-40.
- Wigmore JG, Wilkie MP. A simulation of the effect of blood in the mouth on breath alcohol concentrations of drinking subjects. Can Soc For Sci 2002;(35)1:9-16
- Wigmore JG, Bugyra IM. Decreasing the mouth alcohol effect by increasing the salivary flow rate. Can Soc For Sci 2003;(36)4:211-216

Chronic Obstructive Pulmonary Disease

- Gomm PJ, Osselton MD, Broster CG, Johnson NM, Upton K. Study into the ability of patients with impaired lung function to use breath alcohol testing devices. Med Sci Law 1991;31(3):221-5.
- Haas H, Morris JF. Breath-alcohol analysis in chronic bronchopulmonary disease. Arch Environ Health 1972;25(2):114-8.
- Hahn RG, Jones AW, Billing B, Stalberg HP. Expired-breath ethanol measurement in chronic obstructive pulmonary disease: implications for transurethral surgery. Acta Anaesthesiol Scand 1991;35(5):393-7.
- Jones AW. Reliability of breath-alcohol measurements during the absorption phase. Clin Chem 1987;33(11):2128-30.
- Jones AW. Relationship between blood and breath alcohol concentration in a subject absorbing alcohol at the time of testing. J Anal Toxicol 1991;15(1):44-5.
- Martinez TT, Martinez RR. Comparison of breath and blood ethanol measurements in human subjects with obstructive pulmonary disease. Proc West Pharmacol Soc 2002;45:23-5.
- Russell JC, Jones RL. Breath ethyl alcohol concentration and analysis in the presence of chronic obstructive pulmonary disease. Clin Biochem 1983;16(3):182-7.
- Thiel M, Erkens M, Kolbe K. [Blood and breath alcohol concentrations (Alcotest 7010 and Alcotest 7310) in pathological ventilation conditions]. Blutalkohol 1984;21(6):458-63.
- Wilson A, Sitar DS, Molloy WD, McCarthy D. Effect of age and chronic obstructive pulmonary disease on the Breathalyzer estimation of blood alcohol level. Alcohol Clin Exp Res 1987;11(5):440-3.

Multiple Breath Samples on Same Mouthpiece

- Gullberg RG. Repeatability of replicate breath alcohol measurements collected in short time intervals. Sci Justice 1995;35(1):5-9.
- Jones AW. How breathing technique can influence the results of breath-alcohol analysis. Med Sci Law 1982;22(4):275-80.
- Lutmer BM. Multiple breath samples introduced in short time period through same mouthpiece. Unpublished data, 2006
- Mulder JA, Neuteboom W. The effects of hypo- and hyperventilation on breath alcohol measurements. Blutalkohol 1987;24(5):341-7.

Interfering Substances

- Gullberg RG. The frequency of apparent acetone in a group of breath alcohol data: statistical treatment and forensic implications. Forensic Sci Int 1994;67(1):65-72.
- Harding PM, Dubowski KM. Report of the subcommittee on alcohol: Technology, pharmacology and toxicology. NSC-COAD February 1999
- Jones AW. Interfering substances identified in the breath of drinking drivers with Intoxilyzer 5000S. J Anal Toxicol 1996;20(7):522-7.
- Logan BK, Gullberg RG, Elenbaas JK. Isopropanol interference with breath alcohol analysis: a case report. J Forensic Sci 1994;39(4):1107-11.

Invalid Sample Readings

- Cowan JM. What causes an invalid sample on the intoxilyzer 5000? Alc Test Alliance 2006:1-3 Gullberg RG. Interpreting breath alcohol measurements associated with "invalid sample" results. IACT Newsletter 2006:17(2):5-8
- Lutmer BM, Bailey L. Re: "Incidence of Invalid Sample Screen Messages on the Intoxilyzer 5000C Obtained from Arrested Drinking Drivers in Toronto. Is a 15 to 20 Minute Wait Period Warranted?" Can. Soc. Forensic Sci. J. 2006;40(3): 160-161

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Scientific Articles on Breath Testing for the DUI Gladiator

- Palmentier FP, Wigmore JG, Langille RM, Patrick J. Incidence of Invalid Sample Screen Messages on the Intoxilyzer 5000C Obtained from Arrested Drinking Drivers in Toronto. Is a 15 to 20 Minute Wait Period Warranted? Can. Soc. Forensic Sci. J. 2006;39(3): 101-113
- Pon RA, Dagenais C, Macalpine RA. Are mouth alcohol defenses "valid" or "invalid"? The bac datamaster c "invalid sample" status message. Can. Soc. Forensic Sci. J. 2002;35(3): 153-158

Hip Flask Defense:

- Iffland R, Jones AW. Evaluating alleged drinking after driving--the hip-flask defence. Part 1. Double blood samples and urine-to-blood alcohol relationship. Med Sci Law 2002;42(3):207-24.
- Iffland R, Jones AW. Evaluating alleged drinking after driving--the hip-flask defence. Part 2. Congener analysis. Med Sci Law 2003;43(1):39-68.

