

# Young Lives At Risk



BY TODD LINDEMAN—THE WASHINGTON POST

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An Integrated Curriculum For The Washington Post Newspaper In Education Program

## A Word About Young Lives at Risk

Sitting in front of a television or computer screen, often with a snack laden with saturated fats nearby, the American public broadened. Parents, schools, medical groups and government agencies neglected to notice that young people were also weighing more — excessively so.

In May 2008, *The Washington Post* published a five-day series on childhood obesity, *Young Lives at Risk: Our Overweight Children*. The guide to children's health was the combined effort of the print and online editions. Post owners, editors and writers in many sections, graphic artists, photographers and videographers, and Web designers worked together to cover many dimensions of this important contemporary issue.

"In ways only beginning to be understood, being overweight at a young age appears to be far more destructive to well-being than adding excess pounds later in life. Virtually every major organ is at risk," Susan Levine and Rob Stein explained in the front page story that began the series.

*Washington Post* News, KidsPost, Metro, Health, Food and Business section articles, photography and graphics are reproduced in this guide. *The Post* NIE program encourages you to read them and to use the activities that are suggested in the following pages.

**Lessons:** Nutrition, exercise, sleep and health habits impact personal well-being and society. Students, parents, the school and greater community need to address the issue of childhood obesity to create healthy citizens now and in the future.

**Level:** Low to high

**Subjects:** Health, Physical Education

**Related Activity:** Art, Journalism, English, Government

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## An Integrated Curriculum For The Washington Post Newspaper In Education Program

### Young Lives at Risk

#### Develop Vocabulary

The vernacular of weight has familiar terms such as "fat," "calories," "cholesterol" — even "obesity." Be sure that students are clear about the meaning of these and less familiar terms they will read and use.

#### Find Your BMI

Invite a guest speaker to talk to students about the importance of not being underweight, overweight or obese, maintaining a healthy weight, and balancing diet, exercise and sleep. This individual should be sensitive to young people's images of themselves and how others may perceive those with weight problems.

There is some debate about the validity of BMI. It may still be a valid number to find for each student. The school nurse or another medical professional might be invited to assist. While other students are reading, in a private area one by one students could be weighed and measured. Prepare a form on which to record this information; include the formula and other information to inform students and their parents about BMI and how it may assist in creating a plan for healthy choices. You may wish to include some Web resources for the family to explore together.

#### Establish Background

KidsPost's "A Heart-to-Heart Chat About Fat" and "Obesity Threatens a Generation" provide introductions to childhood obesity.

With younger students, read and discuss "A Heart-to-Heart Chat About Fat," the first of a five-part KidsPost series on childhood

obesity. You may ask students to do the following:

- Explain the equation: Energy in = energy burned.
- Create math problems to illustrate the concept. For example, Al ate macaroni & cheese (240 calories, 1 g. fat) for lunch; Alicia ate a small pizza (290 calories, 9 g. fat). Both weigh 75 pounds. Shooting hoops for 5 minutes burns 13.25 calories. Jumping rope for 5 minutes burns 29.5 calories. Prepare an exercise plan for each student so the calorie intake will be 215 for lunch.
- What are some of the causes of children being overweight?
- Summarize four ways being overweight harms the body.

Read "Obesity Threatens a Generation" and discuss the informational graphic, "How Obesity Harms a Child's Body." Ask students to summarize the information in five succinct statements. Share these in small groups. Each group is to select two concepts or combine ideas to create two statements about childhood obesity. Share these with the class. Could these be used for daily announcements, banners and PSAs in your school to inform your community?

#### Get Graphic

All of the graphics that appear in *The Post* are the work of a team — researchers, reporters, editors, artists and photographers. Although you do not see the rough, first sketches, the News Art Department's Todd Lindeman

### All of You

[www.bam.gov](http://www.bam.gov)

#### Body and Mind

Games to test knowledge of nutrition, physical activity and your body; from the Centers for Disease Control and Prevention

[www.fns.usda.gov/eatsmartplayhardkids](http://www.fns.usda.gov/eatsmartplayhardkids)

#### Eat Smart. Play Hard.

A treasure chest of activities, worksheets, and more are found in each building along the town square.

[www.kidnetic.com](http://www.kidnetic.com)

#### Kidnetic

"Inner G" body game, "Rock the Kitchen!" recipes and "Bright Papers" about food and fitness

[www.nick.com/letsjustplay](http://www.nick.com/letsjustplay)

#### Let's Just Play

Go Healthy Challenge tracker, fitness journal, activities, tips. Sponsored by Nickelodeon, the William J. Clinton Foundation and the American Heart Association.

[www.healthiergeneration.org/](http://www.healthiergeneration.org/)  
**Alliance for a Healthier Generation**

School health programs, healthier meals and snacks, challenge for healthcare providers and motivation for students to Go Healthy

[www.cspinet.org/](http://www.cspinet.org/)

#### Center for Science in the Public Interest

Press releases, studies, policies and projects to promote nutrition, food safety and sound science.

[www.ubalt.edu/experts/obesity/](http://www.ubalt.edu/experts/obesity/)

#### UB Obesity Report Card

University of Baltimore research; great beginning point for student in-depth research

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shares his preliminary drafts, steps to the completed informational graphic, "How Obesity Harms a Child's Body."

Art students may be asked to work in teams to create an informational graphic.

Teachers may wish to refer to *Informational Graphics: The Visual Dimension*. The January 8, 2008, NIE online guide, found at [www.washpost.com/nie](http://www.washpost.com/nie), provides examples of different types of graphics.

### **Consider Responsibility**

"Inertia at the Top" reports on the government agencies and policy makers who have responsibilities in the area of national health. Students could create a chart with three columns. In the first, list the person or group; in the second, list the positive actions; and in the third, place failures to give attention to this issue or contradictions.

First column entries should include:

- The President
- U.S. Congress
- Centers for Disease Control and Prevention
- Department of Health and Human Services
- The Surgeon General
- U.S. Department of Agriculture
- Federal Trade Commission

After discussing what is or is not being done by officials in the United States, discuss what has been done in Europe to confront childhood obesity.

What ideas do students think are most effective?

Who do students think should have the most responsibility for the health of children? Government agencies and officials? School

officials? Grocery stores and restaurant owners?

### **Start a Business**

"Pitch for a More Healthful Fare Proves a Tough Sell to Schools" is a Business section article about one person looking at a problem and creating a solution (and business). After reading and discussing the article, students could list problems that relate to weight and staying healthy. What business or product might they invent/start to provide a solution (service or business)?

Teachers might have students take a closer look at the organization of the article and kinds of examples that are given. This article begins with an anecdote, the story of one person. It then moves to the national perspective (problem, schools, businesses, government agency). And back to the local angle ("Locally, in an effort to better monitor what items are sold ..."). The remainder of the article provides examples from across the country as well as the metropolitan area.

Why would students need to do similar research to know what is happening around the country, locally and with government agencies as they consider starting a new business?

Articles in the series that focus on Slimming Down Schools can be found online: "A la Carte Menus, Parents Often Thwart Cafeteria Makeovers," "Young Food Critics Offer Schools Insider Help," "In Some PE Classes, Counting Steps to Achieve Fitness" and "Winning Through Losing."

### **Celebrate at School**

Ice cream and cake are essential to American birthday parties. For

## **Eat Well, Be Well**

[www.kp.org/amazingfooddetective](http://www.kp.org/amazingfooddetective)

### **The Incredible Adventures of the Amazing Food Detective**

Eight students have problems related to food. Be a detective to close the cases. Presented in English and Spanish by Kaiser Permanente. Activities to do after solving each mystery.

[www.badfatsbrothers.com/BFB.html](http://www.badfatsbrothers.com/BFB.html)

### **The Bad Fats Brothers**

"Bad fats" get animated as the brothers Sat and Trans. After the fun, Face the Facts where you can take a crash course or calculate daily limits.

[www.spottheblock.com](http://www.spottheblock.com)

### **Spot the Block**

Food facts from the Cartoon Network. Videos and "Block Basics" introduce how to read Nutrition Facts labels.

[www.healthyfridge.org/kids.html](http://www.healthyfridge.org/kids.html)

### **Healthy Fridge Quiz**

Short quiz for kids. Many more heart-related resources on this site for older students and adults.

[www.smallstep.gov](http://www.smallstep.gov)

### **Small Step**

For adults and teens, tip of the day, how to control portions, track activity; links to government programs and PSAs.

[http://fnic.nal.usda.gov/nal\\_display/index.php?tax\\_level=1&info\\_center=4](http://fnic.nal.usda.gov/nal_display/index.php?tax_level=1&info_center=4)

### **Food and Nutrition Information Center**

U.S. Department of Agriculture National Agricultural Library resources include Childhood Obesity Resource List (pdf), Food Labeling Guide and Healthy Meals Resource System.

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elementary school children this has translated into cupcakes and other sweets for their classmates. Read the KidsPost article "A Birthday Celebration Without the Sweets" which presents alternatives from schools in the metropolitan area.

Students may be asked to:

- List the alternative ways to celebrate a birthday in class.
- Select the alternative that they like best. Why do they like it?
- Compare and contrast the nutritional value of a frosted cupcake with an alternative choice.
- Write a short proposal for another way to celebrate birthdays in your class.

Other articles in the KidsPost series are found at [www.washingtonpost.com/wp-srv/health/childhoodobesity/index.html](http://www.washingtonpost.com/wp-srv/health/childhoodobesity/index.html).

### Capture the School Food Scene

Ask students to write a description of lunchtime at your school. Ask them to give enough details that the scene comes to life for someone who has never been to your school. Be sure to include the senses. Share some of these scenes.

Read and discuss "At High School, Pit Stops Add 21,000 Calories in Two Hours." In addition to being an informative article, "Pit Stops" can be used as a model for writing about a national issue and localizing it. Give students "Pit Stops, Calories and the Issues." After they have completed the activity, discuss their answers.

This article and the close reading could be used as stimulus to revise the original description of the school at lunchtime. In the next draft, students would include

observation and some of the rhetorical devices utilized in the article.

After completing the close reading exercise, students may be asked to select an issue, do research, conduct interviews and observations. Their final paper would be an article similar to Marr's that informs the reader. Teams of students, two to five students per issue, might effectively gather information and work together to organize it.

Publish completed articles in a class newspaper for distribution to homes and students, as part of a school newspaper series on issues or in a school display case.

### Give Voice to Choice

Read "Fat School" for an introduction to some special programs for overweight students.

Read "Reflections on 'Fat School'": "People were saying I wouldn't succeed. I wanted to prove them wrong" and "I wish I'd never heard of the place." These two students had very different outcomes from their experiences attending a special school and program to lose weight.

- Compare and contrast the experiences of the two students.
- What reasons are stated or implied about the success of Vicky and failure of Jahcobia to keep off the weight?
- After students have given their points of view, teachers may wish to play Jahcobia Cosom's additional comments about his experiences at Wellspring ([www.washingtonpost.com/obesity](http://www.washingtonpost.com/obesity)). What does this add to their understanding of his dealing with weight?

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## In The Post

[www.washingtonpost.com/wp-srv/health/childhoodobesity/index.html](http://www.washingtonpost.com/wp-srv/health/childhoodobesity/index.html)

**Young Lives at Risk: Our Overweight Children**  
Collected articles, video and audio, interactives, discussion group transcripts, poster and informational graphics from *The Post's* five-part series published in May 2008

[www.washingtonpost.com/supermarket](http://www.washingtonpost.com/supermarket)  
**Buy Better Groceries**

Compare foods for fat, cholesterol, sugar and calories at the interactive supermarket.

[www.washingtonpost.com/wp-dyn/content/video/2008/02/25/VI2008022501088.html](http://www.washingtonpost.com/wp-dyn/content/video/2008/02/25/VI2008022501088.html)

### Obesity

Definition, risks and treatment of obesity. First in a series of videos on obesity.

[www.washingtonpost.com/obesityvoices](http://www.washingtonpost.com/obesityvoices)  
**Insights on a Childhood Epidemic**

Children, parents and experts share knowledge, the cruel things people say, fears and solutions.

[www.washpost.com/nie](http://www.washpost.com/nie)  
**Healthy Decisions**

*Washington Post* NIE guide (May 6, 2008) contains *Post* articles, lesson suggestions and quiz on staying safe during play, exercise and good nutrition. Additional activities and reprints of *Post* articles focus on school lunch, vending machines and fundraisers.

[www.washpost.com/nie](http://www.washpost.com/nie)  
**Sleep**

*Washington Post* NIE guide (Jan. 15, 2002) includes *Post* articles, activities and a sleep journal that relate the importance of sleep to fitness

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- In what ways does a child attending a special program impact a family?
- Does the writer remain unbiased and nonjudgmental in the selections?
- Who was interviewed for each piece? What questions did the reporter ask those who were interviewed? What other questions would you have asked?

Using these two pieces as models, arrange and plan an interview with someone who has attended a weight loss school, been on a special weight loss program, had gastric bypass surgery or faced being overweight. Teachers may arrange for a guest who is willing to be interviewed by the class. Ask if you may tape the session in order to use with students to verify quotations and hone their observation and interviewing skills.

Students should have also read “Obesity Threatens a Generation” and studied the informational graphic, “How Obesity Harms a Child’s Body,” for background knowledge.

View and discuss the online videos at [www.washingtonpost.com/obesityvoices](http://www.washingtonpost.com/obesityvoices). Consider the following:

- Do the individuals reflect different demographics?
- What questions were asked?
- Where was the microphone placed?
- Were different camera angles used?

Plan, tape and edit your own series of interviews on one of the these topics or one of your own related to fitness:

- Breakfast
- Snacks and Hunger Pangs

- Weight and Personal Image
- Balancing schedules, meals and exercise

### Select a Class

Read “Healthy Home Ec” by columnist Sally Squires. Discuss the benefits and drawbacks of a family and consumer sciences class to students, parents and the school. Ask students to give examples from the article to support their ideas as well as their own opinions.

If your school does not have such a class, would students take such a class? Research where this course is taught and its content. Write a proposal for adding this course to your school’s program of studies.

If your school has the course, learn more about what is covered. Write an article for your student newspaper or yearbook about the class. Use this article as a model for including quotations from interviews, observation and facts.

### Read the Charts

“More Than Numbers” provides a variety of information sources. These can be grouped in different ways to give students practice in reading charts and using lists.

Provide students with additional data to put in one of the formats.

### Find Solutions

Read and discuss “10 Facts About Nutrition, Fitness and Weight” from KidsPost and “The Search for Solutions.” What actions do students think are the most effective?

After several days of reading, considering approaches and doing some of their own research and interviews, students should now be ready to find solutions for their town, school and themselves.

