## **Psychological Sciences**

### Психологические науки

#### **Addiction as a Disease**

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**Abstract.** Addiction — is a mental and physical condition of times resulting from the interaction between a living organism and substance, characterized by changes in behavior and other reactions, which include the necessity of taking the substance continuously or periodically, in order to experience its influence on the psyche, and sometimes to avoid unpleasant symptoms associated with a lack of substance.

**Keywords:** Alcoholism-Alcohol is a regular drink to experiencing the mental activity; and sometimes to avoid the discomfort resulting from its withdrawal.

#### 1.1 Definition and classification

Jellinek believed that alcoholics are only people with alcoholism type Gamma, Delta and Epsilon. However distinguished the following types of alcoholism:

- Alpha a psychological (mental) dependence on alcohol, occurring in people who can not cope with stress and other difficult life situations. The current is too severe symptoms of impaired control over drinking alcohol. This type of alcohol can turn into a type of Gamma, but it can also stay largely unchanged for decades.
- Beta lack of psychological and physical symptoms of alcohol dependence. The problems relate mainly to somatic consequences of excessive drinking and symptoms of impaired control over drinking are not very visible.
- Gamma are present mental and physical symptoms of addiction, impaired (loss) of control over drinking, withdrawal symptoms and tolerance to alcohol change at the helm,
- Delta has to control the amount of alcohol consumed by a co inability to refrain from drinking. This type of alcoholism characterized by people who for weeks, months or years drink alcohol regularly low-interest to maintain a constant concentration in the blood and does not exhibit obvious symptoms of intoxication.
- Epsilon is characterized by the periodic occurrence of "strings" drinking interspersed with periods of complete abstinence. This type is also known as alcoholism dypsomania [1].

Some researchers add more to the classification of alcoholism Zeta type, diagnosed in individuals who under the influence of alcohol demonstrate antisocial behavior, including violence.

Among other things, thanks to research Jelinek American Medical Association in 1956 adopted a decision on the qualification of alcoholism as a disease and not as a phenomenon of the circle of moral disorder. Also considered whether alcoholism is not called "Jelinek disease." In 1962, Jelinek has published comprehensive results of his research and thoughts in The Disease of Alcoholism Conspect (Concepts of Alcoholism as a disease).

The World Health Organization has concluded in 1951 that alcoholism is a problem mecycznym. Subcommittee on the Committee of Experts on alcoholism Mental Health World Health Organization has proposed the division of alcoholism in four stages:

- 1. Recently purchased Alcoholism and without a clear etiology of neurotic
- 2. Alcohol and alcoholism average grade of primary neurotic symptoms;
- 3. Chronic alcoholism and alcohol abuse with psychotic symptoms;
- 4. Alcoholism seemingly irreversible degradation.

It has been suggested that the first two stages can be treated on an outpatient basis, and the other two - rather in a hospital setting. At the same time attempted the classification of alcoholism:

- drinking excessively, symptomatically, irregularly.
- drinking excessively, symptomatically, regularly;
- drinkers (alcoholics) toksykonomy.

The first classification of the World Health Organization includes issues related to the use of psychoactive substances was published in 1967. In the eighth version of the International Classification of Diseases, Injuries and Causes of Death (ICD - 8), as in the American DSM-I and DSM-II, called the disorder to alcoholism include personality disorders and neuroses. In ICD-8, alcoholism was a separate category that included episodic excessive drinking, excessive drinking habit and alcohol addiction is characterized by forced drinking and withdrawal symptoms when drinking stops. In this version, alcoholism (alcohol addiction) is defined as a state of psychological and physical dependence, and the increase in tolerance, withdrawal, loss of control of drinking, such as the inability to refrain from drinking, and addiction on offset - reduction of tolerance

According to Scale (1966), there are four phases of development of alcoholism:

- 1. **Initial.** Drinking is a social custom. The future sees an alcoholic, however, that can bring relief and oblivion. Increasingly, so goes the alcohol and drink more regularly.
- 2. **Warning**. Alcoholic beverages are no longer different types of liquor, and become the means (or rather, medicine), which is needed. Drinking alcohol is no longer a factor that binds a person drinking from a specified company. Much more often than those who drink moderately are the states of intoxication memory gap, the so-called palimpsests spirits. In the final stage of this phase is reduced more and more control over drinking.
- 3. **Critical.** A loss of control over drinking manifested manifested by the fact that even the smallest amount of alcohol triggers the need to continue to drink, which is perceived as a physical necessity. Gradually, criticism and a loss of the system begins to form false beliefs about the causes and circumstances that allegedly tend to drink. The whole focus is to get around the problem of alcohol. There is the need to drink in the morning to be capable of stirred for work.
- 4. **Final**. There is always a need for enhancing drinking alcohol, which increases gradually from early morning to late evening. Drinking takes sometimes several days in a row, until there is complete physical exhaustion. Tolerance of alcohol is reduced. Mental degradation occurs. As long as alcohol is not drunk, there is an inability to perform even the simplest activities, such as a cigarette or eat soup. In 10% of alcoholics in this period produced alcoholic psychosis.

According to Portnov and Piatnitsky (1973) Chronic alcoholism is a disease characterized by the team narkomanicznego alcohol addiction, in the course of which there are specific neuromuscular disorders and mental internist and social conflicts arise. The symptoms include symptoms narkomanicznego dependence syndrome (desire for the drug, loss of control and withdrawal) and symptoms of modified reactivity. (change of tolerance, change the form of eating, changing the image of intoxication and loss of gag reflex).

Even in 1951, Subcommittee of Experts for Research on Alcoholism d by the World Health Organization evaluated abstinence syndrome (withdrawal) in alcoholism as a problem at issue. However, already in 1954, given a detailed description of the clinical and diagnostic included as a symptom.

In 1957, the American National Council for Alcoholism has defined alcoholism as "a disorder of chronic, progressive and potentially life-threatening, characterized by increased tolerance, physical dependence and / or pathological changes in other organs, which are directly or indirectly the result of drinking alcohol" [2].

Despite the growing number of people treating alcoholism in terms of illness, he was still subject to a number of phenomena of moral evaluation, which is perceived as a sign of social pathology (alcoholic was a victim of this pathology) as a learned behavior as a sin, etc. The approaches to alcoholism and proposed definitions were not based on uniform criteria often include only a portion of the symptoms or based on a fragmentary picture of the disease.

Follow-up experts, the World Health Organization were targeted to standardize diagnostic criteria for alcoholism and clearly separate it from the group of phenomena associated with the use of alcohol at all. Shortly proposed to cancel the use of the term "alcoholism" is not clear and may include both alcoholism and drinking outside the cultural norms. This term can also mean social

pathology associated with drinking alcohol. It was also decided to withdraw from the use of the term "abuse" alcohol because he did not identify either the quantity or frequency of alcohol consumption.

The effect of diversity of views on the etiology and treatment of people with problems caused by alcohol was a departure from the medical concept of disease (disease called) to the concept of conditional multifactorial disorders (called disorder). In 1976, Edwards and Gross proposed seven criteria "alcohol dependence syndrome" ("alcohol dependence syndrome"), and in 1978 introduced the term to the International Classification of Diseases, Injuries and Causes of Death (ICD-9) in place of the previously used terms such habitual alcoholism or chronic alcoholism. Edwards and Gross believed that the most important elements of addiction are: narrow repertoire of drinking behavior, behavior focused on the acquisition of alcohol withdrawal, drinking to avoid withdrawal symptoms, awareness of compulsion to drink and return to drinking after periods of abstinence. In 1983, Harvard professor George Villant published a book called The Natural History of Alcoholism, which can be seen as a continuation and update of the work begun by Jellinek. Word book was the result of forty years conducted research on two groups of men, from the age of puberty to reach fifty years. Based on these studies, the author came to the conclusion that alcoholism is a progressive, and its symptoms are, however, in a different order than presented to Jellinek. Vaillant came to the conclusion that there are two possible courses of alcoholism: either the person so affected shall take abstinence or waiting for them to die. Taz Studies have shown that a very small group was able to return periodically to drink niepatologicznego or halt the process of addiction. During the continuation of the study group, however, has steadily decreased.

