CONTENTS

(pages)
Introduction.........................................................1
The Daily Food Guide..............................................2-4
Estimation of Calorie Needs.................................5
Mean Heights and Weights and Recommended Energy Intake........6
Calorie Distribution................................................7
The Exchange System............................................8-11
Exercise and Weight Control..................................12-13
Suggested Body Weights........................................14
Dietary Guidelines for Americans............................15-16
Conclusion.............................................................17
On-Campus Nutrition Resources..............................18
The beginning of college-life or of life on your own involves many new decisions and responsibilities. One of the most important of these responsibilities is the proper nutritional care of your body. As you begin this stage of your life, you may already know a great deal about nutrition and how it helps your body function and have already assumed the responsibility for your diet. If you haven't, or if there are still some questions in your mind about how to apply the information that you already know to your current lifestyle, then it is time for you to begin shaping the patterns of healthy eating that will fuel your body and help to maintain its good health for the rest of your life.

This booklet will attempt to give you some of the basic information that you need to help you make the right food choices. The adequate nourishment of your body involves a series of daily choices such as; what to eat or what not to eat, how much to eat, and what to drink or what not to drink. One of the first tools that you can use to guide your food choices is knowledge concerning the four main food groups. The following pages contain a list and description of the four main food groups, recommended servings per day, and examples of food types and serving sizes.
The Daily Food Guide

The four food groupings and the daily food guide form a foundation for a good diet that will provide the essential nutrients. The groupings are used to sort foods by their protein, vitamin, and mineral contents. The daily food guide will supply the adult with approximately one half to two thirds of the needed energy allowance, and all the protein, vitamin A, riboflavin, ascorbic acid, calcium, and phosphorus needed. Almost all the thiamin and niacin allowances are provided, but the iron supply is about half that needed by the female adult. The zinc intake does not usually meet the RDA either. Other foods are added as necessary to meet energy and unknown trace mineral requirements, and to add palatability. These other foods may be more of the foods included in the four groupings, or others such as butter, margarine, other fats and oils, sugars, and refined cereal foods.

The milk group provides most of the calcium requirement along with riboflavin, high quality protein, other vitamins and minerals, carbohydrate, and fat. The meat group provides generous amounts of high quality protein along with iron, thiamin, riboflavin, niacin, vitamins B6 and B12, phosphorus, zinc, and other trace minerals. The bread and cereal group furnishes protein, carbohydrate, fiber, thiamin, niacin, iron, zinc, and other trace minerals, and the enriched products add additional iron, thiamin, riboflavin, and niacin. The vegetable and fruit group supplies fiber, vitamins, and minerals (particularly vitamins A and C).
### SERVINGS RECOMMENDED

<table>
<thead>
<tr>
<th>MEAT GROUP</th>
<th>2 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILK GROUP</td>
<td></td>
</tr>
<tr>
<td>CHILD, under 9</td>
<td>2 to 3</td>
</tr>
<tr>
<td>CHILD, 9 to 12</td>
<td>3 or more</td>
</tr>
<tr>
<td>TEENAGER</td>
<td>4 or more</td>
</tr>
<tr>
<td>ADULT</td>
<td>2 or more</td>
</tr>
<tr>
<td>PREGNANT WOMAN</td>
<td>3 or more</td>
</tr>
<tr>
<td>NURSING WOMAN</td>
<td>4 or more</td>
</tr>
<tr>
<td>VEGETABLE-FRUIT GROUP</td>
<td>4 or more, including:</td>
</tr>
<tr>
<td></td>
<td>1 good or 2 fair sources of vitamin C</td>
</tr>
</tbody>
</table>

### SERVING RECOMMENDATIONS

2 to 3 ounces of lean cooked meat, poultry or fish.
As alternates: 1 egg, 1/2 cup cooked dry beans or peas, or 2 tablespoons of peanut butter may replace 1/2 serving of meat.

One 8-ounce cup of fluid milk: whole, skim, buttermilk or evaporated or dry milk, reconstituted. As alternates: 1 1/3 ounces cheddar-type cheese, or 1 1/3 cups cottage cheese, 1 2/3 cups ice cream, 1 cup yogurt.

