The University of Texas Community Outreach Program
Community Health Worker Continuing Education

Your Health Matters: Nutritious Eating

PARTICIPANT HANDBOOK



Free and reproducible materials for Community Health Workers to implement in local community education programs

University of Texas Community Outreach

Your Health Matters!

Your Health Matters: Nutritious Eating

Acknowledgements

The University of Texas School of Public Health – Brownsville
Dr. Belinda Reininger | Lisa Mitchell-Bennett | Laura Dirkse | Vanessa Saldaña

The University of Texas School of Public Health – Houston
Dr. Nancy Crider | Dr. Nancy Murray | Jessica Uriarte
Dr. Linda Lloyd | Rosalia Guerrero | Caroline Vasquez

The University of Texas School of Public Health – Austin
Nathalie Sessions

The University of Texas School of Public Health – El Paso
Dr. Theresa Byrd

Cameron County *Proyecto Juan Diego & Good Shepherd Catholic Church*
Sister Phylis Peters | Lupita Sanchez | Rev Mario Castro

Galveston County *University of Texas Medical Branch, Galveston Parks and Recreation, St. Vincent's House*
Dr. Kirk Smith | Barbara Sanderson

Nueces County *Catholic Charities, 21st Century Afterschool Program, Food Bank of Corpus Christi*
Jacki Siller | Tina Baer | Pete Garza | Margie Nygard

Webb County *Mercy Ministries*
Sister Rosemary Welsh | Martha Martinez | Mirtha Trejo

Additional Content Advisors
Leticia Gomez with Migrant Health Promotion
Lizette Pacheco with Migrant Health Promotion
Tony Ramos with Borderland AHEC
Sydney Jones with UT Austin Public Health Internship

Special Thanks
Select content and activities provided by the HEADS UP Project, funded by a Science Education Partnership Award from the National Center for Research Resources of the National Institutes of Health.

Video Credits

Cast
Martie Di Gregorio | Melissa Millan | Dante Robledo
Chickie Samano | Stephan Schull

With appearances by
Miguel Robledo Sr. | Mark Vasquez

Scriptwriter
Jo Ann LeQuang

Camera/Lighting
Kurt Lang

Location Sound
Brian Albritton

Editor
Jeffrey Mills

Graphics
Barbara Mills

Production Manager
Nathalie Sessions

Production Assistant
Sydney Jones

Executive Producer
Dr. Belinda Reininger

Executive Producer
Lisa Mitchell-Bennett

Producer/Director
Dan Sessions

Special Thanks
Camille Lightener Playhouse
Julie Lara and the partners at H-E-B Brownsville Store #489
Kendra Stine and the staff of The University of Texas School of Public Health Brownsville Regional Campus

This Community Health Worker continuing education project is funded by the University of Texas Community Outreach program supported by a grant from the Texas Department of State Health Services (TDSHS), Texas Diabetes Council 2011-035171-001 and in part by the Texas Public Health Training Center, U.S. Department of Health and Human Services, Health Resources & Services Administration (HRSA), Public Health Training Centers Grant Program Award 1UB6HP20188-01-00. Its contents are solely the responsibility of the authors and do not necessarily represent the views of TDSHS or HRSA.

ID# _____

Date _____ A.M. / P.M. (circle one)

Your Health Matters: Nutritious Eating
Knowledge Questionnaire

Energy Balance

1. If I take more calories IN to my body than I burn OUT, I will:
    a. Lose weight
    b. Gain weight
    c. Maintain my weight
    d. I don't know.

2. When choosing healthy foods, I should eat:
    a. A variety of different foods
    b. The right amount of food from each food group
    c. Everything in moderation
    d. Foods that are rich in nutrients
    e. All of the above
    f. I don't know.

Portion Distortion

3. The size of a soda bottle today is:
    a. Larger than a soda bottle 20 years ago
    b. Smaller than a soda bottle 20 years ago
    c. The same size as a soda bottle 20 years ago
    d. I don't know.

4. It is important to consider portion size because:
    a. A smaller portion has more vitamins
    b. A smaller portion costs more money
    c. A smaller portion has fewer calories
    d. I don't know.

Healthy Eating

5. A healthy diet has more:
    a. "GO" foods than "SLOW" foods or "WHOA" foods
    b. "SLOW" foods than "GO" foods or "WHOA" foods
    c. "WHOA" foods than "GO" foods or "SLOW" foods
    d. I don't know.

6. A healthy meal has mostly:
    a. Meat
    b. Vegetables
    c. Grains
    d. Fats
    e. I don't know.

ID# _____

Date _____ A.M. / P.M. (circle one)

Basic Nutrients

7. A healthy diet includes:
    a. Fats
    b. Carbohydrates
    c. Protein
    d. All of the above
    e. I don't know.

8. Healthy sources of carbohydrates include:
    a. Fruits
    b. Vegetables
    c. Whole Grains
    d. All of the above
    e. I don't know.

Food Labels

9. A Nutrition Facts label is on which of the following foods?
    a. Bananas
    b. Animal Crackers
    c. Broccoli
    d. All of the above
    e. I don't know.

10. When reading the % Daily Value on a Nutrition Facts label, look for foods with:
    a. HIGH % Daily Values
    b. LOW % Daily Values
    c. LOW % Daily Values on the top of the label and HIGH % Daily Values on the bottom
    d. I don't know.

Meal Planning

11. Buying healthy food always costs more than buying unhealthy food.
    a. True
    b. False
    c. I don't know.

12. You should eat fruits and vegetables:
    a. Once a week
    b. Once a day
    c. At every meal
    d. Never. Fruits and vegetables are bad for you.
    e. I don't know.

Your Health Matters: Nutritious Eating

1: Introduction

1

Acknowledgement

This curriculum was created by The University of Texas School of Public Health, Brownsville Regional Campus with partial funding from the University of Texas Community Outreach supported by the Texas Department of State Health Services (DSHS).

2

Knowledge Questionnaire

3

Nutritious Eating Program Goals

Expand understanding about why proper nutrition is important for a healthy life.

Demonstrate how eating right helps reduce risk for chronic diseases.

Empower participants to make healthy food choices and counsel clients with meal planning strategies.

Provide a curriculum which gives Community Health Workers the knowledge and skills about nutritious eating to impart to their communities.

This curriculum provides the nutrition component to compliment the *Your Health Matters: Fitness for Life* curriculum.

4

Nutritious Eating Learning Objectives

- Describe the obesity epidemic and its implications to health.
- Describe how the energy balance influences healthy weight maintenance or weight loss.
- Give examples of how food portions have changed in the past 20 years and the implications of these changes.
- Recognize the Go-Slow-Whoa concept and give an example of each type of food.

More…

5

Nutritious Eating Learning Objectives

- Identify the six basic nutrients.
- Explain the Nutrition Facts food labels and state the low and high percentages for the daily values.
- Plan a healthy meal.

6

Nutritious Eating Program Materials CD

PowerPoint Presentations, Handouts, Information Sheets, Activities, and Videos

INTRODUCTION

ENERGY BALANCE

PORTION DISTORTION

HEALTHY EATING

THE BASIC NUTRIENTS

THE NUTRITION FACTS LABEL

MEAL PLANNING

CONCLUSION

BONUS MATERIAL
Diabetes Information and Activities

APPENDICES
Glossary
Additional Resources
Handouts

7

How prepared do you feel to educate people about healthy food choices?

0 1 2 3 4 5 6 7 8 9 10

8

So why are we here? …

9

Obesity is an Epidemic

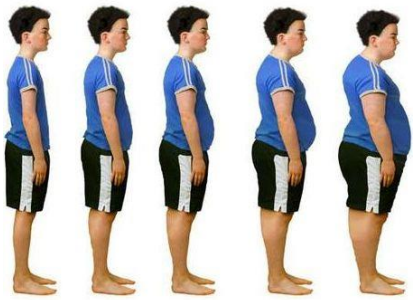
#1 health problem facing American children

A defining public health challenge for the next half-century

The most challenging public health problem ever faced

10

What is Obesity?

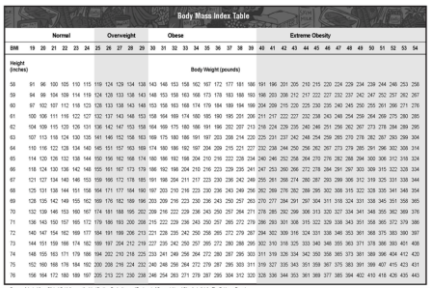


11

Adult Overweight & Obesity

Body Mass Index (BMI)

DEGREE OF BODY FAT BASED ON HEIGHT AND WEIGHT



Body Mass Index Table

	Normal					Overweight					Obese								Extreme Obesity											
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Height (inches)	Body Weight (pounds)																													
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	213	217	222	227	232	237
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270
64	110	116	122	128	134	140	146	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315
69	128	135	142	148	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	336	343
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363
74	148	155	163	171	179	186	194	202	210	218	225	233	241	248	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383
76	156	164	172	180	189	197	205	213	221	229	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394

For adults 20 years and older

Overweight
BMI of 25 to 29.9

Obese
BMI of 30+

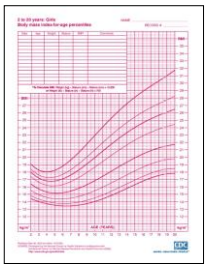
Extremely Obese
BMI of 40+

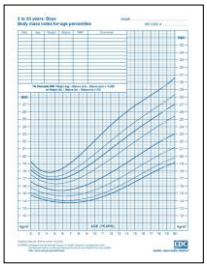
Nutrition Through the Life Cycle, Brown 2008; National Heart Lung and Blood Institute-National Institutes of Health

12

Childhood Obesity

BMI-for-age Growth Charts





For children 2 to 19 years

Overweight BMI between 85th and 95th percentile

Obese BMI at or above 95th percentile

Centers for Disease Control and Prevention 13

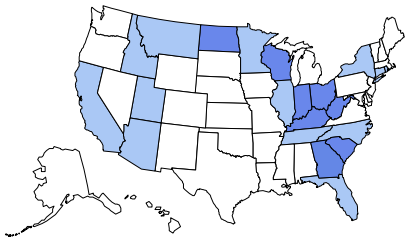
Why Do We Care?

Obesity is a major risk factor for:

- Cardiovascular disease
- High total cholesterol
- High blood pressure
- Type 2 diabetes
- Stroke
- Liver disease
- Gall bladder disease
- Certain cancers
- Osteoporosis

14

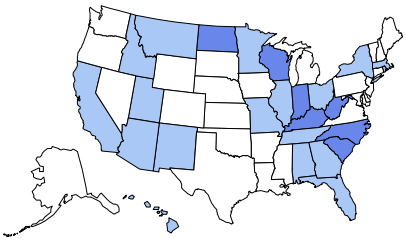
Obesity Trends Among U.S. Adults
BRFSS, 1985



No Data | <10% | 10%–14%

Centers for Disease Control and Prevention 15

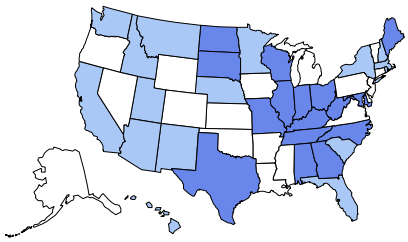
Obesity Trends Among U.S. Adults
BRFSS, 1986



No Data | <10% | 10%–14%

Centers for Disease Control and Prevention 16

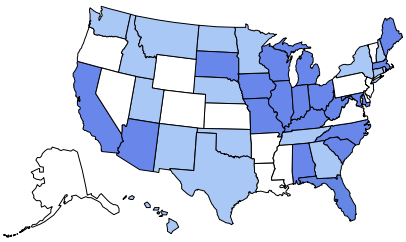
Obesity Trends Among U.S. Adults
BRFSS, 1987



No Data | <10% | 10%–14%

Centers for Disease Control and Prevention 17

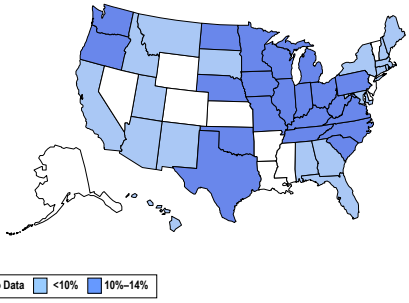
Obesity Trends Among U.S. Adults
BRFSS, 1988



No Data | <10% | 10%–14%

Centers for Disease Control and Prevention 18

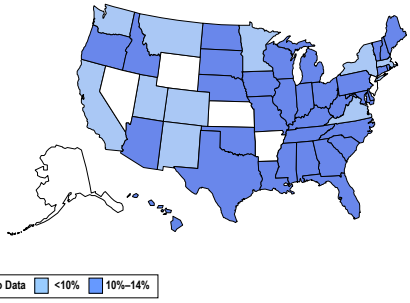
Obesity Trends Among U.S. Adults
BRFSS, 1989



No Data | <10% | 10%–14%

Centers for Disease Control and Prevention 19

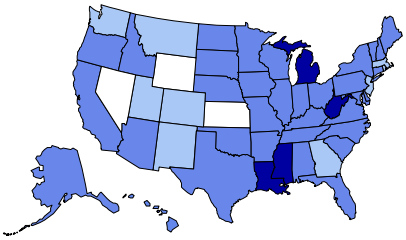
Obesity Trends Among U.S. Adults
BRFSS, 1990



No Data | <10% | 10%–14%

Centers for Disease Control and Prevention 20

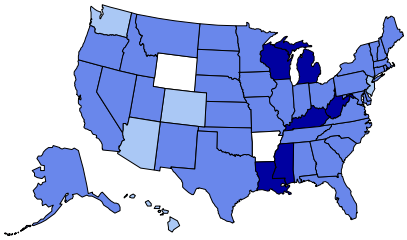
Obesity Trends Among U.S. Adults
BRFSS, 1991



No Data | <10% | 10%–14% | 15% - 19%

Centers for Disease Control and Prevention 21

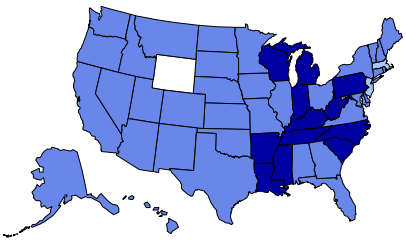
Obesity Trends Among U.S. Adults
BRFSS, 1992



No Data | <10% | 10%–14% | 15% - 19%

Centers for Disease Control and Prevention 22

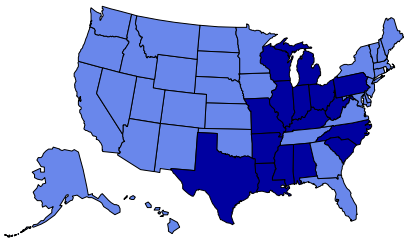
Obesity Trends Among U.S. Adults
BRFSS, 1993



No Data | <10% | 10%–14% | 15% - 19%

Centers for Disease Control and Prevention 23

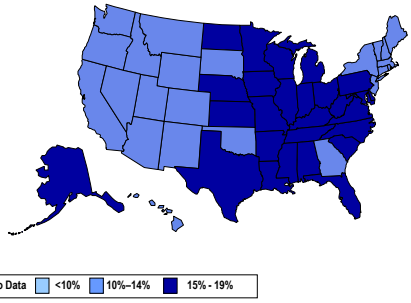
Obesity Trends Among U.S. Adults
BRFSS, 1994



No Data | <10% | 10%–14% | 15% - 19%

Centers for Disease Control and Prevention 24

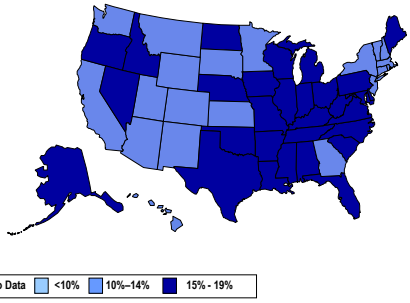
Obesity Trends Among U.S. Adults
BRFSS, 1995



No Data | <10% | 10%–14% | 15% - 19%

Centers for Disease Control and Prevention 25

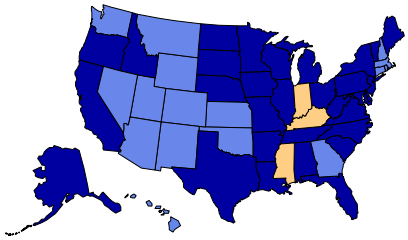
Obesity Trends Among U.S. Adults
BRFSS, 1996



No Data | <10% | 10%–14% | 15% - 19%

Centers for Disease Control and Prevention 26

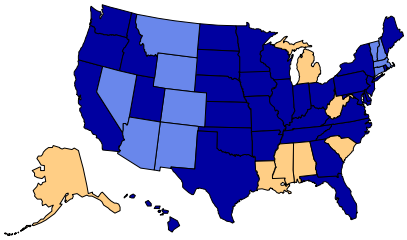
Obesity Trends Among U.S. Adults
BRFSS, 1997



No Data | <10% | 10%–14% | 15% - 19% | 20% - 24%

Centers for Disease Control and Prevention 27

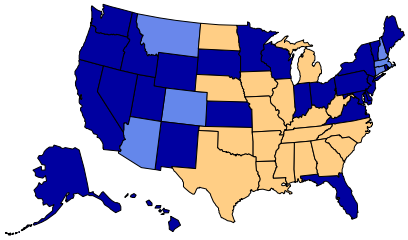
Obesity Trends Among U.S. Adults
BRFSS, 1998



No Data | <10% | 10%–14% | 15% - 19% | 20% - 24%

Centers for Disease Control and Prevention 28

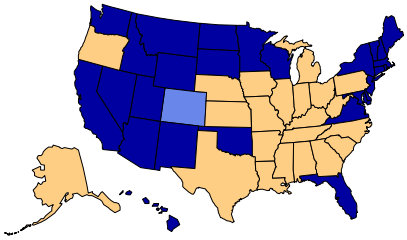
Obesity Trends Among U.S. Adults
BRFSS, 1999



No Data | <10% | 10%–14% | 15% - 19% | 20% - 24%

Centers for Disease Control and Prevention 29

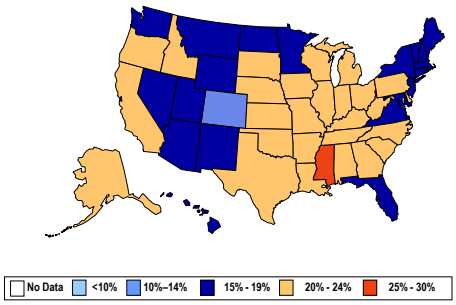
Obesity Trends Among U.S. Adults
BRFSS, 2000



No Data | <10% | 10%–14% | 15% - 19% | 20% - 24%

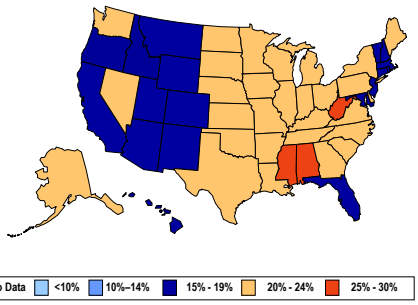
Centers for Disease Control and Prevention 30

Obesity Trends Among U.S. Adults
BRFSS, 2001



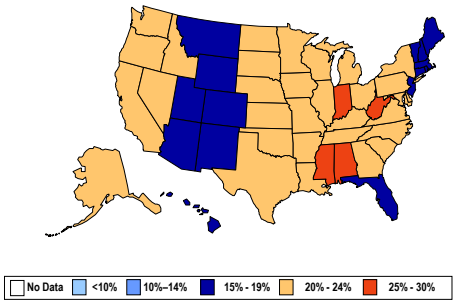
Centers for Disease Control and Prevention 31

Obesity Trends Among U.S. Adults
BRFSS, 2002



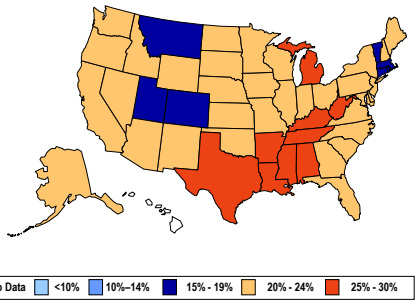
Centers for Disease Control and Prevention 32

Obesity Trends Among U.S. Adults
BRFSS, 2003



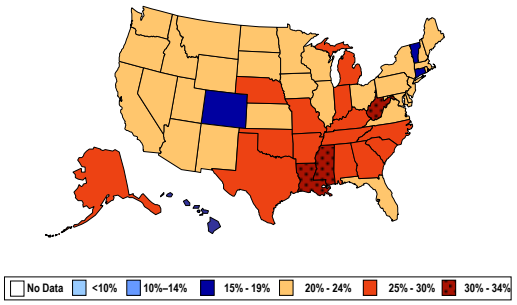
Centers for Disease Control and Prevention 33

Obesity Trends Among U.S. Adults
BRFSS, 2004



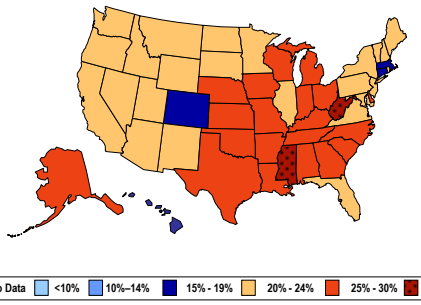
Centers for Disease Control and Prevention 34

Obesity Trends Among U.S. Adults
BRFSS, 2005



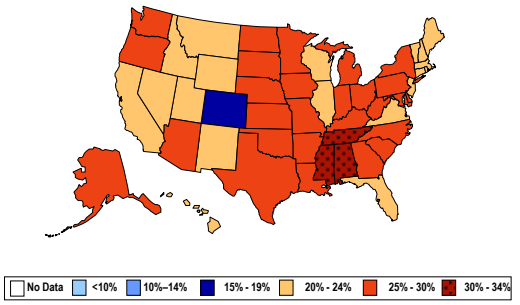
Centers for Disease Control and Prevention 35

Obesity Trends Among U.S. Adults
BRFSS, 2006



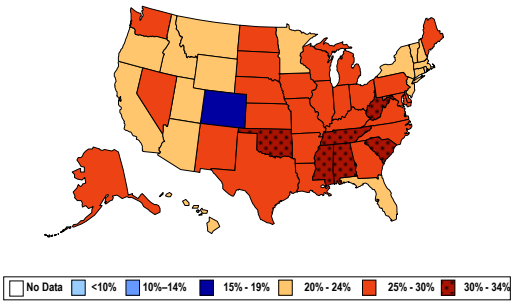
Centers for Disease Control and Prevention 36

Obesity Trends Among U.S. Adults
BRFSS, 2007



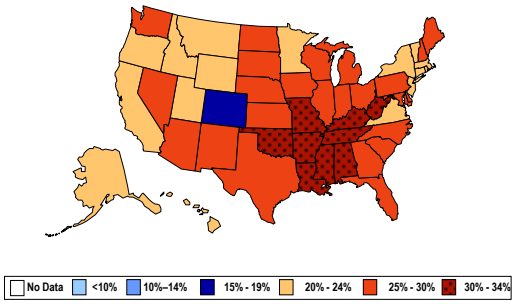
Centers for Disease Control and Prevention 37

Obesity Trends Among U.S. Adults
BRFSS, 2008



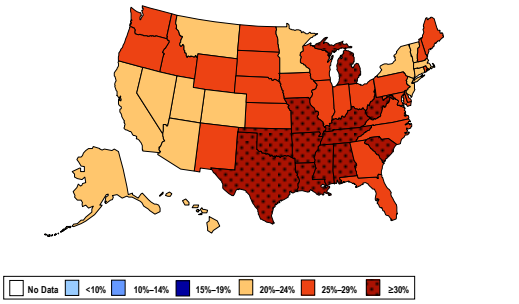
Centers for Disease Control and Prevention 38

