

THE EFFECTS OF ALCOHOLIC DRINKING

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1. ON LONGEVITY.

"WITH long life will I satisfy him," says the Scripture concerning the people who serve Jehovah. We are ever ready to make great sacrifices to prolong the life of ourselves and our loved ones. The physicians are constantly making new discoveries, whose effect is the prolongation of life. Many old theories have been destroyed by the experience and investigation of these discoveries. Prominent among these definite conclusions of recent date are the positive statements as to the physical effects following the use of strong drink. In the past the doctors apparently believed that alcoholic and spirituous liquors made well people stronger and sick people well. But they tell us that these drinks injuriously affect the body. The scientific tests of such liquors revealing the presence of poisonous acids, and the scientific investigations in hospitals, have clearly demonstrated the pernicious results of the use of strong drink in preventing people living out the full expectancy of life.

The actuaries of the life assurance companies have given careful study to the effect of strong drink upon human life. The United Kingdom Temperance and General Provident Institution, reporting in 1904 to the British Parliamentary Inter-departmental Committee on Physical Deterioration, states that, based upon sixty years' experience, while 70 abstainers died out of 100 expected deaths, 96 drinkers died out of 100 expected deaths, and the drinkers were all good average risks. This shows that the total abstainer is 26 per cent. better risk than the drinker. The same authority declares that drink shortens life by 11.08 per cent. Their statistics demonstrate that a total abstainer 30 years of age may expect to live 38.8 years, while a moderate drinker 30 years of age may expect to live only 35 years, or 3.8 years less than the total abstainer. At 40 years of age the moderate drinker may expect to live 27.3 years, while the total abstainer may expect to live 30.3 years. Life insurance actuaries state that abstainers, both male and female, show a marked superiority to non-abstainers throughout the entire working years of life, for every class of policy. The president of the Association of Life Assurance Presidents of North America states that Russia can replace a war loss of 500,000 men in less than ten years by the saving of human life through complete total abstinence from alcoholic beverages. In the interest of his own longevity every youth should be a total abstainer.

Mr. H. Sutherland, President of the Equity Life Assurance of Canada, states that eleven years' experience shows that the average death-rate of abstainers is only 21.7 of the expected death-rate. This means that for every \$1,000 death loss expected by the tables of the actuaries \$217 on the average year by year was used for these eleven years. In the same company for the thirty-one years from 1894 to 1914, the death losses in the abstainers' section was only 42.9 per cent. of the expected deaths. Three well-known United States life assurance companies have carefully considered this matter. One company reports that 62 abstainers died to 100 drinkers; another reports 56 abstainers died to 100 drinkers; and the third reports 67 abstainers died to 100 drinkers.

2. ON ENDURANCE.

Eighty-three contestants entered for long distance walking match of sixty-two miles to decide the championship. Fifty-nine contestants were non-abstainers, and twenty-four were abstainers, but none used liquors while on the march. The non-abstainers won 40 per cent. and the abstainers won 60 per cent. of the prizes. Of the first 25 to reach the goal, 40 per cent. were non-abstainers, and 60 per cent. total abstainers. Of the number who failed altogether to reach the goal, 94 per cent. were non-abstainers, and 6 per cent. were total abstainers. The abstainers won 1st, 2nd, 3rd, 4th, 8th and 9th places. Half of the non-abstainers fell out of the race, while only two of the total abstainers fell out. Walkers, runners,

swimmers, wrestlers have all testified as to the disadvantage of using alcoholic beverages.

Army marching tests, according to Field-Marshal Lord Roberts, Lord Wolseley and many others, reveal positively that alcohol is a distinct hindrance to muscular power. Without it men march further with less fatigue. The use of drink slows the power to see signals, confuses prompt judgment, spoils accurate shooting, hastens fatigue, lessens resistance to disease and exposure, and increases the shock from wounds. In view of these facts such eminent physicians as Sir Thomas Barlow, Physician to His Majesty; Sir Frederick Treves, Surgeon to His Majesty; G. J. H. Watt, Surgeon-General in the Army; Sir Victor Horsely, and Lieut.-Col. C. Sims Woodhead, have appealed to the British soldiers and sailors that they become total abstainers. Alcohol always destroys endurance. It is like putting sand into the bearings of an engine. Where heavy muscle work is demanded, especially under conditions of intense heat or severe cold, the use of strong drink always decreases the ability to withstand the strain. Of 465 cases of sunstroke 80 per cent. were drinkers, and of 70 deaths 90 per cent. were drinkers. In hot climates men who do not use alcoholic drinks, as a rule, stand the heat better and have less sickness.

The alcohol in beer and other liquors so affects the brain and nerves that it tends to produce carelessness about proper protection against over-heating. It disorders the body's natural mechanism for regulating body-heat, inducing a sensitiveness to excessive heat, which often causes heat apoplexy. Cramps or spasms sometimes lay up stokers and other men in rolling mills when working in intense heat. The chronic drinker appears to be more liable to this "spasm" and his attacks to be more severe.

The idea that alcoholic liquors help to withstand heat is simply due to the fact that alcohol, by dulling the feelings, deceives as to its real effects.

British military campaigns in India, Africa and France, Polar expeditions to the Arctic or the Antarctic regions, and all tests of men as to endurance, show clearly that alcohol decreases their possibilities of success, and increases their liability to failure by aiding heat prostration, sunstroke, freezing, as well as quickening weariness.

General Wolseley, of the British Army, once when preparing for a long march of several weeks, divided his men into three squads. To one squad he allowed a certain amount of whiskey daily; to the second, beer; to the third, only water. At first the whiskey men marched ahead of the others. Soon they lagged, and the beer men passed them. Finally the water squad, marching at a steady moderate rate passed both the whiskey and the beer drinkers, and reached the end of the march long before them.

European doctors have made tests with lifting weights. They have found that on days when the persons under test took no more alcohol than that in a pint or pint and one-half of beer, they grew tired and had to stop sooner than when they took no alcohol. Alcoholic liquors always take away strength for work, producing weariness more quickly.

(To be continued.)

Your Attention, Please!

If you will turn over to page 141 you will find a very important announcement relating to the future of this paper. Intimation is there given of the proposed enlargement of its scope and influence as well as the new name by which it is to be known after the change comes into actual effect. The editorial co-operation of Dr. Moore with the Editor will extend the usefulness of the paper while none of its distinctive characteristics as an exponent of young people's work will be lost. We advise you to read the whole of page 141 right now, and especially the top of it.