1/2 cup of vegetable or fruit; or a portion, for example, 1 medium apple, banana, or potato, half a medium grapefruit or cantaloupe.

Good sources: Grapefruit or grapefruit juice, orange or orange juice, cantaloupe, guava, mango, papaya, raw strawberries, broccoli, Brussels sprouts, green pepper, sweet red pepper.

Fair sources: Honeydew melon, lemon, tangerine or tangerine juice, watermelon, asparagus, cabbage, cauliflower, collards, garden cress, kale, kohlrabi, mustard greens, potatoes and sweet potatoes cooked in the jacket, rutabagas, spinach, tomatoes or tomato juice, turnip greens.

(continued)
1 good source of vitamin A—at least every other day

BREAD—CEREAL GROUP
4 or more

OTHER WHOLESOME FOODS AS NEEDED
To round out meals and meet energy requirements.

Good sources: Dark-green and deep-yellow vegetables and a few fruits, namely: apricots, broccoli, cantaloupe, carrots, chard, collards, cress, kale, mango, persimmon, pumpkin, spinach, sweet potatoes, turnip greens and other dark green leaves, winter squash.

COUNT ONLY IF WHOLE—GRAIN OR ENRICHED.
1 slice of bread or similar serving of baked goods made with whole-grain or enriched flour, 1 ounce ready-to-eat cereal, 1/2 to 3/4 cup cooked cereal, cornmeal, grits, spaghetti, macaroni, noodles, or rice.

Estimation of Calorie Needs

A question that many people ask in planning their daily food intake is: "How do I know how many calories my body needs?" You can obtain a rough estimation of the number of calories required by your body on a daily basis by using these four steps:

1. Convert your weight in pounds to kilograms by dividing it by 2.2 pounds/kilogram.
2. Use this formula:
   - Females \((0.95 \text{ kcal} \times \text{Weight}_{\text{kg}} \times 24 \text{ hours/day})\)
   - Males \((1.0 \text{ kcal} \times \text{Weight}_{\text{kg}} \times 24 \text{ hours/day})\)
3. Multiply the number you calculated in step 2 by 0.4, then add this number to the original.
4. Add 100 kcal. per mile of special exercise per week.

**Example:**

The calorie requirements of a 120 pound female who jogs 7 miles per week:

1. \(120 \text{ pounds} / 2.2 = 54.5 \text{ kg.}\)
2. \((0.95 \text{ kcal} \times 54.5 \text{ kg.} \times 24 \text{ hr.} = 1243 \text{ kcal.})\)
3. \(1243 \times .4 = 497\)
   \(1243 + 497 = 1740\)
4. \(7 \text{ miles} \times 100 \text{ kcal} = 700 \text{ kcals per week}\)
   \(700 \text{ divided by 7 days per week} = 100 \text{ kcals per day}\)
   \(1740 + 100 = 1840 \text{ total kcals required per day}\)

You can check your calculations of your energy needs by the use of the chart on the following page.
## Mean Heights and Weights and Recommended Energy Intake

