

Temperance - Alcohol -
Physical
Effect

Dangers in the Use of Beer



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THE DANGERS IN THE USE OF BEER*

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IT was not very long ago that beer began to be warmly recommended by physicians and social students as one of the best and most suitable means with which to combat alcoholism. Even Dr. Baer, who was one of the greatest authorities on the alcohol question, in his book, "Drunkenness and Its Prevention," published in 1890, said that the use of beer as a popular drink would become one of the strongest defenses against whiskey, and he wished, therefore, that the state would do all it could to promote the production of cheap beer.

Dr. Rosenthal, also, professor of Physiology in Erlangen, in his much-cited work, "Beer and Distilled Liquors and their Relation to Public Health," said that beer was one of the strongest levers in the advance of civilization, "because it supplemented the barbaric and culture-destroying whiskey by substituting its mild influence in place of that which was injurious and dangerous. Wherever wine is not produced cheap enough to become a popular drink there we have every reason to promote the consumption of beer."

* Published 1902.

Today these and other writers are seeing with dismay whereunto their recommendations are leading.

Has the consumption of distilled liquors diminished? By no means, as the statistics show. The only considerable diminution (since 1870 when it stood at 4.3 litres) was that at the beginning of the eighties, when the consumption had reached a great height; but since then the use of distilled liquors has stood fairly constant at about 4.4 litres of absolute alcohol. Only in the last five years (1899-1904) has a small diminution taken place.*

Beer Consumption Increases Tremendously.

Beer consumption, on the other hand, has increased tremendously. From about 90 litres per capita used before the formation of the German Empire, to the middle of the eighties, the consumption grew until, by 1890, it had reached 105 litres per capita; by 1895, 115.7; by 1900, 125.1. The increase, therefore, since 1895 is about 30 per cent. In 1902, in consequence of industrial depression, it fell to 116 litres per capita, and in 1903 to 116.6. Since the years from 1860-65 when it amounted to only 37 litres, the consumption of beer, therefore, has increased threefold.**

The amount of absolute alcohol consumed in this amount of beer is very considerable. Eight-tenths of a litre of beer at 4.5 per cent. alcohol would contain 36 ccm. (1.2 ounces) corresponding to the amount one would get in 120 ccm. (4 ounces or 2 wineglassfuls) of 30 per cent. whiskey.

* With this is to be taken into consideration the fact that since the tax of 1887 the increasing use made of denatured spirits, shown by statistics, has in all probability led to a reduction of the distilled liquors (that is, has cut out from distilled liquors amounts that were previously used in the arts.)

** (The Year Book of the International Bureau for combating Alcoholism, Lausanne, Switzerland, for the year 1914 gives the per capita consumption of beer in Germany for the years 1909, 1910, and 1911, as 99, 99 and 106 litres respectively.)—Ed.

The beer consumed in Germany averages $5\frac{1}{4}$ litres of absolute alcohol, annually, for each person, being $1\frac{1}{4}$ litres more than the average of the amount of distilled liquors consumed.

Beer Alcoholism in Germany.

Germany, therefore poisons herself more with the alcohol contained in beer than with the alcohol contained in wine, and that in the proportion of 21:16, or, beer alcoholism in Germany at the present time is 31 per cent. greater than the alcoholism from whiskey.

The result of extolling beer as one of the most potent factors of civilization, and the mightiest enemy of whisky and brandy has been that the consumption of the distilled liquors has changed very little, while to these liquors has been added beer, the use of which has already far exceeded the undiminished use of the distilled liquors, and has led to a great and still increasing beer alcoholism.

It has been thought that the alcohol in beer, because of its weaker concentration, (beer averaging about $4\frac{1}{2}$ per cent alcohol and distilled liquors about 30 per cent. some kinds 40-60 per cent.) is much less injurious, in fact, is practically harmless, and one hears that opinion expressed even today.