Experts suggested the World Health Organization in the late 70th dependence on alcohol to be considered in the same terms as other addictions and to the wider concept of "alcoholism" replaced by "drinking problem" or "states reduced due to alcohol."

At about the same time in the United States, both researchers and clinicians who use the DSM diagnostic categories usually joined disorders related to alcohol consumption behavior disorders. A special event was the publication in 1980 of DSM-III. In this version abandoned the use of the term "alcoholism" and created two distinct categories referred to as "alcohol abuse" and "alcohol dependence". At the same time, "abuse" and alcohol dependence" included in the category of disorders associated with substance use, and not, as in previous editions - personality disorders.

Last ie 10th version of the International Statistical Classification of Diseases and Related Health Problems no longer includes the terms "alcohol problems" or "states reduced due to alcohol." In the event of damage health (mental or somatic) without the presence of symptoms of addiction is said about the harmful use of alcohol. This pattern of drinking that is unfortunately all too often underestimated and overlooked in practice. Drinkers in this way is likely to be 2-3 times more than alcohol dependence, and studies show that in 10-20% of these people develop an addiction. It is estimated that the problem of alcohol dependence can affect 5-10% of the male population and 3-5% of the population of women [3]. According to Anderson and Baumberg about 5% of men and 1% of women in Europe are people addicted to alcohol. In Poland, about 16% of adults drink alcohol as eligible for the so-called. risk (drinking stirred for year over 10 liters of pure alcohol for men and 7.5 years for women) [4].

The distinction between harmful drinking or entertainment and addiction affects the choice of action. In the first two cases, brief interventions often enough, but addiction requires long-term, specialized therapeutic intervention.

According to the World Health Organization (proposed in 1969) alcohol dependence is a state of mental and physical, resulting from the interaction of a living organism and alcohol. This condition is characterized by changes in behavior and other consequences, including always forced (hard to resist desire) continuous or intermittent use of alcohol in order to experience its psychic effects the action. Or to avoid symptoms resulting from the lack of it, such as malaise (psychological discomfort). Changing the tolerance may or may not be accompanied by this phenomenon. Man can make at the same time on alcohol, as well as other psychotropic drugs.

Psychological dependence is the need for frequent or continuous alcohol intake to repeat the previous phenomena associated with drinking.

Physical dependence is a state of the body's biological adaptation to alcohol, without which the body can not function properly. Stopping or reducing alcohol administration entails the occurrence of renal system known as abstinence (withdrawal syndrome).

Tolerance is a condition in which the repetition of the same dose of alcohol and gives a weaker response of the organism, and to achieve the same effect of action is necessary to increase the dose.

Recognition of alcohol dependence should therefore be based on the analysis of related and recurrent symptoms. They are manifested by the presence of alcohol-related changes in behavior, changes, and revised subjectively felt psychobiologicznym state. At the same time it is necessary to take into account the impact of internal and external factors, severity of symptoms and their frequency. Properly a diagnosis of alcohol dependence syndrome so it must be the result of somatic symptoms, psychological and social, occurring within a specific culture.

In the 80s could see significant progress in the ordering of diagnostic standards and classification of mental disorders, including issues relating to substance abuse. The effect of this was to include formation already mentioned two psychiatric skills on an international scale, such as DSM-IV and ICD -10.

These classifications have a new methodological assumptions and practical solutions.

DSM-IV is the most recent American Psychiatric Association, which was published in 1994 and is an extension of the previous version (DSM - III and DSM-III - R). ICD - 10, which is 10 version of the International Statistical Classification of Diseases and Related Health Problems was published by the World Health Organization in 1992, and in force in Poland since 1997.

ICD - 10 is the official international classification and trying to reconcile different traditions diagnostic and practical tasks carried out by health institutions in different parts of the world and in different organizational structures.

### 1.2 Why alcoholism is a disease?

Alcohol dependence is a disease because it meets three basic criteria of the disease, ie affect the balance between health and pathology, is characterized by a specific etiology and pathology of the causes of the current physical is also a factor. Alcohol affects the central nervous system (mainly on the brain), and this, in turn, react to any changes in blood chemistry (pathophysiological aspect) is the anatomic substrate of mental (psychological aspect), and allows for contact with other people, is influenced by the social (aspect sociological).

Psychotropic substances (including alcohol), work on the brain through its chemical properties and compete with chemical compounds produced by the nervous system to communicate within the system neurons. At the same time, these substances damage the structure of the brain. Neuropathological studies have shown that, compared with the control group 30% of alcoholics frontal neurons are destroyed. It is very important that it is these lobes are responsible for higher brain functions (such as anticipation, planning) and for the inhibition of other structures that are responsible for maintaining a more instinctive (eg, aggression). It turned out that the human brain is dependent functional deficits, even if they are not present structural changes.

These facts allow therefore be concluded that the dependence on alcohol is also a disease (renal) of the brain, which is active regardless of whether it is capable of alcoholic intoxication, or to maintain abstinence. The period of abstinence in fact, the brain just "asleep". According to many researchers, the changes in the brain may be responsible for the fact that the memory of addiction (not just alcohol) is eternal. In animal studies, in fact manage to erase the specific context of the behaviors associated with addiction, and other accompanying conditions are created permanently.

## 1.3 Types of alcoholism

Attempts to diversify and establish his alcoholism typologies were taken in the midnineteenth century. Then proposed to distinguish three types of ojnomanii, ie regular, acute and chronic. A little later "intoxicated condition" (disease of inebriety) attempted to divide the batch that is caused by such an opportunity, and the habitual, which is caused by the desire to "do the pleasure"[5]. Other researchers distinguish between three types: still drinking, drinking regularly and paroxysmal drunk or sick alcoholics morally weak-willed alcoholics and alcoholics dipsomanów. Robert Knight in the 30s Alcoholics divided on real, reactive and symptomatic, and the creator of constitutional typology, a German psychiatrist Ernst Kretschmer (1888 – 1964) suggested that chronic drinkers divided into two types: cyklotymików who drink out of a desire to adapt to the environment, and schizotymików who drink in to reduce tensions. You can also, for

Oldenbergiem, make a distinction between alcoholism "out of poverty" (Notalkoholismus) and alcoholism, "the well-being" (Behaglichkeitalkoholismus) [6].

In the mid-twentieth century Jellinek alcoholism proposed five types: alpha, beta, gamma, delta and epsilon. It was the first typology, which was the scientific basis and was the beginning of a new era in the classification of alcoholism. Subsequent attempts to develop alcoholism emerged in later years, including Cloninger, Lesh, Babor, Zucker, and most recently the U.S. National Institute on Alcohol Abuse and Alcoholism (National Institute on Alcohol Abuse and Alcoholism – NIAAA).

## Typology by Clonninger

In the mid-80s quite gained great popularity Clonningera views, which published the results of their comparative study conducted on two groups of people. The criterion for selection to the group was the lack or possession of close relatives of people with alcohol dependence.

Type I, environmentally conditioned - addiction manifests itself usually after 25 years, its development is faster, usually develops in women and people with a tendency to neurotic depression. Among the relatives of those rare addicted to alcohol addiction. It is characterized by the presence of sequences interspersed with long periods of abstinence. More common in the criticism of the addiction. Presumably, this is related to the noradrenergic system.