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## In the Know

**Body Mass Index (BMI):** Formula for measuring ratio of weight relative to height that is used to estimate a person’s body fat; categories: underweight, normal, overweight, obese.

**Calorie:** Unit of food energy; the amount of a food capable of producing one calorie of energy

**Fat:** One of three nutrients (proteins and carbohydrates are the others) used as energy sources by the body; major component of the “flabby” material of a body

**Nutrient:** Source of nourishment, especially an ingredient in a food (potassium, fiber, vitamins, iron, calcium)

**Nutrition:** Process by which a living organism assimilates food, using it for growth and replacement of tissues

**Obesity:** Unhealthily overweight; a child has a BMI at or above the 95th percentile for his or her age

**Overweight:** Having a BMI at or above the 85th percentile

**Saturated Fat:** Unhealthy fat that is solid at room temperature, coming chiefly from animal food products; examples: butter, lard, meat fat, palm oil. They tend to increase the level of cholesterol in the blood.

**Sodium:** Major positive ion in fluid outside of cells; when combined with chloride, the result is table salt. Too much or too little sodium can cause cells to malfunction.

**Trans Fat:** Unhealthy fat made through the chemical process of hydrogenation of oils. This process increases shelf life and maintains the flavor of the foods that contain them. Found in vegetable shortenings, French fries and some margarines, crackers, cookies and snack foods.

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Have students brainstorm ideas for what could be done in their community. How would they involve the following:

- Government agencies and officials
- School administrators, food services personnel and teachers
- Grocery stores
- Restaurant owners
- Newspapers, television and radio stations
- Parents
- Themselves

Students could prepare a personal action plan with goals, exercise schedule, dietary decisions and nutrition guide.

The possible activities could expand. "Don't Sit on It!" is provided to give students to begin the process. To the action plan section, teachers could add time, equipment, help you will need, audience and expected outcome.

Students could be asked to write a letter to their parents, principals or someone else who

has responsibility for meals and exercise. Students could write a Letter to the Editor (or KidsPost editor). An art class could prepare posters for the school's cafeteria, halls or display case.

Student and community media could create an Eat Well. Stay Well week.

- A broadcast class could prepare 30- and 60-second PSAs.
- Business staffs could seek advertising from restaurants that feature healthy menus.
- TV, radio, Web and print staffs could prepare articles and programs, photography, art and informational graphics to inform students and the public.

■ How about a double truck on lunch choices, including recipes and a school-wide contest to create the healthiest lunches for five days?

Their work could be entered in the Ryan White Excellence in Journalism contest sponsored by the Journalism Education Association, Radio and Television News Directors Foundation and Health Information Network. ■

## Read and Write

Azima, Cricket/The Creative Kitchen

*Everybody Eats Lunch*

Glitterati (2008), ages 3-8

What children eat for their midday meal around the world; puzzles and recipes

Going, K.L.

*Fat Kid Rules the World*

Putnam Juvenile (2003), teen

A 296-pound 17-year-old confronts his weight; realistic problems and characters

Kern, Merilee A.

*Making Healthy Choices*

Starbound Books (2007), ages 9-12

A Mom's Choice Award book. An average American student deals with being overweight, making healthful changes

Nagler, Michelle

*WNBA: Get Fit! Eat Right! Be Active!*

Scholastic (2001), ages 9-12

A guide for girls to a more healthy and fit lifestyle

Rohmer, Harriet & Cruz Gomez

*Mr. Sugar Came to Town*

Children's Book Press (1989)

Two children are enticed away from their grandmother's delicious food; adapted from a puppet show. Also in Spanish.

Webb, Robyn

*You Can Eat That: Awesome Food for Kids*

With Diabetes

Cleveland Clinic (2007)

Meals for restricted diets

[www.jea.org](http://www.jea.org)

**Ryan White Excellence in Journalism**

Print (feature, opinion) and broadcast (feature, PSA) contest for students to inform their student bodies about health issues



BY KATHERINE FREY — THE WASHINGTON POST

An Integrated Curriculum For The Washington Post Newspaper In Education Program

# A Heart-to-Heart Chat About Fat



ILLUSTRATION VIA STOCKPHOTO



• Originally Published May 18, 2008

It's a simple equation, not scientific as much as common sense: Energy in = energy burned.

And what it means, when it comes to the human body, is that the number of calories you take in each day should be balanced by the number of calories you use in walking, climbing stairs, playing outside and doing other activities.

But if what goes in is a lot more than what goes out, you will start to gain weight. And since about 1980 in this country, kids have gained lots of weight. (You can figure the reasons. On the one side, there's too much junk food, high-sugar sodas and super-sized portions. On the other side, there's way too little moving your body. In part, blame cuts in recess and P.E. at school, plus the hours

kids spend in front of TVs and computers.)

The issue isn't whether boys and girls look good in shorts and swimsuits. And it's not about being the fastest athlete on the team. It's about whether you are healthy.

Unfortunately, fat is really, really unhealthy. Researchers have discovered that fat cells produce hormones and other chemicals that can hurt your body when you're young. The damage gets worse if the weight stays with you into adulthood.

This is scary, yes. But it will help you to understand why it's so important to eat well and be active. You want to live a long time, right? And, just as important, you don't want to be limited by painful and serious health problems, right?

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So now you get the picture. Organ by organ, you're putting your health in jeopardy by being overweight — no matter how young you are. What can you do?

Read the stories. Then think about what you eat and do — and, if needed, how you can start to change both. Remember: Energy in = energy burned.

— Susan Levin

**1 Let's start with your heart.** Being heavy forces the heart to work harder, and fat starts clogging the arteries that carry blood to the rest of the body. Those can be dangerous conditions. These days, some kids in elementary school have a risk of heart problems that doctors used to see mostly in people over 50.

**2 Then there's your gallbladder.**

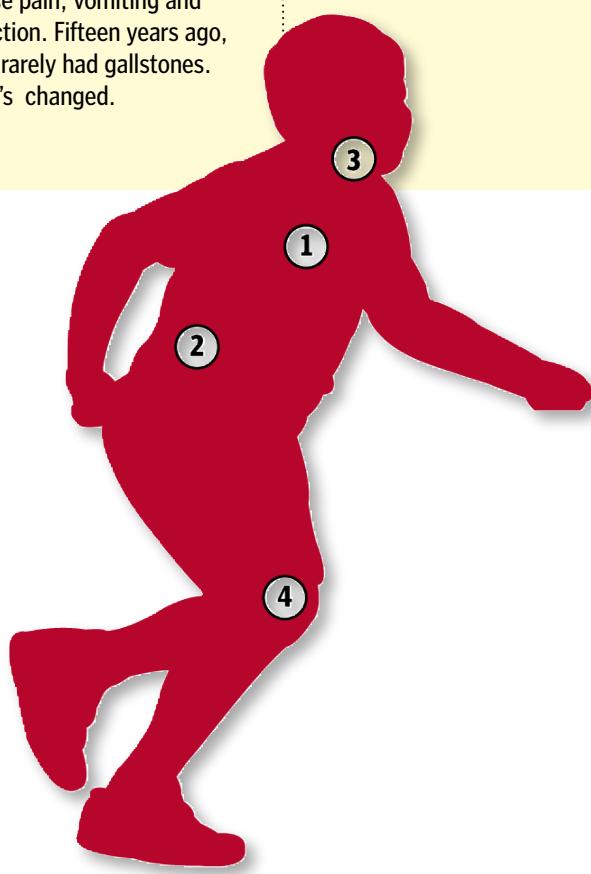
It's small, shaped like a pear and located by the liver. It stores a liquid called bile, which helps your body digest fat. But when a person is overweight, a buildup of cholesterol (a fat-like substance) in bile can form hard stones in the gallbladder. They can cause pain, vomiting and infection. Fifteen years ago, kids rarely had gallstones. That's changed.

**3 Now for breathing and your lungs.**

Overweight kids are more likely to have sleep apnea, which causes them to stop breathing throughout the night. They're also more likely to have asthma, in which the airways of the lungs get narrower and make it more difficult to breathe.

**4 How about your joints?**

At a time when they're developing, they shouldn't carry a big load. That can mess up how your bones grow and can require an operation to fix.



## An Integrated Curriculum For The Washington Post Newspaper In Education Program

**YOUNG LIVES AT RISK | Our Overweight Children**

# A Birthday Celebration Without the Sweets

**W**hen kids at Archisha Singh's school in Loudoun County have a birthday, there are no parents sweeping in with towers of cupcakes dripping with frosting. Little River Elementary is one of a growing number of treat-free schools.

Some school districts, concerned about childhood obesity, food allergies and federal nutrition guidelines, have banned cupcakes altogether.

So what's a kid to do?

Lots, it turns out.

## Stickers Instead of Sweets

At Little River, birthday kids can donate a book, which Principal Joyce Hardcastle will read to their class. She also hands out birthday certificates, badges and special pencils, and makes sure the kids' names are read on the school's morning news.

Parents can send in stickers, pencils and other non-food favors for the class. Kids who donate jump-ropes and other sports gear get their names on a certificate that's displayed at school. Archisha's second-grade teacher lets birthday kids bring in a CD of their favorite music to play during downtime.

Archisha does miss cupcakes, especially the vanilla ones with sprinkles that her mother made for her preschool class. But the Little River way is fun, too.

"I like both ways," she said.

Hardcastle says it's important that the school is not only teaching, but is modeling healthy choices for kids: "There is life after cupcakes, and I think, for the most part, it is a better life. The truth is, if you eat a treat, then it's gone in two seconds. But a book lasts a lifetime. The sports equipment lasts, and kids can use it day after day after day."

## Even More Options

KidsPost asked readers how their schools celebrate birthdays now that many have banned cupcakes.

Thomas Jones, 8, of Gainesville, said kids at Buckland Mills donate books to the library and receive a birthday card. Alexa Regnier, 9, of Fairfax, said her

teacher gives American Collector postage stamps for special occasions. Claire Hinders, 7, of Herndon, wrote that for one of her birthdays "my mom got a bunch of different-colored Post-it note-pads, and I stuck birthday stickers on each one" for classmates. "Instead of bringing sweets and junk food, at our school we bring in hats and assorted party favors," wrote Matthew Gherman, 12, of Poolesville.

Others said they bring in craft projects — with the permission of the teacher.

Alicia Levin, a teacher at Washington Hebrew Early Childhood Center in Potomac, used to watch in dismay as sugary birthday treats sent students bouncing off the walls. On a trip to Israel last year, she discovered a new idea: the Birthday Chair.

"We decorate a chair with

flowers, and the child gets to sit in it all day. We make a crown out of paper flowers, and we sing 'Happy Birthday' to them in Hebrew, English and Spanish," she said. "A lot of parents, instead of sending in treats, have gotten very creative. One sent in little bubbles, another sent in crayons with a little coloring book. ... The kids just love it."

Some schools allow healthy treats such as carrots, celery, fruit cups with vanilla yogurt, and bagels with cream cheese.

Diane Sartori searched online for ideas about what to take to her daughter's kindergarten class at St. Leo the Great Catholic School in Fairfax. She came up with bamboo skewers of fresh fruit that she calls Magic Wands. She cut the fruit with cookie cutters to vary the shapes. Since the kids had been studying the color

## Walk Around the Sun

When kids at the Montessori School of McLean have a birthday, they do a Walk Around the Sun, a Montessori tradition.

The teacher places a lit candle on the floor. In a circle around the candle she lays strips of paper labeled with the months of the year and the seasons.

When Daniel Meakem celebrated his birthday in February, he held a globe and stood between the winter solstice and spring equinox markings —

where his birthday falls. Then he walked around the circle seven times, once for each year of his life, stopping each time on his birth date to tell "something that we achieved or learned during that year of our lives, or something special that we did, like learned how to walk, talk, became a big brother or first time on an airplane," he told KidsPost. "My favorite part is when you get to make a wish and blow out the candle."

Daniel's school allows kids to bring in birthday treats — even cupcakes. But for his special day, Daniel asked his mom to make huge German pretzels. "My class loved it!" he said.

So when twins Davis and Conner Elder turned 8 last week, the class again celebrated with giant pretzels.

— Brigid Schulte

**PHOTOS BY LEAH L. JONES FOR THE WASHINGTON POST**

## Carrots vs. Cupcakes

Here is a comparison of the nutritional value of nine raw baby carrots and one homemade, frosted cupcake.

	40	calories	190
0	calories from fat	80	
0	total fat (in grams)	8	
0	cholesterol (milligrams)	25	
0	sodium (milligrams)	160	
9	total carbohydrates (grams)	26	
PERCENTAGE OF DAILY RECOMMENDED VALUE			
290%	vitamin A	0%	
10%	vitamin C	0%	
2%	calcium	4%	
0%	iron	2%	

SOURCES: Dale Food Company Inc.

Betty Crocker

THE WASHINGTON POST



Daniel, left, helps Conner and Davis cut slices of a giant German pretzel during a birthday party at the Montessori School of McLean.



Walk Around the Sun: Daniel Meakem, right, reads highlights from the lives of twins Davis Elder, left, and Conner Elder.

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# How Obesity Harms a Child's Body

For the first time in history, American children could have a shorter life span than their parents. The cause: obesity. With about a third of all youths overweight or worse, adverse health effects are being seen in alarming proportions. And medical experts fear those problems foreshadow what tomorrow's young adults will face as the years of excess pounds add up.

So what happens inside a child or teen carrying this kind of load? As this organ-by-organ summary shows, obesity kills slowly, causing damage from head to toe, with painful lasting effects.

## HEART

Try squeezing a tennis ball 10 times in one minute, and you will get an idea of how hard a healthy heart works to pump out blood. Excess weight expands total blood volume, forcing the heart to work harder. Over time, the heart muscle thickens, making it more difficult to pump.

Obesity can directly affect the structure and function of the heart. In some cases, the size of the heart muscle and left atrium appears to increase in obese children. Irregularities in the left atrium would affect the heart's ability to fill properly. The pumping action of the hearts of obese children may increase, along with the amount of blood pumped out with each beat.

Obese children are two to three times more likely than normal-weight children to develop high blood pressure and high cholesterol, increasing the risk for heart attacks (and strokes). As a result, more youths are being prescribed medications to minimize the risk; many will be on drugs for life.

*Studies already show that overweight children are at risk of developing heart disease as early as their 20s.*

## LIVER

Fatty liver disease, typically found in adults who indulge in high-fat foods or large amounts of alcohol, now occurs in a third of obese boys and girls, particularly Hispanics. In the short term, it can cause recurrent abdominal pain, infection and fatigue. In the long term, it is linked to scarring and cirrhosis of the liver, liver failure (potentially requiring a transplant) and liver cancer.

