

NUTRITION

DISCUSSION LEADER'S OUTLINE

INTRODUCTION

Good morning my name is _____. Today we will be talking about nutrition. I am not a trained Nutritionist and this discussion is not meant to replace Semper Fit resources, the Nutrition MCI or Nutrition MarineNet module.

The **ground rules** for this discussion are:

- (1) No personal attacks on anyone's opinions
- (2) Allow each participant to express themselves
- (3) Make head calls at your leisure, just don't interrupt the group
- (4) Keep your language clean as not to offend others
- (5) PARTICIPATION BY ALL!!!!!!

Gain Attention

To get as much sleep as possible, LCpl Evans stopped going to the chow hall for breakfast and stocked up on energy drinks, skittles, and cigarettes to consume throughout the work day. He occasionally got something from the fast food line for lunch, including pizza, hamburgers, and fries. Daily, he drank several energy drinks (containing 240 milligrams of caffeine each) to stay awake and focused, then he had large dinners out with friends. LCpl Evans experienced significant difficulty waking in the morning; he was dragging by the end of the day and had less and less energy for PT. He had difficulty concentrating while on the energy drinks, skittles, and cigarettes "diet" and was more easily angered than usual. In the last month he gained ten pounds, it's visible in his mid-section. To remedy this situation, LCpl Evans looked at a body builder website for fat burning and energy increasing supplements. A Sergeant in the shop noticed LCpl Evans purchasing the supplements and decided to confront him about the effects of his poor diet choices, including his declining energy during PT. The Sergeant spoke to him about achieving optimal fitness and readiness to perform by reducing caffeine, consuming complex carbohydrates, low fats, and lean proteins throughout the day; together they came up with a plan for LCpl Evans' improved nutrition.

Key points for the discussion today will be:

- (1) Explaining the effects of nutrition on emotions and mood, decision making, and behavior
- (2) Identifying nutrition choices to enhance emotions and mood, decision making, and behavior

Learning Objective: After this guided discussion, you will be more aware of how nutrition affects how you feel, think, and behave. You will also have a better understanding of nutrition choices for improving these areas of functioning.

DISCUSSION

Following a healthy, balanced diet is not just important for staying physically fit. Good decision making and successful stress management are also dependent on maintaining good nutrition. When you have poor nutrition, you may find it challenging to regulate emotions and mood or even to relax. There are simple things you can do to eat and drink well so that you achieve optimal fitness and readiness to perform as a Marine. We will begin by examining the effects of nutrition.

KEY POINT 1

1. Eating a lot of sugar can lead to a temporary increase in blood sugar, accompanied by a quick boost in energy, followed by very low blood sugar and a steep decline in energy. When that happens, you may experience symptoms of anxiety such as nervousness, trembling, light-headedness, and irritability.
2. Deficiencies in vitamins and minerals can produce many negative effects.
 - a) Vitamin B12 deficiency causes problems with depression, confusion, dementia, and poor memory.
 - b) Deficiencies in folate, another B-vitamin, may be related to depression as well.
 - c) Low zinc levels may be related to poorer mental functioning and memory impairment while higher zinc consumption may produce improvements in attention, memory, and reasoning.
 - d) Low levels of vitamin D have been associated with cognitive impairment in the areas of memory, attention, and information processing.
3. Omega-3 fatty acids appear to be important in brain development and function. They are also linked to mood and depression.
4. The amino acid tryptophan metabolizes into serotonin, which regulates mood and helps control emotion and aggression.
5. Dehydration (insufficient liquids) is associated with negative mood, including fatigue and confusion.
6. While alcohol allows most people to fall asleep faster, it actually disrupts sleep, particularly in the second half of the night.

Interim Summary: What you eat and drink makes a difference. Poor nutrition choices can influence how well you feel, think, and behave. Let's talk about some of your experiences with food and drink.