Type II, which is mainly the male sex - addiction is characterized by the occurrence of early (before 25 years of age), a high degree of genetic transmission from parent to child and minor environmental impacts. Much more often observed in the anti-social behavior. Criticism is superficial or completely missing. The development of addiction takes longer than in type I. Less frequently and later than in type I are somatic and psychiatric complications. Suspected here the dysfunction of the serotonergic system.

It was also found that the two types of addiction also differ among themselves in the three personality traits, such as a tendency to seek novelty, avoid stress and dependence on environmental approvals. These features are more clearly marked in the type II.

It seems, however, that such a division is not sufficient, and presented a typology made manifest only two opposite ends of a wide range of features that indicate the different intensity in individuals with alcohol dependence [7].

## Typology by Lesh

Lesh and colleagues, based on biochemical transformations on the analysis of alcohol and psychiatric disorders and personality disorders in drug addicts and their loved ones, identified four types of alcoholism.

Type I, the "right" ("original") - includes addicts without predisposing factors described below, drinking occasionally goes drinking with them in "habitual".

Type II, "neurotic" ("anxiety") - applies to people who have seen the original to the addictive personality disorders, early alcohol use resulted from a desire to experience relief and alcohol was treated as a sedative.

Type III, "psychotic" ("mental") - is seen in these families of addicts, where the occurrence of a variety of mental disorders (from depression to underdevelopment), clearly alcohol is used as a mood enhancer and to compensate for symptoms of other mental disorders.

Type IV, "originally organic" - refers to persons with primary damage to the central nervous system during development or wczesnodziecięcymi emotional disorders and the negative consequences of drinking are in the very severe [8].

### Typology by Babor

Babor and colleagues, using the method of cluster analysis, have identified two types of people with alcohol dependence (1992).

Type A – those who come later addiction, dependence symptoms are less severe and less frequent co-morbid psychiatric disorders.

Type B – those who are frequent cases of addiction in the family, self-reliance begins early, has a greater intensity and greater frequency of co-occurrence of mental disorders.

# Typology by Zucker

Zucker development model identifies four types of alcoholism: antisocial, developmentally cumulative, due to negative moods and development.

Anti-social type - is determined genetically, characterized by the early occurrence of alcohol-related problems and anti-social disorders.

Type accumulated developmentally – Is associated with cultural influences and is characterized by systematic drinking alcohol, which is a result of addiction.

Type due to negative sentiment – especially concerns women and people drinking to improve mood and changes in social relationships.

Type D - characterized drinkers often and intensely during adolescence, which later, ie in adulthood can drink in a socially acceptable.

## Typology by NIAAA

More recently, the U.S. National Institute on Alcohol Abuse and Alcoholism proposed award five different subtypes of alcohol dependence. This award, among others help to those skilled in the proper selection of treatments for drug addicts and answer the question of why some people respond positively to treatment and others do not. These subtypes are "young adult", "young antisocial", "functional", "medium - severe" and "chronic".

- 1. Subtype "young adult" is characterized by a relatively low rate of addiction to other drugs, the lack of other mental health problems, in rare cases the presence of addiction in the family. Such people usually do not seek help.
- 2. Subtype "young antisocial" includes most of the twenties, who at a fairly young age started drinking. Their families often meets addicts. Addiction to alcohol is combined in the case of various types of mental health problems, and they are often addicted to nicotine and drug use.
- 3. Subtype "functional" includes mostly middle-aged people, well-educated, with stable employment and family situation. In their families meets cases of addiction.
- 4. Subtype "medium pronounced" includes people who usually have in their families, those addicted to alcohol, often suffer from mental health problems, most of them are people who smoke cigarettes and relatively widely using a variety of psychoactive substances. One in four of them have already sought help.
- 5. Subtype "chronic" consists mainly of middle-aged people who drink started relatively early, these people have a high incidence of criminal behavior. Frequently they come from families of alcoholics. Two-thirds of people in this group were treated anymore because of addiction.

## Chapter 2. Alcoholism in the workplace

One of the first descriptions of alcohol problems in the workplace comes from China. More than 2000 years BC two imperial astronomers were sentenced to death, because being drunk, neglected his duties and did not anticipate having to come solar eclipse. Around 2000 BC, after losing as a result of drunkenness soldiers battle, was introduced in Egypt ban on drinking alcohol in the army during the war.

In the not so distant past, alcohol was more often associated with the workplace. In southern Africa. In the early seventeenth century, farm workers and receive regular wine vineyards, often instead of payment. In the British Royal Navy in the seventeenth century, each sailor receives a portion of rum a day, that pint (about 0.5 l) and gallon (about 4l) of beer. Ration of rum before the battle was doubled. In many armies of soldiers getting vodka every day and put up with this custom began in the second half of the nineteenth century (1833 - United States, 1880 - France, 1863 - Germany, 1870 - Sweden, 1875 - England). In the nineteenth century the London baggage porter deign to be to "increase their strength," morning cup of alcohol and Spanish workers prepared to work hard day. Norm was the distillery and brewery workers received special allocations of alcohol, and in 1886 in Germany, brewery workers unions demanding improved working conditions and wages were also the allocation of free beer.

When the industry started to use more and more machines alcohol use s at work has become a factor that increases the risk of hazards and injuries. Over time, the increased liability of employers for workers' safety resulted in the perception of alcohol in the workplace and forced action to minimize alcohol-related problems. In fact, in almost every workplace there are, in varying degrees, problems with alcohol and taking other drugs. This has a negative impact on

efficiency. Worse efficiency results, among others of greater than at least 30% of absenteeism, two, or even three times more accidents, loss of capacity by 30 - 70%, poor quality of products made in the UK study showed that on "hangover" productivity falls by 27%, which implies Any loss of 1.8 billion pounds. The research conducted in the Nordic countries have shown that 3-6% of all men and 1-4% of all women at least once a year, do not come to work due to drinking alcohol. This phenomenon is most commonly observed in the age group 19 to 34 years. According to the report "Alcohol in Europe '(Anderson, Bamberg 2007) the loss of productivity due to alcohol use in 2003 was estimated to be in the European Union on 9-15 billion due to absenteeism and 6-23 billion due to unemployment [9].

Appreciating the importance of the problem, already in early 40s some companies in the United States (the first was the Du Pont and Kodak) have developed programs that would reduce the introduction of the negative consequences of alcohol consumption. Gradually, in the larger factories were established cells, so-called. Employee Welfare Service (Employeec Assistance Services). They were located mostly in the not too conspicuous place on the premises in order to increase the sense of security of people using their work. Led by the service programs are most often relate to education and early detection of problems associated with harmful alcohol use, motivating employees to take medical treatment and counseling. Initially, programs were set off to solve the problems caused by alcohol and drugs, but over time also included the other (eg, emotional, family, legal, financial).

The conducted research in the United States shows that every dollar invested in these programs bring 3 to 16 dollars in profits, and improve the efficiency and decrease accidents at work can be as high as 60–70%. In the mid-80s existed in the U.S. for over 8 thousand. Programs for people with alcohol problems, and access to them was about 12% of total employment. The mere fact of interest in the programs and investment in the company focused mainly on profit reflects well on their effectiveness.

In recent years, Polish reaches more and more information about this topic, and individual workplaces have already started to show interest in the introduction of home care worker programs. Most are subsidiaries of large companies, which are already long programs to support employees. Provide employees with access to the support staff (employee care program), as it is in the United States and countries of the old European Union, is beneficial not only to reduce the problems caused by alcohol and other psychoactive substances, but also to improve the mental and physical health of these workers. The result of this is reduction in the incidence / absence, decrease accidents, increase productivity, improve quality, and more personal involvement of workers in the affairs of the company.