### Stages of damage



Fat causes liver to enlarge



Scar tissue forms

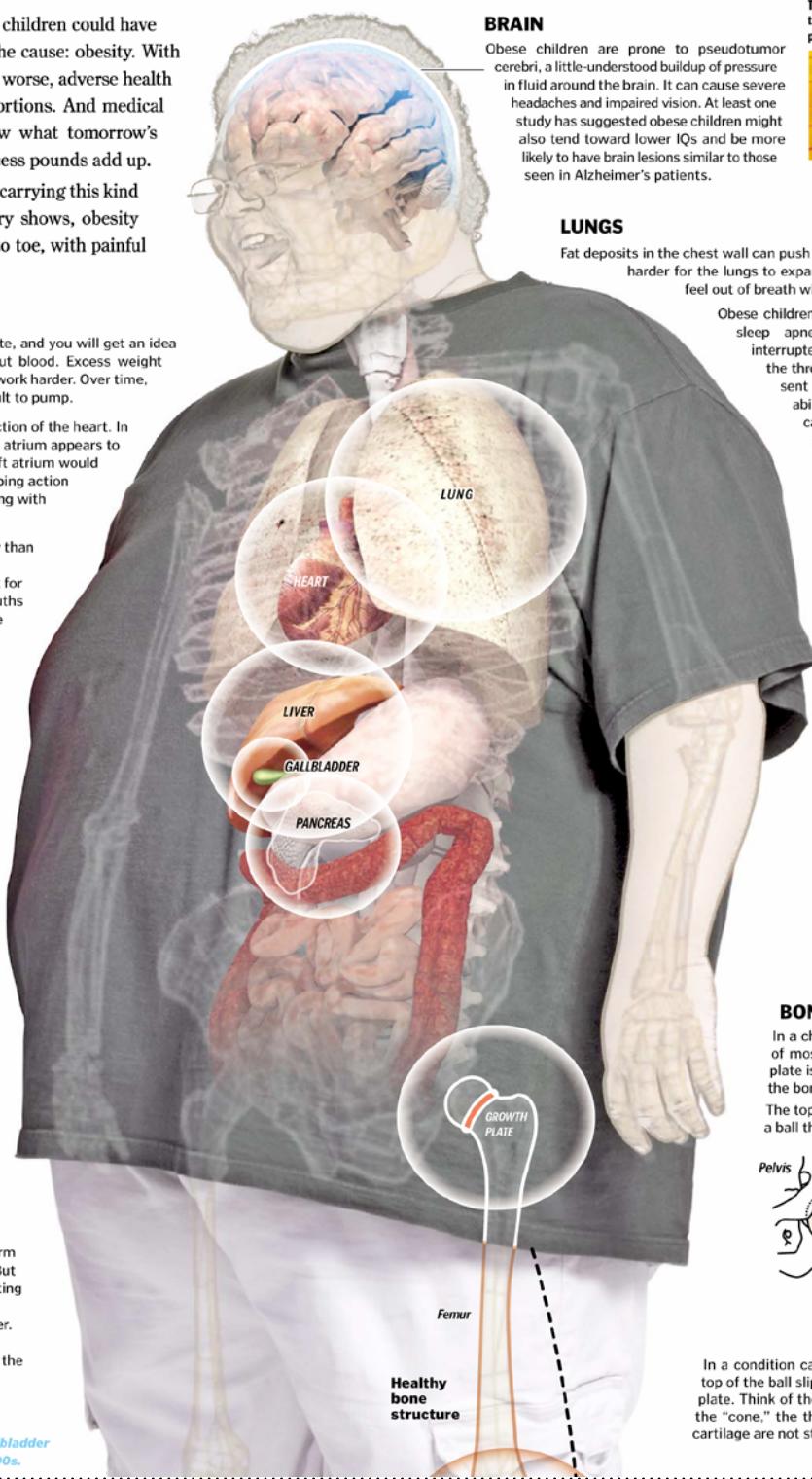


Cirrhosis: Liver cells are destroyed

## GALLSTONES

Gallstones — solid clusters of cholesterol that form in the gallbladder — used to be rare in children. But now, "not a week goes by when you're not operating on a child with gallstones," said surgeon Kurt Newman of the Children's National Medical Center. Obesity is a major risk factor because of how it affects the gall bladder's metabolism, increasing the amount of cholesterol in the liquid bile that helps digest fats. Gallstones can cause pain, vomiting, inflammation and infection.

*Among children 6 to 17, hospitalizations for gallbladder disease tripled from the late 1970s to the late 1990s.*



## BRAIN

Obese children are prone to pseudotumor cerebri, a little-understood buildup of pressure in fluid around the brain. It can cause severe headaches and impaired vision. At least one study has suggested obese children might also tend toward lower IQs and be more likely to have brain lesions similar to those seen in Alzheimer's patients.

To diagnose pseudotumor cerebri, doctors look for the presence of swollen optic nerves called papilledema, seen by examining the back of the eye.



NORMAL



SWOLLEN

## LUNGS

Fat deposits in the chest wall can push against the lungs and diaphragm, making it harder for the lungs to expand and bring in oxygen. An obese child can feel out of breath while standing still.

Obese children are two to five times as likely to develop sleep apnea, in which breathing is temporarily interrupted during sleep when the thicker tissues in the throat and neck sag. As a result, less oxygen is sent to the brain, which can hamper a child's ability to concentrate and learn. Sleep apnea can also heighten the risk of heart attack and stroke.

*Among children 6 to 17, hospitalizations for sleep apnea increased fivefold from the late 1970s to the late 1990s.*

## ASTHMA

Obesity increases the risk of asthma, a disease in which the airways become constricted. Having asthma can trigger a cycle in which a child is unable to be physically active and therefore gains weight.

*Obese children have a twofold risk of asthma.*



NORMAL BRONCHIOLE

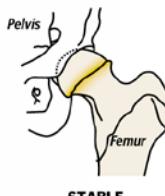


ASTHMATIC BRONCHIOLE

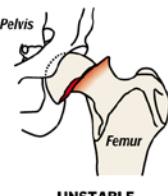
## BONES and GROWTH PLATES

In a child, there are special structures at the end of most bones called growth plates. The growth plate is made of a type of cartilage that lengthens the bone as a person grows.

The top part of the thigh bone is shaped like a ball that fits into the hip socket.



STABLE



UNSTABLE

In a condition called slipped capital femoral epiphysis, the top of the ball slips off the femoral head through the growth plate. Think of the ball as a scoop of ice cream that falls off the "cone" the thighbone. In obese children, the bone and cartilage are not strong enough to bear excess weight.

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*Among children 6 to 17, hospitalizations for gallbladder disease tripled from the late 1970s to the late 1990s.*

### PANCREAS

Obesity causes insulin to not work normally in the body. This is called insulin resistance. Insulin, made in the pancreas, helps bring glucose (sugar) into the body's cells, where it is the main source of energy. When people are obese and insulin-resistant, they have to make more and more insulin. Eventually they cannot make enough insulin to meet these demands, and diabetes develops. "Type 2 diabetes will damage your blood vessels throughout your life and decrease your longevity," said Robert H. Lustig, a pediatric endocrinologist at the University of California at San Francisco. "Once you get Type 2 diabetes, figure you have 20 more years of life and then you are dead. So if you get it at 15, you'll be dead at 35."

*Some case reports estimate a tenfold increase in Type 2 diabetes among children and teens, with African American girls particularly vulnerable.*

### HORMONAL CHANGES

Obese girls are prone to starting their menstrual periods earlier. Because a girl usually stops growing about two years after her period begins, overweight girls might not achieve their full growth potential. Obese girls are also more likely to develop polycystic ovarian syndrome, which can cause unusual hair growth, sterility and other symptoms.

*Research indicates that obese adolescent girls have two to three times the risk of dying by middle age compared with girls of normal weight.*



cartilage are not strong enough to bear excess weight.

### BLOUNT'S DISEASE

Excessive weight on the growth plate of the tibia can cause the lower leg to angle inward, resembling a bowleg. Unlike bowlegs, which tend to straighten as a child develops, Blount's disease is progressive and the condition worsens. This condition is more common among African American children.

### METABOLIC SYNDROME

Obesity can also lead to this relatively new condition. Excess fat in the belly produces noxious factors that interfere with normal glucose and fat metabolism and leads to inflammation in the blood vessels. Metabolic syndrome increases the risk of diabetes fivefold. If the syndrome persists into adulthood, a person is three times as likely to have a heart attack or a stroke.

SOURCES: Jennifer Miller, assistant professor of pediatrics, University of Florida; Jeffrey Schwimmer, pediatric gastroenterologist, University of California at San Diego; surgeon Kurt Newman, Children's National Medical Center; Lori Karol, pediatric orthopedic surgeon, Texas Scottish Rite Hospital for Children; Robert H. Lustig, pediatric endocrinologist, University of California at San Francisco; Angela Sharkey, pediatric cardiologist, St. Louis Children's Hospital; David Ermakowicz, pediatric endocrinologist, University of Louisville; Thomas Reuters; Stephen Cook, professor of pediatrics, University of Rochester; Paul T. Kouratzis, chief of endocrinology, Children's National Medical Center; William H. Dietz, director of the Division of Nutrition, Physical Activity and Obesity, federal Centers for Disease Control and Prevention; David S. Ludwig, obesity program director, Children's Hospital Boston; Matthew Gillman, associate professor of ambulatory care and prevention, Harvard Medical School; Steven Gortmaker, professor of health sociology, Harvard School of Public Health; Michael Goran, professor of preventive medicine, University of Southern California; Sonia Caprio, pediatric endocrinologist, Yale University School of Medicine; Francine Kaufman, director of the Comprehensive Childhood Diabetes Center, Childrens Hospital Los Angeles; David Gozal, pediatrician, University of Louisville; Linda Morrison, associate professor of pediatrics, Heart Center at Cincinnati Children's Hospital Medical Center; Frederic Wondisford, chief of the division of metabolism, Johns Hopkins Children's Center; Institute of Medicine, National Institutes of Health; Journal of the American College of Surgeons

REPORTING BY SUSAN LEVINE, BRENNNA MALONEY, BRIGID SCHULTE AND ROB STEIN  
GRAPHIC BY TODD LINDEMAN — THE WASHINGTON POST

### FAT AND THE BODY

*One pound of fat is about the size of a coffee mug.*

A fat cell is like a plastic bag that holds a drop of fat. The number of fat cells a person has is determined by late adolescence — overeating in childhood creates more. The cells increase and decrease in size depending on how much fat they store. So although overweight children can become lean (as their fat cells shrink), they do not lose the extra fat cells no matter how much weight they lose.

### LOSING WEIGHT

Weight is determined by the rate at which the body stores energy from the food one eats and the rate at which that energy is used. When one is not eating, food is not absorbed. However, the body is always using energy, and the energy must come from internal reserves.

### WHAT IS BMI?

Body mass index is a measure of weight in relation to height that is used to estimate a person's body fat and, by extension, health risks. BMI is the most widely accepted method used to screen for overweight in children and adolescents, but it is not an actual measure of body fat. Being "obese" means that a child has a BMI at or above the 95th percentile for his or her age. A BMI at or above the 85th percentile is labeled "overweight."

## Production Notes: How the Poster Was Conceived and Designed

The full-page obesity graphic that ran in the A-section on May 18, 2008, took several months to produce. During their interviews for the series, reporters Susan Levine and Rob Stein had been collecting information that they thought might be helpful starting points for a graphic. By the time I became involved with the graphic, they had an impressive file already started.

Our objective for the graphic was to look at a body in a systematic way. Not just tell readers that obesity is bad, but really explain and show what extra weight can do to each system or each organ. Central to this was to explain that extra weight in a child is more damaging than extra weight in an adult because the child's body is still growing and developing. In the end, we had more material than we had space to explain this.

Finding a central image for the graphic was our next challenge. Some editors were worried about showing a real kid, but I felt that was essential to the graphic. A number of artists in the News Art Department helped us turn up the image we eventually used — that of an obese boy. Todd Lindeman used his superior skills to illustrate the insides of this boy, walking readers through each system and organ.

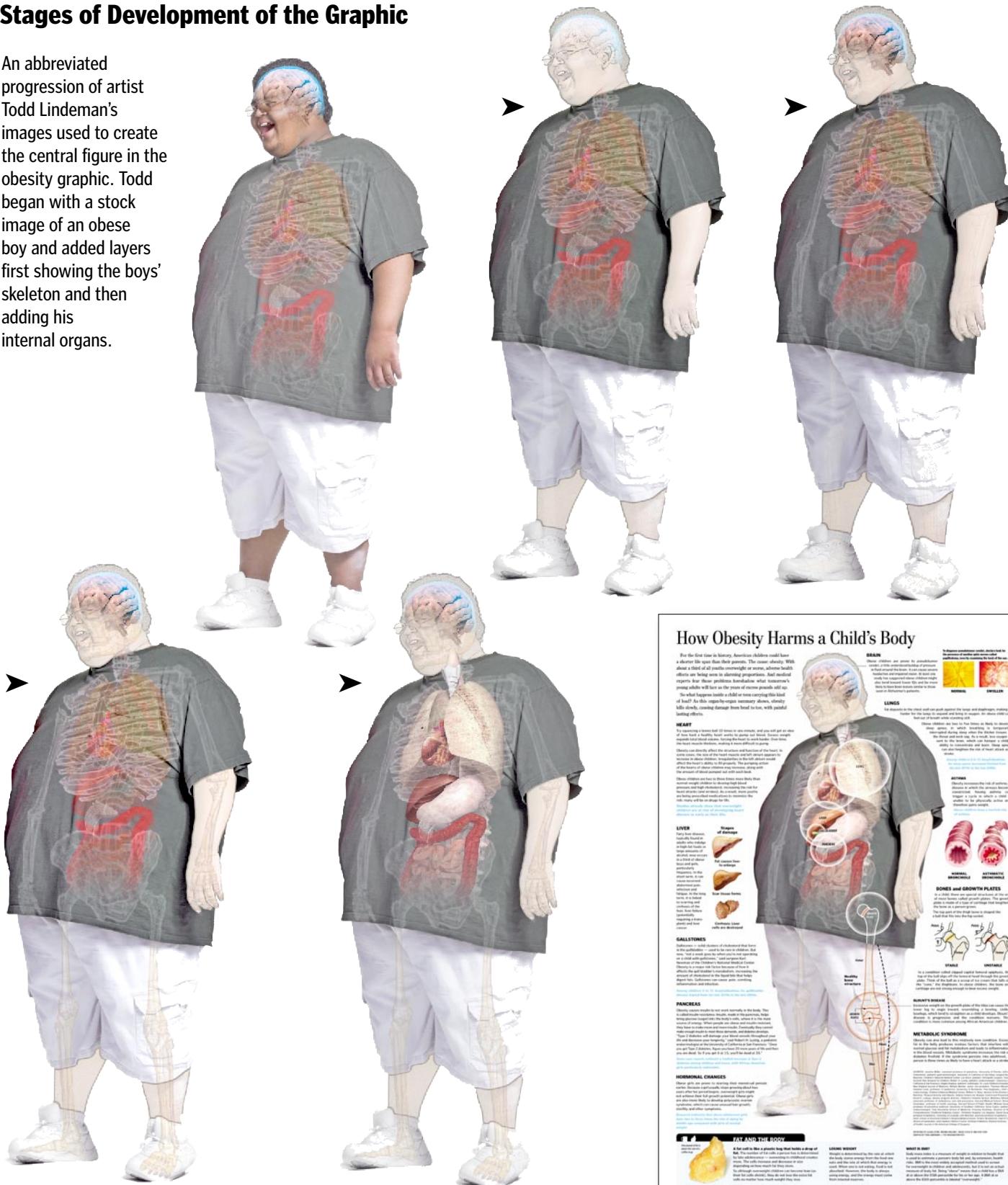
any, many, many editors reviewed the graphic and the text, checking for accuracy and sensitivity to the subject matter. We wanted the graphic to be as informative as possible without turning readers off to a topic that is very important, but also sensitive and scary.

