

**REGIONALNI CENTAR ZA TALENTE VRANJE**

**ALCOHOL: DEATH IN A BOTTLE**

**ALKOHOL: SMRT U FLAŠI**

**Authors: MATIJA RADIČEVIĆ I VLADIMIR NIKOLIĆ, učenici 3. razreda  
Gimnazije “Stevan Jakovljević”**

**Mentor: BILJANA PIPOVIC Gimnazija “Stevan Jakovljević”**

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Ethyl alcohol, or ethanol, is an intoxicating ingredient found in beer, wine, and liquor. Alcohol is produced by the fermentation of yeast, sugars, and starches. It is a central nervous system depressant that is rapidly absorbed from the stomach and small intestine into the bloodstream. Alcohol affects every organ in the drinker's body and can damage a developing fetus. Intoxication can impair brain function and motor skills; heavy use can increase risk of certain cancers, stroke, and liver disease. Alcoholism or alcohol dependence is a diagnosable disease characterized by a strong craving for alcohol, and/or continued use despite harm or personal injury. Alcohol abuse, which can lead to alcoholism, is a pattern of drinking that results in harm to one's health, interpersonal relationships, or ability to work.

*Key words: alcohol, alcoholism, drinking, health*

Etil alkohol ili etanol, je opojni sastojak koji se može naći u pivu, vinu i liker. Alkohol se proizvodi fermentacijom kvasca, šećera i škroba. To je depresant centralnog nervnog sistema koji se brzo absorbira iz želuca i tankog creva u krvotok. Alkohol utiče na svaki organ onoga koji ga pije i može da ošteti fetus. Intoksikacija može da utiče na funkciju mozga i motorike; velika upotreba može povećati rizik od određenih kancera, moždanih udara i bolesti jetre. Alkoholizam ili zavisnost od alkohola je dijagnosticirana bolest koja se karakterise jakim žudnjom za alkoholom, i/ili kontinuiranom upotrebom uprkos ličnim povredama. Zloupotreba alkohola, koja može dovesti do alkoholizma, je obrazac pijenja koji rezultira štetu po zdravlje, međuljudske odnose ili sposobnost za rad.

*Ključne reči: alkohol, alkoholizam, pijenje, zdravlje*

Have you ever had even part of an alcoholic drink?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Have you drank in the last twelve months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Have you drank in the last four weeks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Have you drank in the last seven days?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

### What proportion of students consumed alcohol?

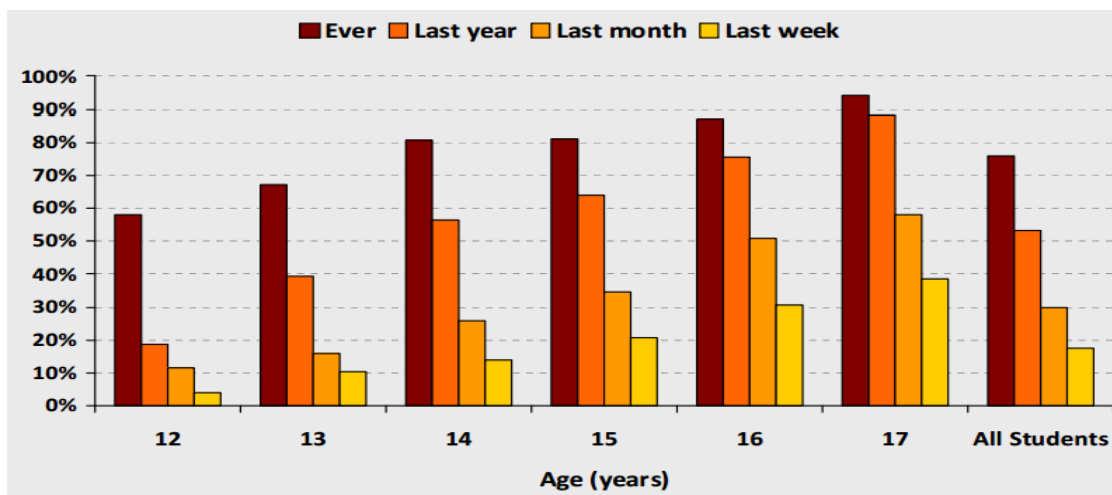
- For all students (aged 12 to 17 years), 53.3% drank in the last year, 29.7% drank in the last month and 17.5% drank in the last week. Just under one-quarter (23.9%) have never had even part of an alcoholic drink (non-drinkers).

