

## CHAPTER 1

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**CHAPTER 1**  
**REVISED NOVEMBER 2003**  
**UNDER THE INFLUENCE**

1. GENERAL. Alcohol affects human behavior when it reaches the brain and central nervous system. The extent of influence depends upon the concentration of alcohol present in the blood. Blood alcohol concentration (BAC) is determined by such factors as the amount of alcohol consumed relative to the amount of water in the body, the duration of drinking, and the competing rates of absorption and elimination.

2. DEFINITION OF UNDER THE INFLUENCE (ALCOHOL OR DRUGS).

a. A person is considered under the influence of an alcoholic beverage, drug, or combination of alcohol and drugs when his/her physical or mental abilities are impaired to such a degree that he/she no longer has the ability to drive a vehicle with the caution characteristic of a sober person of ordinary prudence, under the same or similar circumstances.

b. If it is established that a person is driving a vehicle while under the influence of an alcoholic beverage, drug, combined influence of an alcoholic beverage and a drug, or while addicted to the use of any drug, it is no defense that there was some other cause which also tended to impair his/her ability to drive with the required caution.  
(California Jury Instructions - Criminal [CALJIC] 16.831, 1992 Revision.)

3. ALCOHOL INFLUENCE.

a. Alcohol is a drug that acts on the central nervous system as a depressant. As the BAC rises, a person's impairment increases. Fine motor reflexes, information processing, behavioral judgments and inhibitions, visual perception, and one's ability to assess his/her own performance are often the first to be affected. This impairment progresses to "classic" observable symptoms such as a slowing down of physical responses, a decreased ability to coordinate muscle control, and speech impairment. Higher BACs can lead to dramatic shifts in behavioral attitude (e.g., lover-fighter mood swing), and a marked reduction in physical movement (stupor); progressing to a much deeper sleep (coma) as more of the brain is disabled, and ending in death when the brain can no longer direct respiratory function.

b. As opposed to other drugs, the relationship between BAC and impairment is known, predictable and always progressive (additive). While the effect of alcohol on fine motor reflexes is critical for pilots and race car drivers, it is the processing of sensory information by the brain that is important to the routine task of driving. As the BAC increases, information processing slows down and some information is actually lost, producing a reduced awareness of the surrounding driving environment resulting in occasional driving errors. In 1967, the CALJIC 971 jury instruction added mental impairment to the determination of being under the influence. It was this recognition of the importance of "mental" capability for safe driving that led to the adoption of 0.08 percent BAC per se legislation.

4. ABSORPTION. The process by which alcohol moves from the stomach into the blood is known as absorption. Alcohol consists of small molecules which easily pass through body membranes and are completely soluble in water. Thus, when it enters the stomach, about 20 percent of the alcohol ingested is absorbed directly through the stomach walls, while the remaining 80 percent passes through the base of the stomach into the small intestines where it is actively absorbed<sup>1</sup>. While alcohol is usually absorbed within one hour from the last drink, a large meal can slow absorption of the alcohol because the stomach will take longer to empty. Absorption rates may also be affected by the rate and volume of consumption, the concentration or proof of alcohol in the drink, and the level of carbonation in the drink (carbonation usually increases the rate of absorption).

5. DISTRIBUTION. Once in the blood, alcohol is rapidly distributed to other tissues and organs (especially the brain) where the alcohol is retained in direct proportion to the amount of water in the tissue or organ. Relative to total body water, only a small amount of the total alcohol consumed is in the blood, breath, or urine. Body water acts as a reservoir for alcohol and the loss of blood from an injury (e.g., traffic collision) will not appreciably change the BAC.

6. ELIMINATION. Most of the alcohol a person drinks is eliminated by chemical oxidation in the liver. A small portion (approximately 2-10 percent) of the alcohol consumed is not metabolized and eliminated through other pathways such as urination, respiration, and perspiration. The rate of elimination (excretion) varies between individuals, and can even vary from time to time for the same person. However, after reaching peak value, an average person's BAC will decline approximately 0.015 percent per hour. This general elimination rate is roughly equivalent to the consumption of

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<sup>1</sup> National Highway Traffic Safety Administration, (*DWI Detection and Standardized Field Sobriety Testing*) – HS 178 R1/02

two-thirds of a standard drink (12 ozs. of beer, 1 oz. of 100 proof alcohol, or 4 ozs. of table wine).