Obesity Trends Among U.S. Adults
BRFSS, 2009



Centers for Disease Control and Prevention 39

Obesity Trends Among U.S. Adults
BRFSS, 2010

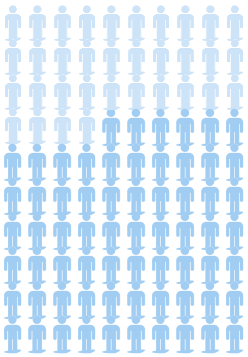


Centers for Disease Control and Prevention

66% of all Americans are **overweight** with a BMI above 25

= Healthy Weight

= Overweight



Ogden et al, 2006
Centers for Disease Control and Prevention, 2010

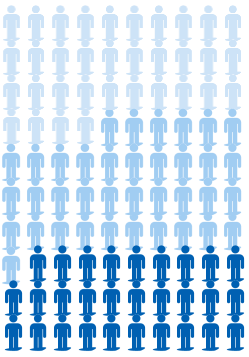
41

29% of all Americans are **obese** with a BMI above 30

= Healthy Weight

= Overweight

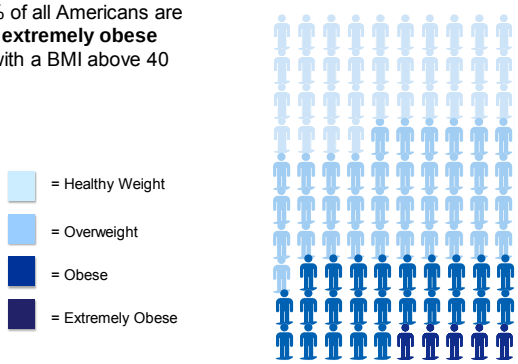
= Obese



Ogden et al, 2006
Centers for Disease Control and Prevention, 2010

42

5% of all Americans are **extremely obese** with a BMI above 40



Ogden et al, 2006
Centers for Disease Control and Prevention, 2010

43

Adult Obesity By Race

For Non-Hispanic Black Americans - 36% are obese

For Hispanic Americans - 29% are obese

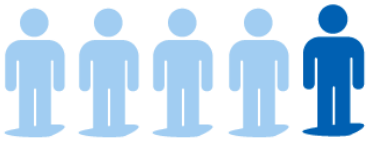
For Non-Hispanic White Americans - 24% are obese

= Healthy Weight
= Obese

Centers for Disease Control and Prevention, 2006-2008 Behavioral Risk Factor Surveillance data

44

Children today have a lower life expectancy than their parents



17% of American children (approximately 1 in 5) age 2 to 19 years old are obese

= Healthy Weight
= Obese

Centers for Disease Control and Prevention, 2007-2008 NHANES data

45

Childhood Obesity

For Non-Hispanic Black children age 12 to 19 years old - 49% are obese

For Mexican American children age 12 to 19 years old - 34% are obese

For Non-Hispanic White children age 12 to 19 years old - 31% are obese

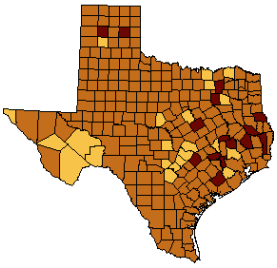
= Healthy Weight
= Obese

Centers for Disease Control and Prevention, 2007-2008 NHANES data

46

Adult Obesity in Texas

2008 Estimates of the Percentage of Adults Age ≥20 Who Are Obese in Texas



Cameron County (Brownsville) – 26.7%

Galveston County (Galveston) – 27.2%

Nueces County (Corpus Christi) – 27.7%

Webb County (Laredo) – 28.2%

≥ 29.8
26.3-29.7
22.0-26.2
0-21.9

Centers for Disease Control and Prevention: National Diabetes Surveillance System.
Available online at: http://apps.nccd.cdc.gov/DDTSTRS/default.aspx. Retrieved 3/30/2011.

47

What are the health problems created by obesity?

48

Consequences for Obese Individuals

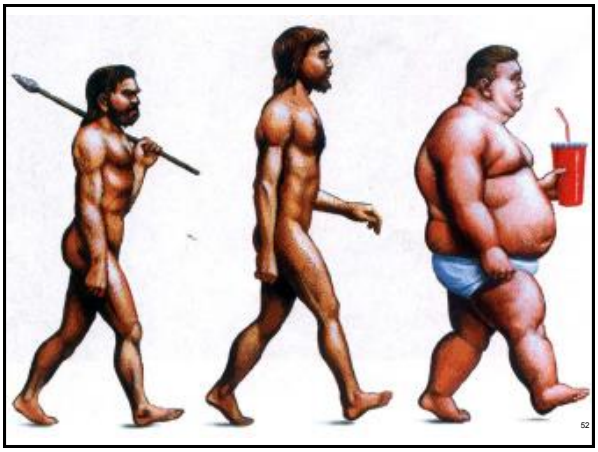
49

Why do we "eat ourselves to death" ?!?

50

Because we can.

51



52

How did we get here?

- Not a simple question.
- Many factors make this complex.
- Most simple answer:
  - Eating more
  - Moving less
  - Treatment mostly ineffective

53

Toxic Environment:

Inexpensive unhealthy food available everywhere

Brownell, 1994

54

Toxic Environment

Cradle to Grave Marketing

55

Toxic Environment: Junk Food as Early Education

56

Toxic Environment: Conflicting Messages

57

Toxic Environment: Food Advertising

Food, beverages, candy
$7,313,200,000

Restaurants and fast food
$5,061,000,000

Advertising Age, June 26, 2006 Special Report

58

Eating Behaviors

What is the most influential factor that determines how much children and adults eat?

A. Hunger
B. Mood
C. PORTION SIZE
D. Time of Day

59

Adults & Children eat more if given a larger portion size

- Children 3-5 years old ate 25% more of an entrée when given portions that were double an age-appropriate standard size.
  - Fisher, et al. *Am J Clin Nutr* 2003, v.77
- Adults ate more food when given larger portions and rated hunger and satiety the same
  - Rolls, et al. *J Am Diet Assoc*. 2004, v.104

60

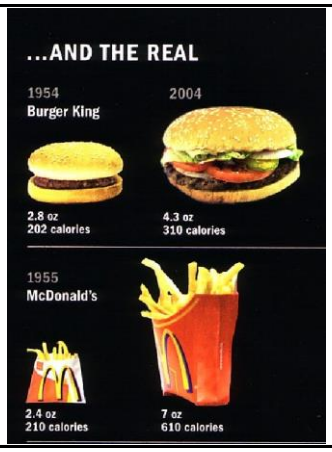
Toxic Environment: Portion Sizes

- **Original** McDonald's burger, fries and 12 ounce soft drink: **590 Calories**
- **Super Size Extra Value Meal** – Quarter Pounder with cheese, super size fries and a super size soft drink: **1,550 Calories**
- **Go Active! Happy Meal** – one of McDonald's four Premium Salads, a fountain drink of choice or bottled water, a Stepometer™ to track one's daily steps, and an informative booklet. (California Cobb Salad + medium soft drink): **580 kcal**

61

Toxic Environment: Portion Sizes

62



The Heavy Cost of Fat
National Geographic,
August 2004

63

The Heavy Cost of Fat
National Geographic,
August 2004

64

Toxic Environment: Moving Less

- TV, computers, video games
- Safety concerns
- Decrease in PE class time

65

Brownell, 1994

"On a scale of 0-10, how important is it to plan and eat fresh fruits and vegetables and whole grains?

HOW IMPORTANT IS IT?

0 1 2 3 4 5 6 7 8 9 10

Not important at all — Very important

66

Community Health Workers can help bring about change with health promotion.

Let's begin!

67

Switch to
Energy Balance
PowerPoint

68

Body Mass Index Table

	Normal						Overweight					Obese										Extreme Obesity														
BMI	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**
Height (inches)																		**Body Weight (pounds)**																		
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report*.

Body Mass Index Table (BMI)

Height	Normal Weight						Overweight					Obesity										Extreme Obesity														
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
feet/ meters	Body Weight (pounds)																																			
4'10" / 1.47	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
4'11" / 1.50	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
5'0" / 1.52	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
5'1" / 1.55	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
5'2" / 1.57	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
5'3" / 1.60	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
5'4" / 1.63	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
5'5" / 1.65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
5'6" / 1.68	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
5'7" / 1.70	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
5'8" / 1.73	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
5'9" / 1.75	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
5'10" / 1.78	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
5'11" / 1.80	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
6'0" / 1.83	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
6'1" / 1.85	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
6'2" / 1.88	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
6'3" / 1.91	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
6'4" / 1.93	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.*

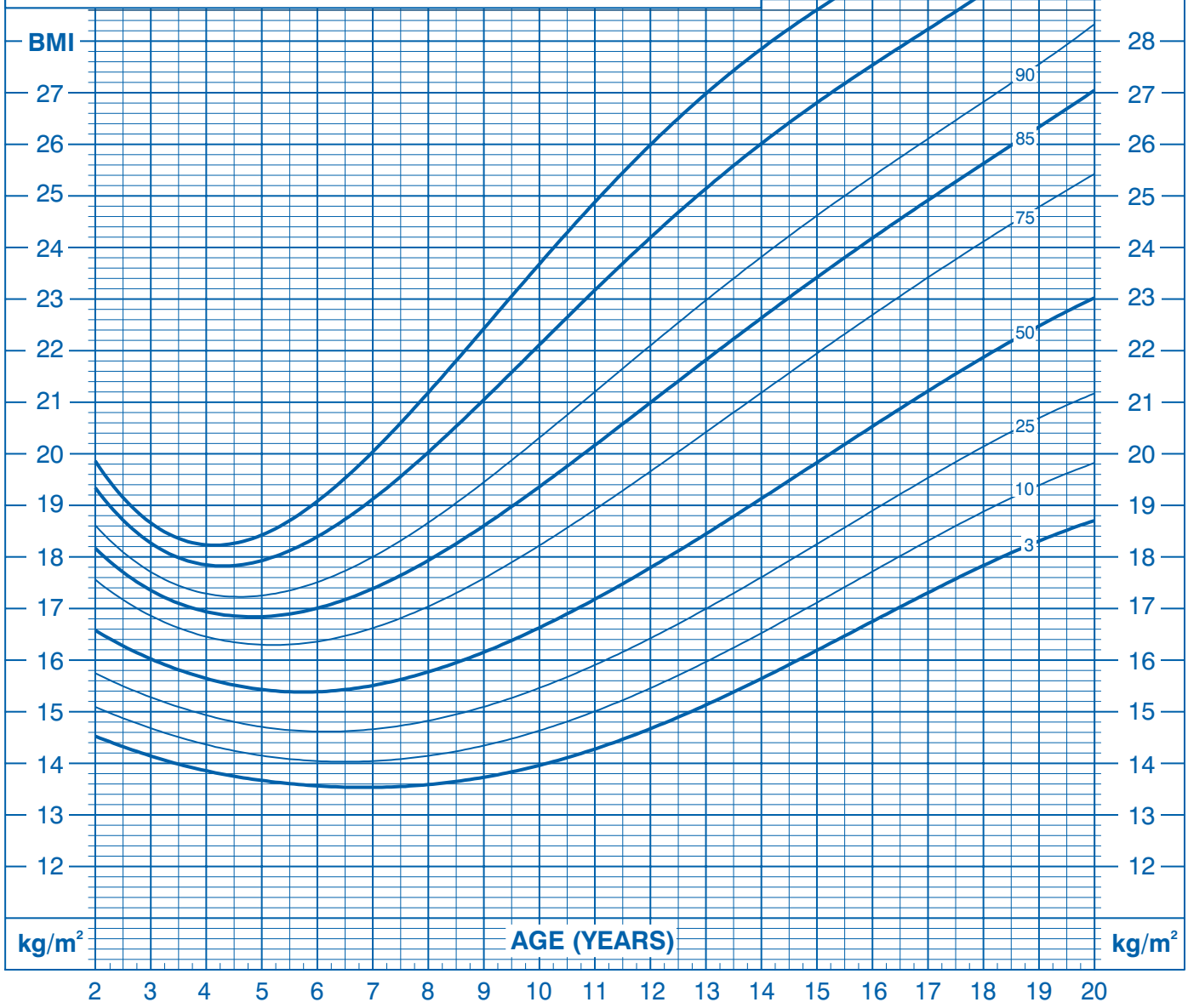
2 to 20 years: Boys
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

***To Calculate BMI**: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

SAFER • HEALTHIER • PEOPLE™

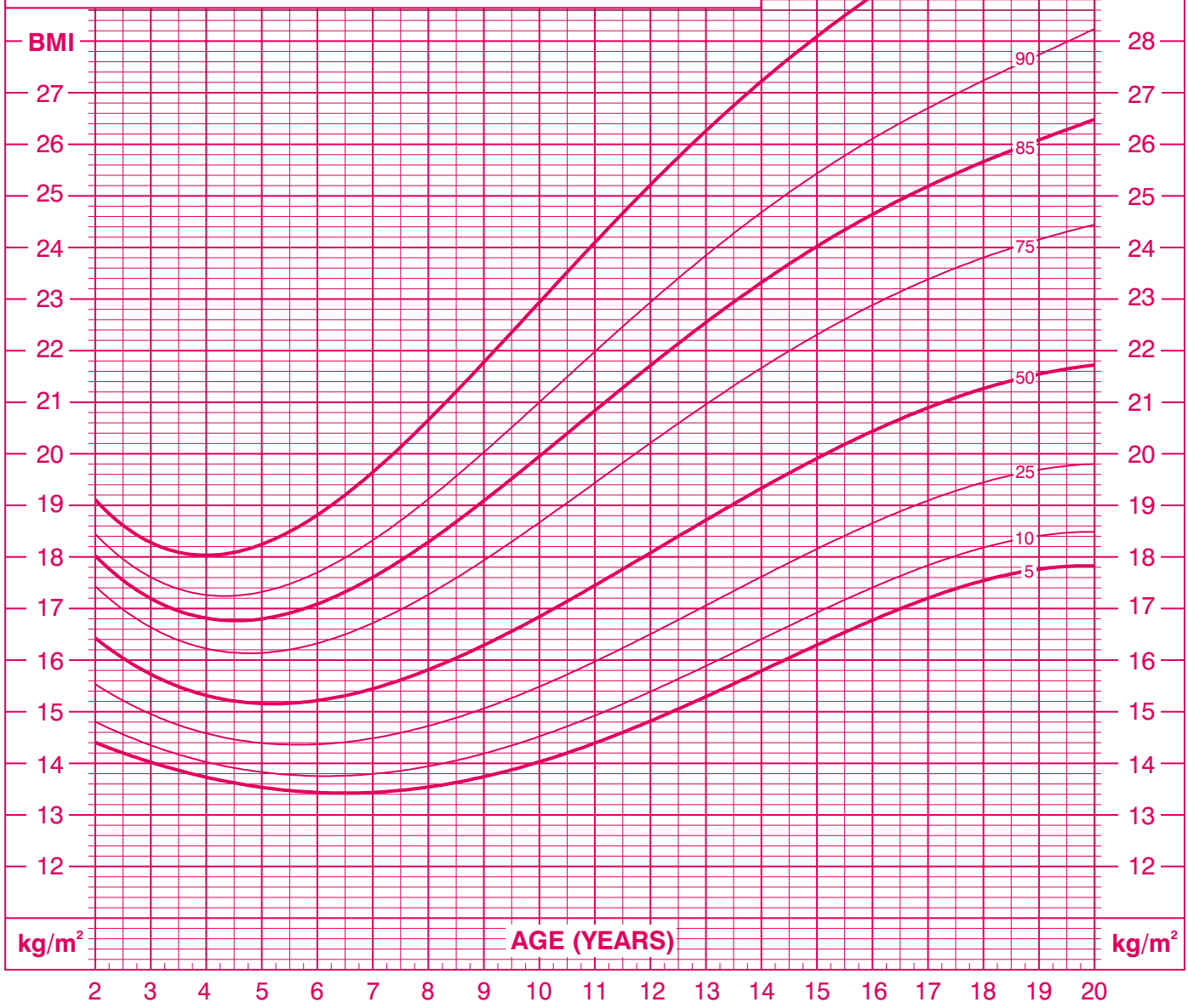
2 to 20 years: Girls
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

***To Calculate BMI**: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

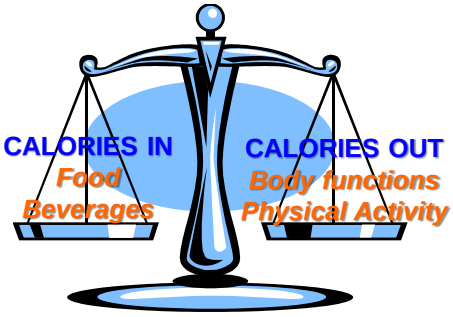
SAFER • HEALTHIER • PEOPLE™

Your Health Matters: Nutritious Eating

2: Energy Balance

1

Energy Balance



Centers for Disease Control and Prevention; National Heart, Lung, and Blood Institute, National Institutes of Health

2

What is a calorie?

CALORIE = unit of energy supplied by food

Calorie Control helps with Energy Balance

How do you want to spend your calorie "budget"?

Centers for Disease Control and Prevention; American Dietetic Association

3

Calories, Energy Balance and Weight Control

Calories IN = Calories OUT
Energy Balance - maintain weight

Calories IN > Calories OUT over time
Out of balance - gain weight

Calories IN < Calories OUT over time
Out of balance - lose weight

Centers for Disease Control and Prevention; National Heart, Lung, and Blood Institute – National Institutes of Health

4

Calories IN to maintain weight is different for each person.



Estimated calorie needs per day may range from 1,200 to 2,800 depending on sex, age, weight, height, activity level, health conditions and other factors.



Nutrition Through the Life Cycle, Brown 2008; National Heart, Lung, and Blood Institute – National Institutes of Health

5

Calories IN to maintain weight: Different for each person

Example 1
Sedentary
45 year-old female
5'2" 147 pounds
BMI = 27.0 (**overweight**)

Calories needed per day: **1,800** to maintain current weight (not to lose)

National Heart, Lung, and Blood Institute – National Institutes of Health

6

Calories IN to maintain weight: Different for each person

Example 2
Moderately Active
16 year-old female
5'4" 128 pounds
BMI = 22

Calories needed per day: **2,000** to maintain current weight

National Heart, Lung, and Blood Institute – National Institutes of Health

Calories IN to maintain weight: Different for each person

Example 3
Moderately Active
65 year-old female
5'4" 155 pounds
BMI = 26.5 (**overweight**)

Calories needed per day: **1,800** to maintain current weight (not to lose weight!)

National Heart, Lung, and Blood Institute – National Institutes of Health

Calories OUT: Healthy Weight Loss

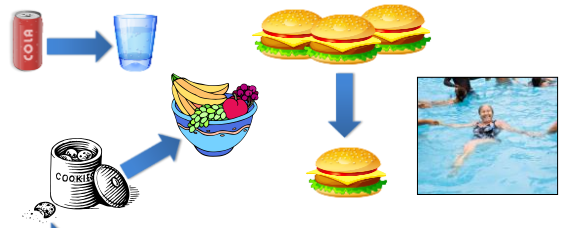
100 extra calories/day = 10 pounds/year

About 3,500 calories = 1 pound

Healthy weight loss = 1-2 lbs/wk

Calories OUT: Healthy Weight Loss

Cut/burn 3,500 to 7,000 cal/wk



You could lose 4 to 8 pounds per month

Breakfast is Important

- Studies show eating breakfast is a strategy for long-term weight loss, along with physical activity and eating a diet low in calories and fat.
- Eating early in the day jump-starts your metabolism.
- Eating breakfast helps improve strength and endurance, attitude toward work/school, blood sugar level, and helps prevent hunger and overeating later in the day.

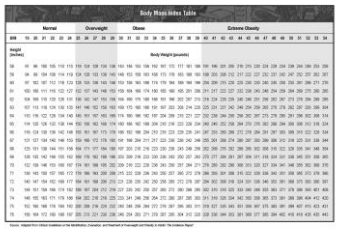
McAllister, 2008; American Journal of Clinical Nutrition, 1992 and 2005

Healthy Breakfast Ideas

Instant oatmeal with skim milk instead of water, add raisins and walnuts
Low-fat yogurt with crunchy cereal and sliced fruit or berries
Toaster waffle topped with low-fat yogurt and fruit
Whole-wheat pita stuffed with sliced, hard-boiled egg, low-fat cheese
Corn tortilla with peanut butter and half banana
Granola bar, apple, glass of milk
High-fiber, multigrain cereal, strawberries, skim milk
Lean ham, low-fat Swiss cheese on a toasted whole-grain English muffin
Leftover brown rice with low-fat yogurt, dried fruit, nuts and cinnamon
Deli turkey, slice of low-fat cheese and lettuce wrapped in a tortilla
Smoothie made with berries, ice, and low-fat milk or yogurt

Davis, 2010; Reader's Digest 2011; American Dietetic Association, 2011

What is a healthy weight?



Healthy weight is one where your BMI (height for weight is between 19 and 24.

Centers for Disease Control and Prevention

13

Calories IN: Dietary Guidelines

Variety

Balance

Moderation

Nutrient Density

Nutritional Sciences, Thompson Learning Inc. 2007

14

Calories IN: Dietary Guidelines

Variety

Enjoy foods from all food groups every day

Nutritional Sciences, Thompson Learning Inc. 2007

15

Calories IN: Dietary Guidelines

Balance

Eat the right amount from each food group… Watch portions!

16

Nutritional Sciences, Thompson Learning Inc. 2007

Calories IN: Dietary Guidelines

Moderation

Eat mostly fruits, vegetables, and whole grains. Limit fat and sugars.

17

Nutritional Sciences, Thompson Learning Inc. 2007

Calories IN: Dietary Guidelines

Nutrient Density

Choose foods rich in nutrients. Avoid "empty calories."

18

Nutritional Sciences, Thompson Learning Inc. 2007

Calories OUT: Activity Guidelines

"FITT"

Frequency

Intensity

Time

Type

19

Centers for Disease Control and Prevention, National Heart Lung and Blood Institute

Calories OUT: Activity Guidelines

Frequency
How often are you physically active?

20

Centers for Disease Control and Prevention, National Heart Lung and Blood Institute

Calories OUT: Activity Guidelines

Intensity
Your level of physical activity

21

Centers for Disease Control and Prevention, National Heart Lung and Blood Institute

Calories OUT: Activity Guidelines

Time
How long are you physically active?

Adults: At least 30 minutes most days – at least 10 minutes at a time
Children: At least 60 minutes per day

22

Centers for Disease Control and Prevention, National Heart Lung and Blood Institute

Calories OUT: Activity Guidelines

Type
aerobic or strength training

23

Centers for Disease Control and Prevention, National Heart Lung and Blood Institute

Keep Track

24

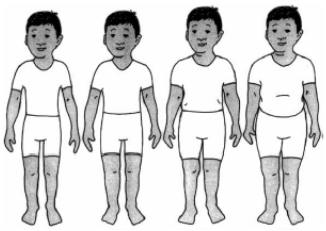
Centers for Disease Control and Prevention

The Bottom Line…

25

26

Activity: Healthy Beliefs



27

For the next three days, write down everything you eat and drink + your activity. Where can you make changes?