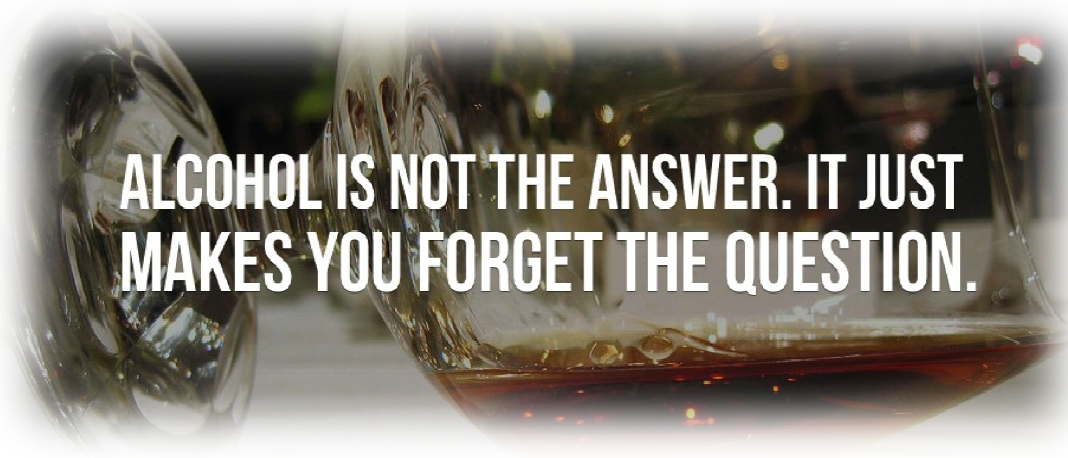
### How did consumption change with age?

- A greater proportion of younger students have never tried alcohol compared to older students (41.8% of 12 year-olds compared to just 5.7% of 17 year-olds).
- Alcohol use increases with age (4.0% of 12 year-olds drank in the last week compared to 38.7% of 17 year-olds). Note, less than 10 12 year-olds reported drinking in the last week.

### How do males compare to females?

- Males typically consume alcohol more frequently than females across all ages.
- For 12 to 17 year-old males, 23.7% reported never having even part of an alcoholic drink, 54.8% drank in the last year, 30.8% drank last month and 17.3% drank last week.
- For 12 to 17 year-old females, 24.1% reported never having even part of an alcoholic drink, 51.7% drank in the last year, 28.5% drank last month and 17.8% drank last week.





It is not always easy to see when your drinking has crossed the line from moderate or social use to problem drinking. But if you consume alcohol to cope with difficulties or to avoid feeling bad, you are in potentially dangerous territory. Alcoholism and alcohol abuse can sneak up on you, so it is important to be aware of the warning signs and take steps to cut back if you recognize them. Understanding the problem is the first step to overcoming it.

#### *Alcohol: a short history*

Fermented grain, fruit juice and honey have been used to make alcohol (ethyl alcohol or ethanol) for thousands of years. In the sixteenth century, alcohol (called “spirits”) was used largely for medicinal purposes.

At the beginning of the eighteenth century, the British parliament passed a law encouraging the use of grain for distilling spirits. Cheap spirits flooded the market and reached a peak in the mid-eighteenth century. In Britain, gin consumption reached 18 million gallons and alcoholism became widespread.

The nineteenth century brought a change in attitudes and the temperance movement began promoting the moderate use of alcohol—which ultimately became a push for total prohibition.

Today, an estimated 15 million of people suffer from alcoholism and 40% of all car accident deaths involve alcohol.

