

The Family Life Cycle - The Adolescent

Summary

A personal fitness program that is personally appropriate and includes the exercise and the food intake necessary for health and well-being.

Materials

Any good comprehensive food and nutrition textbook.

- *What Should I Eat? A Complete Guide to the New Food Pyramid*
 , d'Elgin, Ballantine Books, New York, NY, 2005.
- *"UTHealth:Utah's Healthy Lifestyle Magazine*
 , " April 2006
- *The Body Revolution*
 , Utah State Board of Vocational Education, Karen Stone, State Specialist, 1980
- *Starting Healthy Eating Habits*
 by Oregon State University Extension Service

Background for Teachers

Physical well being is important in every stage of the family life cycle, but at no stage does it attract more attention than during adolescence.

The following information has been extracted from The Body Revolution, a publication of the Utah State Board of Education in 1980, Karen Stone State Home Economics Specialist. Even though the material is from 1980, our habits and challenges regarding health haven't changed.

Physical fitness is becoming more popular all the time. We jog, play racket ball, swim, cycle, hike, ski, and even hang glide. Why is there so much interest in keeping fit? One reason is that Americans have fallen into lifestyles that are pretty soft. We go to school or work and sit at a desk; then we come home and sit and watch T.V.; then we go to bed. During all of that sitting and lying around, our bodies are depositing a lot of our calories into fat cells. And those fat cells add up over time until we're overweight. The more overweight we become, the more we feel like sitting and lying around. It's a vicious cycle. The only way to get out of its grasp is to change our own behavior.

It is important to keep in mind that the physical activity level affects weight in two ways. First, engaging in an endurance exercise (walking, jogging, swimming, etc.) will burn extra calories. Second, exercise will help burn fat instead of muscle tissue. Exercise does this by increasing body enzymes that process fat. It is critical to understand that eating is one element of physical fitness and exercise is the other.

Most of us find it easy enough to eat, we just have a hard time eating the right things. We're surrounded with many foods that provide us with plenty of calories but little nutrition such as, soft drinks, candy, cakes, French fries, and pastries. Sometimes it isn't easy to escape them. We see them when we go shopping. We drive past them nearly every time we get in the car. Friends bring them over because they like us. High calories, non-nutritious (empty calorie) foods are a part of our society and we have to learn to live with the foods without becoming addicted to them.

One woman who participated in a weight loss clinic found that she was drinking three full quarts of Pepsi each day. That's 21 quarts in one week. It started innocently, but gradually became an unconscious habit that she couldn't break. She was consuming about 1500 calories per day in soft drinks that provided almost no nutritional value. And it killed her appetite for the more nutritious foods she should have been eating.

There are some basic rules for having an eating plan that won't starve you, but one that will help you become a healthier person. As you go through this unit, you should remember that you are trying to

make some permanent changes in your eating habits. The suggestions in this unit are not to be used for a few weeks or months____but for your whole life. You'll notice that the lifestyle suggestions you'll learn about in this unit are not radical. We're not suggesting that you start eating six grapefruit and four bananas each day for two weeks straight. We're suggesting a reasonable, balanced, nutritional approach to weight control that includes daily physical activity. It's an approach for everyone--no matter what your weight. You may even be at an ideal weight right now, but afraid that you might start to gain. Whatever your situation, this plan is for you.

The following content is review material pulled directly from the "Food and Fitness" Curriculum Guide. It will help you review the basics of MyPyramid and BMI with you students in the context of building healthy habits for life.

During World War II, the United States Department of Agriculture (USDA) announced the Basic Four as one food guide to help Americans make healthy food choices during the war shortages. The Basic Four divided food into groups according to their common characteristics:

Bread and Cereals - 4 servings a day

Fruits and Vegetables - 4 servings a day

Milk and Milk Products - 4 servings a day

Meats, Poultry, Fish, Eggs, Nuts, and Beans - 2 servings a day

The RDA (Recommended Daily Allowances) has since been another guide to good eating. It, along with the basic four, was meant to assure good nutrition. The basic four was updated to the Food Pyramid in 1992. It provided a better visual of what proportions we should eat, from the wide base of grains (6-11 recommended servings per day) to a narrow tip, specifying that fats and sweets should be eaten "sparingly" (What Should I Eat? A Complete Guide to the New Food Pyramid, d'Elgin, 2005). The USDA felt the Food Pyramid still fell short in sending a complete message on attaining and maintaining a healthy body, so in 2005, the USDA turned the Food Pyramid on its side (literally) to create MyPyramid: Steps to a Healthier You (MyPyramid). Go to www.mypyramid.gov for educational downloads and links. Make sure you are on the correct site and not on .org or .com!