### 2.1 Identification of employees with alcohol problems

A careful observation allowed to identify people with alcohol problems, because they demonstrate a fairly typical behavior. It is therefore necessary to pay attention to some of them.

### 1) Absence

- Excessive sick leave (usually due to diarrhea, stomach rhinitis, colds, flu injuries). Reporting by the worker unreliable reasons for absence or lateness.
- Previously unreported cases of frequent short absences from work (regardless of the explanation for the cause).
  - Frequent absences on Mondays and / or Fridays.
  - A large number of delays to work, for example, on Monday morning or leave work early.
  - Repeated incidents of leaving the job without the permission of superiors

## 2) Performance of job

- Problems with remembering of instructions, details, etc.
- Increasing difficulty in meeting the professional responsibilities, including the need to devote more effort to the tasks and devote more time to perform a specific task
  - Problems with remembering about mistakes made at work
  - Variable results of the work interspersed periods of high and low productivity
  - Reduction of the sense of responsibility and ability to predict.

- Repeated absences due to having to leave work for business (too often from the point of view of the work).
  - Often leaving the job (for example, using the toilet).
  - Prolonged cigarette break, coffee or tea break.
  - Performance of work under the influence of alcohol or drugs.

#### 3) Behavior at work

- Coming to work intoxicated
- Smell of alcohol.
- Frequent use of the various kinds of mouth fresheners (liquids, tablets, chewing gum) in order to mask the true flavor.
  - Shaking hands.
  - Progressive neglect their appearance and personal hygiene

# 4) Decrease in labor productivity

- The lack of punctuality tasks.
- Errors caused by inattention or uncorrect judgment.
- Waste of materials, goods, etc
- Making bad decisions.
- Unreliable justify worse quality of work.
- Lower productivity.

# 5) Relationships with colleagues

- Excessive nervousness.
- Unjustified falling into anger (offended).
- Excessive sensitivity to criticism, both real and imaginary.
- Complaints from colleagues.
- Borrowing among colleagues.
- Avoid contact with superiors.

### 6) Accidents

• Frequent succumbing to accidents at work, at home, on the way to work.

Identification of individuals with alcohol problems is therefore relatively simple. The next step should be to contact motivational interviewing with a specialist who will assess the severity of the problem and propose a specific procedure. In an interview motivating to get in touch with a specialist employee should be made aware that his drinking or taking is noticed and it is not allowed. If such notice is not enough, then the next call should be subject to remain at work from taking certain actions that would help eliminate the problem.

An employee who still do not take seriously the suggestion, it should be on leave or fired, with the assurance that it will be able to return to work, but only after the completion of treatment.

Sensible employers prefer to raise a good employee to refuse treatment and to monitor the course of treatment, instead of dismissing him from work, and in its place adopt someone who can make even more trouble. Obstacle to the effective resolution of alcohol problems in the workplace is often misunderstood solidarity among workers. Very often hide drinking fellow colleagues or friends. It also happens in the workplace that make up a sub-group of colleagues who shared drink alcohol during working hours, and each hide this fact from my superiors and the negative consequences of drinking. If such a subgroup will be one of leadership, then they have provided a sense of security and impunity.

### Chapter 3. Alcohol dependence among police officers

In recent years, the treatment of alcoholics by police with the money of the Ministry of Internal Affairs and Administration, issued about a million dollars per year. Each year, because of the habit about two hundred law enforcement officers are losing their jobs, and in their place you

need to train new officers. The number of crimes is growing committed by drunken policemen (by 37.5 percent in 2000. Compared to 1999). Official statistics, however, do not tell the truth. In 2000, for example, 85 reported road accidents caused by drunken officers. In command of the capital learned that such accidents are at least five times as much, but they are covered up, if there are no casualties and major damage to cars.

### 3.3 The essence of addiction

The problem of addiction among police officers is a serious problem and occurs widely throughout the world. Addiction is a pathological pattern of psychoactive substances that cause impairment of the cognitive, social and physical, which in turn leads to a worsening of being a person. In practice, to diagnose addiction, you should see the presence of at least three of the following symptoms, which he manifested in the last year [10]:

Tolerance determined on the one hand a considerable weakening effect previously associated with drug use amount of the substance, on the other hand - the need to increase the dosage of the substance to achieve intoxication or desired effect.

The presence of various substances typical withdrawal symptoms or taking substances to avoid or alleviate the symptoms of withdrawal.

Acceptance of psychoactive substances in doses greater than intended or for longer than originally planned person.

Persistent desire to use the substance or failed attempts to restrict and control the use of the substance.

Sacrifice a considerable amount of time and focus all their energy on activities associated with obtaining and using the substance.

Resignation of making social roles and professional activities, family or relaxation due to the adoption of a given substance.

Continue to adopt measures despite the loss of health, physical and psychological problems caused by addiction.

Important signals that may indicate the existence of addiction are disorders in the family, social and psychological, such as the crisis in marriage, work, health problems, financial, frequent job changes, arrests, anxiety, depression, insomnia. Addiction is a chronic disease characterized by periods of remission and relapse. Currently, there is no clear explanation of the difficulties to maintain abstinence and relapse causes.

### 3.2 Psychological aspects of alcohol abuse by police

Personality can be defined as "the amount of ways to respond to other people (and objects) and how to enter them in interactions that are characteristic of the individual." In the study of personality we have been explaining both the similarities and differences between individuals. Characterize other on the basis of the stability of their behavior and we are inclined to perceive in their behavior more stable than what actually occurs.

According to Freud, personality is composed of three parts:

- id (primary storage drives);
- ego (the arbitrator assessing the reality);
- superego (conscience).

The structure of the ego functions through frequent use of defense mechanisms [11].

Personality disorders with alcohol dependence is known as alcoholism degeneration which include: primitive moral, ethical fading slowly, brutality to each other and the environment.

Changes in alcoholic degeneration manifest themselves in the following areas of human life:

- in the sphere of life activity;
- in the intellectual sphere;
- in emotional and volitional sphere;
- in the field of personality;
- disturbances in shaping the right attitude to religious values.

Alcohol causes the degeneration of the human nature breaks, undercut the moral and social values, reduces human creativity.

Alcohol has a negative effect on the efficiency of mentaland spiritual. The course and severity of alcohol degradation and its specific properties are different in different people. Great importance because here are the original personality traits, developed in the period prior to heavy drinking [12].

However, there are certain personality traits common to most alcoholics, although not every alcoholic has all these features and they are not limited only to alcoholics. These are:

- excessive dependence;
- emotional immaturity;
- low resistance to frustration;
- inability to express emotions;
- a high level of anxiety in interpersonal relations;
- low self-esteem;
- sense of size:
- perfectionism;
- ambivalent attitude to authority;
- constan felling of being guilty [13].

Depends on the person as a result of their addiction to alcohol is experiencing a number of situations, which is linked to strong emotional stress, guilt, etc. Therefore, the analysis of the functioning addict is to understand the mechanisms of addiction. J. Mellibruda assumes that defense mechanisms play a fundamental role in the development and course of the disease and the maintenance of alcoholism.

The internal sources of activating the mechanisms of addiction factors are:

- damage to the body and somatic and mental diseases;
- practical life skills deficit;
- destructive life orientation.

To external sources of situational factors include:

- High risk situation
- permanent damage to important social relationships;
- negative social consequences of drinking.

The mechanisms of addiction include:

**Mechanisms regulating compulsive emotions** — Is the primary mechanism for creating addiction. Pathological drinking leads to profound emotional disorders. Emotional reactions begin to control the habitual stereotypes.