## What is alcohol?

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What is actually alcohol? It is classed as a depressant, meaning that it slows down vital functions—resulting in slurred speech, unsteady movement, disturbed perceptions and an inability to react quickly.

As for how it affects the mind, it is best understood as a drug that reduces a person's ability to think rationally and distorts his or her judgment.

Although classified as a depressant, the amount of alcohol consumed determines the type of effect. Most people drink for the *stimulant* effect, such as a beer or glass of wine taken to “loosen up.” But if a person consumes more than the body can handle, they then experience alcohol's depressant effect. They start to feel “stupid” or lose coordination and control.

Alcohol overdose causes even more severe depressant effects (inability to feel pain, toxicity where the body vomits the poison, and finally unconsciousness or, worse, coma or death from severe toxic overdose). These reactions depend on how much is consumed and how quickly.

There are different kinds of alcohol. Ethyl alcohol (ethanol), the only alcohol used in beverages, is produced by the fermentation of grains and fruits. Fermenting is a chemical process whereby yeast acts upon certain ingredients in the food, creating alcohol.

Fermented drinks, such as beer and wine, contain from 2% alcohol to 20% alcohol. Distilled drinks, or liquor, contain from 40% to 50% or more alcohol. The usual alcohol content for each is:

Beer 2–6% alcohol  
Cider 4–8% alcohol  
Wine 8–20% alcohol  
Tequila 40% alcohol  
Rum 40% or more alcohol  
Brandy 40% or more alcohol  
Gin 40–47% alcohol  
Whiskey 40–50% alcohol  
Vodka 40–50% alcohol  
Liqueurs 15–60% alcohol



### Understanding how alcohol affects our body

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Alcohol is absorbed into the bloodstream via small blood vessels in the walls of the stomach and small intestine. Within minutes of drinking alcohol, it travels from the stomach to the brain, where it quickly produces its effects, slowing the action of nerve cells.

Approximately 20% of alcohol is absorbed through the stomach. Most of the remaining 80% is absorbed through the small intestine.

Alcohol is also carried by the bloodstream to the liver, which eliminates the alcohol from the blood through a process called “metabolizing,” where it is converted to a nontoxic substance. The liver can only metabolize a certain amount at a time, leaving the excess circulating throughout the body. Thus the intensity of the effect on the body is directly related to the amount consumed.

When the amount of alcohol in the blood exceeds a certain level, the respiratory (breathing) system slows down markedly, and can cause a coma or death, because oxygen no longer reaches the brain.

### Young people versus adults

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A young person’s body cannot cope with alcohol the same way an adult’s can.

Drinking is more harmful to teens than adults because their brains are still developing throughout adolescence and well into young adulthood. Drinking during this critical growth period can lead to lifelong damage in brain function, particularly as it relates to memory, motor skills (ability to move) and coordination.

According to research, young people who begin drinking before age 15 are four times more likely to develop alcohol dependence than those who begin drinking at age 21.



Here's the typical sentence how average teen gets involved with alcohol:

*“When I was 13, friends would make fun of me if I didn’t have a drink. I just gave in because it was easier to join the crowd. I was really unhappy and just drank to escape my life.”*

### What is alcoholism?

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Four symptoms of alcoholism?

- **Craving:** a strong need, or compulsion, to drink.
- **Loss of control:** the inability to limit one’s drinking on any given occasion.
- **Physical dependence:** withdrawal symptoms, such as nausea, sweating, shakiness and anxiety, occur when alcohol use is stopped after a period of heavy drinking.

Serious dependence can lead to life-threatening withdrawal symptoms including convulsions, starting eight to twelve hours after the last drink. The delirium tremens (D.T.’s) begins three to four days later where the person becomes extremely agitated, shakes, hallucinates and loses touch with reality.

- **Tolerance:** the need to drink greater amounts of alcohol in order to get high.



An increasingly heavy drinker often says he could stop whenever he chooses—he just never “chooses” to do so. Alcoholism is not a *destination*, but a *progression*, a long road of deterioration in which life continuously worsens.