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AGE (years)</th>
<th>WEIGHT (kg.)</th>
<th>WEIGHT (lb.)</th>
<th>HEIGHT (cm.)</th>
<th>HEIGHT (in.)</th>
<th>ENERGY NEEDS (kcal.)</th>
<th>ENERGY NEEDS (MJ.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants</td>
<td>0.0-0.5</td>
<td>6</td>
<td>13</td>
<td>60</td>
<td>24</td>
<td>kg x 115</td>
<td>(95-145)</td>
</tr>
<tr>
<td></td>
<td>0.5-1.0</td>
<td>9</td>
<td>20</td>
<td>71</td>
<td>28</td>
<td>kg x 105</td>
<td>(80-135)</td>
</tr>
<tr>
<td>Children</td>
<td>1-3</td>
<td>13</td>
<td>29</td>
<td>90</td>
<td>35</td>
<td>1300</td>
<td>(900-1800)</td>
</tr>
<tr>
<td></td>
<td>4-6</td>
<td>20</td>
<td>44</td>
<td>112</td>
<td>44</td>
<td>1700</td>
<td>(1300-2300)</td>
</tr>
<tr>
<td></td>
<td>7-10</td>
<td>28</td>
<td>62</td>
<td>132</td>
<td>52</td>
<td>2400</td>
<td>(1650-3300)</td>
</tr>
<tr>
<td>Males</td>
<td>11-14</td>
<td>45</td>
<td>99</td>
<td>157</td>
<td>62</td>
<td>2700</td>
<td>(2000-3700)</td>
</tr>
<tr>
<td></td>
<td>15-18</td>
<td>66</td>
<td>145</td>
<td>176</td>
<td>69</td>
<td>2800</td>
<td>(2100-3900)</td>
</tr>
<tr>
<td></td>
<td>19-22</td>
<td>70</td>
<td>154</td>
<td>177</td>
<td>70</td>
<td>2900</td>
<td>(2500-3390)</td>
</tr>
<tr>
<td></td>
<td>23-50</td>
<td>70</td>
<td>154</td>
<td>178</td>
<td>70</td>
<td>2700</td>
<td>(2300-3100)</td>
</tr>
<tr>
<td></td>
<td>51-75</td>
<td>70</td>
<td>154</td>
<td>178</td>
<td>70</td>
<td>2400</td>
<td>(2000-2800)</td>
</tr>
<tr>
<td></td>
<td>76+</td>
<td>70</td>
<td>154</td>
<td>178</td>
<td>70</td>
<td>2050</td>
<td>(1650-2450)</td>
</tr>
<tr>
<td>Females</td>
<td>11-14</td>
<td>46</td>
<td>101</td>
<td>157</td>
<td>62</td>
<td>2200</td>
<td>(1500-3000)</td>
</tr>
<tr>
<td></td>
<td>15-18</td>
<td>55</td>
<td>120</td>
<td>163</td>
<td>64</td>
<td>2100</td>
<td>(1200-3000)</td>
</tr>
<tr>
<td></td>
<td>19-22</td>
<td>55</td>
<td>120</td>
<td>163</td>
<td>64</td>
<td>2100</td>
<td>(1700-2500)</td>
</tr>
<tr>
<td></td>
<td>23-50</td>
<td>55</td>
<td>120</td>
<td>163</td>
<td>64</td>
<td>2000</td>
<td>(1600-2400)</td>
</tr>
<tr>
<td></td>
<td>51-75</td>
<td>55</td>
<td>120</td>
<td>163</td>
<td>64</td>
<td>1800</td>
<td>(1400-2200)</td>
</tr>
<tr>
<td></td>
<td>76+</td>
<td>55</td>
<td>120</td>
<td>163</td>
<td>64</td>
<td>1600</td>
<td>(1200-2000)</td>
</tr>
<tr>
<td>Pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+300</td>
<td></td>
</tr>
<tr>
<td>Lactation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+500</td>
<td></td>
</tr>
</tbody>
</table>

Note: The energy allowances for the young adults are for men and women doing light work.

Calorie Distribution

The next step is the appropriate distribution of your calculated calories in the diet between carbohydrates, proteins, and fats. The recommended calorie distribution is as follows:

- 50% of kcal. = Carbohydrate (CHO)
- 20% of kcal. = Protein (PRO)
- 30% of kcal. = Fat (FAT)

To apply this to the previous calculations, take the number calculated of 1840 kcal./day and distribute the calories in this manner:

- 0.5 x 1840 = 50% = 920 kcal. CHO
- 0.2 x 1840 = 20% = 368 kcal. PRO
- 0.3 x 1840 = 30% = 552 kcal. FAT

Next these caloric values must be converted to grams by using these values:

- grams of CHO = kcal. CHO / 4 kcal/gram
- grams of PRO = kcal. PRO / 4 kcal/gram
- grams of FAT = kcal. FAT / 9 kcal/gram

Example:

- \( \frac{920 \text{ kcal. CHO}}{4 \text{ kcal./gram}} = 230 \text{ grams of CHO needed daily} \)
- \( \frac{368 \text{ kcal. PRO}}{4 \text{ kcal./gram}} = 92 \text{ grams of PRO needed daily} \)
- \( \frac{552 \text{ kcal. FAT}}{9 \text{ kcal./gram}} = 61 \text{ grams of FAT needed daily} \)

These calculations can be used to apply the exchange system for meal planning outlined on the following pages.
The Exchange System