Prof. Strumpel of Breslau, has clearly shown the error of this opinion and the serious danger in beer. He said in a lecture in Nurnberg in 1894:

"Nothing is more erroneous, from the physician's standpoint, than to think of diminishing the destructive effects of alcoholism by substituting beer for other alcoholic drinks, or that the victims of drink are found only in those countries where whiskey helps the people of a low grade of culture to forget their poverty and misery."

Smaller Percentage of Alcohol Outweighed by Larger Quantity Used.

Indeed, no! Under the mask of an apparently light, pleasant-tasting and even nourishing re-

freshment, alcohol in the form of beer has made its destructive entrance into circles which were closed against it in other forms. For whereas the word "whisky" is frowned upon in good society, and the idea of moral depravity, the impending approach of moral and physical ruin, is everywhere connected with the term "brandy-drinker," there exists among high and low, opinions concerning beer that are opposed to the judgment of every reasonable and unprejudiced physician. For not only experience in hundreds of cases, but the simplest consideration of actual conditions, show us that the undeniable advantage over other alcoholic drinks which beer has on account of its greater dilution is many times outweighed by the disadvantage resulting from the immense quantities used.

It is true that the diseases caused by beer are not, in most cases, so manifestly serious as those caused by the distilled liquors. Whisky, brandy and others of this class which contain large amounts of alcohol do greater injury to the organs with which they come in contact on their way through the body, the stomach and the liver, than does the less concentrated beer. For this reason, diseases of the stomach and liver attack the whiskey drinkers earlier and more frequently than they do the beer drinkers. The well-known liver cirrhosis is pre-eminently a disease of the whiskey and wine drinker. Yet it is not unusual in heavy beer drinkers.

In the clinic of Prof. Pribram in Prague, the center of Bohemian beer, among 483 beer-drinking patients (who took over five quarts a day) there were 39 cases of cirrhosis, while among the 520 whisky drinkers only three cases were observed.

Alcoholic Diseases in Beer Drinkers

Delirium tremens also, is relatively infrequent among beer drinkers. Yet with the increasing use of beer, this, as well as other mental diseases due to alcohol, are slowly on the increase. Jacobson found in the general hospital in Copenhagen among 247 cases of delirium tremens 15 (6 per cent.) who were exclusively beer drinkers. In the medical clinic of Dr. Pribram, in

Prague, among 483 heavy beer drinkers were found 39 cases (8 per cent.) of delirium tremens, and among 520 whisky drinkers only 21.

In every 1,000 in the general deaths of adult men in Prussia in 1901 there was an average of 3.8 cases of delirium tremens; but among every 1,000 deaths of whisky drinkers there were 8.2 cases, and in every 1,000 deaths of beer brewers there were nine cases of delirium tremens.

Increased Consumption of Beer Causing

Increase of Mental Troubles.

Chronic alcohol poisoning of the brain, the so-called chronic alcoholism, runs a more rapid course, and is more intensive with whiskey drinkers than with beer drinkers, in whom the symptoms appear more slowly and are, therefore, less conspicuous.

Yet of 478 drinkers received in the Ellikon institution for curing inebriety (Switzerland) between 1887 and 1893, there were ten beer drinkers and 100 beer and wine drinkers. In all there were 133, or 39 per cent., who were drinkers of fermented liquors solely. But among those who are publicly known to be drunkards, and who need institutional treatment in order to be cured, there are thousands and tens of thousands who injure their mental functions and sink their mental and moral level by regular daily beer drinking.

Because the symptoms of chronic alcoholism appear more slowly and are less readily observable in the heavy beer drinker than in the whiskey drinker, the former is far more frequently met than the latter. But thousands and tens of thousands of men who take their daily pint are rendered stupid, silly, and dissolute by beer. They will, probably, still transact regularly the daily business or routine of office to which they have become accustomed, but without special exertion, half automatically, like machines. For any further exertion, however, for improvement or for more productive activity they lack the desire, the initiative, and the energy. The beer makes them stupid and heavy; it destroys the power and buoyancy of the mind, blunts the higher feelings and interests, and causes the

gradual giving up of aspirations and ideals. Enthusiasm and devotion dwindle away to give place to self-indulgence, indolence, boasting and egotism. The term "beer-philistine" so often heard among observing people, is here well applied.