—Brenna Maloney, Assistant editor, KidsPost

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**Stages of Development of the Graphic**

An abbreviated progression of artist Todd Lindeman's images used to create the central figure in the obesity graphic. Todd began with a stock image of an obese boy and added layers first showing the boy's skeleton and then adding his internal organs.

**How Obesity Harms a Child's Body**

**BRAIN** Obese children are prone to ADD/ADHD, which can lead to a shorter life span than their peers. With about a third of all youths overweight or obese, health officials have been pushing for more research and experts fear these problems foreshadow what tomorrow's obesity will bring to the rest of the population.

No one knows exactly what's causing this kind of brain damage. As this image depicts memory shows, obesity may slowly, causing damage from head to toe, with parallel effects on the body.

**HEART** If you're carrying a few extra 50 times as many extra, you just won't get off scot-free. Extra weight puts a strain on your heart, especially if you're carrying extra visceral fat around the waist. Tragically, heart disease starts at a very young age.

Obesity can directly affect the structure and function of the heart. In addition to the heart, the lungs, liver, kidneys, and other organs are also affected. In obese children, irregular heartbeats are common.

Obese children have a 20% higher death rate than non-obese children. They are also more likely to have heart disease, stroke, hypertension, diabetes, and other diseases. Many will go on to develop type 2 diabetes.

**LIVER** Fatty liver disease is the most common chronic liver disease in children. It's caused by large amounts of triglycerides (fats) in the liver. These triglycerides are usually made from carbohydrates, but can also come from protein and fat.

Obesity causes the liver to become enlarged and fatty. This can lead to cirrhosis, which is when healthy liver tissue is replaced by scar tissue. When people are obese, their livers receive less oxygen and nutrients, which can cause damage to the liver.

**LUNG** For the first time in history, Americans children could have a shorter life span than their parents. The cause: obesity. With about a third of all youths overweight or obese, health officials have been pushing for more research and experts fear these problems foreshadow what tomorrow's obesity will bring to the rest of the population.

No one knows exactly what's causing this kind of brain damage. As this image depicts memory shows, obesity may slowly, causing damage from head to toe, with parallel effects on the body.

**ARTERIES** As children grow, they are at risk for heart disease, a condition where arteries become narrowed or blocked. When arteries are narrowed, blood flow is reduced, which can lead to a heart attack or stroke.

**BONES AND GROWTH PLATES** In a child there are special areas of the skeleton called growth plates. These are made of a type of cartilage that lengthens the bone as the child grows.

**SPINE** The spine is the backbone of the body. It is made of 33 vertebrae, the last of which is the sacrum. The sacrum is a large, triangular bone located at the bottom of the spine, which holds the pelvis in place. The sacrum is the largest bone in the human body.

**METABOLIC SYNDROME** This group of conditions are most commonly found in the heart. The condition includes insulin resistance, insulin or glucose levels that are too high, and triglyceride levels that are too high. These conditions are associated with a high risk of heart disease and stroke.

**FAT AND THE BODY** A fat cell is like a plastic bag that holds a drop of oil. When we eat, our body takes energy from the food we eat and stores it in fat cells. When we don't eat, our body uses energy from the fat cells to keep us alive. When we eat again, our body adds energy back into the fat cells.

**LIVING WEIGHT** Living weight is the amount of weight a person has lost since the last time they weighed themselves. It is calculated by subtracting the current weight from the previous weight.

**WHAT IS Bariatric Surgery?** Bariatric surgery is a procedure that makes a person's body feel full for longer, helping them eat less. It is used to treat obesity in children and adolescents. It is also used to treat obesity in adults. The goal of bariatric surgery is to make a person eat less. It allows a person to feel full for a longer period of time.

Name \_\_\_\_\_

Date \_\_\_\_\_

## Don't Sit on It!

*Now that you have read and discussed — becoming informed about the importance of maintaining a healthy weight, making healthy decisions about diet, exercise and sleep — it is time to create an action plan.*

### Do you want to —

- Write a letter to your parents, principal or someone in your community?
- Write a letter to the editor of a local newspaper or KidsPost?
- Create a dance or exercise club to meet before or after school?
- Draw posters to inform your student body?
- Hold a best lunch-of-the-day contest?
- Create a media campaign?

- Prepare 30- and 60-second PSAs.
- Seek advertising from restaurants that feature healthy menus.
- Prepare articles and programs, photography, art and informational graphics to inform students and the public.
- Produce a double truck on lunch choices, including recipes for lunch and snacks.

These are just a few ideas. Now you develop one of the above suggestions or brainstorm a new idea. Once you have decided what you want to do, create your plan of action. What do you need to do to make it happen? Can you do it alone or do you need to get others involved?

What You Want to Do\_\_\_\_\_

Your Action Plan

Name \_\_\_\_\_

Date \_\_\_\_\_

## Pit Stops, Calories and the Issues

*"At High School, Pit Stops Add 21,000 Calories in Two Hours" is a Business section article in a five-part Washington Post series on childhood obesity. In addition to discussing the impact that business decisions might make on the issue, the article can serve as a model to explore the writer's crafting of a piece.*

Complete the following as you do a close reading of the article by Kendra Marr.

**THE FIRST PARAGRAPH** or lede is composed of one sentence.

1. Although descriptive, it contains the news elements of a traditional lede:

Who \_\_\_\_\_ What \_\_\_\_\_

Where \_\_\_\_\_ When \_\_\_\_\_

2. What two words personify the machines?

\_\_\_\_\_ and \_\_\_\_\_

**THE SECOND-FOURTH PARAGRAPHS** reflect the writer's observations.

3. What details help to characterize Ruth Flores?
4. What do the italicized words add?
5. Flores' meal is detailed. What does it add at this point in the article?

**THE FIFTH PARAGRAPH** is composed of a quotation. (We know Marr spoke to her.)

6. What does Flores realize about her lunch choice?
7. How does her quotation help the writer to transition to the "nut" graph, the summary of the article's focus?

**THE SIXTH PARAGRAPH** sets up the government, business and health dilemma.

8. Why is the Agriculture Department involved? What has it identified as a culprit in the childhood obesity epidemic?
9. Who are the consumers? The need met by business?

## Pit Stops, Calories and the Issues | *Continued*

**THE ISSUE IS LOCALIZED** in the remaining paragraphs. Paragraphs 7-9 give readers a sense of what is happening at Bladensburg High School through facts and interviews.

10. State three facts.
  
  
  
11. Why is Daniel P. Townsend a good source to interview?
12. How does his quotation serve as a transition from one section into another in the article?

**SEVERAL RHETORICAL DEVICES** are used in the remaining paragraphs as we enter the cafeteria and meet students. Give examples of each of the following and evaluate how effective you think it is.

13. The use of time
14. Specific vending machine selection codes
15. Providing calorie, sugar, fat content of specific choices
16. Providing the cost of items
17. Naming and/or describing students
18. Quotations
19. The inclusion of the assistant principal

**AN INVENTORY** of total sales, calories and grams of fat consumed and the item not sold is provided near the end of the article.

20. What purpose does this information serve?
21. Since this is a Business article, is it important to indicate who benefits from profits?
22. Is there any irony in the items sold and who receives the profits?

**RATHER THAN CONCLUDE** with the monetary information, the article ends with a scene back at the cafeteria.

23. Quotations from Michael Vincent begin and end the three-paragraph ending. Why is he another good source of information?
24. What does the descriptive middle paragraph add?
25. Who or what do you think “em” is in the last quotation?

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# Obesity Threatens a Generation

## *'Catastrophe' of Shorter Spans, Higher Health Costs*

By SUSAN LEVINE AND ROB STEIN  
*Washington Post Staff Writers*

• Originally Published May 17, 2008

An epidemic of obesity is compromising the lives of millions of American children, with burgeoning problems that reveal how much more vulnerable young bodies are to the toxic effects of fat.

In ways only beginning to be understood, being overweight at a young age appears to be far more destructive to well-being than adding excess pounds later in life. Virtually every major organ is at risk. The greater damage is probably irreversible.

Doctors are seeing confirmation of this daily: boys and girls in elementary school suffering from high blood pressure, high cholesterol and painful joint conditions; a soaring incidence of type 2 diabetes, once a rarity in pediatricians' offices; even a spike in child gallstones, also once a singularly adult affliction. Minority youth are

most severely affected, because so many are pushing the scales into the most dangerous territory.

With one in three children in this country overweight or worse, the future health and productivity of an entire generation — and a nation — could be in jeopardy.

"There's a huge burden of disease that we can anticipate from the growing obesity in kids," said William H. Dietz, director of the Division of Nutrition, Physical Activity and Obesity at the federal Centers for Disease Control and Prevention. "This is a wave that is just moving through the population."

The trouble is a quarter-century of unprecedented growth in girth. Although the rest of the nation is much heavier, too, among those ages 6 to 19 the rate of obesity has not just doubled, as with their parents and grandparents, but has more than tripled.

Because studies indicate that many will never overcome their overweight — up to 80 percent of obese teens

become obese adults — experts fear an exponential increase in heart disease, strokes, cancer and other health problems as the children move into their 20s and beyond. The evidence suggests that these conditions could occur decades sooner and could greatly diminish the quality of their lives. Many could find themselves disabled in what otherwise would be their most productive years.

The cumulative effect could be the country's first generation destined to have a shorter life span than its predecessor. A 2005 analysis by a team of scientists forecast a two- to five-year drop in life expectancy unless aggressive action manages to reverse obesity rates. Since then, children have only gotten fatter.

"Five years might be an underestimate," lead author S. Jay Olshansky of the University of Illinois at Chicago acknowledged recently.

CONTINUED ON PAGE 18

## How We Got There

Over four decades, many things have added up to make people more prone to obesity, from larger serving sizes in food and drink to devices that encourage people to sit for long periods.

### CULTURAL MILESTONES



Trend begins toward larger portions, led by food manufacturers, fast-food eateries and national chain restaurants.

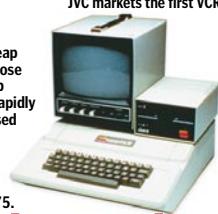
1970 U.S. child obesity estimated at 4 percent.

1972 Increase In Weight Body weight for 10-year-olds, in pounds

1971-74 1988-94 1999-2002

75.3 82.1 84.9

Use of cheap high-fructose corn syrup expands rapidly in processed foods and soft drinks starting about 1975.



Apple II computer debuts. JVC markets the first VCR.

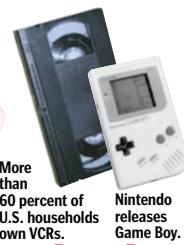


McDonald's sells the first Happy Meal.



Rates of overweight among children and adolescents start to climb sharply after years of relative stability.

GOVERNMENTAL TRENDS



More than 60 percent of U.S. households own VCRs.

Nintendo releases Game Boy.

1984 Congress urges state and local governments and school systems to provide daily physical education programs to all grades.

1987

1988

1989

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The epidemic is expected to add billions of dollars to the U.S. health-care bill. Treating a child with obesity is three times more costly than treating the average child, according to a study by Thomson Reuters. The research company pegged the country's overall expense of care for overweight youth at \$14 billion annually. A substantial portion is for hospital services, since those patients go more frequently to the emergency room and are two to three times more likely to be admitted.

Given the ominous trend lines, the study concluded, "demand for ER visits, inpatient hospitalizations and outpatient visits is expected to rise dramatically."

Ultimately, the economic calculations will climb higher. No one has yet looked ahead 30 years to project this group's long-term disability and lost earnings, but based on research on the current workforce, which has shown tens of millions of workdays missed annually, indirect costs will also be enormous.

Childhood obesity is nothing less than "a national catastrophe," acting U.S. Surgeon General Steven Galson has declared. The individual toll is equally tragic. "Many of these kids may never

escape the corrosive health, psychosocial and economic costs of their obesity," said Risa Lavizzo-Mourey, president of the Robert Wood Johnson Foundation, which has committed at least \$500 million over five years to the problem.

The cycle of obesity and disease seems to begin before birth: Women who are overweight are more likely to give birth to bigger babies, who are more likely to become obese. "And so you build it up over generations," said Matthew Gillman, associate professor of ambulatory care and prevention at Harvard Medical School. "You get an intergenerational vicious cycle of obesity and disease."

In-utero exposure is just part of an exceedingly complex picture. Patterns of eating and activity, often set during early childhood, are influenced by government and education policies, cultural factors and environmental changes. Income and ethnicity are implicated, though these days virtually every community has a problem.

