

SAFETY CENTER INCORPORATED

Alcohol
&
Nutrition



SAFETY CENTER
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Promoting Lifelong Safety & Health

3909 Bradshaw Road, Sacramento, CA 95827

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Education Session 4: Early Warning Signs and Alcohol & Nutrition

- “Early Warning Signs”
- “Alcohol & Nutrition” video (26 minutes) or lecture on Nutrition
- “Effects of Alcohol on the Liver”
- “Nutrition Quiz”
- HIV/AIDS & Hepatitis C lecture or guest speaker

Teaching Aids

- Pens/Pencils
- Study Guides
- Video: “Nutrition and Alcohol” (26 minutes) or lecture on Nutrition

Alcohol & Nutrition

What to Do

Prepare room for education group.

Discuss the “Early Warning Signs” of addiction.

(Counselor may expand on vitamins and minerals being depleted from the body due to alcohol use. May also touch on why some people experience being malnourished due to alcohol use etc., also the need for balanced diet for people recovering.

At this time counselor may give highlights from video or lecture.

Complete the group session by highlighting and reviewing video and lecture notes on nutrition and alcohol and early warning signs.

What to Say

Good _____ (AM or PM.)

Today we are going to discuss the early warning signs of addiction - later we will talk about nutrition and “Effects of Alcohol on the Liver”.

You will take a test on nutrition. It’s nothing new, but hopefully you’ll have a chance to look at your eating habits and see what happens when you drink. We’re not talking about alcoholism, just what alcohol does in regards to nutrition. It’s quite interesting.

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Early Warning Signs

- Increased tolerance
- Uncomfortable without alcohol or drugs
- Increased self-confidence with alcohol or drugs
- Hiding or sneaking drinking or drugs
- Lying about drinking or using
- Memory loss or blackouts
- Upset when drinking or using
- Changing or switching drinks or drugs
- Morning-after reaction after drinking or using
- School or work problems
- Family problems
- Inability to quit or control
- Drinking or using for quick results
- Multiple arrests and legal problems
- Shift in priorities
- Loss of values
- Confronted by friends
- Drinking or using alone
- Financial difficulties
- Hospitalization

LECTURE NOTES ON ALCOHOL, NUTRITION, AND MEDICINE

By Charles H. Halsted, M.D. Professor of Internal Medicine, University of California, Davis

Chronic alcoholism: its medical and nutritional effects

While 2/3 of the adult Americans consume alcoholic beverages to some degree, about 5% risk addiction, drink excessive amounts of alcohol every day, may have disrupted jobs and family, and are prone to disease related to damage to the liver, stomach, pancreas, heart or brain.

Alcoholic liver disease is among the top 10 causes of death (more than 50,000 deaths of Americans per year.)

Who is at risk for developing alcoholic liver disease?

Risk of developing cirrhosis, or end-stage alcoholic liver disease is related to total drinking over time and is greater in women alcoholics than in men alcoholics:

- *About 6 drinks per day in men, 3 drinks per day in women*
- *Unrelated to social standing, good or bad diet*
- *As likely to occur, an addicted alcoholic executive or homeless person*

People addicted to alcohol often develop cirrhosis after 10-15 years of hard drinking.

Why is the liver affected by alcohol?

The liver is the target for alcohol: where it is metabolized (broken down) and is most likely to cause damage.

The liver is the central organ for processing nearly everything we eat into components of energy, glucose, amino acids, (protein units) vitamins and minerals that are carried in the bloodstream to all the other tissues of the body. Alcohol has many secondary effects on these normal processes.

Why does excessive and frequent alcohol consumption lead to liver disease?

The breakdown of large and frequent amounts of alcohol triggers an inflammatory reaction that leads to death of liver cells and eventual scarring of the liver.

Scarring blocks blood flow through the liver and causes a condition known as portal hypertension, or increase in pressure in the blood circulation leading to the liver and decrease in blood flow through the liver. This leads to the death-healing complications of alcoholic liver disease:

- *Hemorrhage from distended veins in the esophagus (bleeding varices)*
- *Accumulation of fluid in the abdominal cavity (Ascites) that can become infected releasing bacteria the blood stream (sepsis)*
- *Build up of toxic substances in the blood stream results in sleepiness, coma (encephalopathy)*
- *A secondary and usually fatal kidney failure (hepato-renal syndrome)*

What other organs are affected by excessive alcohol consumption?

In addition to alcoholic liver disease, excessive consumption of alcohol can lead to:

- *Episodic inflammation of the stomach (gastritis) with nausea and vomiting*
- *Inflammation of the pancreas (recurring severe abdominal pain, vomiting, eventual scarring of the pancreas, diabetes.)*

- *Loss of memory and imbalance*
- *Heart failure due to weakening of the heart muscle*
- *Severe malnutrition: Results from multiple effects of alcohol on gut, liver, pancreas*

Alcohol ingestion interacts with the use of other drugs.