The exchange system differs from the four main food groupings in that it pays special attention to kcalories, proportions of carbohydrate, protein, and fat, and portion sizes. The food portions listed together as an exchange group will have approximately the same number of kcalories and the same amounts of energy nutrients (CHO, PRO, and FAT). There are six lists of foods making up the exchange system, and following is a list of the groups and examples of typical representatives of each:

LIST 1: Milk Exchanges: 1 cup skim milk
1 cup yogurt made from skim milk
1 cup buttermilk
1/2 cup evaporated milk

LIST 2: Fruit Exchanges: 1/2 small banana
1 small apple
1/2 grapefruit
1/2 cup orange juice

LIST 3: Vegetable Exchanges:
1/2 cup green beans
1/2 cup carrots
1/2 cup greens
1/2 cup beets

LIST 4: Bread Exchanges: 1 slice bread
3/4 cup ready-to-eat cereal
1/2 cup cooked beans
1/2 cup corn
1 small potato

LIST 5: Meat Exchanges: 1 oz. lean meat
1 oz. chicken meat
1 oz. any fish
1/4 cup canned tuna
1 oz. low-fat cheese

(continued)
LIST 6: Fat Exchanges:
1 tsp. butter
1 tsp. margarine
1 tsp. any oil
1 tbsp. salad dressing
1 strip crisp bacon
5 small olives

Copies of Exchange Lists for Meal Planning may be purchased from:
The American Dietetic Association
430 N. Michigan Ave.
Chicago, Il. 60611
In deciding upon the correct number of exchanges to use from each list, you must consider the CHO, PRO, and FAT values pertaining to each group:

1. Milk Exchanges: 12 g. CHO, 8 g. PRO, and 1 g. FAT
2. Fruit Exchanges: 15 g. CHO, 0 g. PRO, and 0 g. FAT
3. Vegetable Exchanges: 5 g. CHO, 2 g. PRO, and 0 g. FAT
4. Bread Exchanges: 15 g. CHO, 3 g. PRO, and 1 g. FAT
5. Meat Exchanges: 0 g. CHO, 7 g. PRO, and 5 g. FAT
6. Fat Exchanges: 0 g. CHO, 0 g. PRO, and 5 g. FAT

The next step is to distribute the exchanges to give you the grams of CHO, PRO, and FAT desired:

Example:

<table>
<thead>
<tr>
<th># of Exchanges</th>
<th>230 g. CHO</th>
<th>92 g. PRO</th>
<th>61 g. FAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILK 2</td>
<td>(x 12) 24</td>
<td>(x 8) 16</td>
<td>(x 1) 2</td>
</tr>
<tr>
<td>FRUIT 4</td>
<td>(x 15) 60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VEG. 3</td>
<td>(x 5) 15</td>
<td>(x 2) 6</td>
<td></td>
</tr>
<tr>
<td>BREAD 9</td>
<td>(x 15) 135</td>
<td>(x 3) 27</td>
<td>(x 1) 9</td>
</tr>
<tr>
<td>MEAT 6</td>
<td>234 g. CHO</td>
<td>(x 7) 42</td>
<td>(x 5) 30</td>
</tr>
<tr>
<td>FAT 4</td>
<td></td>
<td>91 g. PRO</td>
<td>(x 5) 20</td>
</tr>
</tbody>
</table>

Total calories: 234 g. x 4 kcal/g. = 936 kcal.
+ 91 g. x 4 kcal/g. = 364 kcal.
+ 61 g. x 9 kcal/g. = 549 kcal.
1849 kcal.
Now you are ready to use the exchange system to establish a meal pattern that will suit your lifestyle and preferences:

Example:

<table>
<thead>
<tr>
<th></th>
<th>Breakfast</th>
<th>Lunch</th>
<th>Dinner</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 MILK</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4 FRUIT</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3 VEG.</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9 BREAD</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>6 MEAT</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4 FAT</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

(S = Snack)

The final step in the use of the exchange system is to decide upon a menu, using the meal pattern and the exchange lists as a guide. This may involve an actual written list of food items, or the selection of food items in accordance with your meal pattern throughout the day. The exchange system can be a very useful tool for those individuals interested in weight control and the specific calculation and distribution of their caloric intake.
Exercise and Weight Control

Weight control involves controlling the amount of body fat that you carry. The principles of weight control include weight maintenance, weight gain, and weight loss. In weight maintenance, the calories that you take in equal the calories that you expend in activities or exercise. In weight gain, you are taking in more calories than you are expending. In weight loss, you are expending more calories than you are taking in. Weight loss is achieved through a combination of diet and exercise.