In affluent Loudoun County, more than a third of 2- to 5-year-olds are overweight. In some lower-income wards in the District, almost half of all schoolchildren and pre-adolescents fit that label. In middle-class Prince

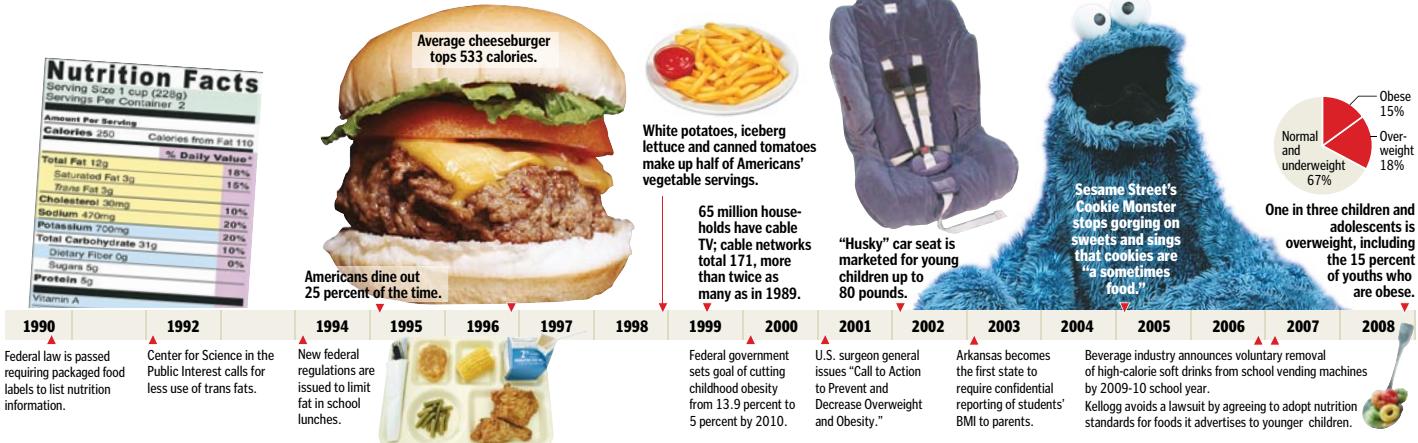
George's County, nearly a quarter of all children through age 17 are overweight.

The extra pounds appear to weigh more heavily on bodies that are still forming. Fat cells, researchers have found, pump out a host of hormones and other chemicals that might permanently rewire metabolism.

"A child is not just a little adult. They are still developing and changing. Their systems are still in a process of maturing and being fine-tuned," said David S. Ludwig, an obesity expert at Children's Hospital in Boston. "Being excessively heavy could distort this natural process of growth and development in ways that irreversibly affect the biological pathways."

As many as 90 percent of overweight children have at least one of a half-dozen avoidable risk factors for heart disease. Even with the most modest increase in future adolescent obesity, a recent study said the United States will face more than 100,000 additional cases of coronary heart disease by 2035.

The internal damage does not always take medical testing to diagnose. It is visible as a child laboriously climbs a flight of stairs or tries to sit at a classroom desk, much less rise out of it. ■



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# Inertia at the Top

## *Belated, Patchy Response Further Hamstrung By Inadequate Federal Attention, Experts Say*

BY SUSAN LEVINE AND LORI ARATANI

Washington Post Staff Writers

• Originally Published May 19, 2008

The problem at first was that the problem was ignored: For almost two decades, young people in the United States got fatter and fatter — ate more, sat more — and nobody seemed to notice. Not parents or schools, not medical groups or the government.

But since the alarm was finally sounded in the late 1990s, the problem has been the country's reaction: a fragmented, inchoate response that critics say has suffered particularly from inadequate direction and dollars at the federal level.

"The sense of this as a national health priority just doesn't come through," said Jeffrey P. Koplan of Emory University, a former director of the Centers for Disease Control and Prevention and chairman of the Institute of Medicine's 2004 study of childhood obesity. The top recommendation of that seminal report was for the government to convene a high-level, interdepartmental task force to guide a coordinated response. No such body has been assembled.

Contrast that with the offensive mounted in European countries: France mandated health warnings on televised food ads. Spanish officials reached agreement with industry leaders on tighter product labeling and marketing as well as reducing fat, salt and sugar in processed foods.

Britain has gone the farthest, restricting food ads on TV programs catering predominantly to children and pulling sweets and sweetened drinks from schools. Eighty-five percent of all grades have at least two hours of physical education a week. The 2011 goal is five hours.

"The whole of the government has signed up," Will Cavendish, director of health and well-being, said at a conference in Washington last month. Britain's Healthy Weight, Healthy Lives program is backed

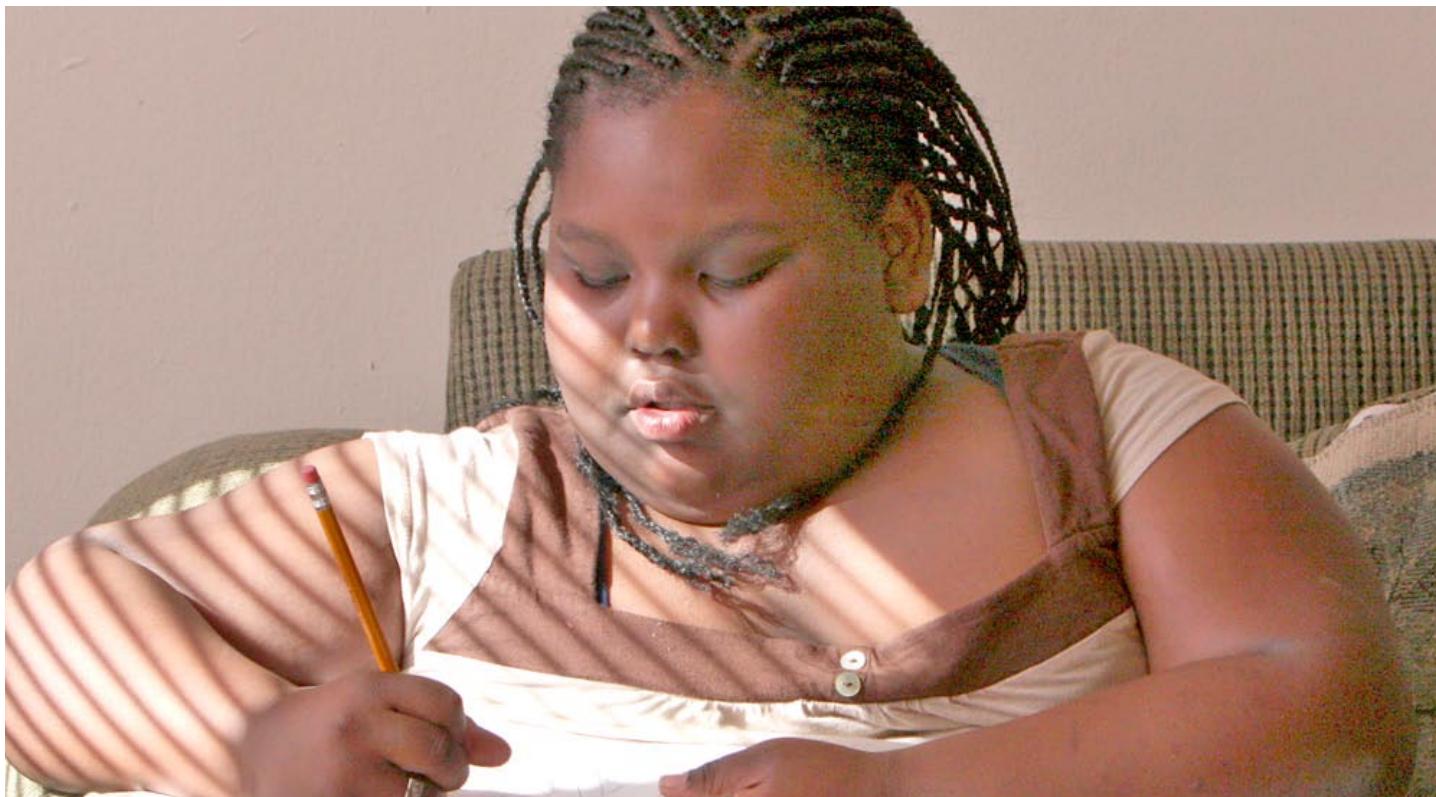
CONTINUED ON PAGE 20



BY CAROL GUZY — THE WASHINGTON POST

**Jayonni Doy, a quiet ten-year-old with an effervescent smile who likes to play basketball, learned about fitness and nutrition at the FitNut program in Southeast Washington.**

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BY CAROL GUZY — THE WASHINGTON POST

**Jayonni Doy's grandmother, Vickie Doy-Scott, is worried that the family has been unable to find another fitness program.**

CONTINUED FROM PAGE 19

by \$600 million in funding over three years.

There's no question that the U.S. epidemic won't be reversed by federal fiat alone; responsibility lies also with individuals, the health community, corporations, local governments and others. Still, health experts insist that strong leadership from the top is crucial. They see the Bush administration falling short of expectations and few real champions in Congress.

"This probably will contribute more to our health-care bill than anything else over the next 50 years," Koplan said.

The first signs of trouble appeared in the late 1970s as rates of overweight that had been relatively stable for years started to rise. In retrospect, they

were reflecting societal, technological and policy shifts that would turn the youngest generation into the heaviest to date.

For starters, with more women working outside the home, families were eating more takeout or processed food. Spurred by the profit margins of volume production, fast-food restaurants pushed larger portions. Gadgets such as remote TV controls and video games meant children were planted for longer periods in front of televisions and computers. And on and on.

Through the 1990s, the waistline expansion accelerated. On campuses, once-rare vending machines multiplied as administrators signed exclusive contracts giving their schools a share of sales; the money was considered essential for band uniforms, sports equipment and other unfunded extras.

Soon, soda and chips were a ubiquitous part of millions of students' days. That it happened as many school systems minimized recess and physical education proved disastrous.

Federal officials defend their record, saying they have worked "resolutely and steadily" in the past eight years to combat obesity. They calculate that the Department of Health and Human Services has spent \$4.5 billion on prevention, treatment and research since fiscal 2003, although programs that broadly address chronic disease are part of the total. Obesity-specific initiatives include Web-based public education campaigns, public service announcements, new dietary guidelines and, coming by late fall, first-time guidelines on physical activity.

CONTINUED ON PAGE 21

## An Integrated Curriculum For The Washington Post Newspaper In Education Program

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### Acting Surgeon General

Steven K. Galson declared childhood obesity his main priority upon taking office last year and began traveling this spring to highlight jurisdictions that have been especially engaged. As head of an HHS council on the subject, he has received "incredible support" in focusing the department's attention, he said.

A White House spokeswoman said President Bush is equally concerned. Emily Lawrimore noted his speeches about fitness and the need for parents to be role models. He met with corporate executives last year to encourage advertising changes that would help youths make better food choices and stay active. "He thinks childhood obesity is a serious problem in our country that places a tremendous burden on American families, our economy and future generations," she said.

Yet the president has proceeded on often contradictory tracks. Although he launched an expansive HealthierUS project in 2002, he has tried to kill or cut some prominent federal efforts aimed at overweight children and teens. His 2009 budget, for example, would end a \$75 million program to help schools and communities expand physical-education offerings and purchase equipment. It would maintain at current levels obesity grants to states, which have enough money to benefit just half the country.

Critics say the White House has not pushed the issue much beyond personal responsibility. They say the administration and lawmakers are not aggressively pressing for industry or food policy changes.

Only in December did the U.S. Department of Agriculture modify the Women, Infants and Children nutrition program to assist low-income families in buying fresh fruits and produce. The addition was blocked for a decade by

politics and by industry sectors worried that WIC's food packages would contain less milk, eggs and cheese. Yet those traditional subsidies have helped to tip the scales. Nearly half of toddler and preschool WIC recipients are overweight or obese in some communities.

And the USDA's school breakfast and lunch program continues to sell whole milk and sweetened flavored milk. Mexico has eliminated both from its poverty programs and intends to do the same in schools.

Into the breach have stepped foundations committing hundreds of millions of dollars. State and local governments have also stepped up, passing myriad measures since 2005 to strengthen school nutrition standards and add recess and physical-education requirements. From churches and community centers to Scout troops, organizations large and small are trying to again get children moving or to teach them about better eating.

Influential groups have worked with food companies to limit marketing and availability of certain products to younger children. In the first major pact, the beverage industry acceded to removing many soft drinks from campus vending machines by the 2009-10 school year. "They understand they're under siege," said Kenneth R. Stanton, an assistant professor of finance at the University of Baltimore.

Stanton has become known for the UB Obesity Report Card, which he and colleagues first released in 2003. Few legislatures were debating anti-obesity bills then, much less enacting them. Three years later, Stanton found that more than half the states had approved panels on obesity, and a dozen had agreed to test students' height and weight to track body mass index.

But advocates say the limited power of persuasion and lesser state and local resources make forceful federal measures imperative. Jeffrey Levi urges an all-

hands mobilization similar to what the government has demanded in advance of a possible flu pandemic.

"Obesity has potentially as great, if not greater, an impact on public health," said Levi, executive director of Trust for America's Health.

The USDA plays a central and often inconsistent role on the issue. It is the department behind the pyramid that shows Americans how fruits and vegetables should be consumed more than fatty foods, yet it supports companies' development of products that flout those guidelines. Pizza Hut's stuffed-crust pizza is among critics' ready examples.

"The conflict of interest is inherent in the USDA," said Kelly Brownell, professor of psychology at Yale University and co-founder of the Rudd Center for Food Policy and Obesity. "Their main task is to promote agriculture and food, and their secondary task is to establish nutrition policy."

Congress has paid tepid attention to childhood obesity and repeatedly has rejected efforts of Sen. Tom Harkin (D-Iowa) to establish national standards for what is sold in schools outside of USDA-regulated hot meals. And a measure by Sen. Edward M. Kennedy (D-Mass.), to create a federal commission on childhood obesity prevention, among other actions, wasn't even debated.

A congressional request did prompt the Federal Trade Commission to order food and beverage companies to provide details on their activities and expenditures on food marketing to youth. A report should be public by fall. But whatever the commission recommends will not go further than self-regulation. Three decades after the FTC proposed a ban on TV ads for sugary, child-targeted foods that might cause dental problems, it remains severely restricted in any additional restraints it is allowed to impose.

By Congress. ■

An Integrated Curriculum For The Washington Post Newspaper In Education Program

# Smarts About Snacks

## *Pitch for More Healthful Fare Proves a Tough Sell to Schools*

By KENDRA MARR  
*Washington Post Staff Writer*

• Originally Published May 19, 2008

Stephanie McMahan thought her idea could not miss: With childhood obesity and pre-diabetes on the rise, why not fill school vending machines with healthful snacks and drinks?

By last year, McMahan of Sterling had stockpiled items to fill her proposed Smart Snacks vending machines. The snacks and drinks included Clif Bars,

baked pita chips and all-natural rice and corn puffs.

Today, McMahan has eight contracts, which include a gym, a hospital and a martial arts studio. But after taking her pitch to a number of local schools, she has a machine at only one: Manassas Park High, with 600 students.

"We've had a really hard time, surprisingly," said McMahan, 30, whose son turns 2 in July.

For years, consumer advocates and nutritionists have said that schools should stock more healthful snacks, but schools and districts have been reluctant to make that change. Advocates say a

number of obstacles have slowed efforts to overhaul the nutritional quality of snacks and drinks.