The breakdown of some alcohol in the stomach (10% in women, 30% in men) is slowed by common heartburn and ulcer drugs such as Tagament (cimetidine), resulting in increased alcohol effect in daily users of these drugs.

The breakdown of alcohol in the liver can increase blood levels of toxic products of acetaminophen (Tylenol) with potentially fatal side effects from “ordinary” doses (2-3 g/d) of this drug.

Why do some alcoholics lose weight and become malnourished?

Alcohol is a source of calories in the diet, and heavy drinking with minimal financial resources often substitute alcohol for healthy dietary calories.

Daily consumption of high amounts of alcohol can block the absorption of some foods from the diet, including proteins, carbohydrates, and some vitamins such as folic acid and thiamine. This condition may be associated with episodic or chronic diarrhea with further wastage of fluid and minerals such as zinc, magnesium, phosphate, and potassium from the body.

The metabolism (breakdown) of alcohol by the liver interferes with normal metabolism of nutrients including fats, glucose, and some vitamins such as folic acid, pyridoxine, and vitamin A.

Instead of contributing energy, the metabolism of high amounts of alcohol on the liver actually uses energy from the body stores of carbohydrate and fat, while secondary inflammation in the liver triggers breakdown of skeletal muscle.

Alcoholic disease of the liver or pancreas upsets the normal digestion of dietary fat and some fat soluble vitamins such as vitamins A, D and E.

Frequent gastritis (inflammation of the stomach) leads to chronic low grade bleeding and loss of body iron.

What are the consequences of poor nutrition in the alcoholic?

- *Low body weight and lack of energy*
- *Anemia due to deficiencies of nutrients essential for blood formation: iron, folic acid and pyridoxine.*
- *Damage to the nervous system including unbalanced gait, mental confusion and loss of memory re-sults from dietary deficiency and poor intestinal absorption of thiamine.*
- *Night blindness due to deficiency of vitamin A*
- *Reduced immunity with increased risk of infections due to protein and zinc deficiencies.*

What can be done to prevent the toxic effects of excessive alcohol on the body?

A good diet is no insurance against the development of most alcohol effects, and the highest incidence of alcoholic cirrhosis occurs in countries where alcohol is consumed the most in association with daily living (e.g. France and Russia.)

Moderate Drinkers



2 Drinks A Day



1 Drink A Day

*Risk For Developing Alcohol
Liver disease - 10 to 15 Years*



6 Drinks A Day



3 Drinks A Day

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- Hemorrhage from distended veins in the esophagus (bleeding varices)
- Accumulation of fluid in the abdominal cavity (ascites) that can become infected, releasing bacteria to the blood stream (sepsis).
- Build up of toxic substances in the blood stream results in sleepiness, coma (encephalopathy).

What other organs are affected by excessive alcohol consumption?

In addition to alcoholic liver disease, excessive consumption of alcohol can lead to:

- A secondary and usually fatal kidney failure (hepato-renal syndrome)
- Episodic inflammation of the stomach (gastritis) with nausea and vomiting.
- Inflammation of the pancreas (recurring severe abdominal pain, vomiting, eventual scarring of the pancreas, diabetes)
- Loss of memory and balance
- Heart failure due to weakening of the heart muscle
- Severe malnutrition results from multiple effects of alcohol on gut, liver, pancreas

Alcohol ingestion interacts with the use of other drugs

The breakdown of some alcohol in the stomach (10% in women, 30% in men) is slowed by common heartburn and ulcer drugs as Tagamet (cimetidine), resulting in increased alcohol effect in daily users of these drugs.

The breakdown of the remaining alcohol in the liver can block the metabolism and hence increase the blood levels of many commonly used drugs such as coumadin (blood thinner), many barbituates (sedatives or anti-anxiety drugs), with potentially fatal side effects.

The breakdown of alcohol in the liver can increase blood levels of toxic products of acetaminophen (Tylenol) with potentially fatal side effect from “ordinary” doses (2-3 g/d) of this drug.

Nutrition Quiz

“You are what you eat.” That is especially true when it comes to your health. You have to eat well to be well. Your day to day nutrition really does make a big difference in your health; it can prevent or control problems such as heart disease, high blood pressure, diabetes, obesity and cancer. Better yet, when you eat well, you look and feel your best.