A pound of fat contains 3500 calories thus to lose one pound of fat in a week, 3500 calories divided by seven days equals a 500 calorie deficit per day. This is subtracted from the total number of calories that you calculated previously. A one pound per week weight loss is recommended for a total loss of from 10 to 20 pounds. A two pound per week weight loss is recommended for a total loss of 20 pounds or more:

3500 cal./pound of fat divided by 7 = 500 calorie deficit per day for loss of 10-20 pounds.
7000 cal./pound of fat divided by 7 = 1000 calorie deficit per day for loss of 20+ pounds.

Exercise goes hand-in-hand with diet in the concept of weight control. Recommended exercise involves aerobic activities which promote the supply and use of oxygen. Aerobic activities are exercise such as aerobic dance, swimming, jogging, and bicycling. The recommendations for aerobic exercise include a frequency of a minimum of three sessions per week, a duration of twenty to thirty minutes, and an intensity of 75% of your capacity, or at your training heart rate. Your
training heart rate = 75\% of the difference between your maximum heart rate and your resting heart rate, plus your resting heart rate. Your maximum heart rate = 220 - your age. Your resting heart rate can be determined by taking your pulse and counting the number of pulsations or beats for 6 seconds and then multiplying this by 10 to get the number of heartbeats per minute. Your pulse can be taken at the radial artery which runs up the wrist on the thumb side. To take your pulse, place your index and middle fingers just below the base of your thumb, press lightly, and count the pulsations.

Example:

For a twenty year old person with a resting heart rate of 80 beats per minute:

Maximum Heart Rate (MHR) = 220 - 20 = 200
Resting Heart Rate (RHR) = 80

\[(MHR - RHR) \times 0.75 + RHR\]

\[(200 - 80) \times 0.75 = 90 + 80 = 170 \text{ Training Heart Rate}\]
To give you a general idea of an acceptable weight for a person of your height, the following is a table of suggested body weights:

**Suggested Body Weights**

Range of Acceptable Weight

<table>
<thead>
<tr>
<th>Height (feet-inches)</th>
<th>Men (pounds)</th>
<th>Women (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4'10&quot;</td>
<td></td>
<td>92-119</td>
</tr>
<tr>
<td>4'11&quot;</td>
<td></td>
<td>94-122</td>
</tr>
<tr>
<td>5'0&quot;</td>
<td></td>
<td>98-125</td>
</tr>
<tr>
<td>5'1&quot;</td>
<td></td>
<td>99-128</td>
</tr>
<tr>
<td>5'2&quot;</td>
<td>112-141</td>
<td>102-131</td>
</tr>
<tr>
<td>5'3&quot;</td>
<td>115-144</td>
<td>105-134</td>
</tr>
<tr>
<td>5'4&quot;</td>
<td>118-148</td>
<td>108-138</td>
</tr>
<tr>
<td>5'5&quot;</td>
<td>121-152</td>
<td>111-142</td>
</tr>
<tr>
<td>5'6&quot;</td>
<td>124-156</td>
<td>114-148</td>
</tr>
<tr>
<td>5'7&quot;</td>
<td>128-161</td>
<td>118-150</td>
</tr>
<tr>
<td>5'8&quot;</td>
<td>132-166</td>
<td>122-154</td>
</tr>
<tr>
<td>5'9&quot;</td>
<td>138-170</td>
<td>126-158</td>
</tr>
<tr>
<td>5'10&quot;</td>
<td>140-174</td>
<td>130-163</td>
</tr>
<tr>
<td>5'11&quot;</td>
<td>144-179</td>
<td>134-168</td>
</tr>
<tr>
<td>6'0&quot;</td>
<td>148-184</td>
<td>138-173</td>
</tr>
<tr>
<td>6'1&quot;</td>
<td>152-189</td>
<td></td>
</tr>
<tr>
<td>6'2&quot;</td>
<td>156-194</td>
<td></td>
</tr>
<tr>
<td>6'3&quot;</td>
<td>160-199</td>
<td></td>
</tr>
<tr>
<td>6'4&quot;</td>
<td>164-204</td>
<td></td>
</tr>
</tbody>
</table>

Note: Height without shoes; weight without clothes.