Vending contracts with soft drink companies, for example, support a vigorous microeconomy. Budget-strapped principals have signed lucrative deals with Coca-Cola and PepsiCo. For a cut of the sales, schools can buy band uniforms and other must-haves, while the company gets exclusive rights to sell its products on campus. A 2005 report by the Government Accountability

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### YOUNG LIVES AT RISK | Our Overweight Children



BY KATHERINE FREY—THE WASHINGTON POST

**The Good-Food Pitch:** Stephanie McMahan, with son, Aidan, stocks vending machines with healthful snacks at places like Jumping Jack Sports, a gym for children.

### The Quick Grab

*Top snacks in dollar sales from vending machines, according to Automatic Merchandiser.*

1. Snickers
2. Doritos Big Grab
3. Peanut M&Ms
4. Cheetos Crunchy
5. Cheez-It Original
6. Twix Bar
7. Strawberry Frosted Pop-Tarts
8. Rice Krispies Treat
9. Lay's Chips
10. Mrs. Freshley's Jumbo Honey Bun



A 2001 Harvard School of Public Health study found that for each soda or juice drink a child drinks a day, the child's odds of becoming overweight increase 1.6 times.

As of 2006, 9.6 percent of vending machines were in schools or colleges, according to Automatic Merchandiser's State of the Vending Industry report.

■ **Government stood by as kids got fat, critics say.** | A1

## An Integrated Curriculum For The Washington Post Newspaper In Education Program

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Office found that almost 75 percent of high schools had signed exclusive soft drink contracts.

Recent studies have challenged the sentiment that junk food is a necessary evil for schools. The Center for Science in the Public Interest, which has been campaigning to get junk food out of schools nationwide, found that on average schools raise 33 cents for every dollar that students spend at soft drink machines in a 2006 study of 120 contracts in 16 states.

The commission paid by Smart Snacks is 10 to 15 percent of net profit after \$500 in sales.

"We do pay commissions, so I don't know what the problem is," McMahan said. "They tell me, 'We're under contract,' or 'We're not interested.' "

Some changes are on the way. In 2006, the Alliance for a Healthier Generation, which is helping to fight childhood obesity, reached agreements with representatives of Coca-Cola, PepsiCo, Cadbury Schweppes and the American Beverage Association to limit portion sizes, reduce calories and remove all sugared sodas from schools nationwide by the 2009-10 school year. Campbell Soup, Dannon, Kraft Foods, Mars and Frito Lay have announced their own voluntary nutrition guidelines with the alliance.

Locally, in an effort to better monitor what items are sold, Montgomery County officials reasserted control of vending contracts this school year. Such contracts were previously negotiated at the school level. As beverage contracts expire at individual schools, they'll move to a district-wide program.

Nearly three years ago, after Bladensburg High School opened its revamped five-story building, Prince George's County also wrested control of the high school's vending machines from outside vendors. The district negotiated



BY CAROL GUZY — THE WASHINGTON POST

**Choices on the Run:** In addition to junk food, students at Bladensburg High School can buy more healthful snacks in some of its vending machines.

with Bladensburg's principal to ban carbonated drinks and install district-run vending machines stocked with baked chips and fruit juice in the cafeteria, said Daniel P. Townsend, director of the district's department of food and nutrition services.

Today, the snacks are a small part of the district's \$60 million cafeteria business, and the experiment is successful and growing, Townsend said. The district has installed an additional 30 fruit juice machines at other schools.

Next year, the county plans to solicit a district-wide bid for a vending machine operator instead of allowing each school to negotiate on its own. As part of the contract, the school district would regulate the food sold. Townsend said he hoped to set up a revenue-sharing program with schools so principals would not lose discretionary funding.

"After many years of not talking about it and competing against each other,

we're giving them a piece of the pie to provide kids with a healthy meal," Townsend said.

In arguing against machines with fresh and more healthful food, schools say perishables such as fruit and yogurt do not keep as well as preservative-laden snacks. If uneaten, the food is wasted and so are the potential proceeds.

Although some of McMahan's machines have adequate refrigeration, she hesitates to stock perishables unless she knows demand will be high.

"I have tried smoothie-like items and they do okay," McMahan said, "but I wish kids would eat more of that. It's a very new concept."

In California's Mount Diablo Unified School District, northeast of San Francisco, food service officials are working out the glitches in a new breed of vending machines serving such chilled

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breakfast foods as juice and bagels. In Prince George's County, Townsend is looking into machinery that can store and vend complete lunches, including such perishables as fruit.

There is also the notion that schoolchildren will not eat healthful foods.

"Kids, even adults, come to expect that certain foods are kid foods," said Margo Wootan, director of nutrition policy at the Center for Science in the Public Interest. "We tend to feed kids food that's heavily marketed because kids are familiar with them and easily accept them."

So instead of replacing the snacks, some schools across the region are restricting the operating hours of vending machines to limit consumption of junk food.

In a study by the Agriculture Department and Centers for Disease Control and Prevention that surveyed 16 schools before and after improving nutritional standards, 12 increased revenue and four reported no change, indicating that students would eat more nutritious foods if available.

"Kids are making decisions that affect their long-term health," Wootan said. "And they're making these decisions without their parent being present. All food choices for kids at school should be healthy."

Although Bladensburg still sells such snacks as Mrs. Freshley's Powdered Sugar Mini Donuts, taking the reins on sales is the first step in reforming the snack business in schools, Townsend said. Nestle's Nesquik milkshakes, with calcium and Vitamins A, C, D, and Snapple 100% Juiced, with calcium and Vitamins A, C, E, have replaced Coca-Cola, which has no vitamins.

The drinks are hardly sugar-free or low in calories, however. In terms of sugar and calorie content, a 13.5-ounce bottle of Nesquik (360 calories, 48 grams of sugar) trumps a 12-ounce can of Snapple (170 calories, 40 grams of sugar) and an 12-ounce serving of Coca-Cola Classic (97 calories, about 39 grams of sugar).

Under pressure from nutritionists and parents, some Washington-area school systems have established standards for the fat and sugar content of snacks sold in machines as well as items sold in school stores and as part of fundraisers.

In 2004, after years of selling soda, Montgomery County limited approved drinks to water, flavored noncarbonated water, 100 percent fruit juices and fruit drinks with a minimum of 50 percent juice. The school system allows sports drinks to be sold, but only near physical education areas.

The D.C. Public Schools policy rejects sports drinks. For nonelite athletes, like children, Gatorade just adds extra calories, sugar and sodium to diets, nutritionists said.

Yet vending machines are often low on the nutrition to-do list.

Jeff Platenberg, who oversees food service at Loudoun County Public Schools, said he has heard of McMahan's Smart Snacks and is interested in talking to her. Now, however, he is focused on changing the school lunch program, with plans to offer trans-fat-free margarine and whole wheat pasta.

"My focus is to have students participate in meal programs," he said. "Having snacks would detract from that."

A look at Manassas Park High's Smart Snacks vending machine illustrates that change doesn't have to be district-wide. Schools can tackle the problem on a smaller scale.

Last year, Manassas Park's snack machine was stocked with doughnuts and chips. In September, the 100-calorie pack Soy Crisp minis, with 3 grams of fat, took students by surprise. Even though the all-natural snacks cost 25 to 50 cents more than other snacks, sales have not dipped, school officials said.

When Manassas Park's last bell rings at 2:15 p.m., the vending machine opens for business. Sophomore Jessica Conaway stays at school until 6:15 p.m., either for cheerleading practice or the spring musical. She used to pack her own snacks, but now she buys a Clif Bar, with 27 vitamins and minerals, to hold her until dinner.

"With sports," she said, "you don't want to be munching on a bag of Doritos before you run a mile." ■



BY KATHERINE FREY — THE WASHINGTON POST

**Not Cheap:** For a \$1.85 school lunch, students could eat pizza, greens and fruit. Instead, many spend \$2 to \$3 on vending goods.

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# At High School, Pit Stops Add 21,000 Calories in Two Hours

BY KENDRA MARR

*Washington Post Staff Writers*

• Originally Published May 19, 2008

At 10:59 a.m., Bladensburg High School's three vending machines are hungrily whirring, anticipating the first quarters of the day.

Sophomore Ruth Flores bounces toward the snack machine, white iPod buds in her ears, and pulls two dollar bills out of her khaki shorts.

*Error!* The machine spits out a dollar. *Error!* Again, it rejects the crumpled bill.

Flores smooths her bills against the machine and tries once more. Out falls her meal — 530 calories and 25 grams of fat, or French Onion Sun Chips and Linden's big fudge chip cookies. *Ka-ching. Ka-ching. Ka-ching.*

"I wouldn't call it lunch," she said as she gathered her change of 75 cents. "I know it's not healthy, but it's not like they're selling fruits."

In the battle against childhood obesity, vending machines have been labeled the enemy by the Agriculture Department, which sponsors school lunches. To students, the machines are often an alternative to long lunch lines and sometimes unappetizing food.

Bladensburg's vending machines are more healthful than most, and fewer than half the school's 2,100 students buy snacks and sodas from the machines on a typical day. Rice Krispies Treats (150 calories, 3.5 grams of fat) are an improvement from Snickers bars (280 calories, 14 grams of fat). Baked chips have replaced fried.

Not offered in Prince George's County schools are self-serve apples and



BY CAROL GUZY — THE WASHINGTON POST

oranges.

"We're trying to phase healthier foods in so it's not such a shock," said Daniel P. Townsend, director of the school district's department of food and nutrition services. "You can offer all of the tofu and spinach you want, but if children don't consume it, it doesn't have any real value."

Shortly before 11 a.m., the first of four 30-minute lunch periods begins. From the back wall of the cafeteria, rows of shiny packages of snacks beckon students, who rush in through the lunchroom doors. Vending machine selection C3: Mini Oreos. A4: Cool Ranch Doritos. B2: Andy Capp's Hot Fries.

The bright, colorful Snapple machine (170 calories, 40 grams of sugar in 12 ounces) casts a warm glow. Students scoff at the Nesquik milkshake machine (360 calories, 48 grams of sugar in 13.5 ounces) that's covered with cow spots.

At 11:16 a.m., sophomore Latisha Waller, an outgoing girl in a purple windbreaker, sucks on a lollipop and grabs a fistful of Sour Punch Straws from a friend. On the sly, she bought the candy, which is forbidden in the cafeteria, from a student in the hallway.

Waller's friends, also flouting the polo

shirt and khakis dress code, pool their change to buy Snapple fruit punch (170 calories, no fat) and Fritos (160 calories, 10 grams of fat).

"Everyone has snacks," Waller said. "Lunch is more of a time for fellowship, conversation."

In other words: At this early hour, just 1 1/2 hours into their school day, Waller and her friends are still full from breakfast — or the McDonald's they bought this morning.

The bell for the second lunch period beeps like a high-pitched fax machine.

A skinny girl in skinny jeans points at the Nesquik milkshakes and yells, "How much is this?" A drink costs \$1.25. She walks to the Snapple machine and instead picks out a 75-cent apple juice (170 calories, no fat).

At 11:50 a.m., a crowd forms at the opposite end of the cafeteria for the lunch line and at the snack bar, which sells items identical to those in the vending machine.

Three boys, with hair slicked back and white polo shirts hanging to around their knees, mob the snack machine. From the six rows of snacks, they each hit D5. Three bags of Welch's Fruit Snacks (195 calories, no fat) curl forward and fall into the bin.

The crowd for the third lunch period bursts in with a thunderous chatter and music blasting from their cellphones. Lines snake up to the machines.

"D2! D2! I didn't want this!" shouts a girl with curly hair as she pounds on the glass.

Two students, heads tilted up, shake down the last crumbs of their 50-cent

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Hot Fries (150 calories, 7 grams of fat), while waiting for Snapple drinks.

Assistant Principal Bernard Lucas grabs a microphone and starts to sing: "I'm so glad, I go to Bladensburg High . . ."

The Snapple machine is working overtime and kiwi-strawberry drinks (220 calories, no fat) are running low.

"I'm so glad I go to BHS. I'm so glad I go to Bladensburg High . . ."

Students shove open the bin flap and grope for their 75-cent Rice Krispies Treats.

"Glory! Hallelujah! I'm so glad . . ."

Teens gossip in Spanish next to the idle milk machine.

Nearby, students frantically pound the buttons on the near-empty Snapple machine.

A student with a broken hand fumbles with \$1.25 before punching the right buttons. A1: Cheetos Baked Flamin' Hot (120 calories, 4.5 grams of fat). F2: Welch's fruit snacks.

For a \$1.85 school lunch, these students could gobble up pizza, collard greens, fresh fruit and calcium-fortified juice.

Instead, many are spending \$2 to \$3 on vending goods.

At 1:10 p.m., a group of three girls is clutching two bags of Cool Ranch Doritos (140 calories, 7 grams of fat) in each hand, while balancing bottles of Hawaiian Punch (300 calories and zero fat) under their arms. A sophomore boy, with a Kermit the Frog backpack, returns to the machines for a third time for more chips and a Rice Krispies Treat.

At 1:14 p.m., the last lunch bell beeps and the crowd surges away, leaving a trail of empty bottles and deflated chip bags in its wake.

Bladensburg students have bought 186 items, spending a total of \$130, devouring 21,000 calories and 629.5 grams of fat. Eleven of the 24 wire-coil snack slots are empty. Kiwi-strawberry drinks are gone. No one bought a milkshake.

The profit from sales go to district's food and nutrition services. "Wait an hour and they'll be crawling back," said Michael Vincent, who has worked in the cafeteria for nine years.

As midday hunger sets in, students start banging their fists on the cafeteria windows: "Mr. Mike! Mr. Mike! Please, please!" Vincent unlocks the door and lets them swarm the machines again. He said he would rather see students munch on the vending machine's baked chips than candy bars sold outside of school.

"Hey," he said, "I love 'em." ■

## SALLY SQUIRES LEAN PLATE CLUB JUICE OPTIONS

A better choice?



**Minute Maid 100% Juice Fruit Punch**  
**Calories 120**  
**Sugar 30g**  
(and high-fructose corn syrup)

Maybe not...



**Sunkist Orange Soda**  
**Calories 130**  
**Sugar 35g**  
(and high-fructose corn syrup)

*Parents try to do the right thing by giving children fruity drinks, which they think are more health-*

*ful than sugary, carbonated soda. But for reasons that scientists don't yet understand, the brain doesn't register calories that are sipped as accurately as those that are chewed. So kids drink too much, and that might be contributing to the childhood obesity epidemic.*

The U.S. Dietary Guidelines advise limiting juice to no more than half the recommended daily intake of fruit. For a 3-year-old, that's half a cup, or 4 ounces; for an 8-year-old, it's no more than three-fourths of a cup, or 6 ounces.