These are the characteristics of the so-called "moderate" use of beer, while those caused by "excessive" use differ very little from those of chronic alcoholism caused by whiskey.

A class of troubles which are not, like the foregoing generally designated as alcoholic-diseases, are very frequent among beer-drinkers.

Heart Difficulties in Beer Countries.

First among these is expansion and enlargement of the *heart*, or "beer heart," as it is called in Munich where this disease was first attributed, by Professors Bauer and Bollinger, to the large amount of beer there used. In the 5,700 autopsies held in the Pathological Institute of Munich from 1885 to 1895, it was found that the cause of death in 244 cases was beer heart. Among these were only 26 women, showing, Bollinger thought, the best proof that a temperate life, such as women usually live, is a protection from this disease, while a sixteenth part of the men had drunk themselves to death with beer.

In Munich, the death-rate from heart disease is higher than elsewhere. According to the statistics of the Gothaer Life Insurance Company, the general death-rate from heart disease elsewhere is 5.8, while in Munich it is given by Sendtner is 11.9, nearly double.

Among those engaged in the beer industry, the death-rate from heart diseases is considerably higher than it is among the general population of Munich.

In the Bavarian army during the year 1882-1893 from 3.1 to 6.8 per cent. of all the patients received into the hospital suffered from heart disease, while in the Prussian army only 1.1 to 3 per cent. of the hospital patients were thus afflicted, not quite half as many. . . . Thus the rate of beer consumption in Bavaria is marked by a preponderance of heart disease.

In North Germany, also, the injurious result

of the increasing use of beer is shown by an advance in heart disease. Prof Fraentzel reported in an article on heart disease, in 1898, that in Berlin, where the drinking of beer, especially of the heavy beer imported from Bavaria, has enormously increased, he had to treat during the preceding few years a steadily rising number of cases of palpitation, shortness of breath, and other indications of heart trouble occurring in comparatively young people between twenty and thirty years of age in whom examination revealed enlargement of the heart. The only cause found for the trouble was the habitual free use of beer, the withdrawal of which was followed by improvement.

Kidney Disease.

Kidney disease is frequently found in connection with enlargement of the heart. Again, it is in Munich that the expression "beer kidney" first came into use, because it was found there with particular frequency in beer-drinkers. The great quantities of alcohol, even though in diluted form, that must pass out through the kidneys, irritate the cells and tissues of these organs and lead ultimately to chronic inflammation.

While acute inflammation of the kidneys can be brought about, as observations have shown, by single immoderate indulgences in beer, chronic inflammation followed by contraction is more a disease of the steady drinker. The beer drinker who is not at all a drunkard in the popular sense, is very frequently the victim of chronic inflammation of the kidneys.

In Bavaria, from one-third to one-half of all kidney diseases can be attributed to the inordinate use of beer. Those engaged in the alcohol industry are, of course, specially endangered. Placing the death-rate from kidney diseases in all classes of occupations, from the age of 25 to 65 at 100, that of beer brewers in England and Wales from 1890 to 1892 amounts to 190, and that of hotel keepers to 200. In women, chronic inflammation of the kidney is relatively infrequent. If one hears that a man is a victim of, or has died from chronic disease of the kidneys, in the best years of his life, one may safely

conclude that he had been a great friend of beer.

Liver Disease.

The liver is the third vital organ that is often affected sympathetically in beer-drinkers. And while, as already said, cirrhosis of the liver is not so frequent, an enlarged and fatty condition marked by a dull pain in the region of the organ often follows from the habitual use of beer. The death-rate from liver diseases among beer brewers in England is more than double (210 per cent.) than that in all other callings.