28

Energy Balance
Key Point Recap

- Calories In vs. Calories Out
- IN: *food choices - variety, balance, moderation, nutrient density*
- OUT: *activity – "FITT"*
- Keep track to tip the scale

29

Switch to
Portion Distortion
PowerPoint

30

Estimated Calorie Requirements

(In Kilocalories) for Each Gender and Age Group at Three Levels of Physical Activity[a]

This chart shows how many calories are recommended for both males and females in all age groups. The energy requirements also are broken down into levels of activity from sedentary to active. This should give you a sense of how many calories, ENERGY IN, your family members need.

Estimate Calorie Requirements

Estimated amounts of calories needed to maintain energy balance for various gender and age groups at three different levels of physical activity. The estimates are rounded to the nearest 200 calories and were determined using the Institute of Medicine equation.

		Activity Level[b,c,d]		
Gender	**Age (years)**	**Sedentary[b]**	**Moderately Active[c]**	**Active[d]**
Child	2–3	1,000	1,000–1,400[e]	1,000–1,400[e]
Female	4–8	1,200	1,400–1,600	1,400–1,800
	9–13	1,600	1,600–2,000	1,800–2,200
	14–18	1,800	2,000	2,400
	19–30	2,000	2,000–2,200	2,400
	31–50	1,800	2,000	2,200
	51+	1,600	1,800	2,000–2,200
Male	4–8	1,400	1,400–1,600	1,600–2,000
	9–13	1,800	1,800–2,200	2,000–2,600
	14–18	2,200	2,400–2,800	2,800–3,200
	19–30	2,400	2,600–2,800	3,000
	31–50	2,200	2,400–2,600	2,800–3,000
	51+	2,000	2,200–2,400	2,400–2,800

a These levels are based on Estimated Energy Requirements (EER) from the Institute of Medicine Dietary Reference Intakes macronutrients report, 2002, calculated by gender, age, and activity level for reference-sized individuals. "Reference size," as determined by IOM, is based on median height and weight for ages up to age 18 years of age and median height and weight for that height to give a BMI of 21.5 for adult females and 22.5 for adult males.

b Sedentary means a lifestyle that includes only the light physical activity associated with typical day-to-day life.

c Moderately active means a lifestyle that includes physical activity equivalent to walking about 1.5 to 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life

d Active means a lifestyle that includes physical activity equivalent to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.

e The calorie ranges shown are to accommodate needs of different ages within the group. For children and adolescents, more calories are needed at older ages. For adults, fewer calories are needed at older ages.

Source: HHS/USDA Dietary Guidelines for Americans, 2005

My Physical Activity Diary Day _____

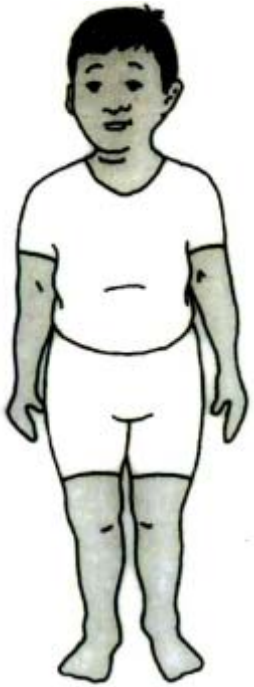
Day of week	Time of Day	Description of Activity (Type and Intensity Level)	Duration

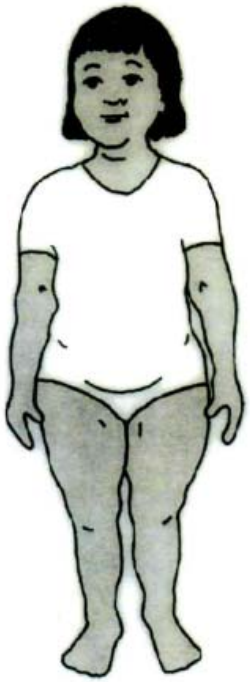
My Food Diary Day _____

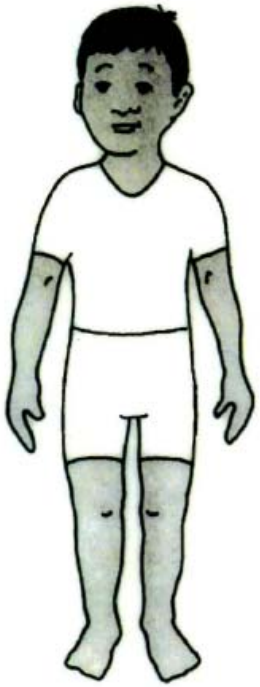
Meal/Snack (Indicate time of day)	What You Ate and Drank	Where and With Whom	Notes (Feelings, hunger, etc.)
Breakfast			
Snack			
Lunch			
Snack			
Dinner			

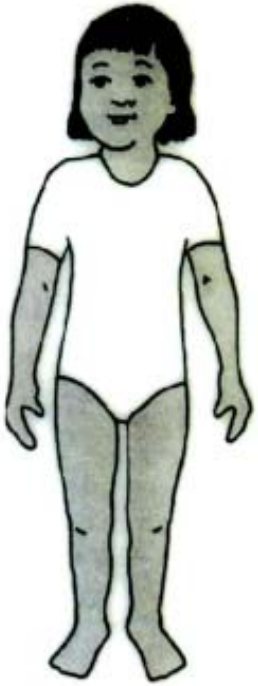
Activity: Healthy Beliefs

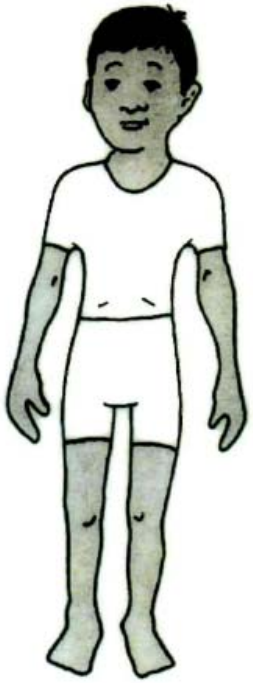
Participant Sheets

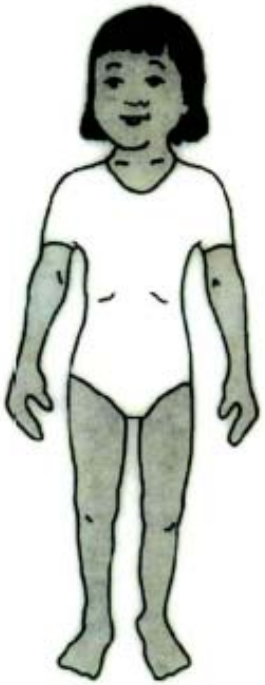


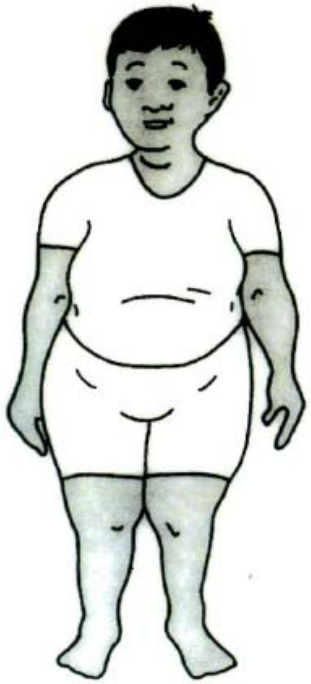


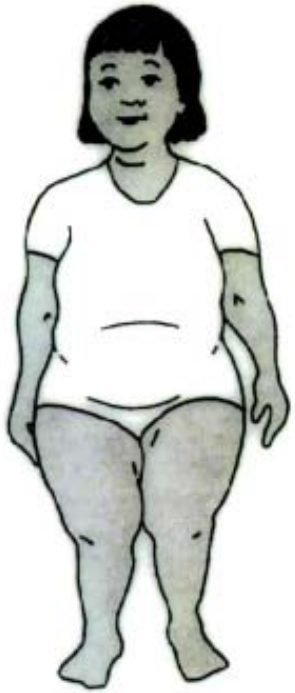


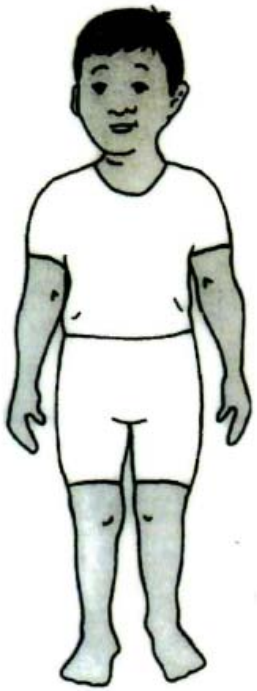


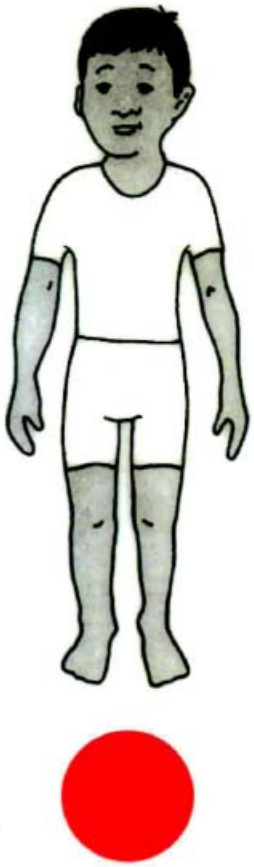


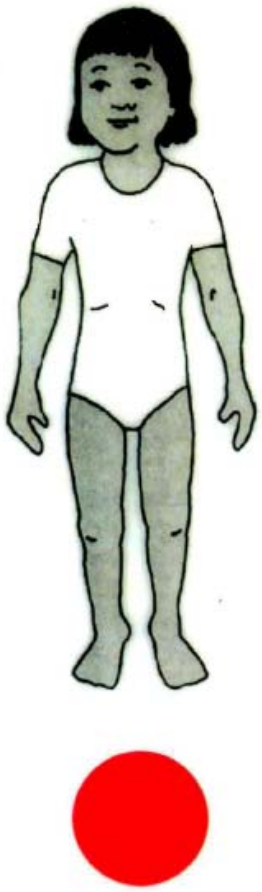


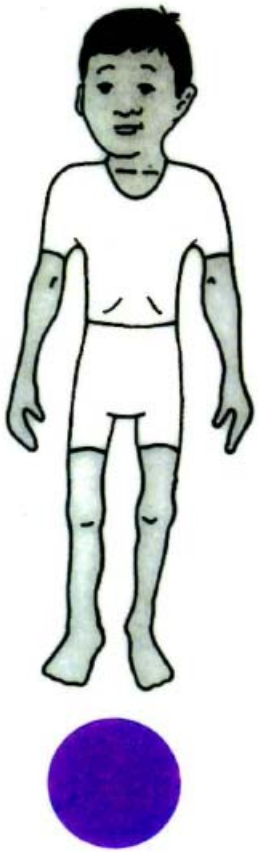


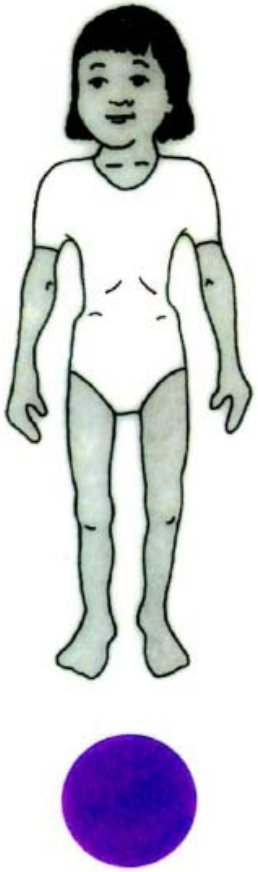












Child Health Beliefs Worksheet 1

Now I'm going to show you various drawings of children (blue, pink, and yellow) and ask you some questions.

Silhouette *Use the boys and girls.*	**How would you describe this child?**	**What words would you use to describe this child?**	**What kind of things do you think this child does to play?**	**What kinds of things do you think this child's mother feeds him/her?**	**Would you have any worries if your child looked like this?**
B=Blue					
D=Pink					
F=Yellow					

Child Health Beliefs Worksheet 2

When comparing these 4 children (dark green, light green, red, and purple), which would you say is the healthiest? Why do you think this?

Silhouette *Use the boys and girls.*	**Which child here would you describe as the healthiest child? Why?**	**What are terms that people use when they are talking about a healthy child?**	**What are the characteristics of a healthy child?**	**What does a healthy child look like?**	**How does a healthy child act?**
A=Dark green					
C=Light green					
E=Red					
G=Purple					

Child Health Beliefs Worksheet 3

Which of these children (dark green, light green, red, and purple) here would you say is the least healthy?

Silhouette *Use the boys and girls.*	**Which child here would you describe as the least healthy child?**	**What are terms that people use when they are talking about an unhealthy child?**	**What are the characteristics of an unhealthy child?**	**What does an unhealthy child look like?**	**How does an unhealthy child look?**
A=Dark green					
C=Light green					
E=Red					
G=Purple					

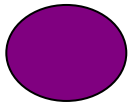
Child Health Beliefs Worksheet 4

Which of these children (dark green, light green, red, and purple) here looks most like your child/children? Write the names of group members in the space they indicate.

Silhouette *Use the boys and girls*	**Which child looks most like yours?**	**Which would you most like your child to look like?**
A=Dark green		
C=Light green		
E=Red		
G=Purple		

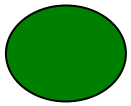
Child Health Beliefs Worksheet 5

Looking at the purple silhouette, what words would you use to describe this child?

Silhouette *Use the boys and girls*	**Which words would you use to describe this child?**	**Which terms would other people use to when talking about this child?**	**How does this child act?**	**How do you think this child got to look like this?**
G=Purple 				

Child Health Beliefs Worksheet 6

Looking at the dark green silhouette, what words would you use to describe this child?

Silhouette *Use the boys and girls.*	**Which words would you use to describe this child?**	**Which terms would other people use to when talking about this child?**	**How does this child act?**	**How do you think this child got to look like this?**
A=Dark green 				

Your Health Matters: Nutritious Eating

3: Portion Distortion

How Food Portions Have Changed in 20 Years

Presentation adapted from the National Heart, Lung, and Blood Institute Obesity Education Initiative

1

CHEESEBURGER

20 Years Ago

333 calories

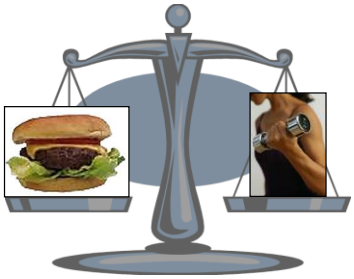
Today

590 calories

Calorie Difference: 257 calories

2

How long will you have to lift weights in order to burn the extra 257 calories?*



If you **lift weights** for **1 hour and 30 minutes,** you will burn approximately **257 calories.**

***Based on 130-pound person**

3

FRENCH FRIES

20 Years Ago

210 Calories
2.4 ounces

Today

610 calories
6.9 ounces

How many calories are in today's portion of fries?

Calorie Difference: 400 Calories

4

How long will you have to walk leisurely in order to burn those extra 400 calories?*

If you **walk briskly** for **1 hour and 10 minutes** you will burn approximately **400 calories.***

***Based on 160-pound person**

5

SPAGHETTI & MEATBALLS

20 Years Ago

500 calories
1 cup spaghetti with sauce and 3 small meatballs

Today

1,025 calories
2 cups of pasta with sauce and 3 large meatballs

How many calories do you think are in today's portion of spaghetti and meatballs?

Calorie Difference: 525 calories

6

How long will you have to swim in order to burn the extra 525 calories?*

If you **swim (moderately)** for **1 hour and 30 minutes**, you will burn approximately **525 calories.***

*Based on 130-pound person

7

TURKEY SANDWICH

20 Years Ago

320 calories

Today

820 calories

How many calories are in today's turkey sandwich?

Calorie Difference: 500 calories

8

How long will you have to ride a bike in order to burn those extra 500 calories?*

If you **ride a bike** for **1 hour and 25 minutes,** you will burn approximately **500 calories.***

*Based on 160-pound person

9

TORTILLA

20 Years Ago

220 calories
(2) small/fajita flour tortillas

Today

420 calories
(2) large/burrito size flour tortillas

How many calories in (2) large/burrito size flour tortillas?

Calorie Difference: 200 calories

10

How long will you have to sweep in order to burn the extra 200 calories?*

If you **sweep** for **50 minutes** you will burn the extra **200 calories.***

*Based on 160-pound person

11

SODA

20 Years Ago

85 Calories
6.5 ounces

Today

250 Calories
20 ounces

How many calories are in today's portion?

Calorie Difference: 165 Calories

12

How long will you have to work in the garden to burn those extra 165 calories?*

If you **work in the garden** for **35 minutes**, you will burn approximately **165 calories.***

***Based on 160-pound person**

13

Eat a healthy diet of mostly fruits, vegetables and whole grains.

Pay attention to serving sizes.

Eat smaller portions of high-calorie foods.

Replace calorie-dense foods and drinks with vegetables, fruits, whole grains, and other low-calorie choices.

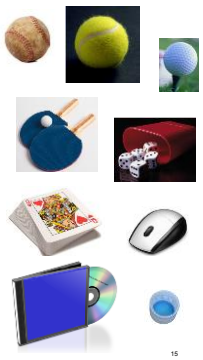
When you eat out, choose options low in calories, fat, and sugar; avoid large portions.

The American Cancer Society

14

What counts as a serving?

- **½ cup rice or pasta** = baseball
- **1 cup cooked veggies** = tennis ball
- **¼ cup nuts or dried fruit** = golf ball
- **2 TBSP nut butter** = ping pong ball
- **1 oz hard cheese** = 4 dice
- **3 oz meat/fish/poultry** = deck of cards
- **1 potato** = computer mouse
- **1 oz bread/toast/pancake** = CD case
- **1 tsp oil** = water bottle cap



Adapted from Whole Foods Market, "The Whole Deal" August/September 2009

15

When eating out, cut your order in half and share it with someone or take half home for another meal.

16

Portion Distortion
Key Point Recap

- Size matters! Pay attention to servings/portions.
- More calories IN means more calories to burn.
- Eat a healthy diet of mostly fruits, vegetables, and whole grains.

17

Switch to
Healthy Eating
PowerPoint

18

Your Health Matters: Nutritious Eating

Go
Slow
Whoa

Planning a Healthy Plate

4: Healthy Eating

1

Showtime!

Video
Your Health Matters: Nutritious Eating

2

GO SLOW WHOA

Use the light to eat right!

GO Foods
"whole foods;" lowest unhealthy fat and added sugars; least processed

SLOW Foods
higher unhealthy fat and added sugars; more processed

WHOA Foods
highest unhealthy fat and added sugars; most processed

National Heart, Lung, and Blood Institute, National Institutes of Health, and Coordinated Approach to Child Health (CATCH)

3

GO Foods… Great to eat anytime

SLOW Foods
Enjoy sometimes / less often

5

WHOA Foods… Enjoy small portions only on special occasions

Pop Quiz!

Which food is
Go? Slow? Whoa?

1) White rice
   Brown rice
   Fried rice

2) Baked potato
   Baked potato with butter
   Fried French fries

3) Milkshake
   Skim milk
   Low-fat milk

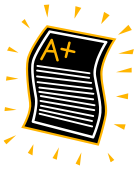
Pop Quiz!

Which food is
Go? Slow? Whoa?

1) White rice S
   Brown rice G
   Fried rice W

2) Baked potato G
   Baked potato with butter S
   Fried French fries W

3) Milkshake W
   Skim milk G
   Low-fat milk S



Pop Quiz!

Which food is
Go? Slow? Whoa?

4) Peach in canned syrup
   Peach pie
   Fresh peach

5) 100% juice
   Fruit-flavored soda
   Fruit smoothie

6) Doughnut
   White bread
   Whole wheat bread

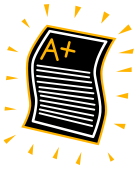
Pop Quiz!

Which food is
Go? Slow? Whoa?

4) Peach in canned syrup S
   Peach pie W
   Fresh peach G

5) 100% juice G
   Fruit-flavored soda W
   Fruit smoothie S

6) Doughnut W
   White bread S
   Whole wheat bread G



Planning a
Healthy Plate

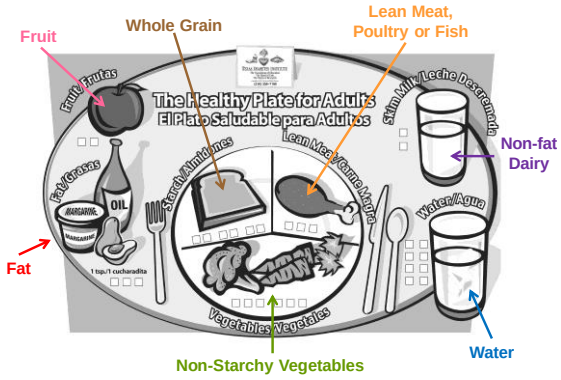
Remember the
Dietary Guidelines…

Variety

Balance

Moderation

Nutrient Density



American Diabetes Association Create Your Plate Video

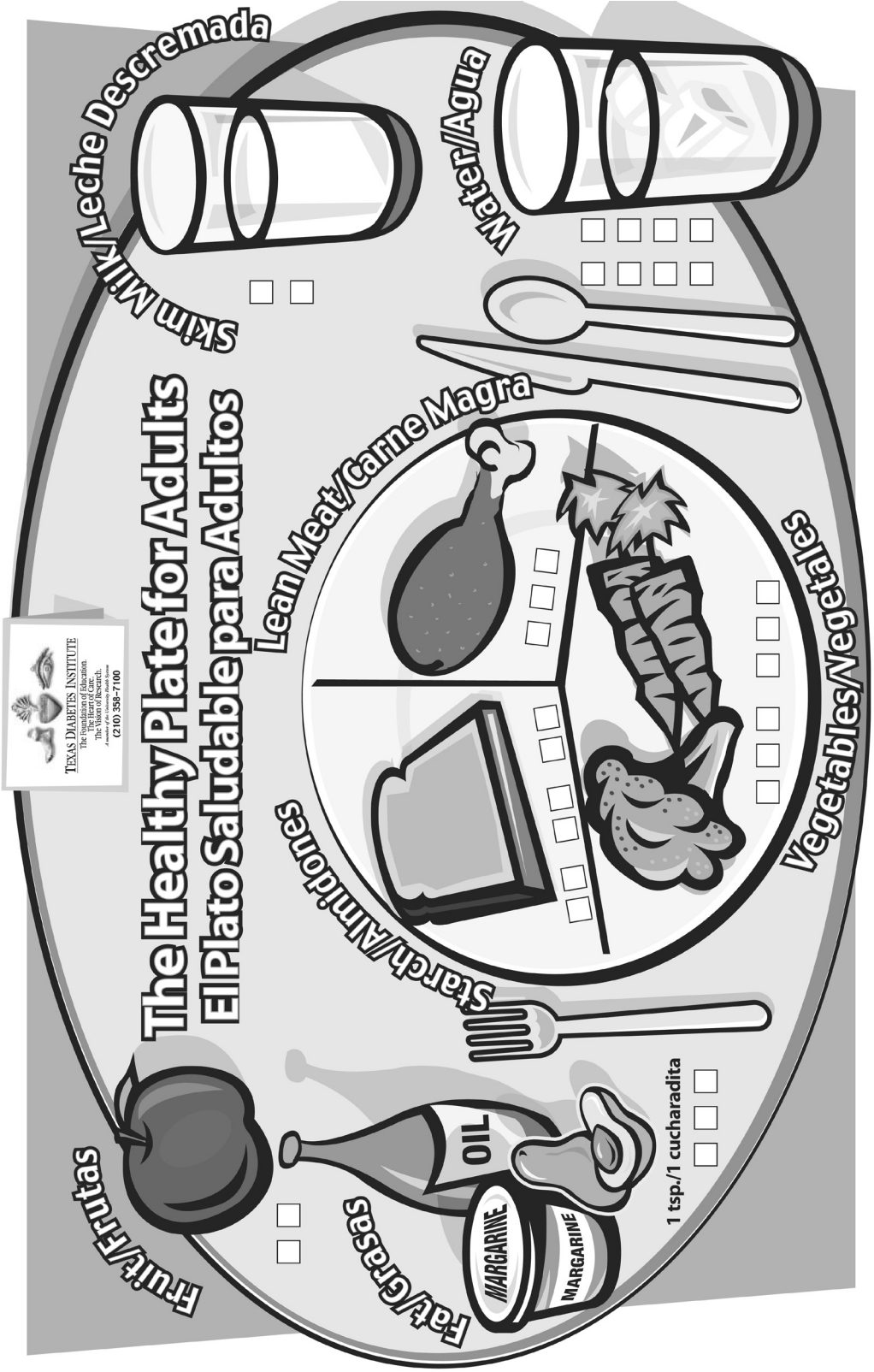
Activity: Build-A-Meal

One day this week, eat only **GO** foods.

