

# TRAFFIC TECH

NHTSA Technology Transfer Series

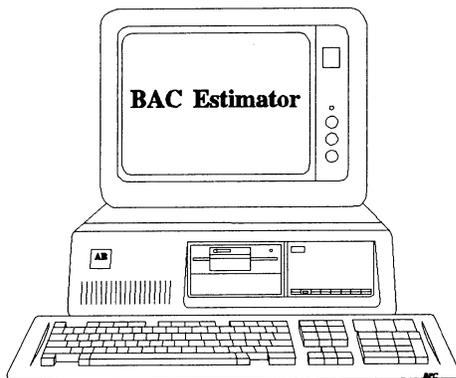
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## COMPUTING A BAC ESTIMATE

What is the BAC of a 125 pound woman, who is not an experienced drinker, who drinks four beers in two hours? According to a recent National Highway Traffic Safety Administration (NHTSA) survey, most Americans think that drivers should not drink alcohol and then drive. Nonetheless, our legal system generally relates certain offenses to the amount of alcohol detected in a driver's body. The amount of alcohol is usually referred to as BAC -- blood alcohol concentration -- although it is also measured in the breath. Specifically, BAC refers to either blood alcohol concentration, stated as grams per 100 milliliters of blood, or breath alcohol concentration, stated as grams per 210 liters of breath.

BAC is highly related to the amount of alcohol consumed over time. However, BAC is also influenced by other factors and the complex relationship makes it difficult for people to easily estimate BACs.

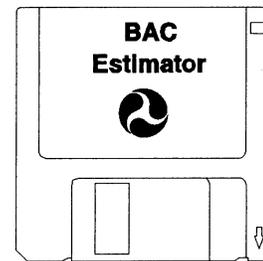


Work conducted as part of a NHTSA report to Congress on alcohol limits for drivers, resulted in a useful tool that enables anyone with access to an

IBM compatible personal computer to estimate BAC based on a person's weight, gender, number of drinks consumed, and time over which drinking occurred.

The estimate of BAC should not be used by individuals to decide whether or not to drive after drinking -- impairment can result from any amount of alcohol.

However, the BAC Estimator does provide the best available approximation of the number of drinks it takes for individuals to reach specific BACs.



*The 125 pound woman would have a BAC of .11*

When legislators debate bills which reference particular BACs, statements are often made regarding how much drinking would be, and would not be, permitted prior to driving. Until now, expert testimony would be required to confirm or deny such statements. However, the **BAC Estimator** is currently available to the public in the form of a computer disk.

For a copy of the **BAC Estimator** disk, contact the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, or call NTIS at (703) 487-4650 or fax (703) 321-8547.

For additional information, contact the Problem Behavior Research Division, NHTSA, NTS-32, 400 Seventh Street, S.W., Washington, DC 20590, (202) 366-9591.



U.S. Department  
of Transportation  
**National Highway  
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Administration**

400 Seventh Street, S.W. NTS-33  
Washington, DC 20590

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If you would like to receive a copy contact:  
Linda Cosgrove, Ph.D., Editor, Evaluation Staff  
(202) 366-2759

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