The U.S. Senate Select Committee on Human Nutrition has come up with seven dietary guidelines for Americans:

1. Eat a variety of foods.
2. Maintain your ideal weight.
3. Avoid too much fat, saturated fat and cholesterol.
4. Eat foods with adequate starch and fiber.
5. Avoid too much sugar.
6. Avoid too much sodium.
7. If you choose to drink alcohol, do so in moderation.

How Well Are You Eating?

Take a minute to find out where you stand. This questionnaire has a section for each of the seven goals. Circle the number that best describes your daily habits.

To get an accurate score, be sure to answer every question. Then add the circled numbers and write the total in the box for you score. The most you can score in each section is 10.

1. Variety

- A. Each day I have 3 servings of dairy products (milk, yogurt, cheese).
3 - Frequently
2 - Sometimes
0 - Almost Never
- B. Each day I have at least 2 servings of protein-rich foods (fish, poultry, dry beans or peas, lean meat).
3 - Frequently
1 - Sometimes
0 - Almost Never
- C. Each day I have at least 4 servings of fresh fruits and vegetables.
2 - Frequently
1 - Sometimes
0 - Almost Never

- D. Each day I have 4 servings of whole grains (whole grain breads, cereal, rice, pasta).
 2 - Frequently
 1 - Sometimes
 0 - Almost Never

2. Weight Control

- A. I keep my weight within 20 pounds of my desired weight.
 6 - Frequently
 2 - Sometimes
 0 - Almost Never
- B. I get at least 30 minutes of brisk continuous (aerobic) exercise such as brisk walking, jogging, cycling, swimming or aerobic dance, at least every other day.
 4 - Frequently
 2 - Sometimes
 0 - Almost Never

3. Low Fat Foods

- A. When I eat meat, I choose lean meats and trim visible fat.
 2 - Frequently
 1 - Sometimes
 0 - Almost Never
- B. I use low-fat or non-fat dairy products instead of whole-milk products.
 2 - Frequently
 1 - Sometimes
 0 - Almost Never
- C. I avoid saturated fats (butter, lard, shortening) in my diet.
 2 - Frequently
 1 - Sometimes
 0 - Almost Never
- D. I eat 3 or fewer eggs a week.
 2 - Frequently
 1 - Sometimes
 0 - Almost Never
- E. I eat fish or poultry instead of meat at least four times each week.
 2 - Frequently
 1 - Sometimes
 0 - Almost Never

4. High Fiber Foods

- A. I eat whole-grain breads and cereals every day (whole wheat bread, oatmeal, brown rice).
4 - Frequently
2 - Sometimes
0 - Almost Never
- B. I eat a salad or fresh vegetables every day.
3 - Frequently
2 - Sometimes
0 - Almost Never
- C. I eat fresh fruits every day.
3 - Frequently
2 - Sometimes
0 - Almost Never

5. Low Sugar Foods

- A. I drink sugar-sweetened soft drinks (non-diet soda).
0 - Frequently
1 - Sometimes
3 - Almost Never
- B. I eat sweet desserts such as pie, cake and cookies.
0 - Frequently
2 - Sometimes
4 - Almost Never
- C. I eat candy.
0 - Frequently
2 - Sometimes
3 - Almost Never

6. Low Salt Foods

- A. I eat salty snack foods.
0 - Frequently
1 - Sometimes
2 - Almost Never
- B. I eat canned soup or convenience foods.
0 - Frequently
1 - Sometimes
3 - Almost Never

- C. I use salt in my cooking.
0 - Frequently
1 - Sometimes
2 - Almost Never
- D. I add salt to foods at the table.
3 - Almost Never
2 - Sometimes
0 - Frequently

7. Alcohol

- A. I drink more than 2 drinks a day.
0 - Frequently
1 - Sometimes
2 - Almost Never
- B. I use alcohol as a way of handling stress, loneliness or boredom.
0 - Frequently
1 - Sometimes
2 - Almost Never
- C. I feel the need to cut down on my drinking.
0 - Frequently
1 - Sometimes
3 - Almost Never
- D. I have been told that I drink too much.
0 - Frequently
1 - Sometimes
3 - Almost Never

What Each Score Means

The higher your score for each nutritional goal, the better for your health. So take a look at each area separately. (There is no total score for this assessment.) You're looking for the high-risk areas in your nutritional health. For each nutrition area, if your score is:

- 10-9 Excellent! You know the importance of nutrition in maintaining your health. Continue looking for areas that you could improve on.
- 8-6 Your nutrition practices are good, a strong base to build on. Take a second and look at any questions where you scored a 0 or 1 and think about how you might boost your score.
- 5-3 You need to improve! Find out more about these nutritional goals and make some changes.
- 2-0 You were concerned enough to answer these questions but you need to make a number of changes. It's not too late and it's well worth the effort.

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