Dietary Guidelines for Americans
and Suggestions for Food Choices

1. Eat a variety of foods daily. Include these foods every day: fruits and vegetables; whole grain and enriched breads and cereals; milk and milk products; meats, fish, poultry, and eggs; dried peas and beans.

2. Maintain ideal weight. Increase physical activity; reduce kcalories by eating fewer fatty foods and sweets and less sugar, and by avoiding too much alcohol; lose weight gradually.

3. Avoid too much fat, saturated fat, and cholesterol. Choose low-fat protein sources such as lean meats, fish, poultry, dried peas and beans; use eggs and organ meats in moderation; limit intake of fats on and in foods; trim fats from meats; broil, bake or boil—don't fry; read food labels for fat contents.

4. Eat foods with adequate starch and fiber. Substitute starches for fats and sugars; select whole-grain breads and cereals, fruits and vegetables, dried beans and peas, and nuts to increase fiber and starch intake.

5. Avoid too much sugar. Use less sugar, syrup, and honey; reduce concentrated sweets like candy, soft drinks, cookies, and the like; select fresh fruits or fruits canned in light syrup or their own juices; read food labels—sucrose, glucose, dextrose, maltose, lactose, fructose, syrups, and honey are all sugars; eat sugar less often to reduce dental caries.

6. Avoid too much sodium. Reduce salt in cooking; add little or no salt at the table; limit salty foods like potato chips, pretzels, salted nuts, popcorn, condiments, cheese, pickled foods, and cured meats; read food labels for sodium or salt contents especially in processed and snack foods.

(continued)
7 If you drink alcohol, do so in moderation. For individuals who drink-limit all alcoholic beverages (including wine, beer, liquors, and so on) to one or two drinks per day. NOTE: use of alcoholic beverages during pregnancy can result in the development of birth defects and mental retardation called Fetal Alcohol Syndrome.

The foods we eat are used by the body to maintain and build body tissues, regulate body processes, supply heat, and thus to sustain life. Proper nutrition through the right food choices helps to prevent illness and promote optimum health. Your physical fitness is a combination of nutrition, exercise, and rest, and you must assume the responsibility for the maintenance of these factors in order to achieve your body's full potential for performance.

This booklet is meant to be used as a guide to improve your ability to make healthy food choices and achieve optimum health, but it is not meant to be a substitute for professional nutrition counseling. The final page of this booklet provides a list of sources of further nutrition information and counseling available on the Ball State campus.
ON-CAMPUS NUTRITION RESOURCES

DEPARTMENT OF HOME ECONOMICS
Practical Arts 150
285-5932

NUTRITION COUNSELING CENTER
Schermer House, Riverside Avenue
285-5955

Fees for services of the Nutrition Counseling Center depend on the particular service you request.

Individual or group nutrition counseling is available for all stages of life, including pregnancy, lactation, infancy, childhood, adolescence, and adulthood. The counseling includes analysis and suggestions about your consumption of vitamins, minerals, fats, carbohydrates, sugars, and calories.

Weight Management Program: The Nutrition Counseling Center and the Human Performance Lab work together to offer an individualized one-year program for weight reduction. This comprehensive program includes cardiorespiratory examinations by monitoring at rest and during exercise on the treadmill, exercise training, individual diet counseling, and behavior modification instruction. For an appointment, call 285-5922.

The director and graduate assistants of the Nutrition Counseling Center are available to speak to groups on a variety of nutrition-related topics.

RESIDENCE HALL DINING SERVICE
Carmichael Hall, McKinley Avenue
285-1967

In addition to providing for the needs of residence hall students, the dining service offers them other free services. Special nutrition counseling, for example, is available for residence hall students with special health concerns. This service also makes general information on nutrition and health available to the whole campus community. You can stop by the RHDS office or call the information number for details.