Healthy Eating
Key Point Recap

- A healthy diet has more **GO** foods than **SLOW** foods, and more **SLOW** foods than **WHOA** foods.
- Create your plate with Variety, Balance, Moderation, and Nutrition in mind.
- A Healthy Plate has mostly vegetables, some whole grain, lean meat/fish, fruit and a small amount of unsaturated fat.

Switch to
The Basic Nutrients
PowerPoint


Skim Milk/Leche Descremada
Water/Agua
The Healthy Plate for Adults
El Plato Saludable para Adultos
Lean Meat/Carne Magra
Vegetables/Vegetales
Starch/Almidones
Fruit/Frutas
Fat/Grasas
OIL
MARGARINE
MARGARINE
1 tsp./1 cucharadita
TEXAS DIABETES INSTITUTE
The Foundation of Education.
The Heart of Care.
The Vision of Research.
(210) 358-7100

Fruit/Frutas

apple (2”), 1	manzana (2”), 1
apricot, 1/2 cup	chavacan, 1/2 taza
banana, 1/2	platano/banano, 1/2
cantaloupe (cubed), 1 cup	melon (cubos), 1 taza
cherries, 1/2 cup	cerezas, 1/2 taza
grapefruit, (medium), 1/2	toronja (mediano), 1/2
grapes, 1/2 cup	uvas, 1/2 taza
orange (2-1/2”), 1	naranja (2-1/2”), 1
peach (2-3/4”), 1	durazno (2-3/4”), 1
pear (small), 1	pera (chica), 1
pineapple, 3/4 cup	piña, 3/4 taza
raspberries, 1 cup	frambuesa, 1 taza
strawberries, 1-1/4 cup	fresas, 1-1/4 taza
watermelon, 1-1/4 cup	sandia, 1-1/4 taza
juices, 1/3 to 1/2 cup	jugos, 1/3 a 1/2 taza

Starches/Almidones

dry cereal, 3/4 cup	potato (baked), 3 oz	cereal seco, 3/4 taza	papa (horneada), 3 onzas
cooked cereal, 1/2 cup	potato (mashed), 1/2 cup	cereal cocido, 1/2 taza	papa (puré), 1/2 taza
bread, 1 slice	winter squash, 1 cup	pan, 1 rabanada	calabaza madura, 1 taza
bun (hamburger), 1/2	popcorn, 3 cups	pan de hamburgesa, 1/2	palomitas de maiz, 3 tazas
bun (hotdog), 1/2	pretzels, 3/4 oz	pan de hot dogs, 1/2	pretzels, 3/4 onza
bagel, 1/2	pasta, (cooked), 1/2 cup	bagel, 1/2	pasta cocinada, 1/2 taza
dried beans, (cooked), 1/3 cup	peas, (cooked), 1/2 cup	frijoles secos, (cocidos), 1/3 taza	chicharos (cocinado), 1/2 taza
dried beans, (baked), 1/4 cup	rice, (cooked), 1/2 cup	frijoles secos, (horneados), 1/4 taza	arroz (cocinado), 1/2 taza
corn, 1/2 cup	tortilla (6” corn or flour), 1	elote, 1/2 taza	tortilla (6” maiz o harina), 1
lima beans, 1/2 cup		habas, 1/2 taza	

Vegetables/Vegetales

asparagus	esparragos
beans (green, wax)	ejotes frescos
beets	betables
broccoli	brocoli
brussel sprouts	bruselas
cabbage	repollo
carrots	zanahoria
cauliflower	coliflor
celery	apio
cucumbers	pepinos
greens	hojas verdes
lettuce	lechuga
mushrooms	hongos/champiñones
pumpkin	calabaza madura
radishes	rabanos
squash	calabacita
spinach	espinaca
tomatoes	tomates

Skim Milk/Leche Descremada

milk (skim or 1%), 1 cup	leche (descremada o 1%), 1 taza
yogurt (plain or light), 1 cup	yogurt (sencillo o light), 1 taza
buttermilk (low fat), 1 cup	suero de mantequilla (bajo en grasa), 1 taza

Fat/Grasas

Unsaturated:	**Insaturadas:**
margarine, 1 tsp.	margarina, 1 cucharadita
mayonnaise, 1 tsp.	mayonesa, 1 cucharadita
cashews, dry roasted, 1 tbsp.	nuece de la India, 1 cucharada
peanuts, 20	cacahuates, 20
olives, 5	acietunas, 5
salad dressing, 1 tbsp.	aderesos de ensalada, 1 cucharada
avocado, 1/8	aguacate, 1/8
oil (canola, olive, peanut), 1 tsp.	aciete (de canola, oliva o cacahuate), 1 cucharadita

Lean Meat/Carne Magra

egg substitute, ¼ cup	claras de huevo, ¼ taza
cheese (lowfat), 1 oz.	queso (bajo en grasa), 1 onza
lunch meats, (95% fat-free)	carnes frias (95% libres en grasa)
peanut butter, 2 tbsp	mantequilla de cacahuate, 2 cucharadas
Poultry (no skin)	**Aves (sin pellejo)**
chicken	pollo
turkey	pavo
Beef	**Carne de res**
round steak	round steak
sirloin steak	sirloin steak
flank steak	flank steak
tenderloin	lomo de res
veal	carne de ternera
Pork	**Puerco**
tenderloin	lomo de puerco
Canadian bacon	Canadian bacon
ham	jamon


The Healthy Plate for Children
El Plato Saludable para los Niños
Texas Diabetes Institute
The Foundation of Education.
The Partner of Care.
The Vision of Research.
A member of the University Health System
(210) 358-7100
Skim Milk
Leche
Descremada
Water / Agua
Lean Meat
Carne Magra
Vegetables
Vegetales
Starch
Almidones
Fruit / Frutas
Fat / Grasas
OIL
MARGARINE
MARGARINE
1 tsp./1 cucharadita

Fruit/Frutas

apple (2”), 1	manzana (2”), 1
apricot, 1/2 cup	chavacan, 1/2 taza
banana, 1/2	platano/banano, 1/2
cantaloupe (cubed), 1 cup	melon (cubos), 1 taza
cherries, 1/2 cup	cerezas, 1/2 taza
grapefruit, (medium), 1/2	toronja (mediano), 1/2
grapes, 1/2 cup	uvas, 1/2 taza
orange (2-1/2”), 1	naranja (2-1/2”), 1
peach (2-3/4”), 1	durazno (2-3/4”), 1
pear (small), 1	pera (chica), 1
pineapple, 3/4 cup	piña, 3/4 taza
raspberries, 1 cup	frambuesa, 1 taza
strawberries, 1-1/4 cup	fresas, 1-1/4 taza
watermelon, 1-1/4 cup	sandia, 1-1/4 taza
juices, 1/3 to 1/2 cup	jugos, 1/3 a 1/2 taza

Starch/Almidones

dry cereal, 3/4 cup	potato (baked), 3 oz	cereal seco, 3/4 taza	papa (horneada), 3 onzas
cooked cereal, 1/2 cup	potato (mashed), 1/2 cup	cereal cocido, 1/2 taza	papa (puré), 1/2 taza
bread, 1 slice	winter squash, 1 cup	pan, 1 rabanada	calabaza madura, 1 taza
bun (hamburger), 1/2	popcorn, 3 cups	pan de hamburgesa, 1/2	palomitas de maiz, 3 tazas
bun (hotdog), 1/2	pretzels, 3/4 oz	pan de hot dogs, 1/2	pretzels, 3/4 onza
bagel, 1/2	pasta, (cooked), 1/2 cup	bagel, 1/2	pasta cocinada, 1/2 taza
dried beans, (cooked), 1/3 cup	peas, (cooked), 1/2 cup	frijoles secos, (cocidos), 1/3 taza	chicharos (cocinado), 1/2 taza
dried beans, (baked), 1/4 cup	rice, (cooked), 1/2 cup	frijoles secos, (horneados), 1/4 taza	arroz (cocinado), 1/2 taza
corn, 1/2 cup	tortilla (6” corn or flour), 1	elote, 1/2 taza	tortilla (6” maiz o harina), 1
lima beans, 1/2 cup		habas, 1/2 taza	

Vegetables/Vegetales

asparagus	esparragos
beans (green, wax)	ejotes frescos
beets	betables
broccoli	brocoli
brussel sprouts	bruselas
cabbage	repollo
carrots	zanahoria
cauliflower	coliflor
celery	apio
cucumbers	pepinos
greens	hojas verdes
lettuce	lechuga
mushrooms	hongos/champiñones
pumpkin	calabaza madura
radishes	rabanos
squash	calabacita
spinach	espinaca
tomatoes	tomates

Skim Milk/Leche Descremada

milk (skim or 1%), 1 cup	leche (descremada o 1%), 1 taza
yogurt (plain or light), 1 cup	yogurt (sencillo o light), 1 taza
buttermilk (low fat), 1 cup	suero de mantequilla (bajo en grasa), 1 taza

Fat/Grasas

Unsaturated:	**Insaturadas:**
margarine, 1 tsp.	margarina, 1 cucharadita
mayonnaise, 1 tsp.	mayonesa, 1 cucharadita
cashews, dry roasted, 1 tbsp.	nuece de la India, 1 cucharada
peanuts, 20	cacahuates, 20
olives, 5	acietunas, 5
salad dressing, 1 tbsp.	aderesos de ensalada, 1 cucharada
avocado, 1/8	aguacate, 1/8
oil (canola, olive, peanut), 1 tsp.	aciete (de canola, oliva o cacahuate), 1 cucharadita

Lean Meat/Carne Magra

egg substitute, ¼ cup	claras de huevo, ¼ taza
cheese (lowfat), 1 oz.	queso (bajo en grasa), 1 onza
lunch meats, (95% fat-free)	carnes frias (95% libres en grasa)
peanut butter, 2 tbsp	mantequilla de cacahuate, 2 cucharadas
Poultry (no skin)	**Aves (sin pellejo)**
chicken	pollo
turkey	pavo
Beef	**Carne de res**
round steak	round steak
sirloin steak	sirloin steak
flank steak	flank steak
tenderloin	lomo de res
veal	carne de ternera
Pork	**Puerco**
tenderloin	lomo de puerco
Canadian bacon	Canadian bacon
ham	jamon

Activity: Build-A-Meal

GO Food Choices

Main Dishes-GO

Eggs (scrambled, no fat added)
Hummus
Refried Beans (fat-free)
Salmon (grilled)
Salad with light dressing
Salad with grilled skinless chicken and light dressing
Turkey (low-fat) sandwich on whole wheat

Side Dishes-GO

Apple
Whole wheat toast
Broccoli
String Cheese (low-fat)
Salad with light dressing
Raisins
Low-fat plain yogurt

Drinks-GO

Water
Unsweetened decaf tea
Milk (skim)
Orange Juice

Desserts-GO

Yogurt (low-fat plain)
Strawberries
Graham crackers
Popcorn (air popped)
Pineapple

Activity: Build-A-Meal

SLOW Food Choices

Main Dishes-SLOW

Hamburger (lean) with bun
Peanut butter and jelly sandwich on white bread
Chicken Nuggets (baked)
Eggs (fried in vegetable oil)
Turkey sandwich on white bread
Cereal (Low-fat granola) with 2% milk
Fish Sticks (baked)

Side Dishes-SLOW

Broccoli with Cheese Sauce
French Fries (baked)
Potato Chips (baked)
Toast (white)
Cheddar Cheese
Tortilla Chips
Rice (white)

Drinks-SLOW

Iced Tea
Milk (2% fat)
Milk (chocolate skim)

Desserts-SLOW

Frozen Yogurt (low-fat)
Vanilla wafers
Ice Cream (low-fat)

Activity: Build-A-Meal

WHOA Food Choices

Main Dishes-WHOA

Cheeseburger (quarter-pound)
Chicken Sandwich (breaded and fried)
Enchiladas
Fried Chicken
Pepperoni Pizza
Hotdog and bun
Ham and cheese sandwich on white bread

Side Dishes-WHOA

French Fries (fried)
Bacon
Potato Salad
Cheese (processed)
Potato Chips (regular)
Yogurt (whole milk)
Pickles

Drinks-WHOA

Coke
Milk (whole)
Sprite
Fruit punch
Energy drink
Sports drink
Coffee drink (frozen)

Desserts-WHOA

Chocolate Cake
Oreo Cookies
Ice Cream
Brownie

Build-A-Meal:
How does your lunch stack up?

	Main Dish	Side Dish	Drink	Dessert	Total from Lunch	1/3 RDA for adults 31-50 yrs	Over/ Under
Fat (grams)						22 g*	
Sodium (mg)						500 mg	
Carbohydrates (grams)						~43 g	
Protein (grams)						15-18 g	
Total Calories						~660 kcal**	

*Based on a 2,000-calorie diet with no more than 30% of calories from fat and 10% from saturated fat.
*Based on a 2000-calorie diet.

Now, as a group, total the fat, sodium, carbohydrates, protein, and calories for all participants that chose foods from the GO list, those that chose from the SLOW list, and those that chose from the WHOA list. Divide these totals by the number of participants in each group to get an average for each nutrient.

	GO Foods Group average	SLOW Foods group average	WHOA Foods group average
Fat (grams)			
Sodium (mg)			
Carbohydrates (grams)			
Protein (grams)			
Total Calories			

Activity: Build-A-Meal

Nutrition Information

Use the table below to see how well your day's meals stack up to balanced nutrition. Remember, even if you do really well that you have to watch for serving sizes. (In other words, just because your Oreo cookies didn't put you over the fat limit doesn't mean you should eat half the bag!)

Food	**Fat** grams, g	**Sodium** milligrams, mg	**Carbohydrates** grams, g	**Protein** grams, g	**Total Calories**
Apple	0	0	22	0	80
Bacon	7	280	0	4	80
Broccoli	0	25	4	3	25
Broccoli with cheese sauce	14	703	8	14	212
Brownie	9	175	36	3	227
Cereal with 2% Milk	7	223	47	12	286
Cheddar Cheese	9	174	0	7	113
Cheese (processed)	9	400	1	6	105
Cheeseburger (quarter-pound)	29	1160	37	28	520
Chicken nuggets (baked)	10	560	20	20	240
Chicken sandwich (breaded and fried)	29	797	42	17	491
Chocolate Cake	11	250	36	3	250
Coffee drink (frozen)	2	165	40	3	195
Coke	0	35	27	0	100
Eggs (fried in vegetable oil)	19	63	1	6	198
Eggs (scrambled, no fat added)	5	63	1	6	74
Enchiladas	33	980	37	34	560
Fish sticks (baked)	14	642	26	18	304
French Fries (baked)	5	1050	40	5	140
French Fries (fried)	25	1105	60	5	470
Fried Chicken	28	1230	19	34	460
Fruit Punch	0	10	29	0	114
Frozen Yogurt (low-fat)	2	146	48	11	227
Graham Crackers	2	170	22	2	118
Ham and cheese sandwich on white	22	1620	30	23	403
Hamburger (lean) with bun	2	342	22	36	439
Hotdog and bun	14	730	19	9	240
Hummus, ½ c	12	480	18	10	210
Ice Cream (low-fat)	4	125	22	4	140
Ice Cream, regular	9	130	24	3	190
Iced Tea	0	25	21	0	80

Food	**Fat** grams, g	**Sodium** milligrams, mg	**Carbohydrates** grams, g	**Protein** grams, g	**Total Calories**
Milk (whole)	8	98	13	8	146
Milk (2% fat)	5	100	20	8	122
Milk (skim)	0	128	12	8	86
Milk (chocolate skim)	0	180	27	8	140
Orange Juice, 8 oz	0	0	27	1	110
Oreos (3)	7	210	24	2	160
Peanut Butter & Jelly on White	17	315	33	10	310
Pepperoni Pizza, 1 slice	17	860	43	15	390
Pickle	0	1631	3	0	15
Pineapple	0	2	20	1	74
Popcorn (air popped)	0	2	12	2	62
Potato Chips (regular)	9	170	16	2	150
Potato Chips (baked)	3	210	21	2	120
Potato Salad	28	460	19	4	340
Raisins	0	5	34	1	129
Refried beans (fat-free)	0	490	24	9	130
Rice (white)	1	3	41	5	194
Salad (with light dressing)	22	670	11	9	210
Salad (with grilled, skinless chicken, light dressing)	25	797	11	35	600
Salmon (grilled)	13	86	0	39	280
Sports Drink	0	95	15	0	63
Sprite	0	45	26	0	100
Strawberries	0	2	12	1	49
String Cheese (low-fat)	2	200	1	8	60
Toast (white)	1	160	15	2	79
Toast (whole wheat)	1	147	13	3	75
Tortilla Chips	6	60	19	2	140
Turkey Sandwich on White	15	1585	29	24	346
Turkey (low-fat) Sandwich on Wheat	5	1010	46	18	280
Vanilla Wafers	4	87	21	1	123
Water	0	1	0	0	0
Yogurt (whole milk)	8	120	12	9	160
Yogurt (low-fat, plain)	3	115	12	8	100

Test your meal-building skills at home!

Take-Home Family Activity: Build-A-Meal

How Does Your Family Meal Stack Up?

Take a minute to think about the foods that you and your family usually eat. As a family, review the GO-SLOW-WHOA concept of healthy eating and teach them what you learned during the Build-A-Meal activity to create three family meals of your choice. Remember to choose more GO foods than SLOW foods, and more SLOW foods than WHOA foods.

Healthy Eating Tips

In the *Your Health Matters: Nutritious Eating*, you learned about categorizing foods as **GO**, **SLOW**, or **WHOA**.

- **GO** foods are commonly described as "whole foods." They're lower in added sugars and/or unhealthy fats, such as saturated fat, and they're often less processed compared to foods in the same food group. GO foods include fruits and vegetables; whole grains and foods made with whole grains; and unsweetened fat-free and low-fat milk and dairy foods.
- **SLOW** foods are higher in added sugars and/or unhealthy fats and may be more processed than GO foods. SLOW foods include unsweetened reduced-fat milk and dairy foods; sweetened fat-free and low-fat milk and dairy foods; and processed foods made with refined grains and added sugars and/or unhealthy fats.
- **WHOA** foods are highest in added sugars and/or unhealthy fats, and they're usually the most processed. WHOA foods include candy, cookies, chips, fried foods, ice cream, whole milk, soft drinks, and sugary cereals.

It's best to eat more GO foods than SLOW foods, and more SLOW foods than WHOA foods. The healthiest type of meal includes mostly GO foods.

When planning your daily meals, keep in mind that the average teenager needs 1,800 to 2,220 calories a day, adult females need about 1,800 calories a day, and adult males need about 2,200 calories a day.

Directions: Select a main dish, side dish, drink, and dessert from the handout of food choices. List your choices and the corresponding nutrition information in the tables on the following page. Then determine whether your choices meet the overall daily calorie recommendations. When creating your family meals you may want to use the Nutrition Information table and GO, SLOW, WHOA foods handout that you received in class.

Acknowledgement:
Adapted with permission from the CATCH Middle School project

Your Health Matters: Nutritious Eating
Build-A-Meal Family Activity

MEAL #1 Our Choices:	Main Dish (circle one) GO SLOW WHOA _____	Side Dish (circle one) GO SLOW WHOA _____	Drink (circle one) GO SLOW WHOA _____	Dessert (circle one) GO SLOW WHOA _____	Total from meal
Fat (g)					
Sugar (mg)					
Total calories					

MEAL #2 Our Choices:	Main Dish (circle one) GO SLOW WHOA _____	Side Dish (circle one) GO SLOW WHOA _____	Drink (circle one) GO SLOW WHOA _____	Dessert (circle one) GO SLOW WHOA _____	Total from meal
Fat (g)					
Sugar (mg)					
Total calories					

MEAL #3 Our Choices:	Main Dish (circle one) GO SLOW WHOA _____	Side Dish (circle one) GO SLOW WHOA _____	Drink (circle one) GO SLOW WHOA _____	Dessert (circle one) GO SLOW WHOA _____	Total from meal
Fat (g)					
Sugar (mg)					
Total calories					

After planning your three family meals, here are a few things to think about:

1. How do your total calories for each meal compare with the overall daily calorie recommendations?
2. Overall, how healthy were your choices?
3. What are three things you can change to make your meal healthier?

Your Health Matters: Nutritious Eating
Build-A-Meal Family Activity

GO, SLOW, WHOA Food Examples

Here is a handy list you can use when choosing foods at stores and restaurants!

GRAINS

GO	SLOW	WHOA
Whole-grain, low-sugar cereals	Low-sugar cereals (refined grains)	High-sugar cereals (refined grains)
Whole-grain breads/tortillas	White (refined flour) breads/buns	Sweet rolls, croissants
Graham crackers	Vanilla wafers, low-fat cookies	High-fat cookies
Corn tortillas	White (refined flour) tortillas	
Whole-grain pasta	Pasta (refined flour)	
Brown rice	White rice	
Baked tortilla chips	Tortilla chips	
	Baked potato chips	Potato chips
	Pretzels	Cheese puffs, corn chips

MILK AND DAIRY FOODS

GO	SLOW	WHOA
Fat-free (skim, nonfat) milk	2% milk	Whole milk
1% milk	Fat-free or 1% flavored milk	Whole or 2% flavored milk
Part-skim natural cheeses	Natural cheeses (like cheddar)	Processed cheeses
Low-fat string cheese	String cheese	
	Low-fat ice cream	Ice cream

MEAT, BEANS, AND EGGS

GO	SLOW	WHOA
Whole eggs	Eggs fried in vegetable oil	Eggs fried in butter, lard, or bacon grease
Extra-lean ground beef	Lean ground beef/hamburger	Regular ground beef/hamburger
Fish (baked, grilled, broiled)	Fish (breaded and baked)	Fish (fried)
Pork chop with fat cut off	Canadian bacon	Bacon, ribs, pork skins
Low-fat luncheon meat	Regular luncheon meat	Hot dog, sausage, bologna, chorizo
Tuna canned in water	Tuna canned in oil	
Cooked dried beans with no fat	Cooked dried beans with fat	
Chicken – no skin (baked, grilled, broiled)	Chicken – with skin (baked, grilled, broiled)	Fried chicken

Fruits and Fruit Juices
All **fruits and fruit juices** with no added sugar are **GO** foods.

