

ALCOHOL, ITS USE AND MISUSE

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Drink is a habit which in recent years has assumed universal proportions. In every country in the world people are progressively indulging in alcoholic liquor and strong drink. Whereas in the age of our grandparents it was only the male species of human race that was suffered to get drunk, and strong liquors were taboo amongst nice females, in our days women have asserted their equality with men not only in domestic and social matters, but also in the matter of inebriation and intoxication. Perhaps this state of affairs is the result of the modern conditions under which we live: the present is unsettled, the future is dark, nothing appears to be stable and solid in this modern world of ours. The whole outlook is depressing and an overwhelming sense of frustration pervades our thoughts and actions. No wonder that very many people would like to escape from their worries and are prone to bury their troubles under the fumes of forgetfulness.

The popular idea is that alcoholic drinks soothe the nerves — later we shall discuss whether this idea is correct or not — and this idea is certainly responsible for the extreme popularity of spiritous liquors. Ours is a life of great strain and stress; speed is the keynote of our existence; we have no time to relax, nerves are stretched to breaking point, and thus we turn to stimulants for further efforts or to sedatives in the hope of soothing our nerves. This popular belief about the actions of alcohol has made of this luxury an object of necessity in life; it has become indispensable even to the point of supplanting other important amenities which used to enliven our existence. The craving for drink has taken such a grip on the masses,

that these would far sooner do away with useful commodities than be deprived of this indulgence. Indeed, during the chaotic shortages resulting from the late war, we have witnessed the extraordinary event when the value of drink had soared so high as to compete with gold and other precious metal, and in certain of the countries mostly hit by the upheaval, commodities of life were traded not in terms of currency but of bottles of whisky and gin.

The popularity of drink has created a reaction. It is a fact that every popular trend raises an opposition to it: there is always a brave band of reformers who make it a point to go against current tendencies; the stronger the current the fiercer they fight against it. The army of teetotallers has even fought against alcohol, and the increased popularity of the tot has only excited the fiercest onslaughts against alcohol, which has been held responsible for all the sins and evils that afflict human life, having even been dubbed as poison.

Alcohol is one of the narcotic poisons and its action is very similar to that of certain well known narcotic drugs such as Ethyl Bromide, Ethyl Chloride, Ether and Chloral. If taken in large amounts, it produces intoxication which may pass on to narcosis

In an unexperienced drinker, strong liquor will produce an unpleasant sensation of burning along the gullet, because it irritates the mucous membrane and sometimes induces nausea and even vomiting. Alcohol is quickly absorbed into the blood stream through the mucous lining of the stomach, from where it is carried by the circulation to all the organs of the

body. Alcohol has a special affinity for the brain. This is due to the fact that it is fixed by certain fat-like substances known as lipoids; these are found in all cells of the body especially in the brain and nervous tissue, hence the greater concentration of alcohol in these tissues. In a man who had died of acute alcohol poisoning, the following proportions of the substance were found in his system: 20% in the liver, 33% in the blood and 47% in the brain.

After absorption alcohol is destroyed by oxidation, being burned up into carbon dioxide and water. The system becomes accustomed to deal with alcohol in this way, and this explains the reason why in habitual drunkards an increasing amount of alcohol is required to produce the sense of exhilaration consequent on paralysis of the inhibitory centre. It follows that a habitual drunkard requires a larger amount of alcohol to get intoxicated because good deal of the intake is oxidized, but the amount that remains unoxidized and produces drunkenness is more or less equal to the amount which causes drunkenness in a non-drinker. This explains why the only reliable proof of intoxication is that resulting from a blood test, as it shows the amount of alcohol present unchanged in the blood, independently of the quantity taken by the mouth.

A good proportion, about 90% of the alcohol, is oxidized and the remaining 10% is excreted by the kidneys and the lungs; the disappearance of the alcohol from the body has been calculated on an average of 10 c cm. per hour; about three hours therefore are required to eliminate from the blood one single large tot of whisky. The concentration of alcohol in the urine during elimination bears a certain relation to that in the blood, and for practical purposes, it may be held that the concentration of alcohol in urine is equal to the concentration in the blood during

the time that the urine was collecting in the bladder.