Here are some of them:

- 1. Alcohol is the primary source of pleasure, reduces the attractiveness and availability of other sources of satisfaction.
- 2. Pleasure come more often from relieving pain,a basic type of pain are associated with survival effects of drinking.
- 3. Alcohol is the primary means of relieving painful conditions, it becomes so necessary because it allows less suffering and creates hope for a pleasant momentary states.
- 4. The prospect of abstinence is not supported in the field of feelingsand increasingly become a subjective belief: "Drinking is necessary" and "Break the drinking has to stop."
- 5. An increasing number of emotional states is closed between poles pain relief, anxiety sedation, depression agitation.
- 6. Perpetuates the focus on the direct and deliberate manipulation of their own emotional states [14].

**Mechanisms of illusion and denial** - cognitive orientation in the addict begins to dominate wishful thinking magic-based on the belief that operations on the thoughts and ideas create change in the real world. The main tasks of this system are: defense against threatening content to continue drinking and alcohol-building and sustaining vision of life.

Its basic functions are:

- Time manipulate, or the subordination of both the memory and vision of the future requirements of the current emotional state;
- manipulation of causality, that magical wishes-determination of the causes of events and his own actions;
- manipulation of meanings, that is biased to define the characteristics of priority phenomena in isolation from reality.

Typical methods of operation of the illusion and denial:

- correcting biased past (forgetting and distortion of memories, denying the past facts);
- immersion in fantasies of power, sex, violence;
- recourse in the future (planning a safe and controlled drinking, prediction of falls, crashes, creating unrealistic vision of future events);
- avoiding of responsibility, interpersonal manipulation (cheating to be insulting, provocative, biased interpretations of their participation in past events, "it was not me", "I am a victim of circumstances", "they are against me").

**Mechanisms of scatering I** - This mechanism arises due to repeated experiences of depersonalization alcohol - so called. departures, get high alcohol, etc. The basic functions of the system:

- disintegration of the structure, damaging the ability to carry out the provisions of abstinence;
- sustaining the hope of unlimited availability of power and control of their own mental states:
  - defense against impotence and the collapse of self-esteem.

Let turn us now to the overall impact may alcoholic substances to changes in human behavior. Most of us are very well known subjective feeling after drinking alcohol for thousands of years people have used it for pleasure, relaxation, to calm anxieties and worries, as well as increased self-confidence and a sense of power. From the point of view psychofarmakologicznego Effect of alcohol on human behavior and its mode of action is complex and depends on many factors such as the size of the dose and prior experience with alcohol. In moderate doses, most people experience a sense of relaxation and mild euphoria. Although alcohol has been classified calming measures – hypnotics, due to the obvious depressant properties in small amounts may act as a stimulant. People become more talkative, open and less restricted social rules. This is largely due to disinhibition. Regarding the behavior of the term "disinhibition" refers to a condition in which people do what they normally would not do for fear of unpleasant consequences. Behavior without inhibitions depend on the past and the personality of the individual. For example, someone bold and self-contained may no longer abstain from the company, but the person usually has become aggressive and ready to fight. As some of us, unfortunately, know from experience that people under the influence of alcohol, or say they do it, what would never have gone if they were sober. There is a close relationship between the concentration of alcohol in the blood and the essence of its impact on behavior. Colorful description of this relationship switched Bogen [15]:

- less than 0.03% of the body is blunt and serious,
- At 0.05% confident and charming,
- at 0.1% can be dangerous and wicked,
- 0.2% is often dizzy and quarrelsome,
- the 0.25% may be disgusting and rozchlestana (disheveled),
- The 0.3% fall into delirium, is confused and certainly drunk,

- At 0.35% flooded "the corpse",
- at 0.6% death can occur.

Higher doses of alcohol cause depression and significantly impair the functions of the senses and motor activity. There is a decrease in visual acuity and Hardness of taste and smell. Reflexes are delayed and slowed movements and speech [16]. Response time has been extended, the concentration of alcohol in the blood ranges from 0.08 to 0.1 percent: complex reaction time measurements that require the test to take account of information from multiple sources, show that even at low doses of both speed and accuracy reactions are reduced. Also memory processes are disrupted as a result of alcohol consumption. Reactivity, the ability to decode new information and short-term memory are impaired. For people who drink a lot during periods of high consumption of light-headedness can occur ("snap movie"). As the name implies, these are the periods when the memories are not any, related to the situation in which alcohol was consumed [17].

Alcohol may in various ways to affect brain function. Unlike most psychoactive substances, which cause relatively fairly well defined due to the synaptic space, alcohol affects many neurotransmitter systems, and in many aspects of the neuron. It has long been known that alcohol affects the membranes of nerve cells. Its direct effect on the proteins contained in the cell membranes triggers a chain of metabolic activity within cells that produce the effect of inhibiting the activity of neurons by reducing the storage capacity of the action potential, which limits its functionality [18]. Weakening the effect of high doses of alcohol on the functioning of sensory and motor function to a large extent from its general depressant effects. However, the alcohol acts as the relay system, particularly for biogenic amines (norepinephrine, dopamine and serotonin) and gamma - amminomaslowy (GABA). His impact on this system may be associated with the effect of changes in mood, enhance or reduce the level of anxiety. Alcohol enhances the inhibitory effects of GABA example, which is the most important inhibitory transmitter in the brain. Alcohol acts on the same receptor complex as GABA benzodiazepine antidepressants, and it is that this action is responsible for its anxiolytic property [19]. Dopamine may also be part of the effect of rewards and stimulating effects of small doses of alcohol. Its level in the nucleus accumbens increased in animals orally, you voluntarily consume alcohol, what is more, in rats genetically matched for propensity to alcohol, this increase is much larger than those of alcohol is not.

As is apparent from the description of the conditioning of both mechanisms and the description of all the alcohol has on the behavior of the individual consuming the substance, it is decidedly disadvantageous. Working as a police officer is a stressful job, but also responsible. Stress is one of the main factors influencing the dependence on alcohol, but it interferes greatly exemplary and responsible functioning of the profession.

## 3.3 The causes of alcoholism by police officers

Causes of alcoholism by officers may be, as in the case of any other person, both biological, psychological, and social benefits.

When we have in mind the conditions of formation of addiction among police officers, in the foreground stand out issues related to occupational stress and personality determinants. Although every person can experience events with high stress loads, it is surely there are people including practicing a particular profession, in which the probability of such an event is greater than the average [20]. To this group belong police stress risk. It is widely accepted view that the police profession is highly stressful. After conducting research on stresogennością in nearly 50 events, it turned out that the police took the first place in terms of stress levels assessed by experts on the basis of subjective evaluation of the police themselves. When the unit is experiencing threat, goes through different changes in somatic and emotional reactions which together form the fear. Fear reaction consists of four types of components: a cognitive component - expectations regarding the threatening injury; somatic components - body alarm response to imminent danger and changes in physical appearance, emotional components - strong feelings of fear, terror, panic, behavioral components - flight or fight [21].

The reaction of fear can take many forms and can be a composition of various ingredients. Two people do not have to show the same signs of fear. There is also a component that is always

present in the reaction of fear. Please note: not all components of fear must appear in every emergency situation configuration fear factors may vary. Specific components of fear are waiting for a particular injury, which often threatens in the near future. When the body experiences emotions of fear, immediately appear somatic reactions. Distinguishes two types of bodily changes: external and internal. In addition to changes in the external appearance, there is also a change in the body [22]. Within a few seconds from the time of observation there is a risk of developing an alarm response of the human body which consists in the fact that resources are mobilized body. Internal bodily changes are physiological components of fear. In response to fear, there are also a strong emotional component. These are the feelings of fear, terror, squeamishness, engulfing feeling cold, chills running through the body, a feeling of weight in the stomach. They are well known because they often say, when the individual attempts to describe their feelings and sensations associated with fear. People are most aware of their emotions related to fear reaction to a lesser extent, aware of their own thoughts and ideas. In addition to awareness of physiological processes are triggered by the fear inside your body.