Juice and beverage aisles are jammed with products. What appears to be mostly juice might not be much different from a sugary soft drink. The first ingredient in **Minute Maid All Natural Fruit Punch Coolers**: water, just like a soft drink. Second ingredient: high-fructose corn syrup, the same sweetener found in soft drinks. Ounce for ounce, the cooler contains about the same amount of syrup as **Sunkist Orange Soda**. Only toward the bottom of the ingredient list does one find the grape and pear juices that give coolers their name.

There are plenty of kid-friendly options that pack 100 percent juice. Among them: **Sesame Street 100% Apple and Eve Juices** and **Juicy Juice Harvest Surprise 100% Fruit Juice**, which includes carrot juice and sweet potato puree for added nutrition and coloring.

And for those kids who won't drink milk or eat calcium-rich dairy products, look for a growing number of calcium-fortified, 100 percent juices that can provide as much of this key, bone-building mineral as skim milk. Among them: **Minute Maid Kids + Orange Juice**.

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# Fat School

## *In the Hills of North Carolina, a Controversial Experiment in Weight Loss*

By SANDRA G. BOODMAN  
*Washington Post Staff Writer*

• Originally Published May 20, 2008

For many teenagers at Wellspring Academy of the Carolinas, located at the end of a serpentine dirt road, the remote mountain outpost students call "fat school" is a last-ditch stop in a losing battle that has consumed their lives.

The tiny school, which opened last year in a refurbished summer camp in Brevard, N.C., 400 miles southwest of Washington, is designed to test one of the most radical, controversial and expensive ideas about how best to treat pediatric obesity. At issue is whether plucking youths as young as 11 who are at least 30 pounds overweight out of "obesogenic" environments and sending them to a highly structured therapeutic boarding school for rapid weight loss and intensive behavior therapy actually works.

A month's stay at the school, which has a maximum enrollment of 50, costs \$6,250, making a year at Wellspring more expensive than a year at Harvard. "We know that moderation has not been successful for these kids," said Wellspring president Ryan Craig, a graduate of Yale and its law school, who characterizes measures like improving school lunches as too little, too late.

A former investment banker who persuaded Aspen Education, a for-profit behavioral health company, to spend \$6.5 million to test the approach, Craig opened the first academy in 2004 in a shuttered mental hospital outside Fresno, Calif. Until March the schools, the first of their kind, were called Academy of the Sierras. Two more campuses are



BY CAROL GUZY — THE WASHINGTON POST  
**Finished with breakfast, Kevin Mayburn, 16, of Livonia, Mich., contemplates a day of classes at Wellspring Academy, a boarding school for obese teenagers.**

scheduled to open, one near Boston and the other near Austin, and a growing number of state child welfare agencies have expressed interest in placing obese children at Wellspring.

"Overall, our success rate is excellent," Craig said. The average weight loss for students who stay eight months (twice the required minimum) is 81 pounds, he said, and the first class of 15 students on average maintained their weight loss 10 months after leaving — the only results Wellspring has published. Among them is Terry Henry of Exeter, N.H., who enrolled in September 2004 at 15 weighing 558 pounds. He left 15 months later weighing 253 pounds and

today weighs about 278 pounds, school officials say.

Henry's success contrasts with the experience of Jahcobia Cosom, 18, of Dorchester, Mass. Cosom, who lost 167 pounds at the school and 30 during his first month home, gained 260 pounds in less than a year, his weight rocketing to 562. He is scheduled to undergo gastric bypass surgery this summer.

"If their families don't change, [students] are going to be back to their old ways of doing things" when they get home, said Anjali Jain, a pediatrician at Children's National Medical Center who specializes in treating obesity. ■

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## Reflections on 'Fat School'



BY CAROL GUZY — THE WASHINGTON POST

**"People were saying  
I wouldn't succeed.  
I wanted to prove  
them wrong."**

—Vicky Maltagliati, 16 | Fairfax

By SANDRA G. BOODMAN  
*Washington Post Staff Writer*

• Originally Published May 20, 2008

The drive on New Year's Day 2006 was tense and silent: Fairfax County deputy sheriff Paul Maltagliati was bound for Dulles Airport, his daughter Vicky reluctantly in tow. The 14-year-old would board two flights alone that would take her to a California boarding school neither she nor her parents had seen.

"We were out of options," Maltagliati recalled. Vicky, who weighed 230 pounds, was furious with her parents for sending her so far away and scared about what lay ahead. She was also miserable, and routinely came home from her freshman year at Robinson Secondary School



BY CAROL GUZY — THE WASHINGTON POST

**"I wish I'd never heard  
of the place."**

Jahcobie Cosom, 18 | Dorchester, Mass.

By SANDRA G. BOODMAN  
*Washington Post Staff Writer*

• Originally Published May 20, 2008

By the time he was featured on a segment of "Extreme Makeover" in July 2007, which aired months after it was filmed, Jahcobie Cosom was well on his way to regaining the 197 pounds he had lost in less than a year — and adding almost 80 more.

Jahcobie, now 18 and a senior at Boston Arts Academy, a public high school for the performing arts, was enrolled at Wellspring's California campus between October 2005 and June 2006.

He lost 167 pounds there, 30 more his first month home and then began putting the weight right back on. In less than

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in Fairfax in tears, once after a boy pasted a picture of a pregnant woman on her locker.

"I figured if I removed Vicky from school, she'd lose weight and get counseling and her education," Maltagliati said. One night while searching the Internet for help, he said he stumbled upon the nation's first boarding school for obese teenagers, located in the middle of a plum orchard in California's Central Valley. This, he hoped, would be the fresh start the youngest of his three children badly needed.

Vicky's resistance melted as she began losing weight, even though she said "there was always a lot of drama" among students and she clashed with her therapist, whom she described as skinny and unsupportive. But in six months she had lost 68 pounds.

Summer back home was rocky. Vicky diligently stuck to Wellspring's very low-fat diet the first month and logged at least 10,000 steps each day. But that regimen got old fast. She decided she was more interested in partying and quickly gained 20 pounds.

Alarmed, her parents persuaded her to join the track team her sophomore year. She also started therapy and soon began losing weight again.

Vicky now weighs 164, which is what she weighed when she left boarding school in June 2006. Most days she works out at a gym and sticks to the Wellspring diet. "If I have a bad day of eating," she said, "I make sure I work out more the next day." When she goes to parties, she often brings her own food.

She attributes her turnaround to the things she learned at boarding school and to her own gritty determination.

"People were saying I wouldn't succeed," she said. "I wanted to prove them wrong." ■

**Jahcobie Cosom shares more of his experiences at Wellspring.**  
www.washingtonpost.com/obesity.

BY CAROL GUZY — THE WASHINGTON POST



a year Jahcobie, who stands a bit over 5 feet 9, ballooned to 562 pounds; he entered Wellspring weighing 483.

"He started off okay, but I guess he just figured he didn't have to do [at home] what he was doing" at school, said his father, Larry Cosom, who added that his only son's weight gain has been a source of significant tension between them.

Two years ago, Larry Cosom took out a \$40,000 loan to pay Jahcobie's boarding school tuition. But last fall Cosom lost his job, and he said he doesn't know how he will repay the debt. He said he has told Jahcobie he has no money to give him for art college in the fall.

"It's a lot of wasted money, but what can you do?" Larry Cosom asked. "I wish we'd had a better game plan when he came home."

School officials declined to discuss Jahcobie's case, citing confidentiality. Daniel Kirschenbaum, clinical director of Wellspring, said that sustaining weight loss once students go home is challenging, "and you have to have all your ducks lined up."

Wellspring, which sponsors weekend programs for parents that are designed to facilitate reentry at home, allowed Jahcobie to return free of charge last year; he stayed less than a month and left by mutual agreement.

Jahcobie attributes his weight gain to several factors: his impoverished Dorchester neighborhood, which is awash in fast food; the high cost of low-fat items; cultural differences in food preferences; and the comfort he derived from eating after several friends died suddenly.

He said he thinks attending Wellspring "hurt me more mentally" because he feels ashamed and responsible for his family's financial straits.

"I wish I'd never heard of the place," he added.

In a last-ditch effort to control his weight, Jahcobie is scheduled to undergo gastric bypass surgery at Massachusetts General Hospital in July. But he has been told he must lose weight before doctors can operate.

Cosom said he and Jahcobie's stepmother have come to the realization that there is no other way to control his son's eating.

Jahcobie is optimistic the stomach-shrinking operation will be the solution that has eluded him. Boarding school, he said, "might be good for kids who need to lose 30 to 40 pounds, but not for someone like me." ■

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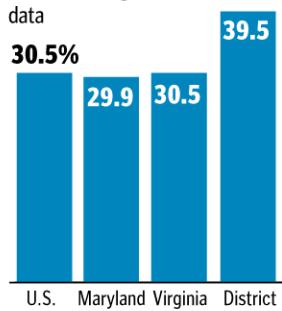
## MORE THAN NUMBERS

### A Bigger Problem in the District

Several wards in the District have the highest rates of childhood overweight and obesity in the region. Across the nation, virtually every jurisdiction, urban and suburban, confronts a weight problem among youths.

#### Prevalence of child and adolescent overweight and obesity

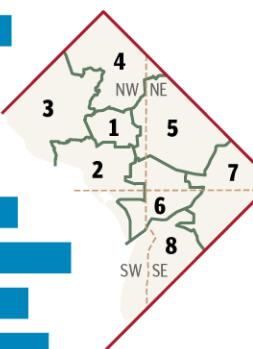
85th percentile and higher body mass index, ages 10-17, 2003 data



#### Childhood overweight and obesity in the District

85th percentile and higher BMI, ages 6-17, by ward, 2003 data

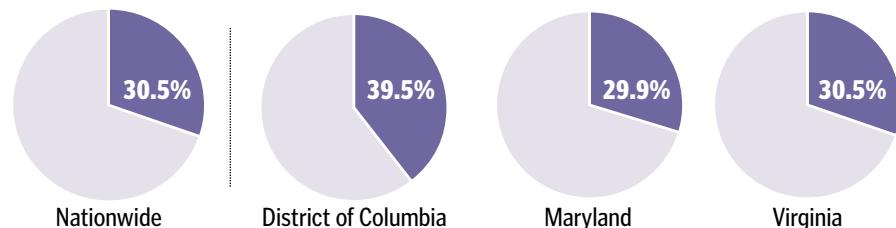
Ward 1	<b>44.4%</b>
Ward 2	<b>33.2</b>
Ward 3	<b>17.7</b>
Ward 4	<b>40.4</b>
Ward 5	<b>45.7</b>
Ward 6	<b>56.9</b>
Ward 7	<b>47.9</b>
Ward 8	<b>52.2</b>



SOURCES: Rand Corp., National Survey of Children's Health 2003, National Center for Health Statistics

### By the Numbers

The percentage of overweight and obese children in Maryland and Virginia is on par with the national figure. The District of Columbia's is much higher.



SOURCE: National Survey of Children's Health, 2003

THE WASHINGTON POST

### Carrots vs. Cupcakes

Here is a comparison of the nutritional value of nine raw baby carrots and one homemade, frosted cupcake.

	calories	190
0	calories from fat	80
0	total fat (in grams)	8
0	cholesterol (milligrams)	25
0	sodium (milligrams)	160
9	total carbohydrates (grams)	26
PERCENTAGE OF DAILY RECOMMENDED VALUE		
290%	vitamin A	0%
10%	vitamin C	0%
2%	calcium	4%
0%	iron	2%



SOURCES: Dole Food Company Inc.  
Betty Crocker

THE WASHINGTON POST

## An Integrated Curriculum For The Washington Post Newspaper In Education Program

**MORE THAN NUMBERS** | *Continued*

# 6 Facts You Should Know

**1**  
Americans' weight problem can be fixed. According to the Robert Wood Johnson Foundation:

In 1965, **43** percent of Americans smoked.  
Today, **21** percent do.

In 1982, drunk drivers killed **22,000** people.  
Today, it's **12,000** people.

In 1983, **24** percent of U.S. drivers used seat belts.  
Today, **82** percent do.

**2**  
Trans fat bans or limits were proposed in **15** states last year.  
None passed.

**3**  
For **32** years, the U.S. Women, Infants and Children program subsidized eggs and cheese, but not vegetables, for poor children. Last year, vegetables, fruits and whole grains were added.



James O. Hill of the University of Colorado has found the "energy gap," the difference

between what's consumed and what's burned off, to be **100** calories daily for the average American adult. That's about equal to two-thirds of a can of Coke, or one-fourth of a McDonald's Quarter Pounder. Walking a mile would burn off about 100 calories.

**5**  
A quarter of teens drink an average of four colas a day, the equivalent of an extra meal.

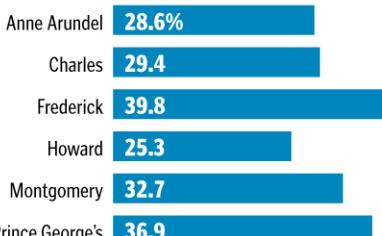
**6**  
"A pound of fat equals **3,500** calories. To lose 1 pound a week you will need to expend 3,500 more calories than you eat that week, whether through increased activity or decreased eating or both. Losing **1-2** pounds of fat a week is a sensible goal." —About.com

Sources: *Institute of Medicine; Robert Wood Johnson Foundation; University of Colorado; Science News*

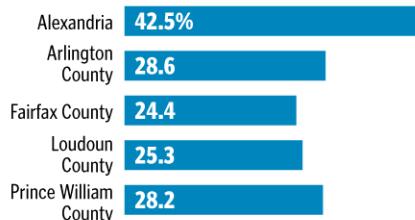
## Suburban Breakdown

### Childhood overweight and obesity, 85th percentile and higher BMI

MARYLAND, 2006  
Ages 2-17



NORTHERN VIRGINIA, 2007  
Ages 2-18



SOURCES: 2007 PRC Child & Adolescent Obesity Survey of Northern Virginia, sponsored by Inova Health System; Maryland Behavioral Risk Factor Surveillance System 2006

BY MEG SMITH AND TOBEY — THE WASHINGTON POST

## Online: BMI Calculator, Tips

[cdc.gov/nccdphp/dnpa/bmi](http://cdc.gov/nccdphp/dnpa/bmi)  
Calculators to determine and interpret the body mass index for all ages

[presidentschallenge.org](http://presidentschallenge.org)  
Join a national "challenge" by logging your activity and comparing it with others'. Tips and tools for getting active at any age.