Relation of Beer to Apoplexy.

Like all other alcohol users, beer drinkers are liable to serious disturbance of the *blood vessels*. The cells lining the inner walls of the arteries grow fatty and die, the walls thicken and harden from deposits of lime salts, lost their elasticity and become brittle. In places there may come enlargements which finally burst, causing hemorrhage, a condition that is particularly dangerous when it occurs in the brain and may cause sudden death by apoplexy.

In most victims of apoplexy occurring in the middle years of life, indications of chronic alcoholism, are more or less pronounced. Usually, when a man succumbs to his fate during or after a drinking bout, often in the beer-house, the scene of his hilarious carousals, no instructive and lasting impression is made by his sudden death upon his astonished and frightened companions, for the cause is looked for in everything else except in beer.

Digestive and Nervous Affections.

Among the less dangerous diseases which occur frequently in beer-drinkers are affections of the *alimentary canal*. Beer-drinkers have a marked tendency to dilation (enlargement) of the stomach, and to chronic diarrhea.

I will here mention, briefly, that inflammation of the *nerves* which occurs not only in brandy-drinkers, but also in beer-drinkers, is first announced by "rheumatic" shooting pains in the legs, which, in severe cases, is followed sometimes by paralysis. In addition to this, the beer-drinker frequently suffers from neurasthenia—irritable weakness of the nervous system, which

has increased so enormously in the last few years.

Beer plays a very important role, also, in a class of maladies that are grouped under the name of "disease of metabolism," such as *obesity*, *diabetes* and *gout*.

Beer Causes Unhealthful Obesity.

The fatty changes are strictly characteristic of the beer-drinker. One needs only to picture the true beer-seller with his bloated, mushroom face and his colossal abdomen, in order to have the prototype of the beer-drinker, a type constantly increasing outside of the beer-selling class, and it is to be seen even among our students and particularly among the upper class university students, and sometimes, as in Bavaria, even among children.

Dr. Stumpf of Munich says that as a vaccinator he sees every year many children, some of them very young, already bearing the stamp of habitual use of beer. These are usually the children of beer-sellers, who look upon this obesity as an indication of particularly good health, and are proud of it. The fatty deposits are present in abnormal amounts not only in the usual repositories for fat, as in the skin, in the tissue meshes, in the mesentery, and over the kidneys, but also between the muscle fibres, which in the normal condition are destitute of such ballast, and in the heart muscles, where it is especially dangerous, a condition that is often found in connection with fatty liver.

The abnormal accumulation of fat is a hindrance to movement; it unfits one for any kind of hard physical work; it causes one to be easily fatigued, to perspire on the least exertion, to be out of breath and to have heart palpitation if he but climbs a flight of stairs; and greatly endangers his chances of recovery in infectious diseases, because it weakens the power of the heart. These obese persons have also a greater tendency to disease than others.

Beer a Factor in Gout.

It is well known that gout, which arises from unhealthy changes in the assimilation of nitrogenous matter, is most common in people who

live high and at the same time make free use of alcoholic drinks. It is not generally a disease of the poorer classes, the whiskey drinkers, but of the well-to-do who drink wine and strong beer.

In England, where gout is quite frequent, most authors hold the cause to be the use of porter and other strong malt liquors. But Prof. von Strumpell has recently shown very conclusively that chronic alcoholism, particularly the continuous immoderate use of beer, year in and year out, plays a large role in the origin of gout, to which there is also, usually, a hereditary tendency. For this reason gout is a very frequent disease in Bavaria, and a physician living in one of the French middle cities told Dr. Strumpell that there nearly every tenth man suffered from gout.

Brewers and their descendants furnish an exceptionally large number of cases of gout. Among brewers in England, between 1880 and 1892 there were 500 deaths from gout to every 100 occurring in other callings.

Diabetes Frequent in Beer Drinkers.