As we have said, in the habitual drunkard the system becomes accustomed to oxidize an ever increasing amount of alcohol, but this is fraught with danger, and may be the cause of harm to the system itself. The presence of the alcohol in the blood causes a constant irritation of the cells with which it comes into contact and, as a result, we have disturbance of their function. The most serious action is exerted on the brain cells which fix the alcohol in greater proportion and, in consequence, serious symptoms develop in the higher centres which may eventually lead to impairment of the brain and cause Delirium Tremens. As a matter of fact, alcoholism is considered as one of the main causes of insanity, but its deleterious action is exerted on the various systems of the human body: it produces irritation and inflammation of the mucous membrane; it enters into the circulation and its presence weakens the various structures and organs to which it is carried, and as a result they fall an easy prey to infections and diseases.

Apart from these considerations, alcoholism is a social evil because it causes degeneration in the behaviour of drunkards. In the long run, they lose the power of self-control and self-respect; they become irritable, aggressive and unstable, they take an intolerant view of persons and things, and this leads to all sorts of friction and unpleasantness; such an attitude may be the cause of endless troubles and serious complications; it may even produce deplorable incidents and serious assaults. Those who indulge excessively in alcoholic drink are a menace not only against the social order, but also against the national economy of the country; apart from financial loss and absenteeism one should consider the fact that such workers become slothful and

careless, their productive power is diminished and they are more prone to accidents than others who are free from the drinking habit.

When it reaches the brain, alcohol exerts its influence by paralysing the cells which control muscle action and also those elements known as inhibitory or common sense fibres; as a result we get staggering gait and uncontrolled behaviour. A person under the influence of drink will usually be unable to stand steadily, and very often loses control of his emotions; he may laugh, weep, become aggressive or display unwarranted affection. It has been said that the effects of alcohol rise by degrees from the lowest to the highest senses of the human body, but this is not invariably so. Under the depressive action of alcohol a person loses the ability to concentrate, he will be unable to consider and reflect, his powers of appreciation are diminished and in consequence it becomes difficult for him to correlate ideas and impressions. In this condition an individual may become a menace to himself and to society.

Drunkenness therefore is a condition fraught with danger to the tipster himself as well as to other persons with whom he comes in contact; if he happens, for instance, to be driving a car then his condition becomes a menace. A medical practitioner is often called to give his opinion about the condition of a car driver accused of being under the influence of alcohol. Such a case should receive very careful consideration and should be proceeded with cautiously and diligently. In the first instance, it should be ascertained

whether the individual has really consumed liquor and if so at what time prior to the examination. Apart from other evidence or statements, smell plays a very important part in this respect, but smell by itself is not a proof of drunkenness; for instance, a person may have a small drink, and if his mouth is smelt soon after, a strong smell of alcohol may be perceived.

A second important observation is that relating to the control of faculties. It should be borne in mind that there is no test for determining the amount of alcohol required to prevent a person from carrying on with his normal occupation in a proper manner. We have already stated that the effect of alcohol differs in different individuals and depends on their habits. An opinion may be gathered from the continued observations on general demeanour, character of speech, manner of walking, standing up or sitting down, memory of incidents, character of breathing, hiccough, etc. Finally, it should be kept in mind that there are various pathological conditions simulating alcohol intoxication: vascular lesions of the brain, sudden nervous shocks, acidosis, hysterical trance, acute effects of drugs, chronic effects of chemicals, results of head injuries.

It will be appreciated that a diligent examination is necessary and extreme care is required before the examining medical practitioner can certify a state of drunkenness, but once his observations have established this fact, he should definitely state so, and on no account should he try and shield a confirmed drunkard who, as we have seen, is a menace to society and a danger to law and order.