OTHER RESOURCES

The Student Health Center, Ball Memorial Hospital, and the YMCA offer nutrition counseling and weight management programs.
This project involved the writing and design of a booklet on various topics related to nutrition such as the daily food guide, the exchange system, the calculation of calorie needs, and exercise and weight control. Its purpose is to serve as a guide for individuals beginning college-life or life on their own who are faced with the responsibility for making the correct food choices to maintain their health. It was designed with students on the Ball State campus in mind, and with the intent that the final booklet could be used to provide students with nutrition information along with the orientation materials which they receive from the university. This would provide them with some basic nutrition information to serve as a guide along with sources for further nutrition reference on the campus.

An additional part of the project consisted of the design and distribution of a questionnaire. The purpose of the questionnaire was to determine areas concerning nutrition that the students themselves were not sure of or would like to learn more about. These questions would also help determine the potential use of the booklet by the students. Two-hundred questionnaires were distributed at random. The sample consisted of students living in two of the dorms on the Ball State campus, LaFollette and Studebaker. These dorms were selected because of the representative sample inhabiting them. Both dorms contained both male and female students, and did not contain specific groups or classifications such as those found in the all-female, honors, or senior dorms. The students were asked at random if they
would be willing to fill out a questionnaire on nutrition. Of the two-hundred questionnaires completed, 110 of the students were freshmen, 54 of the students were sophomores, 28 were juniors, and 8 were seniors. All of the students surveyed were either living in the dorm permanently or planning to move off of campus.

The area found to be of the most interest to the students was determining the number of calories required by your body daily. This area was indicated by 110 students. The next area of high interest was weight control, with 91 students showing interest in this topic. Vitamin supplementation received 88 votes of interest, foods to avoid or limit the use of in the diet received 78, the appropriate serving sizes received 66, the most nutritious ways to prepare food items received 63, the number of servings required from each of the food groups each day to make up a balanced diet received 59, the exchange system for meal planning and eating disorders both received 52, followed closely by the importance of exercise with 51, the benefits of eating a healthy diet received 41, the dietary guidelines received 31, and on the lower end of the scale were the types of foods that belong in each group with 19, and the four main food groups with only 9 votes.

The majority of the students surveyed felt that knowledge or increased knowledge concerning these areas would improve their ability to make healthy food choices, with 169 giving a positive response and 26 giving a negative response. This
indicates that there is a need for this type of information to be provided for these students. The response to the question of whether or not to include nutrition information in their orientation to Ball State was not as definitive, with 97 students indicating that they felt it would be helpful and 100 indicating that they did not feel that this information should be included in orientation. Two students were undecided. These results indicate that orientation may not be the best time to get the students' attention concerning nutrition, and that alternative times and locations should be investigated to provide this information. Areas that students indicated interest in other than those listed included: cholesterol, the calorie content of some foods, weight training and nutrition, amino acid supplementation for athletes, and the reasons for avoidance of red meats and animal fats in the diet.
NUTRITION QUESTIONNAIRE

Please circle your answers to the following questions:

Class: Freshman Sophomore Junior Senior

Do you presently live in a residence hall? Yes or No

Do you plan to live off campus? Yes or No

If yes, when? Freshman Sophomore Junior Senior

Have you had any prior nutrition education? Yes or No

If yes, please identify the source(s):

Teachers Parents Friends Books Magazines Television Other__________

Please place a check beside the areas that you are unsure of or would like more information about:

_____ The four main food groups
_____ The number of servings required from each of the food groups each day to make up a balanced diet
_____ The types of food that belong in each food group
_____ The appropriate serving sizes
_____ The exchange system for meal planning
_____ Determining the number of calories required by your body daily
_____ The most nutritious ways to prepare food items
_____ Foods to avoid or limit the use of in the diet
_____ The importance of exercise
_____ The benefits of eating a healthy diet
_____ The dietary guidelines
_____ Vitamin supplementation
_____ Weight control
_____ Eating disorders

Do you feel that knowledge or increased knowledge concerning these areas would improve your ability to make healthy food choices?

Yes or No

Do you think that information on topics such as these would have been helpful if included in your orientation to Ball State?

Yes or No

What other areas are you unsure of or would like more information about?