



Jr. Chef Club Delightful Desserts Lesson 8



Educator Information Preparing to Teach the Lesson

Fruit for Dessert

Fruit is naturally sweet and makes a great dessert with little added fat or sugar. Today's lesson teaches students that a fruit dessert such as peach crisp can satisfy a sweet tooth without too much added sugar and be lower in fat too! They learn that a crisp uses a whole grain (rolled oats) and is much lower in fat than pie or cobbler.

Encourage students to eat fruit-based desserts whenever they want something sweet. Baked apples or pears can be drizzled with a tiny bit of honey or maple syrup to enhance their flavor, or pineapple slices can be grilled on a summer barbeque, or vanilla yogurt teamed up with chopped fruit for a parfait or a fruit salad with lime-honey dressing all make good desserts. Fruit doesn't need to be boring.

Fats—Nutrient and Not

Fat is one of the 6 types of nutrients. This means that we need to eat some fat in our diet because it is essential for good health.

The body uses fat for many functions:

- Absorption and transportation of fat soluble substances, such as vitamins A, D, E, and K.
- Formation of cell membranes—every cell in our body has a thin layer of fatty acids surrounding it, protecting its internal environment.
- Formation of certain regulatory substances in the body, such as prostaglandin (which regulate blood pressure), blood clotting, immune function, etc.
- Padding and cushioning of internal organs.
- Insulation from temperature changes.
- Transports 'flavoring chemicals' to the taste buds on the tongue so makes food taste good!

In Level I, we present "healthy fats" (oils) and unhealthy saturated, trans-fats (solid). During this session be careful not to promote a "fear of fat" in the students; do not give the impression that all fat should be avoided. Rather, focus more on eating

healthy fats, but more fruits, vegetables and whole grains—doing so will automatically decrease fat intake.

Research has shown that too much unhealthy types of fat (saturated fat and trans-fat) can cause health problems. For example:

- **Coronary Heart Disease:** this is the type of heart disease most closely associated with diet. Eating too much solid fat (saturated and trans-fat) floating around in the blood can lead to fatty build-up and formation of plaques in the arteries, eventually blocking blood flow. If oxygen-rich blood is blocked from getting to the heart, the victim suffers a heart attack. Use plastic models and/or pictures to show blocked arteries. High blood pressure is a typical complication of coronary heart disease.
- **Overweight and Obesity:** because fat has more than twice as much energy as other food, it's easy to eat too much. These extra calories often result in too many calories in general and contribute to unhealthy weight gain. Being overweight can raise the risk of developing heart disease, Type 2 diabetes, stroke and certain cancers.
- **Type 2 Diabetes:** this used to be reserved for overweight adults but now children are being diagnosed with it in record numbers. As the rate of childhood obesity climbs so does the number of children who become diabetic. In this type of diabetes the body is no longer as sensitive to insulin as it used to be. Weight loss and exercise help the body regain its sensitivity.
- **Certain Cancers:** breast, prostate and colon cancer are associated with a high fat intake.

The point to make with students is that if we can help prevent the above conditions, by lowering the amount of solid fat in our diet and making sure we choose oils with the essential fatty acids. It is recommended that children ages 4–18 eat 25 percent to 35 percent of their calories according to the 2005 U.S. Dietary Guidelines. If we use an “average” of 30 percent for 4th and 5th grade students who typically eat 1600–2000 calories per day, this means they have a total fat “budget” of 53–66 grams of fat each day, maximum. But rather than focusing on restricting total fat, focus on eating plenty of whole grains, fruits and vegetables—that will automatically bring fat intake into line.

Types of Fat and MyPyramid

For years the standard nutrition message was to decrease total fat. According to the 2005 U.S. Dietary Guidelines decreasing total fat should no longer be the emphasis. Instead, nutrition educators should focus on helping consumers decrease solid fats—saturated fats and trans-fats—while consuming recommended amounts of healthful oils.

The yellow band on MyPyramid represents the healthful oils. Technically, it is not considered a food group (MyPyramid has “five food groups plus oils”). The less

healthy fats are represented by the tip of MyPyramid for each food group high in less-healthy (solid, trans-) fats.

Unhealthful Fats

Solid fats are unhealthful. Saturated fats and trans-fats are both solid at room temperature.

Saturated fats are used to make cholesterol in the body. Too much cholesterol in the bloodstream can result in plaque formation in the arteries, eventually leading to narrowing of these blood vessels. Guidelines recommend no more than 10 percent of calories from saturated fat. The students' saturated fat budget is 20 grams (5 teaspoons).

Trans-fats are worse than saturated fat. Not only do they turn into cholesterol in the body, but they may play a role in decreasing immune function and increasing cancer. Guidelines recommend keeping trans-fat to a bare minimum; therefore there is no Percent Daily Value (percent DV) or "budget" for trans-fats.

Healthful Oils

Foods rich in healthful oils include: canola and olive oils, nuts and nut butters, seeds, fatty fish such as salmon and tuna, avocados and olives. Margarine with no trans-fats is considered an oil.

Fat on Labels

(NOTE: This concept is abstract and may be too advanced for 4th grade). Show students where to find trans-fats, listed right below saturated fat. Manufacturers are required to list trans-fat amounts on the Nutrition Facts panels effective January 2006. Knowing that people are learning to steer clear of this type of fat, many producers have reformulated their products to remove the trans-fat; hopefully not replacing them with saturated fats! Aim for foods with zero grams of trans-fats. There is no percent DV or budget for trans-fat, since they are expected to be kept to a minimum. Foods high in trans-fat include processed foods (crackers, cookies, bakery goods, chips, convenience foods, etc), regular margarines and restaurant-fried foods.

Oils, the monounsaturated and polyunsaturated fats, are not required to be listed on the Nutrition Facts panel although some manufacturers choose to do so.

Make a "Fat Budget" and a "Saturated Fat Budget" poster plus a few "Fat in Foods" display boards. Put 65 grams of shortening in the Fat Budget baggie, 20 grams of shortening in the Saturated Fat Budget baggie. Gather labels of several foods commonly eaten by the students and measure the number of grams of saturated fat listed on the labels into baggies; mount with label on a mini-poster. Divide total grams of fat by 4 to convert to teaspoons, then measure shortening into small baggies. Mount and label on poster boards. Use these to show how common snack foods can use up large amounts of one's saturated fat budget for the day.

Reducing Saturated and Trans-Fats

It's easy to cut out major sources of saturated and trans-fat. By choosing low or nonfat dairy products and lean cuts of meat, large amounts of saturated fat can be eliminated. Choosing naturally low fat snacks such as fruits and vegetables, or pretzels and rice cakes instead of processed foods is a good way to cut down on trans-fat. Limit fast food to once a week or less to further reduce solid fat as well as total fat. Changes such as these can add up to better health.

Food Safety

See the Fight Bac! Web site at: <http://www.fightbac.org/foursteps.cfm> for detailed information about the four steps: clean, separate, chill, cook to prevent foodborne illness.