Vegetables
All **vegetables** with no added fat are **GO** foods.

Beverages
All **soft drinks, energy drinks, sports drinks, coffee drinks, and fruit-flavored drinks** are **WHOA** foods.

Your Health Matters: Nutritious Eating

5: The Basic Nutrients

Calories In

The Six Basic Nutrients

Macronutrients

- **Water**
- **Carbohydrates**
- **Proteins**
- **Fats**

Micronutrients

- **Vitamins**
- **Minerals**

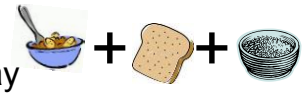
Water

- Makes up 60-75% total body weight
- Vital to keep your "engines" running
- Intake met with food and beverages
- 8 to 10 cups/day

Nutritional Sciences, Thomson Learning Inc. 2002

Carbohydrates

- Best "fuel" for the body = glucose
- Whole Grains
  - 3 servings/day



- Vegetables
  - 2 ½ cups/day

- Fruits
  - 2 cups/day

Nutritional Sciences, Thomson Learning Inc. 2002; MyPyramid.gov; American Cancer Society

Proteins

- Give structure for muscle, bone, skin
- Meat, poultry, fish, eggs, nuts, seeds, beans
  - 5 ½ ounces/day

- Dairy
  - 3 cups/day

Nutritional Sciences, Thomson Learning Inc. 2002; MyPyramid.gov

Fats (Lipids)

- Provide structure and store energy
- Make most of your fat sources from fish, nuts, vegetable oils
- Limit butter, margarine, lard, shortening

7

Nutritional Sciences, Thompson Learning Inc. 2007, MyPyramid.gov

GO SLOW WHOA and Fats

Unsaturated Fats — **Go**
- monounsaturated
- polyunsaturated
- ↓ heart disease risk

Saturated Fats — **Slow**
- mostly from animal sources
- not a necessary part of a healthy diet
- ↑ heart disease risk

***Trans* Fats** (oils) — **Whoa**
- partially hydrogenated
- not necessary for your body
- ↑ heart disease + diabetes risk

8

American Heart Association

Dietary Sources of Unsaturated Fats

Vegetable Oils: Olive, Canola, Peanut, Sesame, Sunflower
Avocado, Peanut Butter, Nuts and Seeds, Fatty Fish

Eat these!




9

American Heart Association

Dietary Sources of Saturated Fats

Fatty Meats - Beef, Lamb, Poultry with skin
Full-fat Dairy Foods
(cheese, butter, ice cream, whole milk)
Coconut and Palm Oils
Cocoa Butter

Limit these!






10

American Heart Association

Dietary Sources of *Trans* Fats

Stick Margarine, Some Tub Margarine, Shortening
Fried Foods, Some processed foods like baked goods and crackers

Avoid these!




11

American Heart Association

Vitamins

- Vital for using energy from carbohydrates, protein, and fat
- A, B_6, B_{12}, C, D, E, K, Folate, Thiamin, Riboflavin, Niacin, Biotin, Pantothenic Acid
- Best to get through a whole foods diet… variety!

12

Nutritional Sciences, Thompson Learning Inc. 2007

Fruits and Vegetables = great sources of vitamins

13

Nutrition Through the Life Cycle, Brown, 2008

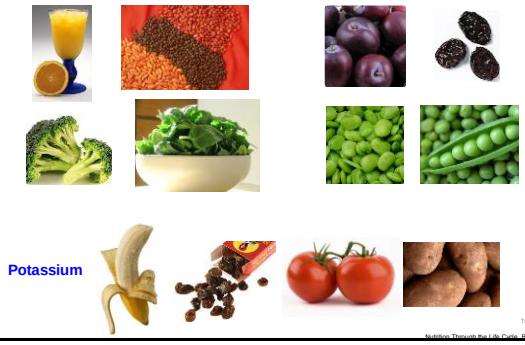
Minerals

- Give bones structure, carry oxygen in your blood, regulate heartbeat
- Calcium, Iron, Potassium, Sodium, Zinc, Phosphorus, Magnesium, and more
- Best to get through a whole foods diet… variety!

14

Nutritional Sciences, Thomson/Learning Inc, 2002

Fruits and Vegetables = great sources of minerals



15

Nutrition Through the Life Cycle, Brown, 2008

Alcohol… *Not a nutrient!*

- Ethyl alcohol (ethanol)
- Intoxicating ingredient produced by fermentation of yeast, sugars, starches
- Central nervous system depressant

16

Centers for Disease Control and Prevention, Dietary Guidelines for Americans

Alcohol… *Not a nutrient!*

Frozen Margarita
12 oz = 750 cal

Sweet Wine
4 oz = 105 cal

Regular Beer
12 oz = 149 cal

Tequila Shot
1.5 oz = 100 cal

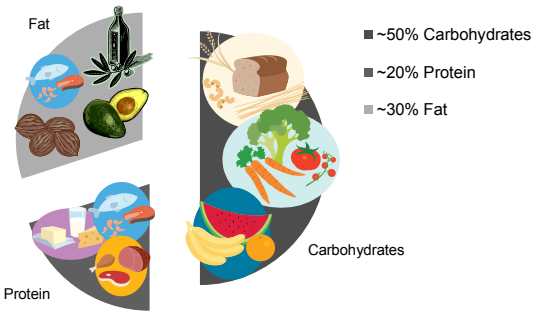
Rum
1 oz = 64 calories

Moderation = no more than 1 drink per day for women; no more than 2 drinks per day for men

17

Centers for Disease Control and Prevention, Dietary Guidelines for Americans

Dietary Guidelines



18

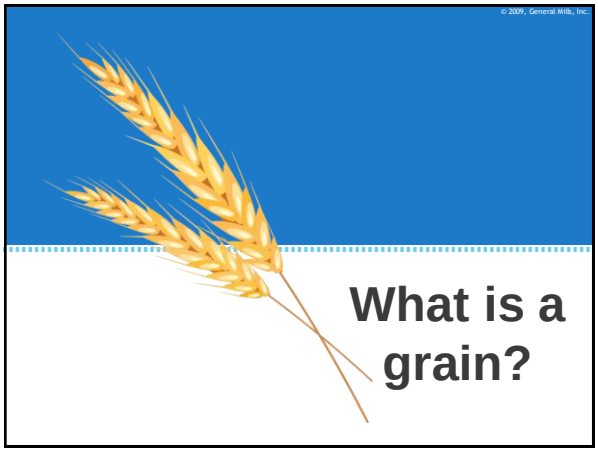
USDA Dietary Guidelines for Americans and MyPyramid.gov

Eat a balanced whole foods diet
especially ***fruits*** *and* ***veggies***
to meet your basic nutrient needs

19

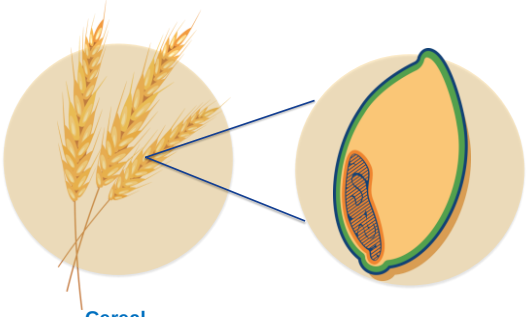
For the next week, drink 8 glasses of water per day and try one new fruit.

20



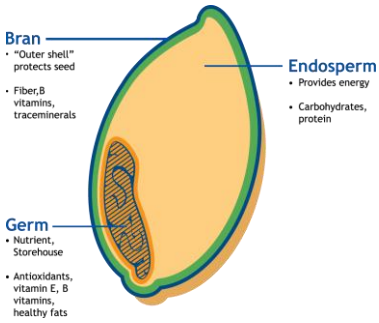
What is a grain?

Grains are Seeds



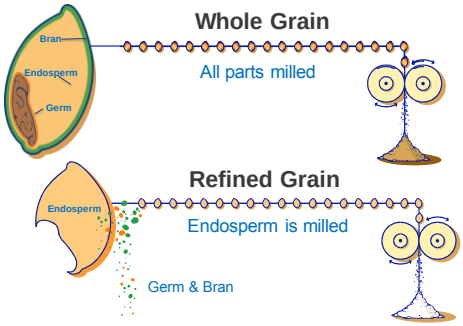
22

Parts of a Grain



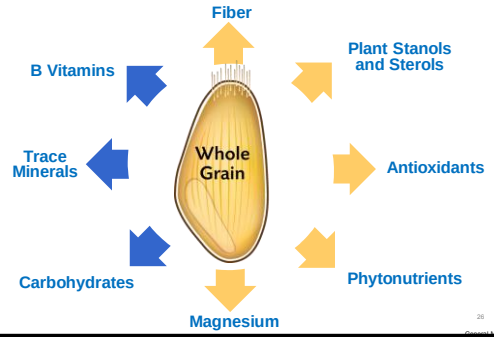
23

Milling of Grains



24

Whole Grains Have Grain Benefits PLUS More



Grains Contain Important Nutrients

Carbohydrates

B Vitamins

Trace Minerals

- Iron
- Zinc
- Copper

27

Dietary Fiber

Insoluble (whole grains)
Soluble (fruits and veggies)

- Helps move food through
- Helps control blood sugar
- Makes you feel full faster
- Lowers cholesterol

28

Whole Grain Health Benefits

- **Reduced risk of disease:**
  - Heart disease
  - Some cancers
  - Diabetes
- **Digestive health**
- **Weight control**

29

Whole Grain Fiber Facts

Whole Grain ≠ Fiber

Whole Grain Doesn't Mean High Fiber

- Whole grain foods provide 1-4 grams of fiber per serving
- Contain the whole grain package

High Fiber Doesn't Mean Whole Grain

- Some high-fiber grain foods are not whole grain

30

Will the Whole Grain Please Stand Up?

Label-Reading for Whole Grain

Look for "Whole Grain" as a Leading Ingredient

Look for an FDA-Approved Health Claim

IN A LOW-FAT DIET, WHOLE GRAIN FOODS LIKE TOTAL MAY REDUCE THE RISKS OF HEART DISEASE and SOME CANCERS

Diets rich in whole grain foods and other plant foods, and low in total fat, saturated fat and cholesterol may reduce the risks of heart disease and certain cancers.

Look for Whole Grain Symbols

Whole Grains Council Stamp Program

For products offering a half-serving or more of whole grain. Contains at least 8g whole grain per serving.

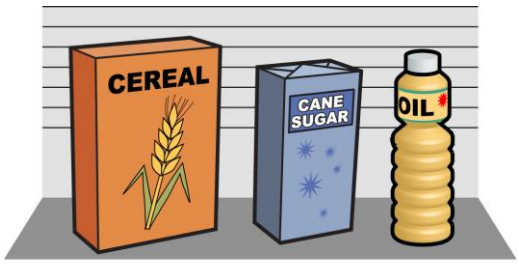
For products where ALL of the grain is whole grain. Contains at least 16g whole grain per serving.

General Mills Products

The Whole Grain Guarantee from General Mills guarantees that every box of Big G cereal has at least 8 grams (a half serving) of whole grain per serving. At least 48 grams of whole grain is recommended daily.

General Mills, Inc; Whole Grain Stamps appear courtesy of the Whole Grains Council

Activity: Fiber Line-up



Fiber Sugar Fat

Challenge!

Each week, for the next four weeks, try a new whole grain food.

The Basic Nutrients
Key Point Recap

- IN: A healthy diet has a balance of carbohydrates, protein and fat
- IN: “Vary your veggies” and “Focus on fruits”
- IN: “Make half your grains whole”
- IN: Get enough fiber
- Watch out for packaging health claims

Switch to
Understanding the Nutrition Facts Label
PowerPoint

In Search of a Whole Grain

The Benefits of Whole Grain

Messages about whole grain seem to be everywhere, but what exactly is a whole grain? What makes it so special? And why should whole grain be an important part of your diet? The Dietary Guidelines for Americans recommend at least three servings of whole grain foods daily[1] (48 grams of whole grain). Including enough whole grain foods as part of a healthy diet may help:

Protect heart health: Choosing a diet rich in whole grain foods may help reduce the risk of heart disease.

Manage weight: People who eat more whole grain have healthier body weights than those who don't, and they're more successful at maintaining their body weight over time.

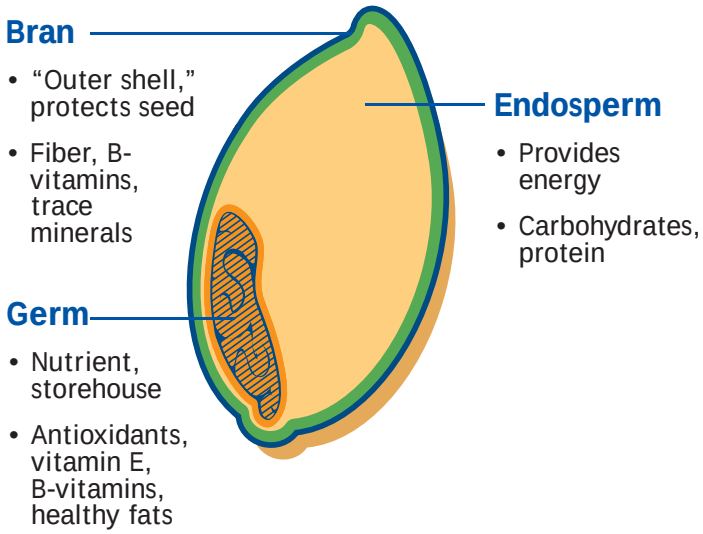
Reduce cancer risk: Increasing whole grain may help reduce the risk for certain cancers, especially cancers of the stomach and colon.

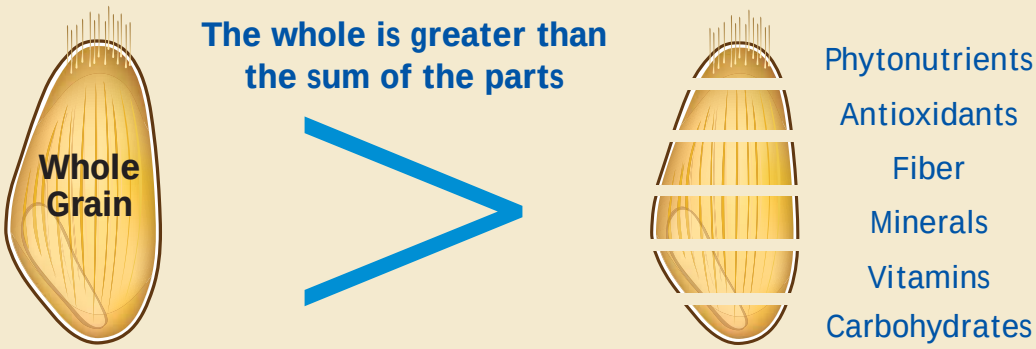
Reduce diabetes risk: Eating more whole grain may reduce the risk of diabetes. Whole grain foods may also help maintain healthy blood glucose and insulin levels.

What Exactly is a Whole Grain?

Whole grain means just that — it's the complete grain. The health benefits of whole grain come from all three parts of the grain — the bran, the germ and the endosperm — working synergistically in their natural proportions.

With whole grain, the "whole" is truly better than the sum of the parts. Individual nutrients in whole grain foods each offer important health benefits. Working together in the "whole" food, they perform in powerful ways to protect your health.





1 U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans, 2005. 6th Edition, Washington DC: U.S. Government Printing Office, January 2005.

In Search of a Whole Grain

Finding foods made with whole grain is easy, once you know what to look for. Discover whole grain foods in your supermarket with these quick tips.

Scan the Ingredient List

Foods made with whole grain — such as wheat, oats, corn or rice — will list it near the top of the Ingredient List. You'll know it's whole grain if the words "whole" or "whole grain" appear before the grain's name in the Ingredient List. Foods that claim to be "multi-grain," "100% wheat" or "high fiber" are not necessarily whole grain.

INGREDIENTS: WHOLE GRAIN OATS, MODIFIED CORN STARCH, CORN STARCH, SUGAR, SALT, CALCIUM CARBONATE, OAT FIBER, TRIPOTASSIUM PHOSPHATE, WHEAT STARCH. VITAMIN E (MIXED TOCOPHEROLS) ADDED TO PRESERVE FRESHNESS.

Look for the Whole Grain Symbols

The whole grain symbols shown below make it easy to find foods with a half-serving or more of whole grain.

Whole Grains Council Stamps

Some food manufacturers are making it easier to find whole grain foods by adding the Whole Grains Council Stamps to their products. Aim to eat three whole grain food products labeled with the 100% Whole Grains Council Stamp, or six whole grain food products labeled with any Whole Grains Council Stamp.

The Whole Grain Guarantee from General Mills

Look for the General Mills check-mark logo. The Whole Grain Guarantee from General Mills guarantees that every Big G cereal has at least eight grams (a half-serving) of whole grain per serving.

Did you know that General Mills' Big G cereals delivered 35 million servings of whole grain per day in fiscal 2009? That translates to Big G cereals providing more than 10% of the estimated whole grain consumed in America!*

*Based on most recent whole grain consumption figures, NHANES 2003-2004

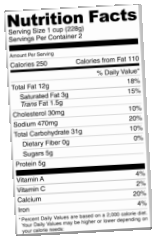
Take Note of the Health Statement

This government-authorized statement points out the connection between whole grain foods and health. Whole grain foods that meet certain requirements can carry the following message. Look for it on a product's label:

"Diets rich in whole grain and plant foods, and low in total fat, saturated fat and cholesterol may reduce the risk of heart disease and some cancers."

IN A LOW-FAT DIET, WHOLE GRAIN FOODS LIKE TOTAL MAY REDUCE THE RISKS OF HEART DISEASE and SOME CANCERS

Your Health Matters: Nutritious Eating



6: Understanding the Nutrition Facts Label

1

The Nutrition Facts Label

Using the Food Label to Make Healthy Eating Choices

Presented with information from the Food and Drug Administration's Center for Food Safety and Applied Nutrition, Office of Nutritional Products, Labeling, and Dietary Supplements and the American Dietetics Association eatright.org Web site

2

Key Label Questions

- How many calories am I actually eating
- Is that number low or high?
- What nutrients should I limit or get enough of and why?
- What is %DV?
- How does %DV help me with making healthy food choices?

3

The Nutrition Facts Label

Nutrition Facts
Serving Size 1 cup (228g)
Servings Per Container 2

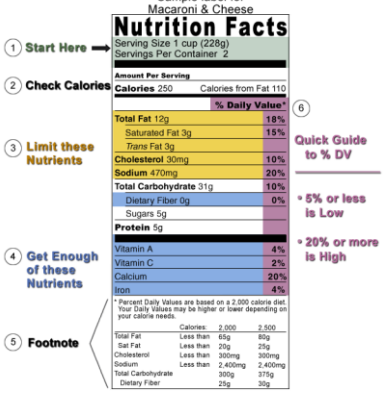
Amount Per Serving

Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

4

Sample label for Macaroni & Cheese



5

How many servings?

Nutrition Facts
Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

6

General Guide to Calories

40 calories is **low**

100 calories is **moderate**

400 calories is **high**

Based on a 2,000-calorie diet

7

The Percent Daily Value - %DV

The % DV is based on 100% of the daily value for **each** nutrient.

% DV tells you if a serving of food is high or low in a certain nutrient .

% Daily Value*	
Total Fat	18%
Saturated Fat	15%
Trans Fat	
Cholesterol	10%
Sodium	20%
Total Carbs	10%
Dietary Fiber	0%
Sugars	
Protein	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

8

Limit these nutrients

Get enough of these nutrients

Nutrition Facts
Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving
Calories 250 Calories from Fat 110

	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Quick Guide to % DV

5% DV or less is low

20% DV or more is high

9

Limit These Nutrients

The goal is to stay BELOW 100% of the DV for each of these nutrients per day.

Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%

Fat, Cholesterol, Sodium

10

Get Enough of These Nutrients

Dietary Fiber 0g	0%

Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

Try to get 100% of the DV for each of these nutrients each day.

Fiber, Vitamins, Minerals

11

Read the Nutrition Facts Label for Total Sugars

Nutrition Facts
Serving Size 1 container (226g)

Amount Per Serving
Calories 110 Calories from Fat 0

	% Daily Value*
Total Fat 0g	0 %
Saturated Fat 0g	0 %
Trans Fat 0g	
Cholesterol Less than 5mg	1 %
Sodium 160mg	7 %
Total Carbohydrate 15g	5 %
Dietary Fiber 0g	0 %
Sugars 10g	
Protein 13g	

Vitamin A 0 % • Vitamin C 4 %
Calcium 45 % • Iron 0 %

* Percent Daily Values are based on a 2000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs

Nutrition Facts
Serving Size 1 container (227g)

Amount Per Serving
Calories 240 Calories from Fat 25

	% Daily Value*
Total Fat 3g	4 %
Saturated Fat 1.5g	9 %
Trans Fat 0g	
Cholesterol 15mg	5 %
Sodium 140mg	6 %
Total Carbohydrate 46g	15 %
Dietary Fiber Less than 1g	3 %
Sugars 44g	
Protein 9g	

Vitamin A 2 % • Vitamin C 4 %
Calcium 35 % • Iron 0 %

* Percent Daily Value is based on a 2000 calorie diet. Your Daily Values may be higher or lower based on your calorie needs.

12

Look at the Ingredient List for Added Sugars

Food Sample #1

INGREDIENTS: CULTURED PASTEURIZED GRADE A NONFAT MILK, WHEY PROTEIN CONCENTRATE, PECTIN, CARRAGEENAN.

Food Sample #2

INGREDIENTS: CULTURED GRADE A REDUCED FAT MILK, APPLES, HIGH FRUCTOSE CORN SYRUP, CINNAMON, NUTMEG, NATURAL FLAVORS, AND PECTIN. CONTAINS ACTIVE YOGURT AND *L. ACIDOPHILUS* CULTURES

13

Activity

14

Examine your pantry this week. Note which items to replace with healthier options.

15

Nutrition Facts Label
Key Point Recap

- Start with the serving size
- Check out the total calories, fat, sugar
- Let the % Daily Value be your guide – low on top; high on bottom
- Read the list of ingredients
- Eat mostly foods without labels like fresh fruits and vegetables

16

Switch to
Meal Planning
PowerPoint

17

Activity: Food Fights!

Nutrition Information
Nutrition Facts Food Label

Sample label from Macaroni & Cheese

1 **Start Here** →

2 **Check Calories**

3 **Limit these Nutrients**

4 **Get Enough of these Nutrients**

5 **Footnote**

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250 Calories from Fat 110

	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

6 **Quick Guide to % DV**

- **5% or less is Low**
- **20% or more is High**

Label information from U.S. Food and Drug Administration web site: www.cfsan.fda.gov/~dms/foodlab.html

Overview of Nutrition Facts Label

1. Serving Size

Serving Size 1 cup (228g)
Servings Per Container 2

- The size of the serving influences the number of calories and amount of nutrients
- Pay attention to the serving size, especially how many servings there are in the food package
- Then ask yourself, "How many servings am I consuming?" (e.g. 1/2 serving, 1 serving, or more)

2. Calories (and Calories from Fat)

Amount Per Serving	
Calories 250	Calories from Fat 110

- Calories measure how much energy you get from a serving of food
- Remember: the number of servings you consume determines the number of calories you actually eat (your portion amount)

***Eating too many calories per day is linked to overweight and obesity.

The Nutrients: How Much?

Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%

3. Limit These Nutrients

- Eating too much fat, saturated fat, trans fat, cholesterol, or sodium may increase your risk of certain chronic diseases, like heart disease, some cancers, or high blood pressure.