There are two types of behaviors related to fear: the reactions of a classic, which are involuntary reactions and instrumental responses that are volitional attempts to deal with the object of inducing fear. In the situation of human potential threat may raise some thoughts or cognitive representations of what is going to happen. It can embrace terror and other emotions. Can escape or attack the assailant. May start to gasp, his muscles can stretch and it may be many other somatic changes. Somatic changes occur within a few seconds after you see the danger alarm response form by which the body mobilizes to increase their chances of survival. These internal changes are caused directly by the action of the autonomic nervous system, and adrenal gland, which in turn are controlled by the central nervous system.

Reduce the occurrence of problems associated with alcohol addiction in this particular occupational group that are police officers, requires a strategy of prevention and intervention strategy. Prevention strategy focuses on people who do not drink yet, but are at risk for developing alcohol problems. Intervention strategies aimed at encouraging the treatment or change in the lives of those who drink heavily often or under conditions that endanger health, life or property. The prevention program includes awareness and communication aimed at increasing public awareness of the problem of alcohol and legislation associated with the consumption of alcohol. Intervention refers to those who have touched alcohol problem, and includes activities such as training programs on alcoholism for the people involved in health care and programs that help a person at risk of addiction.

The results show that the campaigns in the mass media did not alter health behaviors, but they can create a context that increases the effectiveness of other strategies affecting behavior change. They can be effective when combined with other prevention strategies, such as more stringent compliance laws for driving while intoxicated. Evaluating the work of many of these problems are weak in terms of methodology and no conclusion can be drawn from the results described in them. Analysis of educational programs about alcohol in higher education is more encouraging. These programs are often subject to additional evaluation and uses them to control groups and treatment groups. Generally, the longer program (20 - 36 hours) induce lasting changes in behavior on alcohol than do shorter (2 to 20 hours). This positive picture of the effectiveness of programs for higher education, however, was shown in doubt because of the way the selection of students, and specifically on the basis that the participants were volunteers with high motivation for lifestyle changes, it is therefore not controlled.

There is evidence that measures to raise the price of alcoholic beverages, such as increasing taxes, they reduce consumption. Written on this subject in the United States and in other countries. Other studies have shown that reducing the availability of alcohol is a way to reduce both alcohol consumption per capita and mortality associated with alcohol consumption. Some studies note that if there is a high probability of detection and increase the penalties for driving while intoxicated, the number of accidents, injuries and their consequences are reduced. Public awareness about the probability turns out to be a very important factor. When society notes that the criminal system does not work quite as smoothly and surely, the number of cases of driving while intoxicated and the related accidents increases significantly [23].

The problems of alcohol addiction and alcoholism are recognized as an important element in training programs and many professional organizations actively supports education about

addictive substances. Although there are indications that expanding medical knowledge changes the approach to alcoholics, does not necessarily lead to changes in clinical practice. There is a great need to assess clinical practice in the development of training for professionals. It leads to serious research to develop a simple and accurate classification procedure for early identification of alcohol problems. Two main areas of research are biochemical markers, and psychosocial factors. However, biochemical markers distinguishing features were too weak to be able to use them to classify the population, and some researchers believe that you can not find a single reliable biochemical marker of alcohol abuse on the basis of the current standard clinical tests. Effective means of early identification and intervention turned out to be a combination of biochemical markers of interviews and questionnaires classification [24].

The impact of programs aimed at helping people who work hard to assess the independent researchers due to methodological problems, such as lack of free access to the data. However, the people running these programs show the effectiveness of high and constant financial support for these programs on the part of superiors can not be ignored as a kind of indirect assessment. Some researchers, however, question the effectiveness of the programs, when it comes to changes in drinking habits and productivity among people who take part in them

In the pharmacotherapy of alcoholism in recent years, there have been no significant changes. There is a great interest in the use of disulfiram as an aid in the broader treatment of some alcoholics. Lithium carbonate can be effective in the treatment of some alcoholics, particularly those that simultaneously suffer from affective disorders, such as depression. Recent studies indicate that many alcoholics does not require hospital treatment.

It should also be noted that the problem of substance abuse among police officers is not only alcohol, but also drugs. Range of drug addiction is indeed much smaller than from alcohol, but nevertheless it is a phenomenon that can not be underestimated [25]. It should be noted that the problem of substance abuse among police officers never goes away, it never disappears stress of the job. Studies cited above clearly show that the police are a professional group most vulnerable to alcohol dependence. However, you can and should control the scope of this extremely dangerous phenomenon and create mechanisms for effective intervention when it comes to addiction. It would be easier to fight the problem of substance abuse among police officers, if not hidden cases of addiction and no cover-up offenses of drunken officers [26].

## 3.4 Alcohol abuse by police

The problem of addiction among police officers primarily associated with alcohol abuse, to a lesser extent, drugs or medicines. This problem is largely remains poorly understood. In Poland, the police or the Ministry of Internal Affairs does not keep statistics on alcoholism among police officers. At the end of the nineties of the twentieth century, Metropolitan Police conducted an anonymous survey of police officers. Almost three quarters of respondents said they regularly drink alcohol after work, and 12% identified themselves as addicted to alcohol. In the years 1993 -1997 due to addiction fired 776 officers from the Ministry [27].

In surveys conducted in Australia, attended by more than 4,000 police officers. The results showed that the police consume alcohol in much larger quantities in the one-time consumption than the statistical average [28]. Both men and women reported frequent binge drinking combined with the blackout. A quarter of the officers admitted to drinking at the time of their official duties. One third of the respondents were included in the category of persons at risk of addiction, and about 5% to the category of addicts. The frequency and volume of alcohol consumption was highest in the age group from 18 to 25 years of age. Analysis of other demographic variables showed that the risk of excessive alcohol consumption remained due to factors such as: divorce, remain separated, seniority between the fourth and tenth year of service [29]. In a study conducted in Australia in New South Wales for more than 800 police officers, it was found that excessive alcohol consumption affects almost 50% of men and 40% women. As excessive alcohol consumption was adopted more than 8 drinks per week, no less twice per month or 28 drinks per month for men and more than 6 drinks per week, not less than twice a month or 14 drinks a month for women. Studies have also shown that alcohol is widely used and accepted at social gatherings and activities in this occupational group. Similar results were also obtained in studies conducted in other countries g [30].

In the light of knowledge about the dangers of alcohol for physical and mental health of police officers should be considered as a profession with a high degree of risk. Substance abuse affecting the change in mood or consciousness can result from ongoing human aspirations traditionally seeking pleasure and pain relief. Sometimes it may be the case, however, the substrate having more social than psychological [31]. Abuse of drugs, alcohol, depression and other problems of our time can have its source in the alienation of the individual from society, destroys human individuality, uniqueness and innate nonconformity. It is therefore possible that the addictions. It is therefore possible that the addictions are largely caused by adaptation to ever new threats with which today do not know how to handle people in a rapidly changing environment. This pattern also applies to police officers, but the primary determinant of alcohol consumption in this group seems to be a professional occupational stress. The prevalence of alcohol abuse is also related, at least in part, the prevailing problems in the sphere of values, attitudes and norms of behavior related to drinking.

If we took about drug use, a system of values and attitudes are much better defined and there is about them a better match than in cases of alcohol. In Poland, the divergence of standards particularly striking, for example, with respect to such matters as the purpose of drinking, acceptance, tolerance, and even the favor of the people who drink themselves into a stupor, as opposed to suspicion and distrust of abstainers.

Until recently, research on alcohol abuse and alcoholism were limited view that alcoholism is a field in which moral imperatives are more important than scientific research. Currently, research on alcohol have been incorporated into the mainstream of scientific research and our knowledge of the biological and psychosocial consequences of alcohol consumption is widening. In addition, while eliminating the problems associated with alcohol is still hope for the future, we are witnessing the beginning of changes in the understanding and awareness of the public about the risks of alcohol consumption [32].