## Statistics

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Alcohol kills more teenagers than all other drugs combined. It is a factor in the three leading causes of death among 15- to 24-year-olds: accidents, homicides and suicides.

- Youth who drink are 7.5 times more likely to use other illegal drugs and fifty times more likely to use cocaine than young people who never drink. One survey found that 32% of the heavy drinkers over 12 were also illegal drug users.
- In 2005, 6.6% of the US population aged 12 or older, or 16 million people, reported heavy drinking (binge drinking on at least five days of the past thirty days).
- Of the 3.9 million Americans who received treatment for a substance abuse problem in 2005, 2.5 million of them were treated for alcohol use.
- Alcohol-related traffic deaths in the US were 12,998 in 2007. This is more than three times as many American soldiers who died in combat in the first six years of the Iraq war.
- There are 1.4 million drunk driving arrests in the US every year.
- A US Department of Justice study found that as many as 40% of violent crimes occur under the influence of alcohol.
- In 2005–2006, there were 187,640 National Health System alcohol-related hospital admissions in England.
- There were 6,570 deaths in England in 2005 from causes directly linked to alcohol use. In 2006, alcohol-related deaths in England rose to 8,758. This amounts to an annual increase of 7% from the previous year.
- According to one study, of the 490 million people in the European Union, more than 23 million are dependent on alcohol.
- In Europe, alcohol contributes to nearly one in ten of all cases of illness and premature deaths each year.
- 39% of all traffic deaths involved alcohol in 2005.
- 40% of violent crimes occur under the influence of alcohol.

When consumed by pregnant mothers, alcohol enters the bloodstream, passes through the placenta and enters the fetus (unborn child).

Alcohol can damage a fetus at any stage of pregnancy, but is most serious in the first few months. There is a risk of alcohol-related birth defects including growth deficiencies, facial abnormalities, and damage to the brain and nervous system.

## Short-term effects of alcohol

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Depending on how much is taken and the physical condition of the individual, alcohol can cause:

- Slurred speech
- Drowsiness
- Vomiting
- Diarrhea
- Upset stomach
- Headaches
- Breathing difficulties
- Distorted vision and hearing
- Impaired judgment
- Decreased perception and coordination
- Unconsciousness
- Anemia (loss of red blood cells)
- Coma
- Blackouts (memory lapses, where the drinker cannot remember events that occurred while under the influence)



## Long-term effects of alcohol

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Binge drinking and continued alcohol use in large amounts are associated with many health problems, including:

- Unintentional injuries such as car crash, falls, burns, drowning
- Intentional injuries such as firearm injuries, sexual assault, domestic violence
- Increased on-the-job injuries and loss of productivity
- Increased family problems, broken relationships
- Alcohol poisoning
- High blood pressure, stroke, and other heart-related diseases
- Liver disease
- Nerve damage

- Sexual problems
- Permanent damage to the brain
- Vitamin B<sub>1</sub> deficiency, which can lead to a disorder characterized by amnesia, apathy and disorientation
- Ulcers
- Gastritis (inflammation of stomach walls)
- Malnutrition
- Cancer of the mouth and throat

## Conclusion

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Alcohol is not an ordinary commodity. While it carries connotations of pleasure and sociability in the minds of many, harmful consequences of its use are diverse and widespread. From a global perspective, in order to reduce the harm caused by alcohol, policies need to take into account specific situations in different societies. Average volumes consumed and patterns of drinking are two dimensions of alcohol consumption that need to be considered in efforts to reduce the burden of alcohol-related problems. Avoiding the combination of drinking and driving is an example of measures that can reduce the health burden of alcohol.

Worldwide, alcohol takes an enormous toll on lives and communities, especially in developing countries and its contribution to the overall burden of disease is expected to increase in the future. Particularly worrying trends are the increases in the average amount of alcohol consumed per person in countries such as China and India and the more harmful and risky drinking patterns among young people.

National monitoring systems need to be developed to keep track of alcohol consumption and its consequences, and to raise awareness amongst the public and policy-makers. It is up to both governments and concerned citizens to encourage debate and formulate effective public health policies that minimize the harm caused by alcohol.

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