***Important: Health experts recommend that you keep your intake of saturated fat, *trans* fat and cholesterol as low as possible as part of a nutritionally balanced diet.

4. Get Enough of These

Dietary Fiber 0g	0%

Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

- Most Americans don't get enough dietary fiber, vitamin A, vitamin C, calcium, and iron in their diets.
- Eating enough of these nutrients can improve your health and help reduce the risk of some diseases.

***Remember: You can use the Nutrition Facts label not only to help *limit* those nutrients you want to cut back on but also to *increase* those nutrients you need to consume in greater amounts.

5. Understanding the Footnote on the Bottom of the Nutrition Facts Label

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

- % DVs are based on a 2,000 calorie diet
- Look at the amounts circled in red in the footnote –these are the Daily Values (DV) for each nutrient listed
- DVs are recommended levels of intakes.

% Daily Value*
18%
15%
10%
20%
10%
0%
4%
2%
20%
4%

6. The Percent Daily Value

- The % DV helps you determine if a serving of food is high or low in a nutrient
- 5% DV or less is low and 20% DV or more is high

Label information from U.S. Food and Drug Administration Web site: www.cfsan.fda.gov/~dms/foodlab.html

Food Fight! Whole Milk vs. Skim Milk

Whole Milk

Nutrition Facts

Serving Size = 8 fl oz
Servings Per Container = 2

Amount Per Serving
Calories = 150 Calories from fat = 70

	% Daily Value*
Total Fat 8g	12%
Saturated Fat 5g	25%
Cholesterol 35mg	12%
Sodium 125mg	5%
Total Carbohydrate 12g	11%
Dietary Fiber 0g	0%
Sugars 11g	
Protein 8g	

Vitamin A 6% ● Vitamin C 4%
Calcium 30% ● Iron 0% ● Vitamin D 25%

* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: milk, vitamin D_3, vitamin E

Skim/Nonfat Milk

Nutrition Facts

Serving Size = 1 cup
Servings Per Container = 16

Amount Per Serving
Calories = 80 Calories from fat = 0

	% Daily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol less than 5mg	1%
Sodium 130mg	5%
Total Carbohydrate 12g	4%
Dietary Fiber 0g	0%
Sugars 11g	
Protein 8g	

Vitamin A 8% ● Vitamin C 4%
Calcium 30% ● Iron 0% ● Vitamin D 25%

* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: fat free milk, vitamin A palmitate, vitamin D_3, vitamin E

1. How many fluid ounces (fl oz) are in one cup? _____

2. Fill in the table below for each 8 oz. serving of milk.

	Whole Milk	Skim Milk
Calories		
Saturated fat		
Sugars		
Calcium		

3. Considering which nutrients you want to decrease in your diet, which would be the better choice? _____

4. Is whole milk a Go, Slow, or Whoa food? Why? _____

5. Is skim milk a Go, Slow, or Whoa food? Why? _____

Food Fight! Tropicana Orange Juice vs. Sunny D

Tropicana Pure Premium Orange Juice (no pulp)

Nutrition Facts

Serving Size = 8 fl oz
Servings Per Container = 1

Amount Per Serving
Calories = 110 Calories from fat = 0

	% Daily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Monounsaturated Fat 0g	
Polyunsaturated Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 26g	9%
Dietary Fiber 0g	0%
Sugars 22g	
Protein 2g	

Vitamin A 0%	•	Vitamin C 50%
Calcium 2%	•	Thiamin 0%
Vitamin D 0%	•	Folate 15%

* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: 100% pure and natural orange juice

Sunny D Tangy Original Style

Nutrition Facts

Serving Size = 8 fl oz
Servings Per Container = 8

Amount Per Serving
Calories = 120 Calories from fat = 0

	% Daily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Monounsaturated Fat 0g	
Polyunsaturated Fat 0g	
Cholesterol 0mg	0%
Sodium 190mg	8%
Total Carbohydrate 29g	10%
Dietary Fiber 0g	0%
Sugars 27g	
Protein 0g	

Vitamin A 0 %	•	Vitamin C 100%
Calcium 0%	•	Iron 0%
Vitamin D 0%	•	Phosphorus 0%

* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: water, high fructose corn syrup and 2% or less of each of the following: concentrated juices (orange, tangerine, apple, lime, grapefruit), citric acid, ascorbic acid (vitamin C), thiamin hydrochloride (vitamin B1), natural flavors, modified corn starch, canola oil, sodium citrate, cellulose gum, xanthan gum, sodium hexametaphosphate, sodium benzoate to protect flavor, yellow #5, yellow #6

1. Fill in the table below for each 8 oz. serving of Tropicana and Sunny D.

	Tropicana	Sunny D
Calories		
Saturated fat		
Sugars		
Calcium		

2. What percent of the orange juice and Sunny D is actually fruit juice? _____

3. Do you think the orange juice a Go, Slow, or Whoa food? Why? _____

4. Do you think the Sunny D is a Go, Slow, or Whoa food? Why? _____

Food Fight! Shredded Wheat Cereal vs. Low-fat Granola

Post Shredded Wheat Cereal

Nutrition Facts

Serving Size = 49 g
Servings Per Container = 7

Amount Per Serving
Calories = 170 Calories from fat = 10

	% Daily Value
Total Fat 1g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Monounsaturated Fat 0g	
Polyunsaturated Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 40g	13%
Dietary Fiber 6g	24%
Sugars 0g	
Protein 6g	

Vitamin A 0%	•	Vitamin C 0%
Calcium 2%	•	Iron 6%
Vitamin D 0%	•	Phosphorus 0%

* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: whole grain wheat, BHT

Kellogg's Low-Fat Granola without Raisins

Nutrition Facts

Serving Size = 1/2 cup (49g)
Servings Per Container = 10

Amount Per Serving
Calories = 190 Calories from fat = 25

	% Daily Value
Total Fat 2.5g	4%
Saturated Fat 5g	3%
Trans Fat 0g	
Monounsaturated Fat 0g	
Polyunsaturated Fat 0g	
Cholesterol 0mg	0%
Sodium 110mg	5%
Total Carbohydrate 40g	13%
Dietary Fiber 3g	12%
Sugars 14g	
Protein 4g	

Vitamin A 15%	•	Vitamin C 2%
Calcium 0%	•	Iron 10%
Vitamin D 10%	•	Phosphorus 10%

* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: whole oats, whole grain wheat, sugar, corn syrup, rice, almonds, molasses, modified corn starch, high fructose corn syrup, palm oil, salt, cinnamon, non-fat dry milk, natural and artificial flavor, polyglycerol esters of mono- and diglycerides, malt flavor, niacinamide, zinc oxide, ascorbic acid (vitamin C), pyridoxine hydrochloride (vitamin B6), reduced iron, guar gum, BHT (preservative), riboflavin (vitamin B2), vitamin A (palmitate), folic acid, thiamin hydrochloride (vitamin B1), vitamin B12, vitamin D

1. Fill in the table below for each serving of cereal.

	Shredded Wheat	Granola
Calories		
Saturated fat		
Sugars		
Fiber		

2. Considering which nutrients you want to decrease in your diet, which would be the better choice? _____

3. Do you think the shredded wheat is a Go, Slow, or Whoa food? Why? _____

4. Do you think the granola is a Go, Slow, or Whoa food? Why? _____

Your Health Matters: Nutritious Eating

The Supermarket & Food Cost Comparison

Bonus! Healthy Cooking Tips

7: Meal Planning and Healthy Cooking

1

The Supermarket

More than **40,000** food choices!

2

Typical Store Layout

3

Always make a list

Save time and money!

4

Navigating Tips

- Work the edges
- Look high and low
- Learn the lingo

5

Eat This Not That! Supermarket Survival Guide. Rodale Inc. 2009

Label Claims

Learn the lingo!

Wording	Means
"Whole grain" versus "Multigrain"	Entire grain kernel used (good choice!) versus More than one type of grain used in product
"Light" or "Lite"	Fat reduced by ≤50%
"Calorie Free"	Less than 5 calories/svg
"Fat Free"	Less than .5g sat fat/svg
"Sugar Free"	Less than .5g sugars/svg
"Excellent Source of"	≥ 20% DV/svg
"Good Source of"	10-19% DV/svg
"Organic"	≥ 70% certified organic ingredients
"Made with"	Ingredients can be listed on side panel

Nutritional Sciences, Thompson Learning Inc. 2007

Navigating Tips

- More Packaging = Less Nutrition
- Order of ingredients is most to least
- Fewer Ingredients = Healthier Food

7

Eat This Not That! Supermarket Survival Guide. Rodale Inc. 2009

Shopping Tips

- Fresh is best
- Choose seasonal produce
- Visit your local Farmer's Market

8

Fill your pantry and fridge…

….with a variety of fresh foods!

9

"Eating healthy costs more, doesn't it?"

Food Cost Comparisons

10

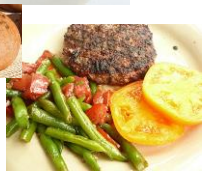
You could eat this one unhealthy meal…

1,100 calories

11

Or this healthy breakfast, lunch <u>and</u> snack…

1,080 calories



…for the same amount of calories!

12

Meal at McDonald's for Family of 5

Food	Calories	Cost
Quarter Pounder with Cheese Fries Soda	510 500 310	$5.13
Crispy Chicken Sandwich Fries Soda	530 500 310	$5.49
Happy Meal Cheeseburger Fries Chocolate Milk	300 203 170	$2.79
6 Chicken Nugget Meal Fries Hi-C	280 230 160	$3.79
Hamburger Happy Meal Fries Milk	250 230 100	$2.29
Total	**4610**	**$19.49**

13

Meal at Home for Family of 5

Food	Cost
Whole Wheat Spaghetti	$1.29
Marinara Sauce	$1.89
1 lb. 96% Lean Hamburger Meat	$4.00
Salad (1/2 head lettuce + light Ranch dressing)	$1.79
Total Cost	$8.97
Calories/Serving	450

*Prices based on H.E.B. prices as of February 2009, Brownsville, Texas

14

Cost and Calorie Comparison

Three times/week = $58.47
Average calories/meal = 922

Three times/week = $24.56
Average calories/meal = 423

By eating at home, you save $33.01 and 1497 calories per week!

15

Cost and Calorie Comparison

More calories in less food
More dollars spent
Poor nutrition

Less calories in more food
More dollars saved
Better nutrition

Eating healthy home-cooked meals saves you money and calories!

16

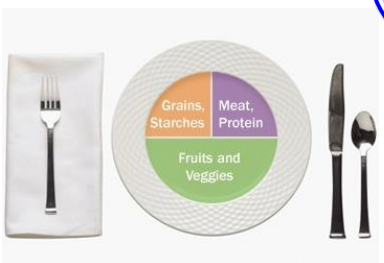
Benefits of family meals

- Eat more healthy foods - get more nutrients
- Decreased risk for unhealthy weight
- Decreased risk for substance abuse
- Strengthens family ties; pass on traditions
- Form positive attitudes about food and eating
- Do better in school
- Happier life

MealsMatter.org

17

Activity: Plan Your Plate



18

Start a new family tradition… Meatless Monday, Fruit for dessert, Kids Night in the Kitchen one night per week.

For the next four weeks, cook at home one more time per week than you typically do.

19

Meal Planning
Key Point Recap

- Eating healthy does not have to cost more.
- Navigate your supermarket wisely.
- Plan your shopping to save time, money and calories!
- Enjoy fruits and vegetables at all meals.

20

Healthy Cooking Tips

21

Avoid Cooking Methods with Added Fat

Basted
Breaded
Fried

X 

X 

X 

22

Healthy Cooking Methods

- ✓ Baked
- ✓ Boiled
- ✓ Grilled
- ✓ Steamed

23

Make your food tasty!

Spice it up!

Get fruity!

Be creative!

FIT Watch.com; HelpGuide.org; SpicyTasty.com

24

Eat a rainbow every day

Switch to
Conclusion
PowerPoint

Healthy Shopping List

Vegetables:
_____ 3-5 vegetables in season
_____ lettuce for salads
_____ fresh veggies for salads
_____ potatoes
_____ winter squash
_____ sweet potatoes
_____ tomatoes
_____ onions and garlic
_____ broccoli

Fruits:
_____ apples/pears
_____ bananas
_____ berries
_____ grapes
_____ lemons/limes
_____ oranges/grapefruit
_____ peaches/plums
_____ watermelon/melon

Dairy:
_____ egg whites
_____ margarine, light tub
_____ milk, skim
_____ sour cream, nonfat
_____ yogurt, fat-free, light

Frozen:
_____ frozen fruits, unsweetened
_____ vegetables, plain

Fish/Poultry/Lean Meat:
_____ chicken or turkey breast
_____ fish (not breaded)
_____ lean beef, pork

Cereal*:
_____ oatmeal
_____ shredded wheat
_____ whole-grain cereal
** 3 g fiber, less than 10 g sugar*

Canned*:
_____ beans
_____ fruit in water
_____ chicken broth, low-sodium
_____ pasta sauce, low-sodium
_____ soup, low-fat, low-sodium
_____ tomatoes, no added salt
_____ tuna in water
** low-sodium, no added sugar*

Dried and Packaged:
_____ barley
_____ beans/lentils/dried peas
_____ brown rice
_____ herbs _____
_____ nuts, nut butters
_____ pasta
_____ popcorn, low-fat
_____ raisins
_____ spices _____
_____ vegetable oil

Condiments:
_____ jam, light
_____ ketchup, no-salt
_____ mayo, low-fat
_____ salad dressing, low-fat
_____ soy sauce, light
_____ vinegar _____

Bread:
_____ 100% whole-wheat bread
_____ corn tortillas
_____ whole-grain crackers (lowfat)
_____ whole-wheat pitas

Quick 5 Checklist to Save $$:
___ Look for store brands
___ On sale - good - stock up!
___ Compare unit pricing
___ Stick to your list
___ Use less meat, soda, cookies, crackers, chips, deli, bakery and convenience items

Nutrition Facts
Serving Size 1 cup (228 g)
Servings Per Container: 2

Amount per serving	
Calories 250	Calories from Fat 120
	% Daily Value*
Total Fat 13g	20%
Saturated Fat 5g	25%
Trans fat 2g	
Cholesterol 30mg	10%
Sodium 660mg	28%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A 4%	Vitamin C 2%
Calcium 15%	Iron 4%

Three Easy Steps for Label Reading:

1. Look at serving size, servings per container and calories.
Eating too many calories per day is linked to people being overweight, obese and developing certain chronic diseases.

2. Limit fat, saturated fat, cholesterol and sodium; shoot for zero trans fat.
These in crease your risk for certain chronic diseases. Try to keep trans fat to zero. Shoot for 5% of less of the daily value on fat, saturated fat, cholesterol and sodium.

3. Get enough fiber and important nutrients.
Eating enough fiber and nutrients can improve your health and help reduce your risk of some diseases.

Top 10 Ways to Stretch Your Food Budget with Fruits & Veggies!

September is **National Fruits & Veggies—More Matters®** Month. Adding more fruits and veggies to your shopping list can be good for your budget as well as your family's health! Here are some great ways to get you started!

1. **Shop in season.** Prices are normally best when fresh produce is in season, like berries in June or squash in the fall. Ask our produce associates for help.
2. **Store fresh produce properly as soon as you get home.** While it won't reduce the price you pay, you'll avoid waste.
3. **Try switching less-expensive veggies with meat in your recipes.** Think "vegetable stew with beef" instead of beef stew with vegetables. Got the idea?
4. **Stock up on frozen, canned, dried, and 100% juice.** All forms count. These are great, healthy options to fresh produce with a longer shelf life.
5. **Twice the value.** Plan for two or more meals from a single item. Use one-half a head of cabbage for cole slaw, the other half for cabbage rolls or stir-fry. Slice half a bag of carrots into sticks for snacks – put the other half into a carrot salad.
6. **Get back to basics.** Instead of an expensive dinner out, why not a good, old-fashioned dinner at home? Fall is a great time to rediscover the feel-good flavors of vegetable stews, baked apples and pears, seasonal squash, and more. Looking for recipes? Visit www.fruitsandveggiesmorematters.org/?page_id=10.
7. **Plan for leftovers.** Homemade soup is a healthy and tasty way to use fall vegetables. Make a big batch and freeze leftovers in small, lunch-size containers.
8. **Don't shop hungry!** Snack on a piece of fruit or some fresh veggies before you head out to the store.
9. **Taste like *this* doesn't come out of a jar.** Creating your own fresh salsas for dipping with snacks or topping meat dishes is economical. Here's a link to 40 great salsa recipes: www.fruitsandveggiesmorematters.org/?page_id=34.
10. **Do the math.** Fruits and veggies aren't budget-busters. Compare the price of a small bag of chips to an apple, a cup of grapes to a couple of cookies, or a banana and glass of orange juice to a breakfast muffin. Fruits and veggies are more economical, and, dollar for dollar, provide you with better nutritional value.

For more ideas on how to include more fruits and vegetables in your family's fall meals, visit www.fruitsandveggiesmorematters.org. Helping Montana's Families to beat their worst!

fruits & veggies more matters®

For Your Health: Eat a Rainbow Every Day

Red

To possibly help prevent cancer & heart disease, stimulate immunity, and promote urinary tract health and memory function, eat more of these red fruits and vegetables:

Tomatoes	**Red Peppers**	**Apples**	**Cherries**	**Beets**
Red Grapes	**Strawberries**	**Radishes**	**Red Onions**	**Red Potatoes**
Watermelon	**Cranberries**	**Red Cabbage**	**Radicchio**	**Rhubarb**
Red Grapefruit	**Red Pears**	**Raspberries**	**Red Peppers**	**Pomegranate**

Orange

To possibly help prevent cancer & heart disease, stimulate immunity, and enhance vision, eat more of these orange fruits and vegetables:

Sweet Potatoes	**Cantaloupe**	**Carrots**	**Peaches**	**Clementines**
Winter Squash	**Mango**	**Oranges**	**Apricots**	**Mandarin Oranges**
Papayas	**Tangerines**	**Persimmons**	**Pumpkin**	**Nectarine**

Yellow

To possibly help prevent cancer & heart disease, eat more of these yellow fruits and vegetables:

Yellow Apples	**Yellow Pears**	**Lemons**	**Yellow Peppers**	**Yellow Grapefruit**
Summer Squash	**Yellow Figs**	**Pineapple**	**Yellow Tomatoes**	**Rutabagas**
Yellow Corn	**Yellow Beets**	**Yellow Potatoes**	**Yellow Watermelon**	

Green

To possibly help prevent cancer & heart disease and maintain vision health & strong bones, eat more of these green fruits and vegetables:

Kale	**Broccoli**	**Cabbage**	**Lettuce**	**Broccoli Rabe**
Greens	**Spinach**	**Kiwi**	**Celery**	**Chinese Cabbage**
Cucumber	**Peas**	**Zucchini**	**Parsley**	**Green Beans**
Chives	**Asparagus**	**Avocados**	**Apples**	**Leeks**
Honeydew	**Artichokes**	**Arugula**	**Okra**	**Green Grapes**
Sugar Snap Peas	**Snow Peas**	**Fresh Herbs**	**Bok Choy**	**Tomatillos**
Brussel Sprouts	**Watercress**	**Endive**	**Bell Pepper**	**Limes**
Chayote Squash	**Hot peppers**	**Banana Peppers**		

Blue/Purple

To possibly help prevent cancer, help boost night vision, and maintain urinary tract health, eat more of these blue/purple fruits and vegetables:

Blueberries	**Purple Endive**	**Plums**	**Blackberries**	**Purple Peppers**
Elderberries	**Purple Potatoes**	**Eggplant**	**Purple Carrots**	**Black Currants**
Purple Grapes	**Raisins**	**Prunes**	**Figs**	**Purple Asparagus**

Brown/White

To possibly help prevent cancer & heart disease and stimulate immunity, eat more of these brown/white fruits and vegetables:

Bananas	**Brown Pears**	**White Nectarines**	**Dates**	**White Asparagus**
White Peaches	**Cauliflower**	**Garlic**	**Ginger**	**Water Chestnuts**
Jicama	**Mushrooms**	**Onions**	**Parsnips**	**White Bok Choy**
White Potatoes	**Shallots**	**Turnips**		

Aim for 3 different colors a day and one fruit and veggie from each color every week.

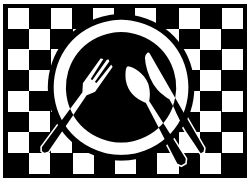
Cassie Dimmick, MS, RD, LD, CSSD
Achieving Your Best, LLC
www.AchievingYourBest.net

Tips for Eating Right

Small steps can help your family get on the road to maintaining a healthy weight. Choose a different tip each week for you and your family to try. See if you can add to the list. Here are a few tips:

Change Your Shopping Habits

- Eat before grocery shopping
- Make a grocery list before you shop
- Choose a checkout line without a candy display
- Buy and try serving a new fruit or vegetable



Watch Your Portion Size

- Share an entree with someone
- If entrees are large, choose an appetizer or side dish
- Don't serve seconds
- Share dessert, or choose fruit instead
- Eat sweet foods in small amounts. To reduce temptation, don't keep sweets at home
- Cut or share high-calorie foods like cheese and chocolate into small pieces and only eat a few pieces
- Eat off smaller plates
- Skip buffets

Change the Way You Prepare Food

- Cut back on added fats and/or oils in cooking or spreads
- Grill, steam, or bake instead of frying
- Make foods flavorful with herbs, spices, and low-fat seasonings
- Use fat-free or low-fat sour cream, mayo, sauces, dressings, and condiments
- Serve several whole-grain foods every day
- Top off cereal with sliced apples or bananas

Change Your Eating Habits

- Keep to a regular eating schedule
- Eat together as a family most days of the week
- Eat before you get too hungry
- Make sure every family member eats breakfast every day
- Drink water before a meal
- Stop eating when you're full
- Try a green salad instead of fries
- Ask for salad dressing "on the side"
- Chew slowly every time you eat and remind others to enjoy every bite
- Serve water or low-fat milk at meals, instead of soda or other sugary drinks
- Pay attention to flavors and textures
- Instead of eating out, bring a healthy, low-calorie lunch to work and pack a healthy "brown bag" for your kids
- Provide fruits and vegetables for snacks

Information Source:
We Can! (Ways to Enhance Children's Activity & Nutrition) National Heart, Lung, and Blood Institute, National Institutes of Health, Department of Health and Human Services Web site: www.nhlbi.nih.gov/health/public/heart/obesity/wecan/

Your Health Matters: Nutritious Eating



8: Conclusion

1

Nutritious Eating
Key Point Summary

2

Energy Balance

- Calories In vs. Calories Out
- IN: *food choices - variety, balance, moderation, nutrient density*
- OUT: *activity – "FITT"*
- Keep track to tip the scale

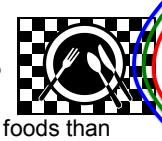
3

Portion Distortion

- Size matters! Pay attention to servings/portions.
- More calories IN means more calories to burn.
- Eat a healthy diet of mostly fruits, vegetables, and whole grains.

4

Healthy Eating

- A healthy diet has more **GO** foods than **SLOW** foods, and more **SLOW** foods than **WHOA** foods.
- Create your plate with Variety, Balance, Moderation, and Nutrition in mind.
- A Healthy Plate has mostly vegetables, some whole grain, lean meat/fish, fruit and a small amount of unsaturated fat.