Special Report on Alcohol and Health gives us a unique opportunity to assess how much needs to be done to prevent and eliminate problems associated with alcohol. The fact that it is still making progress, founded on the basis of the results of research published in these reports for many years. Also shows that alcohol abuse and alcoholism are still important social health problems. We have witnessed great progress in the study of alcohol consumption, the empirical research to theoretical - from observing what happens to the research to understand why this is happening. Gain new information about areas such as inheritance of predisposition to alcoholism and the effect of various environmental factors on these abilities, a variety of factors relating to individual susceptibility to alcohol abuse and alcohol dependence, various forms of manifestation of alcohol-related problems and neurochemical basis of addiction process it. Are also improved research methods in order to obtain reliable information about the nature and extent of alcohol-related problems in a variety of populations, including those in the so-specific professional group, they are police officers [33].

Although public interest in alcohol-related problems has not yet reached the point where concern for discovering the causes and developing effective methods of prevention and treatment of alcoholism overtake concerns about other issues, such as cancer or heart disease, it sees a growing awareness of the relationship between alcohol and health. In recent years, there was also a moderate decline in some indicators of alcohol-related problems, including the decline in the number of road accidents as a result of alcohol, reducing the consumption of alcoholic beverages, the number of deaths due to liver disease associated with alcohol and consumption of alcohol by young people.

It is always easier to give good news. More difficult task is to admit that what has been achieved so far is only the beginning. Reply to this central question where does the pathological desire for alcohol, it is still unknown, still do not know why millions of people can not stop drinking, even though they know that they kill each other.

Looking at the normal findings in genetics, neuroscience, and other areas, it can be assumed that the need now only preventive and curative. It would be a wrong approach. As long as we do not answer the fundamental question about the pathological appetite for alcohol, and until we can better assess the effectiveness of prevention and treatment, we will do only limited progress in the development of better treatments, and reducing alcohol-related problems. There are no answers to

these and other questions, we can be sure that with the extremely talented people who work in research centers, preventive and curative, fail to meet this challenge.

Dependence on alcohol or other drugs is a process which takes place in a time in which a person uses a substance selected to achieve a temporary effect, which can be different forms of pleasure or personal or social benefits. Carried out in different countries, studies show that people have in common is their dependent emotional immaturity. These people are mostly from the early years of life worse than others to cope with stress and frustration, and their emotional life occurs in discordant ways. At some point reveal that alcohol, drug, drug or other chemical substances relieves stress, gives life to them, allows to overcome the usual timidity or fear, or causes some other emotional benefits. Then they can become a kind of "drug," and so begins the process of addiction.

In addition to the positive short-term use of the substance, and especially abuse, involves delayed and long-lasting effects, having an almost exclusively negative consequences. The first of these, the earliest, but usually invisible until the recovery period, is to stop emotional development. For people addicted to replace chemical self-control and ability to cope with dolegliwymi feelings, so that such persons using the "medicine" in the form of the chemical, it must evolve, or learn adult ways of solving problems. And at the same addiction as new "drug" loses its original power and they become less and less able to cope with their own emotions, even with his help. Other long-term negative consequences of alcohol abuse is a deterioration of physical and mental health, the severity of affective disorders, conflicts with the environment, the gradual disappearance of the higher feelings and values, a sense of isolation, meaninglessness of life, the degradation of moral, material and social, and often conflict with the law. All of these effects are the result of a gradual loss of control over the amount of alcohol you drink. Loss of control is not only the fact that an alcoholic reaching for a glass, despite promises of abstinence, but above all in the fact that after taking the first dose of alcohol dependent person loses control and drinking more than intended.

Loss of control over the amount of drugs, and not "objective" number, is the essence of addiction and not the mere fact of drinking. But despite the painful consequences of drinking it causes, is the basis for the diagnosis of addiction. It should be noted that loss of control is irreversible and can not be restored, even as a result of therapy. This is why alcoholism is a chronic disease, namely, which can not be cured, but you have to learn to live with. This may indeed be related to the genetic background of alcoholism, they point to a growing number of scientific studies conducted around the world. Heavy drinking leads to a loss of power to govern their own lives. Not managing your life is just an expression of the negative effects of alcohol lifestyle. Unfinished study, broken families, suicide attempts, thrown out of work, court orders - these typical symptoms niekierowania own life by people suffering from addiction. By creating a system of explanations, an abuser of alcohol theoretically may never see the negative effects. S defense system is therefore a denial of the main feature of chronic addiction. He is the biggest obstacle in the diagnosis of addiction, both for the alcoholic, as well as an environment that can easily give a convincing argument to suggest seemingly abuser [34].

Damage to health caused by alcohol consumption can be measured in different ways: impact on mortality, disease incidence and prevalence, hospitalization sizes. An increase in mortality among men in the age group with the highest consumption of alcohol. Mortality from various causes related to alcohol consumption showed a similar trend as total mortality, but the association of alcohol consumption with the size he was much more pronounced. This is illustrated in mortality from cirrhosis of the liver, which is one of the main causes of death in women between the 25th and 65 years of age in many countries. In Poland, due to cirrhosis of the liver die each year about 4 thousand. persons. The death rate from cirrhosis die every year about 4 thousand. persons. The mortality rate due to cirrhosis of the liver, especially in men increases with the increase of the consumption of alcohol. A significant advantage of mortality occurs in men between 30-50 years and this is the age range for liver cirrhosis deaths are most strongly associated with the intensive use of alcohol.

It is also a clear association of alcohol use with suicide. Data to the conclusion that alcohol abuse among suicides occur ten times more frequently than in the general population. Studies show a clear link with the increase in alcohol consumption in suicide rates. Studies have also linked the incidence of alcohol use. It is now believed that it is the direct cause of, or a significant number of concomitant diseases or exacerbation of existing conditions. Drinking is associated with an

increased risk of cancer, especially of the mouth, larynx, pharynx, esophagus, stomach, liver, lung, pancreas and colon. These forms of cancer are causally associated with the consumption of alcoholic beverages, wherein the risk of cancer increases with the size of the dose. The risk increases significantly when accompanied by smoking, drinking, but he also is a carcinogen. Alcohol use is responsible for the deaths of some cancers, which are in Poland, the second cause of death.

It was also associated with heavy drinking prevalence of cardiovascular disease. Cardiovascular diseases are the first cause of death in Poland. This problem tends to increase, especially in the field of hypertension, which affects around 3 million people in Poland, which, as the consensus is significantly associated with the amount of alcohol consumed. It is also important role in complications of hypertension such as stroke. Patients who suffer from cardiomyopathy caused by unrecognized cause (such a situation applies to 2-3% of people hospitalized for heart disease), often because even in 50% of cases - are diagnosed as excessive drinkers. As for heart attacks, many studies have shown a lower incidence of coronary heart disease and a lower incidence of myocardial infarction in moderate drinkers compared with total abstainers. This phenomenon is not well understood, in particular, it is noted that the groups are not good abstainers controls. So I do not know whether it actually small doses of alcohol consumption plays a protective role [35].

Alcohol may significantly affect the structure and function of the central nervous system, particularly at the neuronal membrane, where the effect is substantially selective. One of the primary purposes of the impact of alcohol on the brain is to link the neurochemical and anatomical changes of behavioral and physiological responses to alcohol. The use of positron emission tomography and other new non-invasive imaging technique offers hope of progress in the study of functional infirmities central nervous system associated with brain damage caused by alcohol. Alcohol tolerance, physical dependence and alcohol withdrawal syndrome appear to result from changes in the membranes of neutrons, which are caused by chronic alcohol consumption [36]. Most organic brain damage related to the effects of alcohol have been identified in the areas of the brain, such as the hippocampus, cerebellum, place bluish. Memory research suggests that memory system that allows people to search for information that was encoded and fixed, is interrupted during alcohol intoxication. Although there is still evidence that moderate alcohol consumption causes permanent damage to the structure of the brain, some arguments suggest that moderate drinking during social occasion may impair cognitive function. Reversibility of mechanical damage to the brain caused by alcohol consumption and impaired neuropsychological function remains one of the most controversial issues in the study of the structures of alcohol.