## 7. BEHAVIOR AND INHIBITIONS.

a. At illegal blood alcohol levels (0.04 percent for commercial drivers and 0.08 percent for other drivers), the effects of alcohol on behavior are significantly influenced by the environment where the alcoholic beverage is consumed. At BACs of 0.01 to 0.08 percent, we expect a more extroverted behavior in a rowdy environment (e.g., at a bar, party, or ballpark). In a more subdued environment (e.g., a quiet arts gathering, play, or opera performance), the effect from a few drinks may not produce the same extroverted behavior. However, controlling behavior becomes more difficult above 0.10 percent BAC, when symptoms may become out-of-place for the environment (i.e., quiet and introverted at a bar or giddy and laughing during the opera). Alcohol is consumed socially for a variety of reasons usually producing a behavior acceptable to the environment in which it is consumed.

b. The contrasting effects of alcohol are well known. The depressant effect acts to calm, slow and relax (sedation), while the uninhibited effect (release of inhibitions) leads to increased risk-taking because fear is decreased and assertiveness is increased. While the sedation effect causes inattention and has been demonstrated to slow information processing in the brain and decrease driving performance, the uninhibited effect (increased risk-taking) is often characterized as the "courage-building" effect from drinking. Either of these effects can and will occasionally be manifested in poor driving performance at the enforcement levels (0.04 percent - 0.08 percent).

## 8. DETERMINING "UNDER THE INFLUENCE".

a. External Evaluation. Observation of poor driving performance (e.g., incorrect driving procedure, an abnormal response to road conditions or traffic situations, etc.) may be evident at BAC levels below 0.08 percent. At lower BACs, poor driving performance may be the result of temporary inattention to the task of driving caused by the depressant effects of alcohol. Subsequently, at lower BACs, a driver may be able to re-focus their attention to the task of driving at which time poor driving performance may no longer be evident. This apparent "sobering up" effect is less likely at higher BACs where alcohol has a more adverse impact on visual perception, divided attention, motor reflexes, coordination, and wakefulness.

b. Alcohol is always a depressant and some of its sedative effects (slowing, calming or relaxing) may be noted as out-of-place for an ordinary traffic enforcement stop (e.g., diverted instead of focused attention; the lack of anxiety;

nervousness or trembling hands). There may be a calm, deliberate, and relaxed demeanor and speech presentation that would be out-of-place for a person who knows they did something wrong and/or is expecting a citation. In this situation, the use of alcohol actually adds a measure of behavioral control that would otherwise not be present. Unfortunately, this generalization will not hold true in all cases because the depressant effects of alcohol may be difficult to observe in persons who are otherwise belligerent or generally challenging of authority by their nature. As officers gain experience in conducting traffic stops, they will develop the ability to recognize the expected and unusual mental and physical performance characteristics of violators.

c. It is the sum total of all symptoms, regardless of the degree, and the chemical test that will show the true condition of a subject. Every action of a subject, which indicates any amount of influence, must be noted and recorded.

d. Chemical Evaluation. This approach determines the amount of alcohol in the blood, which affects the brain. The acceptance of this procedure is based upon countless tests in which the mental and physical reactions to varying amounts of alcohol in the blood were measured and studied. (National Safety Council, the American Medical Association, and the American Academy of Forensic Sciences.)

## 9. CALIFORNIA PRESUMPTIVE-LIMIT LAW.

a. Pursuant to Section 23610(a) VC, if there was at the time of a chemical test less than 0.05 percent by weight of alcohol in the person's blood, it shall be presumed that the person was not under the influence of an alcoholic beverage at the time of the alleged offense. If there was at that time 0.05 percent or more, but less than 0.08 percent by weight of alcohol in the person's blood, that fact shall not give rise to any presumption that the person was or was not under the influence of an alcoholic beverage. However, that fact may be considered with other competent evidence in determining whether the person was under the influence. If there was at that time 0.08 percent or more by weight of alcohol in the person's blood, it shall be presumed that the person was under the influence of an alcoholic beverage at the time of the alleged incident. (Note: percent, by weight, of alcohol [BAC] is based upon grams of alcohol per 100 milliliters of blood.)

b. Officers should feel secure in the knowledge that no injustice is involved when arresting a person with a BAC of 0.08 percent or greater despite the absence of physical manifestations or the opportunity for observing them. Likewise, an officer is justified in arresting a subject with a BAC below 0.08 percent if they meet the definition of "under the influence" (page 1-1).