5

The Basic Nutrients

- A healthy diet has a balance of carbohydrates, protein and fat.
- "Vary your veggies" and "Focus on fruits"
- "Make half your grains whole"
- Get enough fiber.
- Watch out for packaging health claims.

6

Nutrition Facts Label

- Start with the serving size
- Check out the total calories, fat, sugar
- Let the % Daily Value be your guide – low on top; high on bottom
- Read the list of ingredients
- Eat mostly foods without labels like fresh fruits and vegetables

7

Meal Planning and Healthy Cooking

- Eating healthy does not have to cost more.
- Navigate your supermarket wisely.
- Plan your shopping to save time, money and calories!
- Enjoy fruits and vegetables at all meals.

8

How prepared do you feel to educate people about healthy food choices?

9

Community Health Workers can help bring about change with health promotion.

Your Health Matters!

10

Knowledge Questionnaire

11

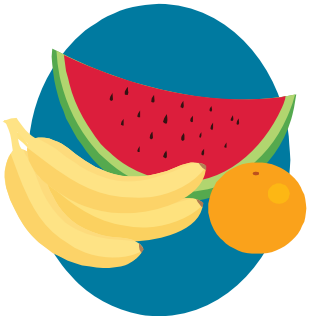
Thank you!

12

The University of Texas Community Outreach Program
Community Health Worker Continuing Education

Your Health Matters: Nutritious Eating

APPENDICES


University of Texas
Community Outreach

Your Health Matters!

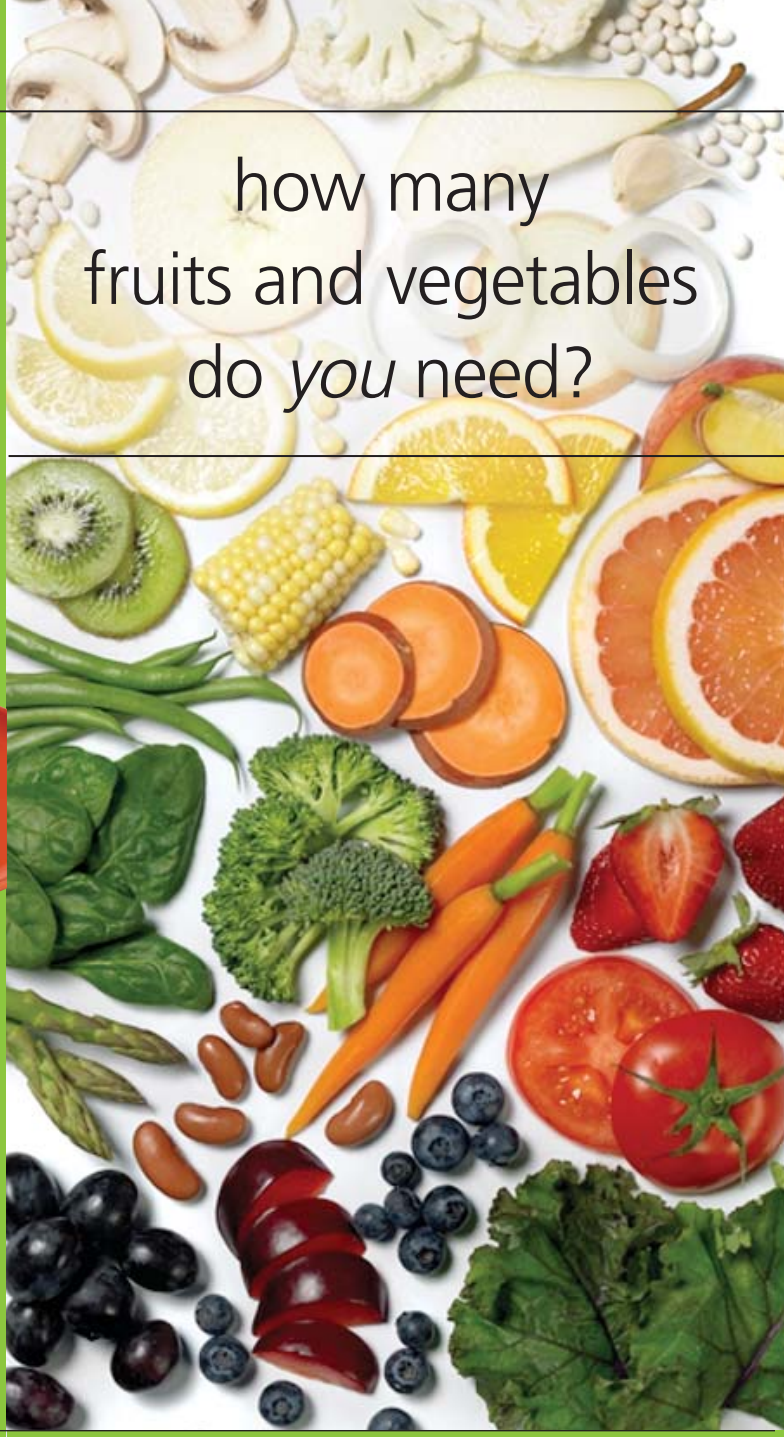
POWER PACK YOUR DAY.

Here are some easy ways to fill your day with fruits and vegetables as part of a healthy diet:

- Stir low-fat or fat-free granola into a bowl of low-fat or fat-free yogurt. Top with sliced apples or frozen berries.
- Add vegetables, such as diced tomatoes and onions, to your egg or egg white omelet.
- Have some fruit as a mid-morning snack.
- Make fruits and vegetables about half your plate.
- Munch on raw vegetables with a healthy low-fat or fat-free dip.
- Put grapes and banana slices on wooden skewers and freeze for "fruit on a stick."
- Add frozen vegetables to a casserole or pasta. Try broccoli, peas, and corn.
- Ask for more vegetable toppings (like broccoli and spinach) and less cheese on your pizza.

Visit 5aday.gov.

how many fruits and vegetables do *you* need?



EVERY BODY IS DIFFERENT. WE'LL SHOW YOU SIMPLE WAYS TO EAT THE AMOUNTS THAT ARE RIGHT FOR YOU.

eat a colorful variety every day

You probably already know that a healthy diet includes a variety of fruits and vegetables. Most are lower in calories and higher in fiber than other foods. As part of a healthy diet, eating fruits and vegetables instead of high-fat foods may make it easier to control your weight.

Compared to people who eat only small amounts of fruits and vegetables, those who eat more generous amounts — as part of a healthy diet — are likely to have reduced risk of chronic diseases. These diseases include stroke, type 2 diabetes, some types of cancer, and perhaps heart disease and high blood pressure.

You can find the amounts of fruits and vegetables you need using the charts in this brochure. There are also facts on why eating the recommended amounts is important to your health. Easy tips for including fruits and vegetables in your day are also provided.

know the amounts you need each day

1. Go to your chart. Choose your level of physical activity. Use these definitions to determine your lifestyle physical activity that is above the light activity of everyday life:

   Less Active: You average less than 30 minutes a day.
   Moderately Active: You average 30 to 60 minutes a day.
   Active: You average more than 60 minutes a day.

2. Choose your age range. Your physical activity level and age determine how many calories you need each day and your calorie needs determine how many fruits and vegetables you should eat.

Women

	AGE	FRUITS	VEGETABLES
less active	19-30	2 cups	2 ½ cups
	31-50	1 ½ cups	2 ½ cups
	51+	1 ½ cups	2 cups
moderately active	19-50	2 cups	2 ½ cups
	51+	1 ½ cups	2 ½ cups
active	19-50	2 cups	3 cups
	51+	2 cups	2 ½ cups

Men

	AGE	FRUITS	VEGETABLES
less active	19-50	2 cups	3 cups
	51+	2 cups	2 ½ cups
moderately active	19-30	2 cups	3 ½ cups
	31+	2 cups	3 cups
active	19-30	2 ½ cups	4 cups
	31-50	2 ½ cups	3 ½ cups
	51+	2 cups	3 cups

Girls

	AGE	FRUITS	VEGETABLES
less active	2-3	1 cup	1 cup
	4-8	1 cup	1 ½ cups
	9-13	1 ½ cups	2 cups
	14-18	1 ½ cups	2 ½ cups
moderately active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 cups
	14-18	2 cups	2 ½ cups
active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 ½ cups
	14-18	2 cups	3 cups

Boys

	AGE	FRUITS	VEGETABLES
less active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 ½ cups
	14-18	2 cups	3 cups
moderately active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 ½ cups
	14-18	2 cups	3 cups
active	2-3	1 cup	1 cup
	4-8	1 ½ cups	2 cups
	9-13	2 cups	2 ½ cups
	14-18	2 ½ cups	3 ½ cups

make it count

Include fruits and vegetables throughout your day in little ways — for snacks, toppings, side dishes, or in your main meal. Whether they're frozen, fresh, canned, or dried, all fruits and vegetables (including beans) count toward your daily amount.

Learn what 1 cup and ½ a cup look like:

EXAMPLES OF 1 CUP

1 large ear of corn

1 large orange

1 large sweet potato

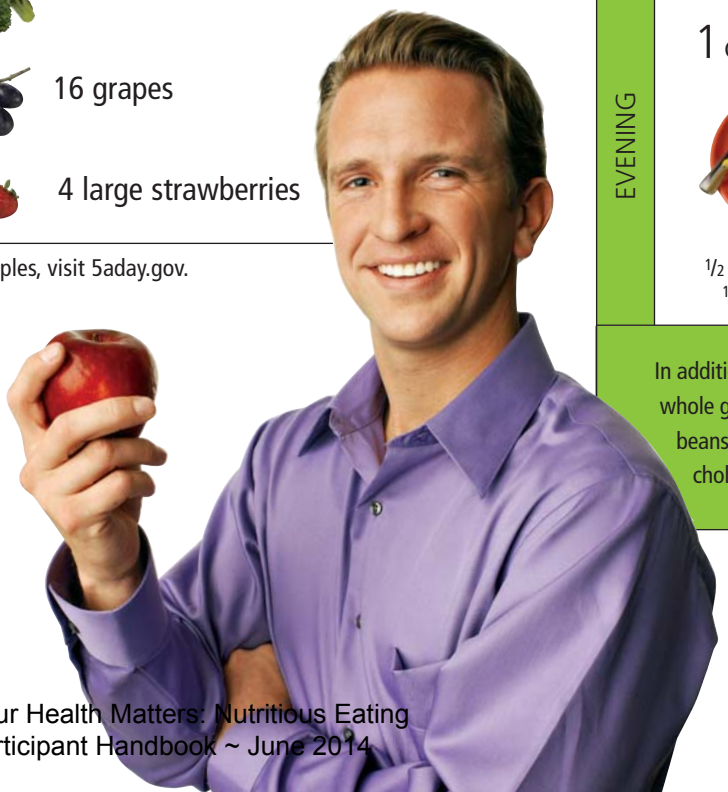
EXAMPLES OF ½ CUP

5 broccoli florets

16 grapes

4 large strawberries

For more examples, visit 5aday.gov.



Simple ways to enjoy fruits and vegetables throughout your day:

MORNING

1 cup

1 small apple

½ cup

1 small banana

MID-DAY

1 cup

1 cup of lettuce* and ½ cup of other vegetables

½ cup

6 baby carrots

EVENING

1 cup

½ large sweet potato and ½ cup of green beans

½ cup

½ cup of fresh mixed fruit

In addition to fruits and vegetables, a healthy diet also includes whole grains, fat-free or low-fat milk products, lean meats, fish, beans, eggs and nuts, and is low in saturated fats, *trans* fats, cholesterol, salt, and added sugars.

* 1 cup of lettuce counts as ½ cup of vegetables.

find your balance

Becoming a healthier you isn't just about eating healthy — it's also about physical activity. Regular physical activity is important for your overall health and fitness.

Here are some guidelines to follow:

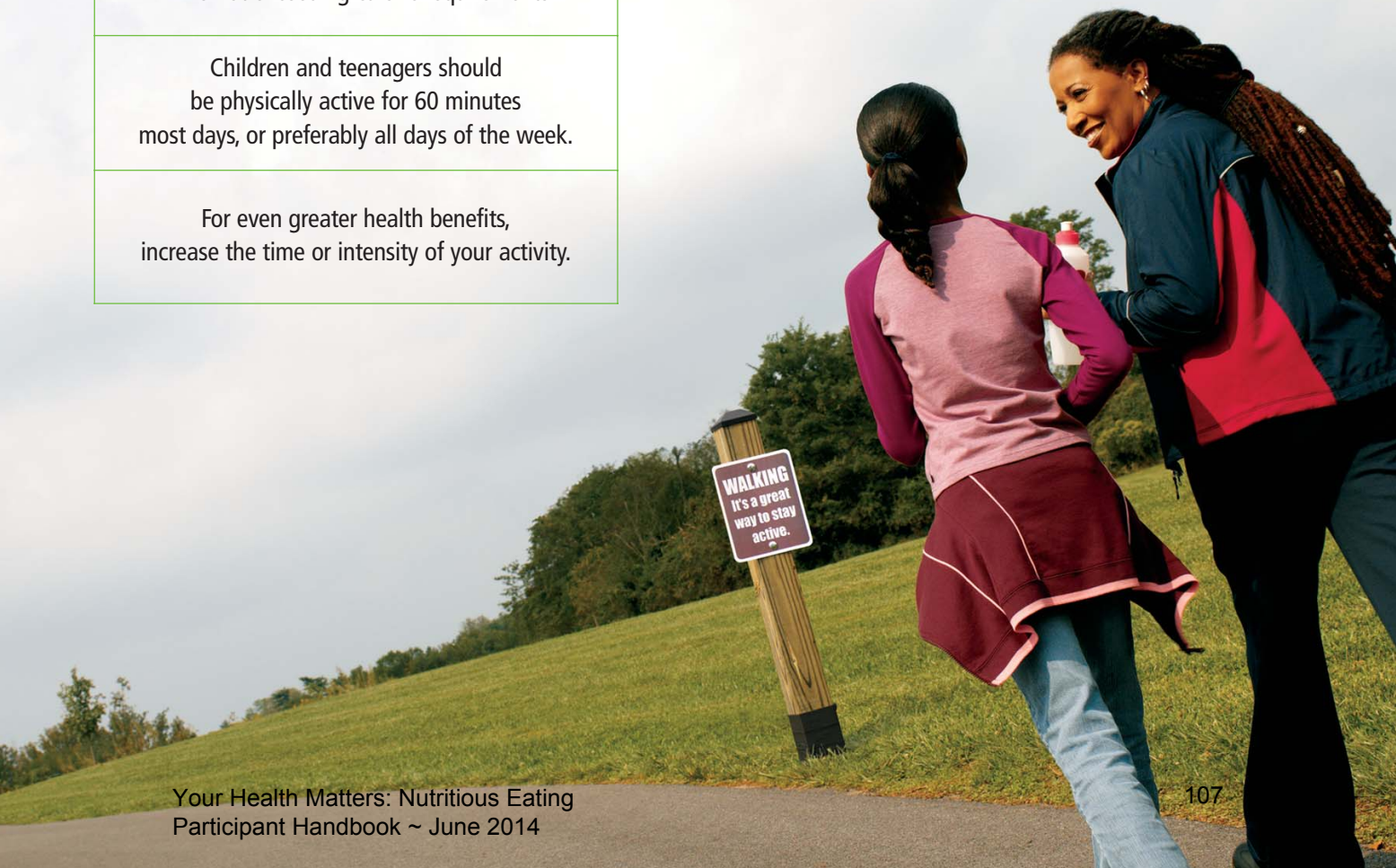
Adults should be physically active at a moderate intensity at least 30 minutes most days of the week.
To prevent weight gain, adults should be physically active at least at a moderate intensity approximately 60 minutes most days of the week while not exceeding caloric requirements.
Children and teenagers should be physically active for 60 minutes most days, or preferably all days of the week.
For even greater health benefits, increase the time or intensity of your activity.

get the most nutrition out of your calories

Consider this: If you use up your total daily calories on a few high-calorie items, chances are you won't get the full range of vitamins and nutrients your body needs to be healthy.

To get all the nutrients you need, without consuming too many calories, you should choose foods that are packed with nutrients, but lower in calories, from each of the food groups. These foods include fruits and vegetables, whole grains, lean meats, and fat-free or low-fat milk and milk products.

For more information about a healthy diet, visit MyPyramid.gov.



To get a healthy variety, think color. Eating fruits and vegetables of different colors gives your body a wide range of valuable nutrients, like fiber, folate, potassium, and vitamins A and C. Some examples include green spinach, orange sweet potatoes, black beans, yellow corn, purple plums, red watermelon, or white onions. For more variety, try new fruits and vegetables regularly.

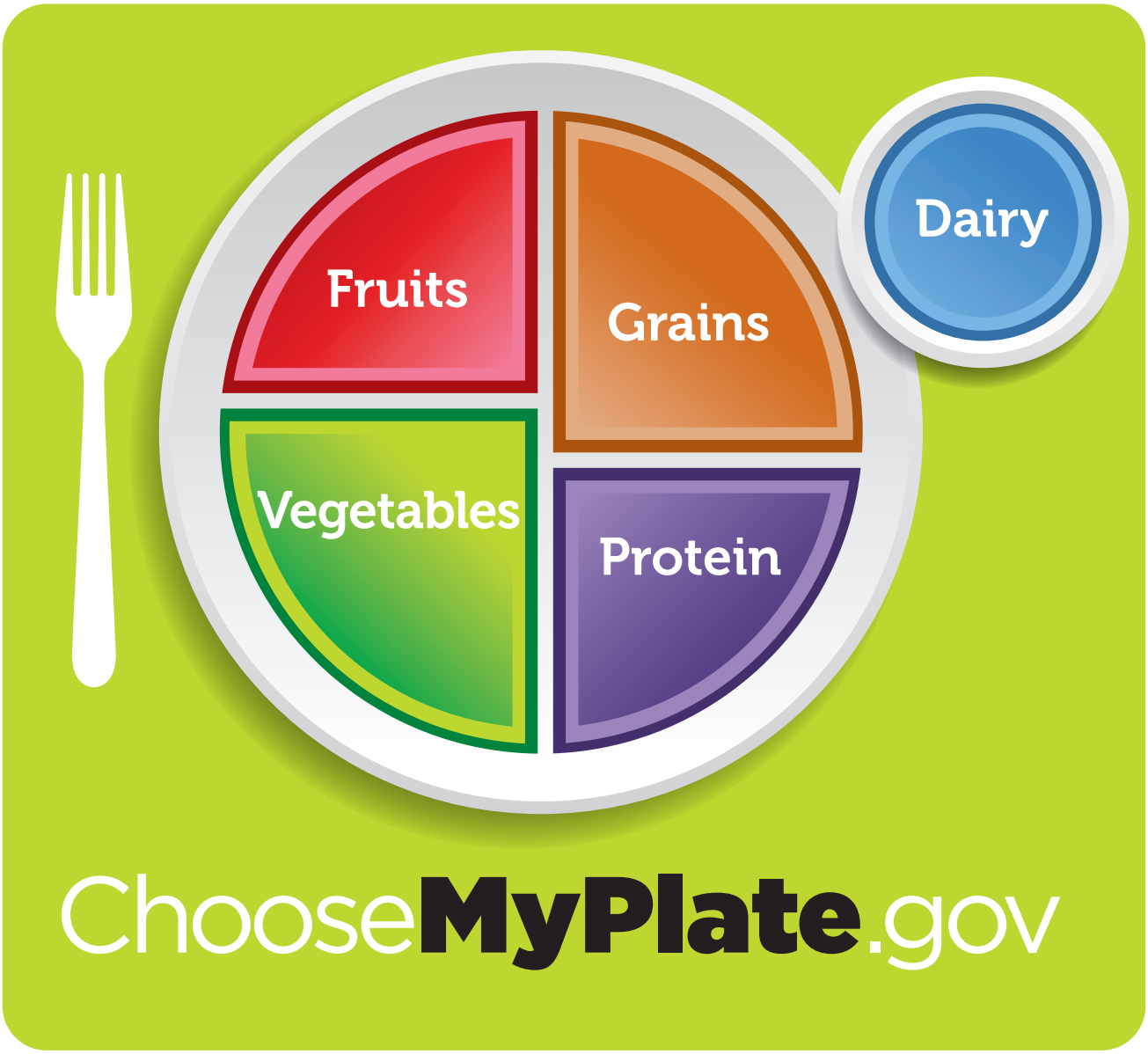
they've got what you need, naturally

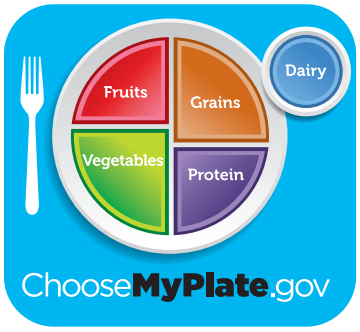
TAKE A HEALTHY BITE.

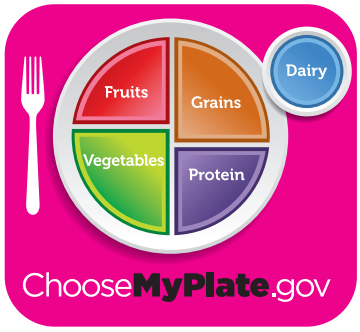
Fruits and vegetables are great sources of many vitamins, minerals and other natural substances that may help protect you from chronic diseases. Some of these nutrients may also be found in other healthy foods. Eating a balanced diet and making other lifestyle changes are key to defending your body's good health.

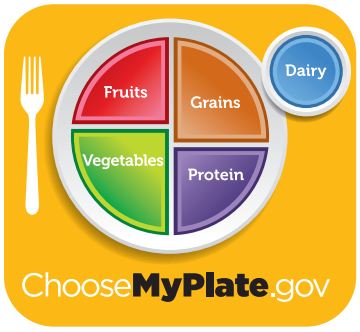
FIBER	
Diets rich in dietary fiber have been shown to have a number of beneficial effects, including decreased risk of coronary heart disease.	**Excellent fruit and vegetable sources:** navy beans, kidney beans, black beans, pinto beans, lima beans, white beans, soybeans, split peas, chick peas, black eyed peas, lentils, artichokes
FOLATE*	
Healthful diets with adequate folate may reduce a woman's risk of having a child with a brain or spinal cord defect.	**Excellent fruit and vegetable sources:** black eyed peas, cooked spinach, great northern beans, asparagus
POTASSIUM	
Diets rich in potassium may help to maintain a healthy blood pressure.	**Good fruit and vegetable sources:** sweet potatoes, tomato paste, tomato puree, beet greens, white potatoes, white beans, lima beans, cooked greens, carrot juice, prune juice
VITAMIN A	
Vitamin A keeps eyes and skin healthy and helps to protect against infections.	**Excellent fruit and vegetable sources:** sweet potatoes, pumpkin, carrots, spinach, turnip greens, mustard greens, kale, collard greens, winter squash, cantaloupe, red peppers, Chinese cabbage
VITAMIN C	
Vitamin C helps heal cuts and wounds and keeps teeth and gums healthy.	**Excellent fruit and vegetable sources:** red and green peppers, kiwi, strawberries, sweet potatoes, kale, cantaloupe, broccoli, pineapple, Brussels sprouts, oranges, mangoes, tomato juice, cauliflower

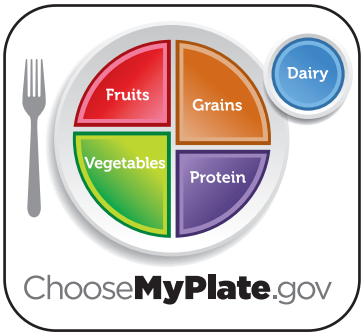
* According to the Institute of Medicine, a daily intake of 400 µg/day of synthetic folic acid (from fortified foods or supplements in addition to food forms of folate from a varied diet) is recommended for women of childbearing age who may become pregnant.