Diabetes, which is due to disturbances in the assimilation of carbohydrate foods (the starch and sugar class) is in many cases the result of free indulgence in alcoholic drinks, particularly in beer. Strumpell has found a special form of diabetes conspicuous among beer drinkers, in whom there is a diminished or weakened power of the body to break up sugar. Sugar taken on an empty stomach is not completely changed, as it is in normal persons, but appears again, in part, in the urine. This disorder Strumpell found particularly among upper class university students who had taken part for a long time in the carousals of university life, and among brewery hands who, in their corpulence, already bore the marks of the beer-drinker.

Strumpell emphasizes the fact that we know of no other external source of injury that appears to weaken so directly the sugar-destroying function of the body as the habitual, immoderate use of beer. Injury to this function can be demonstrated after the use of moderate amounts, in

some cases after as little as a pint in others only after two and one-half quarts of beer. If injury to this function is continued by the daily use of increasing amounts, the condition becomes more and more serious and may end in actual diabetes.

The frequency of this disease among brewers is shown by the English vital statistics (1890 to 1892), which give the death-rate from diabetes among brewers as 243 per cent. of that of the general population. In tavern keepers it was 271 per cent.

These three diseases of metabolism, obesity, gout and diabetes, stand in very close relation to each other, all three often being present in the same individual at the same time, or one following the other, and aside from constitutional tendencies have, as their chief external cause, chronic alcoholism in the form of beer, which Prof. Strumpell calls "Gambrinism."

Beer Alcoholism Lowers Resistance to Disease.

It is to be particularly emphasized that beer alcoholism, as well as alcoholism in general, lowers the resistance of the body to all diseases by injuring most of the organs. And herein lies the chief danger in the general widespread use of beer. The drinker is especially open to attacks of infectious diseases, and especially from the most common and most dangerous of all infectious diseases, *tuberculosis*.

In every 1,000 deaths occurring in the general population of Prussia in the year 1901, 160 were due to tuberculosis; but among beer brewers from 1884 to 1885 and from 1898 to 1901, from 241 to 345 deaths in every 1,000 were due to tuberculosis.

Both the sick-rate and the death-rate is greater among brewers than among other workmen. The beer-brewers and managers have also a death-rate double that of those in other alcohol industries, the frequency of other alcohol industries, the frequency of accidents being greater even than among miners.

Beer a Menace to Public Welfare.

Thus far I have spoken only of the danger to the individual in beer-alcoholism. But like alcoholism in general, that of beer carries with it

most serious dangers to society. This is especially noticeable in the relation of alcohol to criminality. The brutalizing effect of beer-alcoholism is shown most clearly by the fact that in Germany crimes of personal violence, particularly dangerous bodily injuries, occur most frequently in Bavaria where there is the highest consumption of beer.

A Source of Deterioration to Posterity.

I would call attention, also, to the deteriorating effect of alcohol upon the descendants of drinkers, which is one of the greatest dangers in the rapidly increasing use of beer; and to the destructive effect upon national wealth. This comes about both directly through the expenditure for beer, which, as already stated, exceeds two million marks a year; and indirectly through its effects in promoting sickness, premature death, poverty and destitution, criminality, and the cost of erecting and maintaining hospitals, insane asylums, institutions for idiots and feeble-minded, houses of correction, workhouses and prisons.

A "Pest" to Germany.

The "Gambrinism" whose doings we have here exposed has become one of the greatest menaces to public health. Luther said that the beer-brewer was the pest of Germany, and we have today still greater reason for speaking of beer as a "pest." It has become worse than the whiskey-pest because beer is more apt to lead to immoderate drinking. As Prof. Bunge says, "No other drink is so seductive."

In Munich a daily consumption of from four to six liters (quarts) of beer by workmen is not considered immoderate and neither, in north Germany, is the daily use of ten glasses (3 to 4 quarts) of beer by students and professors thought out of the way.