"MyPyramid: Steps to a Healthier You", as the name indicates, is designed to individualize food recommendations and to emphasize the importance of physical activity--two major changes from the former Food Pyramid. It was developed to help consumers better understand the relationship of food intake and daily physical activity to overall health. (Background information and resources are available from the USDA and mypyramid.gov.)

On the MyPyramid logo, the six different-colored vertical bands represent variation in diet (from left to right on black and white diagram above: grains-orange, vegetables-green, fruits-red, fats-yellow, milk-blue, and meat & beans-purple). Each vertical band has a wide base and narrow tip, indicating that all foods from a certain group are not equal (whole wheat bread vs. donut in grains group). The base of each band represents foods with little or no added fat and sugar (whole wheat bread), while the tip represents foods with high amounts of solid fats and added sugars (donut). Make most of your food selections from the base of each group. The bands are of various widths, indicating proportions to eat from each group--grains band is the widest and fats band is the narrowest. You'll also see a new addition to the pyramid in the logo--a person walking up the side of the pyramid. This is to emphasize the importance of daily physical activity. (*What Should I Eat? A Complete Guide to the New Food Pyramid*, d'Elgin, 2005).

With more Americans overweight or obese than ever, it was important to emphasize daily physical activity in addition to food recommendations since obesity is a major contributor to many chronic and life-threatening diseases; including, some forms of cancer, diabetes, heart disease, stroke, high cholesterol, high blood pressure, pregnancy complications, among others. Below are some interesting facts about obesity:

of 22 industrialized countries, the U.S. has the highest obesity statistics

2/3 of Americans over age 20 are overweight

nearly 1/3 of Americans over age 20 are obese

56% of Utah adults are overweight or obese

parental obesity is a stronger predictor of adult obesity than a child's weight

¼ of Utah students from kindergarten-8th grade is overweight or at risk of becoming overweight
the number of overweight public high school students in the state (14,000 students) is enough to fill 410 classrooms

Nationwide, only 10% of school kids walk to school

(sources: *What Should I Eat? A Complete Guide to the New Food Pyramid*, d'Elgin, 2005 and "UTHealth:Utah's Healthy Lifestyle Magazine," April 2006)

Because people were overeating with the ranges as provided by the Food Pyramid, MyPyramid no longer gives general recommendations of daily intake for each group. Instead, on the website, there is a section for the individual to input his/her gender, age, and activity level. The site then prescribes daily recommendations based on individual information.

The recommendations are no longer stated as "servings," which left some doubt, but are listed in either ounces or cups, a term more familiar with everyone. You also receive suggestions for food choices in each group that will best lead to optimal health. This is an excellent feature for the dietician working one-on-one with a client and for your students individually. For the purposes of teaching the concepts of MyPyramid in the classroom we will use throughout the course, the recommended servings for a 2,000 calorie/day eating plan. While male teens and very active female teens could consume more calories, this is a good average for the students that will be in your classroom. Page II-1-23 (source: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion) has a summary of the recommendations for the 2,000 calorie plan as found on www.mypyramid.gov:

Not only does the website give daily serving amounts, but MyPyramid recommends that:

- half of grain servings should be whole

- you eat vegetables from several subgroups (green leafy, orange, etc.) per day

- most fruit choices be actual fruit, not juice

- you choose fat-free or low fat foods from the milk group

- you choose lean meat and poultry and vary your choices, incorporating fish, beans, nuts, peas, and seeds

- you build more physical activity into your daily routine

Soon after the Food Pyramid was first introduced to the public, special interest groups, ethnic groups, and certain food manufacturers came out with their own version of the pyramid. Watch for this to happen to MyPyramid as people and organizations decide what they would do to improve upon MyPyramid's recommendations. Also, MyPyramid is put out by the United States Government. Other countries, like Canada, have their own recommendations and ways of depicting them (Guide to Good Food). Finding these various modifications would make interesting internet research.