Temperature/Fever:

- Fox GR, Hayward JS. Effect of hypothermia on breath-alcohol analysis. J Forensic Sci 1987;32(2):320-5.
- Fox GR, Hayward JS. Effect of hyperthermia on breath-alcohol analysis. J Forensic Sci 1989;34(4):836-41.
- Jones AW. Effects of temperature and humidity of inhaled air on the concentration of ethanol in a man's exhaled breath. Clin Sci (Lond) 1982;63(5):441-5.
- Jones AW. Quantitative measurements of the alcohol concentration and the temperature of breath during a prolonged exhalation. Acta Physiol Scand 1982;114(3):407-12.

Atkins diet/diabetic diet

- Bailey DN. Detection of isopropanol in acetonemic patients not exposed to isopropanol. J Toxicol Clin Toxicol 1990;28(4):459-66.
- Jones AW, Andersson L. Biotransformation of acetone to isopropanol observed in a motorist involved in a sobriety check. J Forensic Sci 1995;40(4):686-7.
- Jones AW, Sagarduy A, Ericsson E, Arnqvist HJ. Concentrations of acetone in venous blood samples from drunk drivers, type-I diabetic outpatients, and healthy blood donors. J Anal Toxicol 1993;17(3):182-5.
- Logan BK, Gullberg RG, Elenbaas JK. Isopropanol interference with breath alcohol analysis: a case report. J Forensic Sci 1994;39(4):1107-11.
- Musa-Veloso K, Likhodii SS, Cunnane SC. Breath acetone is a reliable indicator of ketosis in adults consuming ketogenic meals. Am J Clin Nutr 2002;76(1):65-70.

Air Bag Defense

Craig S. The Tyndall Effect on the Intoxilyzer 5000 "The Airbag Defense". IACT Newsletter 2004;17(3):13-15

Mouth Fresheners/Asthma medicine

- Gomm PJ, Osselton MD, Broster CG, Johnson NM, Upton K. The effect of salbutamol on breath alcohol testing in asthmatics. Med Sci Law 1991;31(3):226-8.
- Ignacio Garcia JM, Ignacio Garcia JM, Almenara Barrios J, Hita Iglesias C. [Influence of asthma inhalers on a breath alcohol test]. Med Clin (Barc) 2002;118(9):332-4.
- Logan BK, Distefano S, Case GA. Evaluation of the effect of asthma inhalers and nasal decongestant sprays on a breath alcohol test. J Forensic Sci 1998;43(1):197-9.
- Martinez TT, Martinez RR. The effect of an inhalation aerosol bronchodilator on breathalyzer results in drinking and non-drinking subjects. Proc West Pharmacol Soc 1998;41:51-2.

DUI undo Consultants, LLC.

Scientific Articles on Breath Testing for the DUI Gladiator

Williams RD. Effect of ethanol in Ice Drops on breath alcohol concentration. J Anal Toxicol 1996;20(4):271.

Endogenous Ethanol

Logan BK, Jones AW. Endogenous ethanol 'auto-brewery syndrome' as a drunk-driving defence challenge. Med Sci Law 2000;40(3):206-15.

Blood Alcohol Analysis

- Amick GD, Habben KH. Inhibition of ethanol production by Saccharomyces cerevisiae in human blood by sodium fluoride. J Forensic Sci 1997;42(4):690-2.
- Chang RB, Smith WA, Walkin E, Reynolds PC. The stability of ethyl alcohol in forensic blood specimens. J Anal Toxicol 1984;8(2):66-7.
- Charlebois RC, Corbett MR, Wigmore JG. Comparison of ethanol concentrations in blood, serum, and blood cells for forensic application. J Anal Toxicol 1996;20(3):171-8.
- Jones AW, Hylen L, Svensson E, Helander A. Storage of specimens at 4 degrees C or addition of sodium fluoride (1%) prevents formation of ethanol in urine inoculated with Candida albicans. J Anal Toxicol 1999;23(5):333-6.
- Peek GJPK, J.W.; Ward, R.J.; Peters, T.J. Alcohol swabs and venepuncture. Lancet 1989;1(8651):1388.
- Yajima D, Motani H, Kamei K, Sato Y, Hayakawa M, Iwase H. Ethanol production by Candida albicans in postmortem human blood samples: Effects of blood glucose level and dilution. Forensic Sci Int 2006;164(2-3):116-21.

Urine Alcohol Analysis

Biasotti AA, Valentine TE. Blood alcohol concentration determined from urine samples as a practical equivalent or alternative to blood and breath alcohol tests. J Forensic Sci 1985;30(1):194-207