KEY POINT 2

1. What foods seem to energize you after eating them? (Participants should name three to four foods.)
 - a) Regularly incorporating a combination of complex carbohydrates, low fats, and lean proteins into your diet maintains blood sugar so that you avoid a sugar crash.
 - b) Whole grains and fresh fruits and vegetables high in fiber are good sources of complex carbohydrates. Because these foods are metabolized more slowly, they provide a balanced, sustained release of energy. Good choices include brown rice, oatmeal, sweet potatoes, squash, carrots, apples, bananas, avocados, and grapes.
 - c) Monounsaturated and polyunsaturated fats help sustain energy as well. They are found in vegetable oils, canola oil, olive oil, nuts, seeds, avocados, and fish.
 - d) Protein regulates energy. Choose fat-free or low-fat milk and milk products, seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds.
2. What foods seem to give you a temporary boost but leave you tired and irritable afterwards? (Participants should name three to four foods.)
 - a) Simple carbohydrates tend to produce short-term spikes and then drops in blood sugar. They include processed and refined sugars and grains such as candy, pasta, chips, crackers, cake, cookies, and white bread.
 - b) Many of these foods contain added sugars, including high fructose corn syrup, corn sweetener, brown sugar, and syrup. You should avoid carbohydrates with these added

sugars and pick complex carbohydrates instead for the reasons we just explained.

3. What foods put you into a better mood? (Participants should name three to four foods.)
 - a) We talked before about how foods rich in B-vitamins, omega-3 fatty acids, and tryptophan may prevent depression and improve your mood.
 - b) Dark green leafy vegetables, asparagus, Brussels sprouts, oranges, peanuts, and whole grains are good sources of folate, one of the B-vitamins. Fish, meat, poultry, eggs, milk, and milk products provide vitamin B-12, another important B-vitamin.
 - c) Omega-3 fatty acids are found in fatty fish (trout, herring, and salmon), flaxseed, walnuts, vegetable oils, and avocados.
 - d) Foods like milk products, bananas, oats, soy, poultry, and nuts are high in tryptophan, which metabolizes into serotonin. Serotonin helps regulate mood and control aggression.
4. Have you noticed any foods that improve your mental functioning, such as memory and attention? (Participants should name three to four foods.)
 - a) As we explained earlier, foods with zinc, vitamin D, or omega-3 fatty acids may improve mental functioning.
 - b) One good source of zinc is oysters, which contain more zinc per serving than any other food. Other good sources are poultry, beans, nuts, and whole grains.
 - c) Vitamin D is found in fatty fish (salmon, tuna, and mackerel) and fish liver oils.
 - d) Flaxseed, walnuts, fatty fish, vegetable oils, and avocados all are rich in omega-3s.
5. We've discussed food a great deal, but sufficient hydration and drinking the right kinds of liquids are equally important for mood and mental functioning. What kinds of liquids make you feel better or worse? (Participants should discuss for a few minutes.)
 - a) It's important to stay well hydrated since hydration is associated with mood and energy.
 - b) Reduce or eliminate alcohol from your diet as it is a depressant.
 - c) Practice moderation with caffeine, a stimulant, no more than 300mg per day is recommended. A six ounce cup of coffee has 100mg of caffeine and energy drinks contain between 80 and 500mg of caffeine per can. To combat dehydration, consume 16 ounces of water for every eight ounces of caffeinated drink.
 - d) Avoid carbonated beverages, which can lead to dehydration as well.
 - e) Moderately active people may need three to five liters of water per day while a very active person may need 10 liters.

Good nutrition choices don't require fancy diets or expensive products. Stick to complex carbohydrates, low fats, and lean proteins; select foods with important vitamins, minerals, and nutrients; and stay hydrated. If you follow these strategies, your body and mind will reap the benefits.

SUMMARY/CONCLUSION

Today we discussed nutrition. You now have a better understanding of nutrition's effects as well as information for achieving good nutrition. Making good nutrition choices, both for what you eat and what you drink, can help your performance. Poor nutrition can adversely affect emotions and mood, decision making, and behavior. Use the information that you have learned today to build a healthy diet.

Closing Statement:

Nutrition can be one of your most important tools for maintaining good health and the ability to perform at the highest levels. The objective for today was to increase your awareness of how nutrition impacts you. We also sought to arm you with good nutrition choices. Eating and drinking well, by following healthy nutrition choices, helps us be successful Marines. For further information consult Semper Fit resources and see the Nutrition MCI and Nutrition MarineNet module.

END OF DISCUSSION**RESOURCES**

1. Semper Fit
2. Nutrition MCI
3. Nutrition MarineNet module
4. U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2010. 7th Edition, Washington, DC: U.S. Government Printing Office, December 2010
5. Dehydration affects mood, not just motor skills , Agricultural Research Service, USDA, November 23, 2009
6. Nutrition Basics, Centers for Disease Control and Prevention,
<http://www.cdc.gov/nutrition/everyone/basics/index.html>