All of the changes to the Food Pyramid came about as an effort to merge research from various fields for the most effective consumer tool. The USDA also used the 2005 Dietary Guidelines for Americans, as published jointly every 5 years by the United States Department of Health and Human Services (HHS) and the Department of Agriculture (USDA). The guidelines provide authoritative advice for people two years and older about how good dietary habits can promote health and reduce risk for major chronic diseases. The guidelines remind citizens to be physically active each day, get preventative screening, eat a nutritious diet, and avoid risky behaviors. Go to www.healthierus.gov for more information.

BMI

Body Mass Index (BMI) is a way health professionals use to determine if one's eating and physical activity levels need to be adjusted--if one is overweight or obese. It is a number calculated from a person's weight and height. BMI is a reliable indicator of body fatness for people. BMI does not measure body fat directly, but research has shown that BMI correlates to direct measures of body fat.

BMI is a method of screening for weight categories that may lead to health problems. The use of BMI allows people to compare their own weight status to that of the general population. NOTE: BMI results can be skewed on the very athletic and muscular, as well as the elderly and those who have lost body mass due to dieting. Consult your health care provider for best information for you. (See [BMI Table for Adults](#), resource for Option #1)

BMI and adolescents and children

"Although the BMI number is calculated the same way for children and adults, the criteria used to interpret the meaning of the BMI number for children and teens are different from those used for adults. For children and teens, BMI age- and sex-specific percentiles are used for two reasons:

The amount of body fat changes with age.

The amount of body fat differs between girls and boys.

The CDC BMI-for-age growth charts take into account these differences and allow translation of a BMI number into a percentile for a child's sex and age. For adults, on the other hand, BMI is interpreted through categories that do not take into account sex or age." (www.cdc.gov).

The use of BMI for children and teens allows one to determine risk factor for being overweight or obese as an adult. Go to www.cdc.gov for specifics on BMI and an interactive BMI calculator specifically for teens. (See [BMI Tables for Children and Adolescents](#), resource for Option #1)

Instructional Procedures

LEARNING ACTIVITIES AND TEACHING STRATEGIES

OPTION #1

Using the BMI equations and tables, have students find their BMI and determine in what range it falls. They then need to set goals accordingly--for improvement or maintenance.

OPTION #2

Have the students evaluate their own physical activity levels by using the worksheet, [EVALUATING MY OWN PHYSICAL ACTIVITY LEVEL](#).

OPTION #3

Have the students set physical fitness goals by completing [MY FITNESS GOALS](#).

OPTION #4

Have the students fill out the [FOOD INTAKE RECORD](#). The students will receive more benefit from this exercise if they keep careful records for one week.

OPTION #5

The students will review the basic principles for proper eating by using the handouts on [MyPyramid](#)

OPTION #6

Have the students complete the worksheet, [IS MY DIET BALANCED?](#)

OPTION #7

Have the students find their daily recommended food intake on www.mypyramid.gov. Then have them use "My Pyramid Tracker" for one week to assess the quality of their food choices and physical activity. For extra credit, have them set two fitness goals, either related to diet or physical activity, and implement them for one week, tracking their progress on "My Pyramid Tracker." Have them submit a brief written report of their experience. Make sure your students are on the correct site and not .org or .com!

OPTION #8

To illustrate the reasons for changing to MyPyramid, show the students three different types of shoes: a woman's dress shoe, a child's shoe, and an athletic shoe. Ask students how they would like to pick one of these shoes and wear it all day, all the time, for the rest of their life. Explain that the Food Guide Pyramid as developed in 1993 was more of a "one size fits all" approach to nutrition. Now with MyPyramid, we can individualize for age, gender, and activity level. We get specific recommendations as our activity level and age change throughout our life cycle.

OPTION #9

At the beginning of the semester, fill your flour bins with half white all-purpose flour and half whole wheat flour. Students will use this mix with every recipe. At the end of the semester, discuss the simple step you took to incorporate whole grains into the diet, as recommended by MyPyramid.

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