Alcohol consumption causes in the entire body side effects of long-range and complexity. Virtually every system of the human body is disturbed by alcohol, either directly or indirectly. Research expands our knowledge on the consequences of alcohol consumption. For a long time it was thought that virtually all of the alcohol is absorbed from the gastro - intestinal tract and metabolized primarily in the liver. New evidence shows that alcohol metabolism also occurs in the lining of the stomach. Transformation of alcohol in the stomach may protect against food poisoning from eating moderate amounts of alcohol. However, consumption of alcohol may cause gastric lesions, especially when accompanied by other stomach irritants such as aspirin. Alcohol may also act on the small intestine by modifying the motility, metabolism, blood circulation and cell structure, can also cause malabsorption [37].

Although most research indicates that the appearance of chronic cirrhosis of the liver requires the consumption of large amounts of alcohol, some data suggest an increased risk of the disease in men who drank only three glasses a day, and women who drink only one glass a day and a half. Alcohol-related heart muscle disease only occurs in 1-2% of alcohol abusers, but the prognosis for those in whom the disease develops very bad if they did not give up alcohol. Research also indicates that the alcohol has a negative effect on myocardial tissue even in patients at an early age, and that the consumption of alcohol is associated with hypertension and blood clotting disorders [38].

Alcohol has a huge impact on the endocrine system and the reproductive system in both men and women. Effects of alcohol on adrenal cortical hormones may play a role in the development of alcohol tolerance and physical dependence. Chronic alcohol in large quantities reduces the blood circulation in male testosterone levels, apparently by direct action on the cells which produce the hormone. One result is the emergence of a female body hair, and breast enlargement in some male alcoholics. Although the amount of the female hormone estradiol does not decrease under the influence of alcohol in some alkoholiczek appears menstrual disorder, infertility and hormonal imbalance. Some of the changes caused by chronic adrenal hormones, alcohol consumption may be irreversible. Has also been shown that alcohol has a huge impact on the level of thyroid hormones and there are arguments that such changes may be associated with the development of certain types of liver necrosis in patients with chronic alcohol abuse [39].

Chronic alcohol consumption is associated with increased susceptibility to infectious diseases and some types of cancer. This is most likely because the alcohol has the capacity to harm to the human immune system. Although our understanding of the health consequences of alcohol consumption continues to grow, many questions still remain unanswered. Most basic research is needed cellular mechanisms that help explain the enormous impact of alcohol on the human body [40].

There is increasing evidence that there is a genetic predisposition to alcoholism, and researchers in the field say that alcoholism may be the result of interaction hereditary and environmental factors. Detected characteristics of bioelectrical activity of the brain in people who are not alcoholics, but are at risk because alcoholism was present in first-degree relatives of these people, which is probably neurophysiological markers of predisposition to alcoholism. Studies of people whose one of the biological parents was an alcoholic, but was not involved in raising the child, because it was adopted as a child, made it possible to assess the relative impact of genetic and environmental factors to the emergence of alcoholism. These studies have distinguished two types of genetic predisposition to alcoholism:

- abilities associated with male sex,
- environmental predisposition.

Abilities associated with male sex on males only, are highly heritable, leading to acute forms of alcoholism at an early age often require intensive treatment and are associated with serious violations of the law.

Environmental predispositions while shedding in individuals of both sexes and are probably the cause of most cases of alcoholism. This type of hereditary alcoholism occurs at a later age, usually it is not as sharp as alcoholism due to the predisposition of the male gender, and does not involve breaking the law. Environmental predispositions develop into alcoholism only when there is surrounded by a factor provoking, but never alcoholism adoptive parents is not a factor. The only significant factor on parents, which was found in connection with this type of alcoholism in adoptees, a low position of economic - social adoptive father.

This typology based on the analysis of official data, was confirmed and expanded on the basis of clinically treated alcoholics. Molecular genetic alterations in metabolic enzymes alcohol are the main field of research into the inheritance of alcoholism, for mutations resulting in a small change in the molecular structure of these enzymes could have a significant impact on the ability to remove the alcohol from the body. Many researchers believe that such studies can provide explanation of the basic mechanisms of alcoholism and define the genetic markers of susceptibility to alcoholism. There is significant evidence that, among oriental origin exists Widespread occurrence form aldehyde dehydrogenase, which are characterized by impaired removal of acetaldehyde, a toxic, which is the first product of alcohol metabolism. Rapid accumulation of acetaldehyde causes after a few glasses of red skin, rapid pulse, and other unpleasant symptoms that may discourage further drinking. The frequent occurrence of this form of the gene encoding the enzyme among the oriental origin can help explain the low incidence of alcoholism in this population.

That's how much a person drinks, how often does it and what will be the reaction to contact with alcohol is dependent on a complex interplay of demographic factors, social, economic and biological. Effective prevention and treatment of alcohol abuse and alcoholism must be based on knowledge and understanding of these factors. Are also important determinants of age, gender and ethnicity. Women drink much less than men and have fewer problems resulting from alcohol consumption. Recently there has been an increase in alcohol consumption among women aged 35 to 64 years. Higher incidence of gynecological and obstetrical disorders, including stillbirths and neonatal defects are associated with increased alcohol consumption. People over 65 years of age

drink less alcohol than adults over 65 years, perhaps due to the fact that the aging of reduced tolerance to alcohol. Among those of alcohol abuse is less prevalent. In older people who abuse alcohol for years, there is a high risk of harmful side effects [41].

Drinking patterns in the United States are different in different ethnic and racial groups. They are also different in the groups in terms of sex. Abstinence is more common among blacks than among whites. And black men are less likely than whites consume it in excessive amounts. Black women who drink alcohol are in fact more prone to excessive drinking than white women. The occurrence of health problems associated with alcohol, especially cirrhosis of the liver and esophageal cancer is very common among the black population. Mortality due to cirrhosis of the liver is twice as high among blacks than among whites. Hispanic Americans, and consume more alcohol abuse than the general population. The first generation Hispanics who were born in America, drinking much more than Hispanics who were born abroad. Almost half of Hispanic women are abstynentki, but among men – only less than a quarter of the abstainers. Among Latin Americans, there is a high mortality caused by cirrhosis of the liver. Among American Indians and Alaska Natives frequent alcohol abuse and alcoholism, although many strains almost completely consumed alcohol. Disease and injury associated with alcohol three times more common among the Indians of the American Indians than in the general population. Cirrhosis of the liver is the fourth leading cause of death among American Indians. Among Asian Americans, regardless of nationality, alcohol abuse and alcoholism is very rare. There is in them a high degree of abstinence, especially among Koreans, Chinese, and women from all Asian groups.

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### Пагубная привычка как заболевание

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**Аннотация.** Пагубная привычка — это умственное и физическое состояние, возникающее из взаимодействия живого организма и вещества, характеризующаяся изменениями поведения и других реакций, включая необходимость принимать вещество постоянно или периодически, чтобы испытать его действие на психику, а иногда, чтобы избежать неприятных симптомов, связанных с отсутствием вещества.

**Ключевые слова:** Алкоголизм — алкоголь — это регулярное пьянство с целью испытать умственную активность; а иногда избежать дискомфорта; вызванного прекращением приема.

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