But worst of all, beer is carrying alcohol into the families. There is scarcely a family in which beer has not become a daily drink. In the convenient form of bottled beer it forces its way into offices, stores and workshops.

The prejudices in favor of beer are promoted and extended by the numerous and influential beer interests which represent an enormous cap-

ital and which control the press and influence public opinion and otherwise exert their whole power to increase the consumption of their drinks.

Ensnaring Women and Children.

With the use of beer, alcohol is getting a hold upon the women who, until the last few decades, were quite free from it, at least in Germany. Thirty or forty years ago there were many women who knew alcohol only by name, or who used it only occasionally as on a holiday, and taking then only a sip of wine, or liquor or brown beer. But now most well-to-do women, like the men, take their glass of beer with every meal, and more after supper. The guest who comes in must be treated, and in large cities they flock to the restaurants, beer palaces, and beer gardens with their husbands and brothers and sit until late into the night beside their foaming glasses and when they sit at a table alone, it is becoming more and more noticeable that they have their glass before them.

Into the children's world also, as well as into the women's world, beer has penetrated. Many children receive daily with their meals, or at least with their mid-day lunch, their glass or glasses of beer. One can see every day in the restaurant, beer-gardens, or on excursions, young children drinking from the glasses of their parents and taking from time to time a goodly swallow.

In 1898, in a public school in Bonn, it was found that among 247 children from seven to eight years old there was only one who did not yet use alcoholic drinks; 110, or 44 per cent., used beer or wine daily; and 8 per cent. used brandy daily "to strengthen them."

Beer Stupefying the School Children.

In a district school in Leipsic, in the second class which consisted of forty-two boys from seven to eight years of age, there were fourteen who had already been intoxicated; seventeen, that took beer daily and twenty-four often drank whisky. It was also remarked in this and other schools that such pupils were the most stupid and sleepy and had the lowest records.

In a district school in Charlottenburg in 1904,

it was found that only 27.4 per cent. of the pupils did not drink beer; 16.3 per cent. drank beer regularly every day. An investigation made in Austria in 1901 brought out the fact that 92.5 per cent. of the boys and 90.8 per cent. of the girls drank beer, and every third boy and girl used it regularly.

That the use of beer, like the use of alcohol in general, is extremely dangerous for children and can lead to the worst disorders, does not need to be emphasized here, as the recent publications of Prof. Kassowitz, of Vienna, and Dr. Karl Beck, of Heidelberg, have shown.

Child Alcoholism From Beer.

Delirium tremens and liver cirrhosis in children have increased lately at an alarming rate.

Accustomed from their earliest years to the characteristic excitement induced by this means, the children are eager to take part as soon as possible in the drinking customs of their elders, and by the time they are through school they are already experienced drinkers and ambitious to be noted for the amount they can "carry."

The finishing touches which they do not attain at the homes of their parents or upon the streets they acquire later in the work shop, at the counters, or in the army or university, which may be called the high school for beer-drinking. It is in this way that the temptation of the alcohol fiend comes to all in the form of beer and, although many remain moderate, it is nevertheless true that immoderation, with men at least, is the rule.

Victimizing All Ages and Classes.

It is not to be wondered at that nervous and mental troubles are becoming more and more numerous as a result of the deteriorating effects of alcoholism upon the human race. Everywhere alcohol is finding new victims.

These are the terrible dangers which the regular moderate and immoderate use of alcohol is bringing upon the human race. On account of the democratic equality with which beer has established itself among all classes of people, the dangers from beer-alcoholism are much greater than the alcoholism from wine or whiskey which is confined to relatively few people.

Important Aids

For No-License Campaigns, public meetings of Church and Temperance Organizations, Christian Endeavor Societies, Chautauquas, Teachers' Institutes and Receptions, High and Normal Schools, Social Betterment Workers, Parental and Industrial Schools, Labor Unions, Lyceums, Etc.

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