[ncl.org/programs/health/ChildhoodObesity-2007.htm](http://ncl.org/programs/health/ChildhoodObesity-2007.htm)  
Obesity-related measures by states last year

[obesitycampaign.org](http://obesitycampaign.org)  
Legislative action and obesity-related news and reports

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# The Search for Solutions

## *Getting Kids to Think About Changing Exercise, Eating Habits Is One Thing; Keeping Them on Track Is Another*

BY BRIDGET SCHULTE  
*Washington Post Staff Writer*

• Published Originally May 22, 2008

Marisol Quiroz watched in alarm as her overweight son ballooned 50 pounds in a year. She had taken him to doctors and nutritionists who told her to make him stop eating so much but never told her how. David Quiroz, 12, weighed 215 pounds last fall. Half his body mass was fat. His cholesterol was elevated, his blood pressure was

too high and the sugar in his blood was hitting dangerous levels. He was well on his way to diabetes and heart disease before reaching high school. His mother made an appointment to see David's pediatrician alone. In tears, she told him she had no idea what to do.

She found out that the medical community does not really know, either. Doctors are great once a child becomes so obese that he or she develops diabetes or heart disease, critics said. But they have yet to figure out how to keep

children from becoming obese or how to help them lose weight.

"We pediatricians do a fantastic job talking about food during a child's first year of life. We know precisely how much formula a 6-month-old needs because we've been concerned about failure to thrive. But we're not terribly good about what happens after that," said Nazrat M. Mirza, a pediatric endocrinologist at Children's National Medical Center

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BY CAROL GUZY — THE WASHINGTON POST

**TALE OF THE TAPE** David Quiroz, 12, has his height checked by research assistant Caroline Collins during a visit to the Cool Kids program in Adams Morgan. David, his younger brother, William, left and their parents went to the clinic for 13 weeks.

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in the District. "We pediatricians don't even talk about obesity."

Most in the medical community said they did not begin to recognize childhood obesity was a problem until it had become an epidemic. Now, researchers are predicting that one of every two children will develop Type 2 diabetes because of excess weight, which raises the probability that they will die as much as 20 years younger than their parents. And doctors are scrambling to catch up. The American Academy of Pediatrics only recently issued guidelines about what to do for an overweight child.

"There's been a delayed response in the medical and health-care community because, in many ways, we weren't prepared for it," said Thomas N. Robinson, director of the Lucile Packard Children's Hospital at Stanford University's children's hospital. The conventional wisdom was that children would outgrow the excess weight.

With so many young lives at stake, about the only thing the medical community knows for sure is that traditional weight-loss programs do not work. A success rate of 1 percent is the best medical professionals have seen.

"We know how to change people's behavior, but we don't know how to sustain those changes," said Terry Huang, program director for pediatric obesity at the National Institute of Child Health and Human Development. It sounds so easy, he said. Eat less. Exercise more. If it were so easy, though, the majority of Americans would not be overweight. Even when it comes to bariatric surgery, the most radical method of weight loss that physically shrinks the stomach, only 5 percent of patients return to what doctors consider a normal weight. In all weight-loss programs designed for adults and children, almost everyone initially loses, but within two years, patients



BY CAROL GUZY — THE WASHINGTON POST

**FOOD FACTS** April Elsbury discusses foods and fat content. Joselin Sanchez, 11, and Elvin Sorto, 13, are participants in the Cool Kids program, which involves changing the behavior of the whole family.

have put the weight back on. "We have to change course," Huang said.

That change is complicated by money. Obesity is not classified as a medical disease, which means few insurance companies will pay for weight-loss treatment. What they will pay for, however, are all the illnesses that arise from obesity.

Researchers are finding genes that contribute to obesity, and they are studying how foods affect hormones that contribute to appetite. Some researchers have found that people metabolize food differently, so no one diet will work for all types of people.

They are finding that the body is, evolutionally, still programmed to hunt for food and survive famine. If the body is not moving, as most aren't in these sedentary times, the brain thinks the body is starving. So the body begins to cannibalize protein-rich muscle to feed the brain and conserve fat stores.

"We are living not as our genes intended.

"It's not normal to play video games all day," said Eric Hoffman, director of the Center for Genetic Medical Research at Children's Hospital. "We have taught our children how to kill themselves. We have to reverse that."

Mirza is one of the few pioneering pediatricians who is trying. Shocked at the rates of childhood obesity when she came to the United States from Kenya, Mirza has been working on a new kind of weight-loss program, one that involves changing the behavior of the whole family by reteaching everyone how to shop, cook, think about food. She is starting with the Latino community, where diabetes runs high. And, following up on genetic research, she is testing whether low-fat or low-glycemic diets work better for Latinos.

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BY CAROL GUZY — THE WASHINGTON POST

**THE DANGER OF DIABETES** Elvin Sorto, 13, eats broccoli during a session in the Cool Kids program in Adams Morgan.

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The need is acute, she said. In her practice, she has seen a 9-month-old weighing 30 pounds — twice the average size for a child that age. She works with an 11-year-old who weighs 420 pounds. And her associate, a psychologist who studies sleep apnea, is considering a tracheotomy for a 16-year-old so dangerously obese that he stops breathing 75 times an hour during the night.

It was to Mirza's program that David Quiroz's pediatrician told the boy's mother to go.

David, a good-natured honor student at Julius West Middle School in Montgomery County, can matter-of-

factly recite what he used to eat. School lunches of cheeseburgers, pizza, two or three servings of french fries or tater tots every day. A trip to the snack line for ice cream or cookies. Candy and soda from vending machines after school. Chips and soda at home while watching television or playing Halo on Xbox. "I think I overdid it," he said.

He also can describe all the diets he has tried. He wanted to be healthy. He did not like that he got winded walking to class. He was not happy when he signed up for wrestling, but had to spend the semester on the bench because teachers could not find anyone in his weight class.

It's just that he loves food. And he has always felt hungry, even after a

big meal. "We'd go out to dinner at the Cheesecake Factory or Red Lobster and I'd eat all my dinner, then my brother's, then everybody's leftovers in the car on the way home," he said.

His mother thought she was cooking healthy meals, but they were heavy on the white rice she liked from her childhood in the Dominican Republic. And she tried to help him. "I wanted him to join a soccer team or sports teams, but they have practices after school and I could never get him there," she said. She works as a dental assistant in Bethesda and does not return home until late. His father works two jobs as a nursing assistant to pay for their house

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in Potomac. So she bought him a treadmill, an exercise bike and a punching bag. He never used them. She couldn't get him interested in the equipment.

At his first weigh-in with Mirza's Cool Kids program, David's body mass index, which is the relationship between his height and weight, was 36 — more than twice the BMI for the average 12-year-old. His glucose tolerance was 177. Normal tolerance is 140; a diabetic's is 200. And his insulin resistance was 13.2. Because insulin resistance has never been a problem for children before, doctors are not sure what a normal range is. Normal for adults is 2. "He really had the metabolic syndrome," Mirza said, a new condition marked by a cluster of risk factors that lead to heart disease and diabetes.

That scared David. The summer before, he had found his father collapsed in the driveway, in the early stages of a heart attack.

For 13 weeks, David, his younger brother, William, and their parents went to Mirza's clinic in Adams Morgan every week. They set goals and talked about overcoming barriers to healthy eating. They met with a psychologist to talk about self-image. The boys exercised, then learned about nutrition — they were shown test tubes filled with Crisco equaling the fat content of their favorite fast foods. Marisol Quiroz attended nutrition class with other parents and shopped with a nutritionist who taught her what to look for on food labels: no more than 3 grams of fat and 12 grams of sugar per serving, and high fiber — 5 grams plus the child's age.

The family learned about proper portion size. If Quiroz serves white rice, she serves no more than a half-cup for each person. She began packing David's lunch, substituting white bread and tortillas with whole-wheat tortillas and whole-grain white bread, because David does not like whole-wheat bread yet. She began cooking fish and baking chicken instead of eating out so often. If the family ate out, they chose Subway over McDonald's, and ordered half-subs instead of foot-longs.

"The technique we use is not to make drastic changes, but small, permanent changes," Mirza said.

It's not about dieting; it's about life choices. If a child watches six to eight hours of television a day, the first goal is to reduce the amount by an hour or two. If a child consumes several sugar-laced Gatorade drinks, juices, sodas and Vitamin Waters, Mirza asks them to cut back. She encourages families to eat meals together slowly and wait before reaching for seconds, as it takes 15 to 20 minutes for the stomach to signal to the brain that it is full. New research is showing that many overweight children who, like David, developed uncontrollable appetite habits very young, are often unable to recognize when they are full and need to relearn to listen to their internal hunger drive.

Mirza asks children to get a good night's sleep, because

when the body is sleep-deprived, it craves fatty, high-sugar foods. And she wants them to exercise. The children wear a pedometer and are asked to take at least 10,000 steps a day, or about five miles.

When David first put on the pedometer, he barely made it to 300 steps. His mother found a kid-friendly gym, FunFit, in Gaithersburg. She drives her sons there at least three times a week. They play around on mats and do a 30-minute circuit on a treadmill, stationary bike and kid-friendly machines. On days when the weather is good, she takes a walk with the boys and kicks a soccer ball in a park. Some days, David gets up to nearly 5,000 steps.

In February, David went again to Mirza's clinic. He now goes once a month. At his weigh-in, he had lost nearly 30 pounds. His BMI was 30, and his insulin resistance has been reduced by half. "To lose six BMI is amazing. I am very proud of him," Mirza said. "We're not at a camp. He's still living in the free world, and there's so much temptation out there."

David is proud, too. "I feel better about myself since losing weight," he said. He is no longer the last to finish the mile run in PE. He is able to concentrate better in school. He still does not go to school dances, though he is thinking he might for the first time.

But he struggles. On days when there are class parties with cupcakes, his friends circle him and remind him how well he is doing.

On a recent day at lunch, David opened his small blue lunch box and ate a sandwich with low-fat turkey and provolone cheese spread with low-fat mayonnaise. He drank a 10-calorie juice and ate a banana. He was finished before his friends made it through the lunch line and took seats around him with their pepperoni pizzas, fried chicken patties on buns, chocolate milk and french fries. The snack line stretched nearly into the hall as students bought ice cream, candy, cookies and pretzels. Vending machines lined the hallways and one wall of the cafeteria.

David walked through the lunch line to see if there would be anything Mirza would approve of. He found a tray of bruised fruit and another of wilted iceberg lettuce and tomato slices. The low-fat yogurt had 40 grams of sugar. He looked wistfully at his friends' meals. "Sometimes I miss it," he said. "But then I think of my health."

Change is hard. His mother said she sometimes finds french fry trays in his lunch box. And though he is eating healthier, he sometimes does not know when to stop. He still thinks the treadmill is boring. And his favorite thing on television remains the Food Network. He likes to watch the bakers on "Ace of Cakes" deliver confections like three-layer chocolate pound cakes.

"I'd love to do that," he said wistfully. Then he smiled. "I just hope I don't eat all the cake before I deliver it." ■

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# 10 Facts About Nutrition, Fitness and Weight

• Originally Published, May 21, 2008

**Bad:** One in four Americans eats fast food at least once a day.

**Bad:** Most cereals made for kids contain more calories, sugar and salt and less fiber and protein than other cereals. Most kids' cereals don't meet national school nutrition standards.

**Good:** Eat according to the colors of the rainbow. The more colors to your food — such as the reds, oranges, yellows, greens and even blues of fruits and vegetables — the more important nutrients you'll get.

**Good:** Your brain depends on your stomach to signal that it's full, but that message takes 20 minutes to be delivered. So slow down during meals, and you'll be less likely to eat too much.

**Bad:** If you eat even 100 calories more a day than you burn by being active, that "energy gap" could add 10 pounds a year. How much is 100 calories? Half a glazed doughnut.

**Good:** Almost every day kids should have at least an hour of what the experts call moderate-intensity

physical activity such as walking the dog (not slowly), riding your bike or dancing to your favorite songs.

**Good:** You usually feel happier after playing or exercising because of special chemicals called endorphins that your brain releases while you're moving. Endorphins (pronounced en-DOOR-fins) are a natural mood-booster!

**Really Bad:** Fewer than 1 in 25 elementary schools and fewer than 1 in 13 middle schools in this country provide daily P.E. classes for all students. And many elementary schools have cut out recess.

**Do Better:** States in New England and out west have the most physically active residents; southern states have the most couch potatoes. When the federal government measured this last year, Virginians were slightly more on the move than Marylanders.

**Bad:** One in three American kids and teens is overweight or heavy enough to be considered obese. (Let's all aim at making ourselves and our friends much healthier!)

— Susan Levine

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## Academic Content Standards

*This lesson addresses academic content standards of Maryland, Virginia and the District of Columbia.*

### Maryland

**Biology:** Recognize food as the source of materials that all living things need to grow and survive. (Expectation 3.1, Grade 4)

**Biology:** Describe what happens to food in plants and animals:

- Contributes to growth
  - Supports repair
  - Provides energy
  - Is stored for future use
  - Is eliminated
- (Expectation 3.1, Grade 4)

**Biology:** Cite evidence from research and observations that organisms that eat plants or animals break down what they have consumed (food) to produce the materials and energy they need to survive or store for later use. (Expectation 3.1, Grade 7)

### Virginia

**Health:** The student will explain that health habits impact personal growth and development. Key concepts/skills include

- a) food and beverage choices based on nutritional content;
- b) the benefits of physical activity and personal fitness;
- c) safe and harmful behaviors;
- d) positive interaction with family, peers, and other individuals. (3.1, Grade 3)

**Health:** The student will demonstrate responsibility for developing personal health habits and practicing behaviors that promote an active, healthy lifestyle. Key concepts/skills include

- b) the connection between nutritional guidelines and weight management;
- d) the importance of exercise and recreation;
- e) the effects of personal health habits on cardiovascular fitness;
- f) the importance of developing and maintaining a positive self-image. (5.2, Grade 5)

### Washington, D.C.

**Science, Life Science:** Humans have a variety of mechanisms to stay healthy. (3.7, Grade 3)  
As a basis for understanding this concept,

- Explain the eating a variety of healthy foods and getting enough exercise and rest help people stay healthy.
- Recognize that food provides energy as well as materials for growth, maintenance, and repair of body parts.
- Recognize that vitamins and minerals are substances required by the body in small amounts to synthesize essential substances and carry out essential processes.
- Describe how, as a person matures, the amounts of food and exercise need by the body change.

**Science, Life Science:** All organisms need energy and matter to live and grow. (4.7, Grade 4)

The Maryland Voluntary State Curriculum Content Standards can be found online at <http://mdk12.org/assessments/vsc/index.html>.

Standards of Learning currently in effect for Virginia Public Schools can be found online at [www.pen.k12.va.us/VDOE/Superintendent/Sols/home.shtml](http://www.pen.k12.va.us/VDOE/Superintendent/Sols/home.shtml).

Learning Standards for DCPS are found online at [www.k12.dc.us/dcps/Standards/StandardsHome.htm](http://www.k12.dc.us/dcps/Standards/StandardsHome.htm).