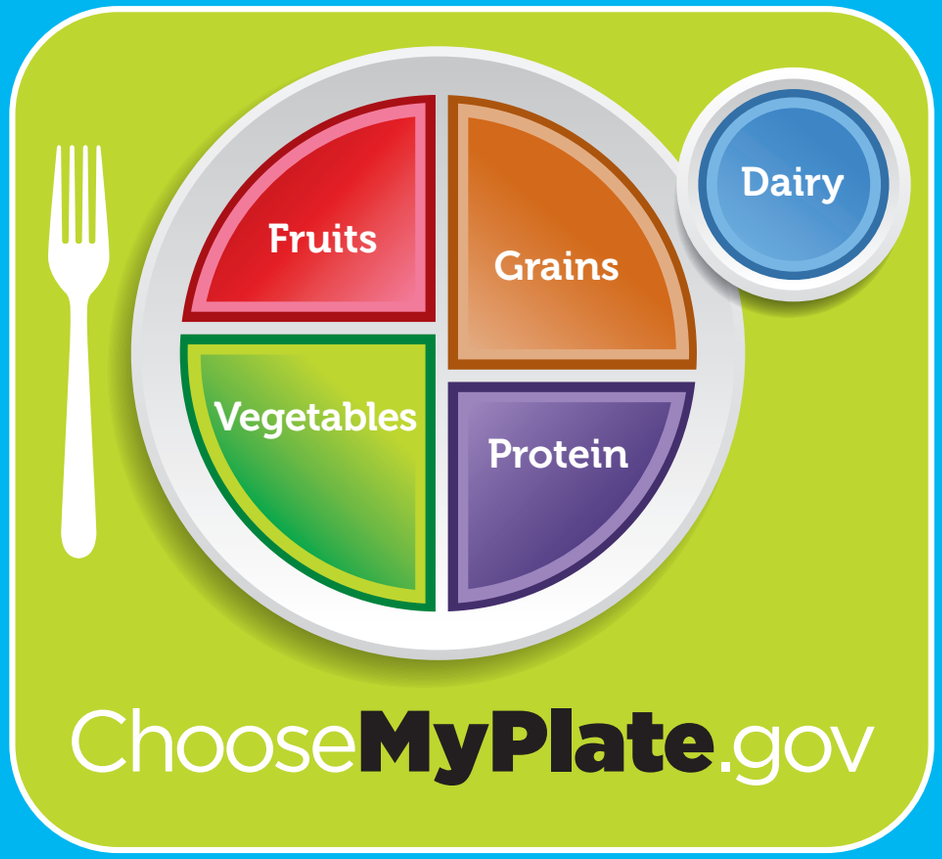




Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov

Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov
Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov
Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov
Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov

What's on your plate?



Before you eat, think about what and how much food goes on your plate or in your cup or bowl. Over the day, include foods from all food groups: vegetables, fruits, whole grains, low-fat dairy products, and lean protein foods.

Make half your plate fruits and vegetables.

Make at least half your grains whole.

Switch to skim or 1% milk.

Vary your protein food choices.

Vegetables	Fruits	Grains	Dairy	Protein Foods
Eat more red, orange, and dark-green veggies like tomatoes, sweet potatoes, and broccoli in main dishes. Add beans or peas to salads (kidney or chickpeas), soups (split peas or lentils), and side dishes (pinto or baked beans), or serve as a main dish. Fresh, frozen, and canned vegetables all count. Choose "reduced sodium" or "no-salt-added" canned veggies.	Use fruits as snacks, salads, and desserts. At breakfast, top your cereal with bananas or strawberries; add blueberries to pancakes. Buy fruits that are dried, frozen, and canned (in water or 100% juice), as well as fresh fruits. Select 100% fruit juice when choosing juices.	Substitute whole-grain choices for refined-grain breads, bagels, rolls, breakfast cereals, crackers, rice, and pasta. Check the ingredients list on product labels for the words "whole" or "whole grain" before the grain ingredient name. Choose products that name a whole grain first on the ingredients list.	Choose skim (fat-free) or 1% (low-fat) milk. They have the same amount of calcium and other essential nutrients as whole milk, but less fat and calories. Top fruit salads and baked potatoes with low-fat yogurt. If you are lactose intolerant, try lactose-free milk or fortified soymilk (soy beverage).	Eat a variety of foods from the protein food group each week, such as seafood, beans and peas, and nuts as well as lean meats, poultry, and eggs. Twice a week, make seafood the protein on your plate. Choose lean meats and ground beef that are at least 90% lean. Trim or drain fat from meat and remove skin from poultry to cut fat and calories.
For a 2,000-calorie daily food plan, you need the amounts below from each food group. To find amounts personalized for you, go to Choose**MyPlate**.gov.				
Eat 2½ cups every day **What counts as a cup?** 1 cup of raw or cooked vegetables or vegetable juice; 2 cups of leafy salad greens	**Eat 2 cups every day** **What counts as a cup?** 1 cup of raw or cooked fruit or 100% fruit juice; ½ cup dried fruit	**Eat 6 ounces every day** **What counts as an ounce?** 1 slice of bread; ½ cup of cooked rice, cereal, or pasta; 1 ounce of ready-to-eat cereal	**Get 3 cups every day** **What counts as a cup?** 1 cup of milk, yogurt, or fortified soymilk; 1½ ounces natural or 2 ounces processed cheese	**Eat 5½ ounces every day** **What counts as an ounce?** 1 ounce of lean meat, poultry, or fish; 1 egg; 1 Tbsp peanut butter; ½ ounce nuts or seeds; ¼ cup beans or peas

USDA
U.S. Department of Agriculture • Center for Nutrition Policy and Promotion
August 2011
CNPP-25
USDA is an equal opportunity provider and employer.

Cut back on sodium and empty calories from solid fats and added sugars



Look out for salt (sodium) in foods you buy. Compare sodium in foods and choose those with a lower number.

Drink water instead of sugary drinks. Eat sugary desserts less often.

Make foods that are high in solid fats—such as cakes, cookies, ice cream, pizza, cheese, sausages, and hot dogs—occasional choices, not every day foods.

Limit empty calories to less than 260 per day, based on a 2,000 calorie diet.

Be physically active your way

Pick activities you like and do each for at least 10 minutes at a time. Every bit adds up, and health benefits increase as you spend more time being active.

Children and adolescents: get 60 minutes or more a day.

Adults: get 2 hours and 30 minutes or more a week of activity that requires moderate effort, such as brisk walking.

Fruit

cup equivalents

What does 1 cup look like?

Fruits shown at actual size.

Hey kids! Color the fruit.

1 medium apple

2¾"

1cup

1cup

⅛ cantaloupe (1 slice)

1 large banana

1cup

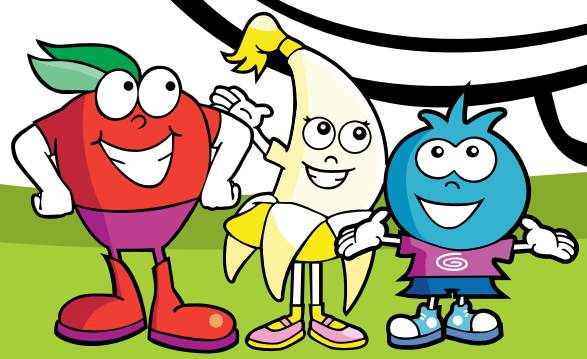
8"

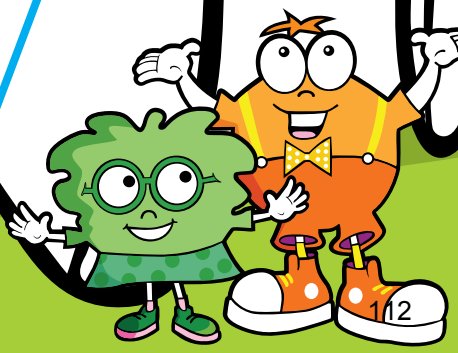
What about ½ cup?

That's just 1 cup divided in 2!

fruits & veggies more matters™

fruitsandveggiesmorematters.org





Vegetables

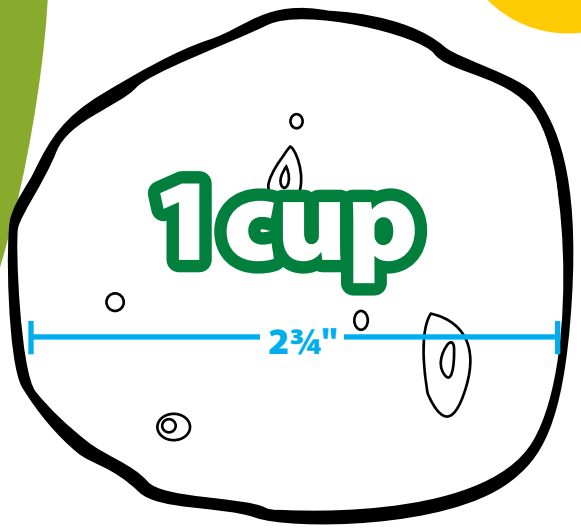
cup equivalents

What does 1 cup look like?

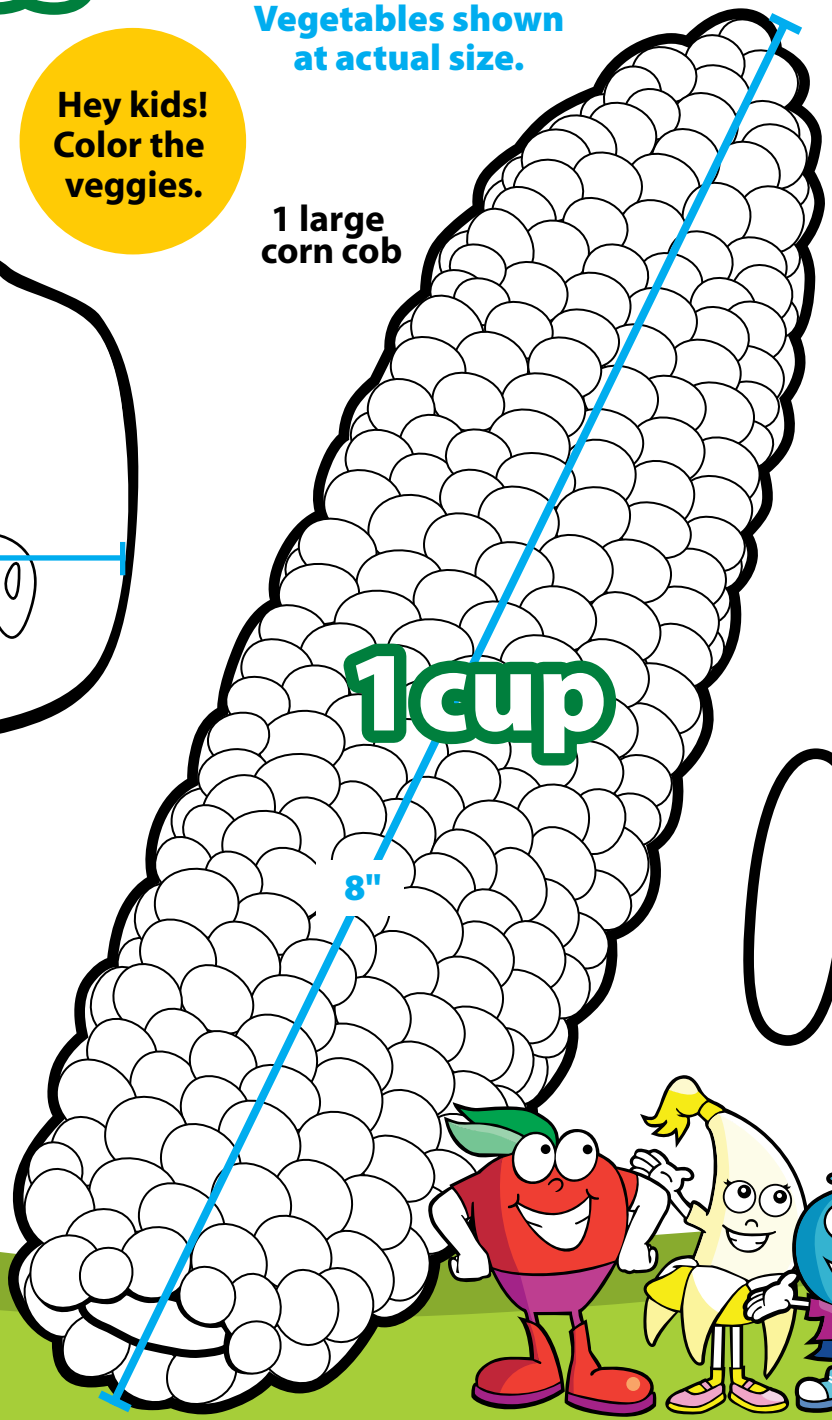
Hey kids! Color the veggies.

Vegetables shown at actual size.

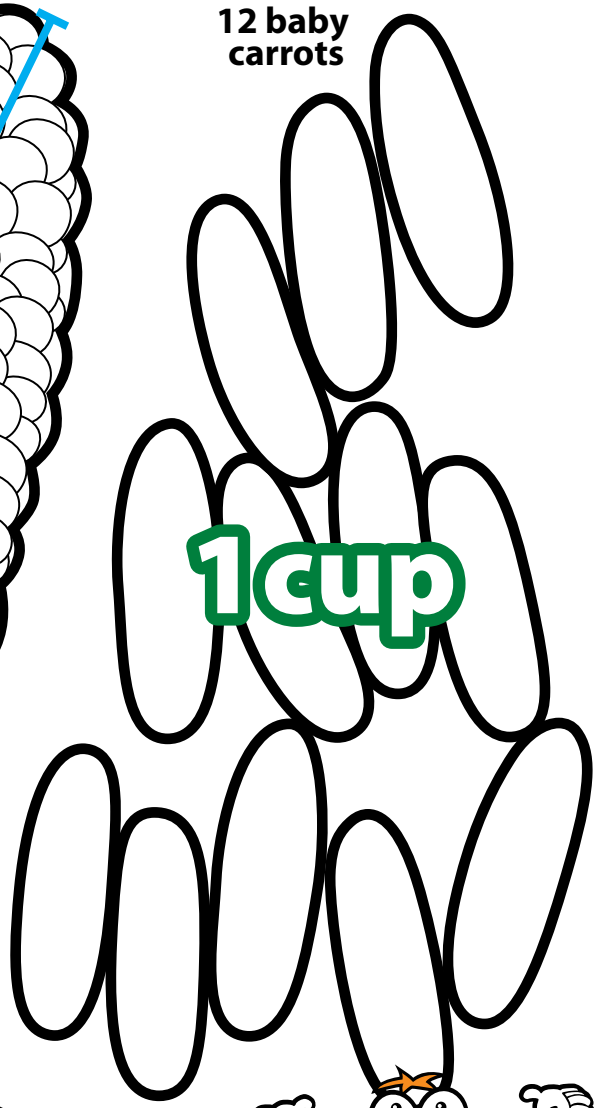
1 small potato



1 large corn cob

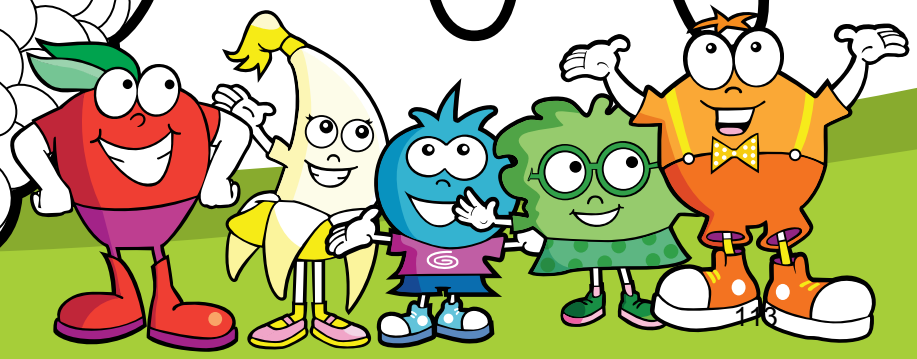


12 baby carrots



What about ½ cup?

That's just 1 cup divided in 2!



fruits & veggies more matters™

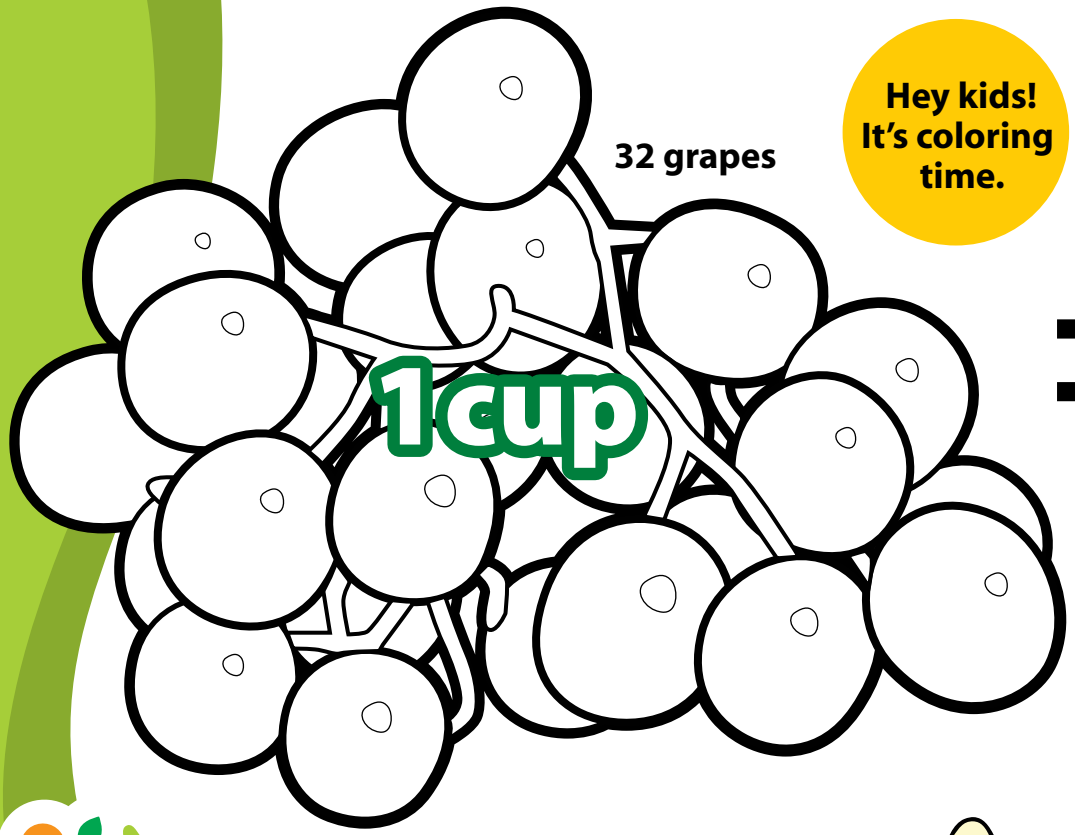
fruitsandveggiesmorematters.org

Dried

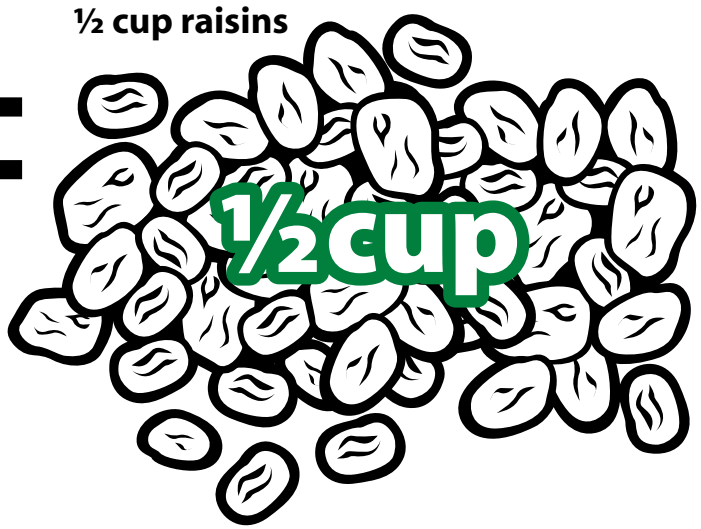
cup equivalents

1 cup fresh is equivalent to ½ cup dried !

Hey kids! It's coloring time.

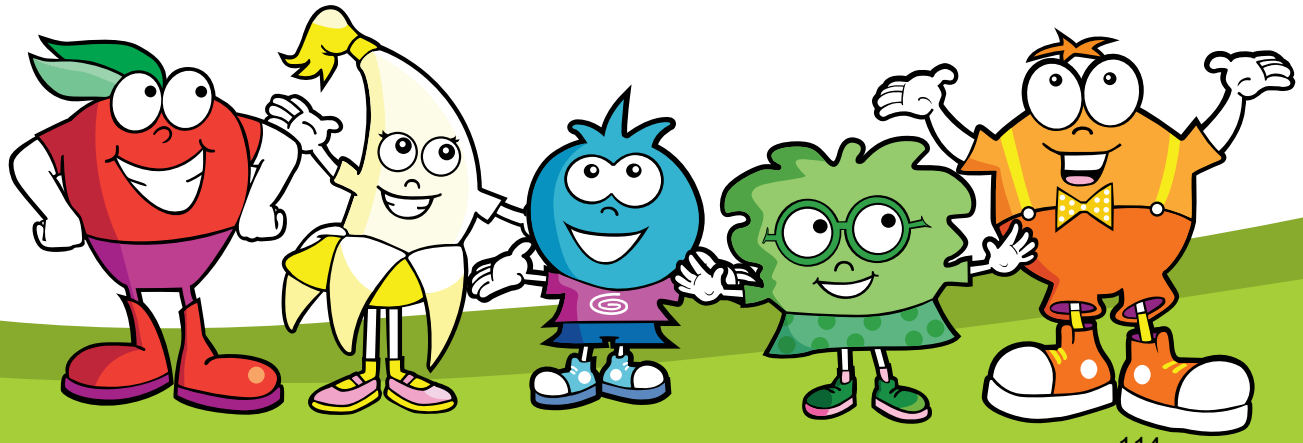


=



fruits & veggies more matters™

fruitsandveggiesmorematters.org



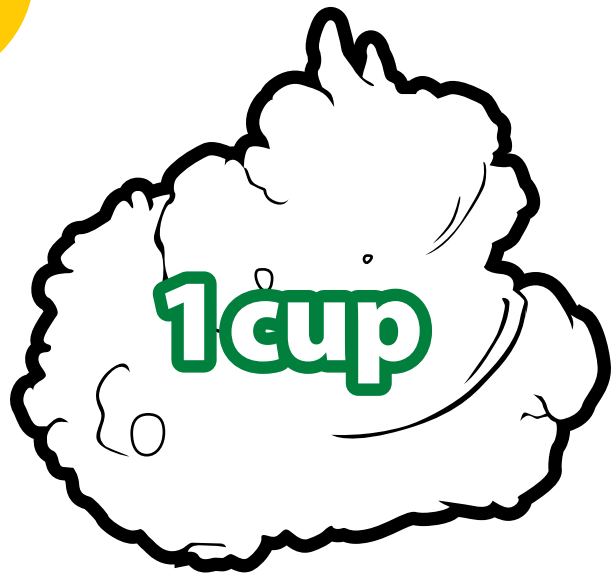
Chopped, Mashed or Sliced

cup equivalents

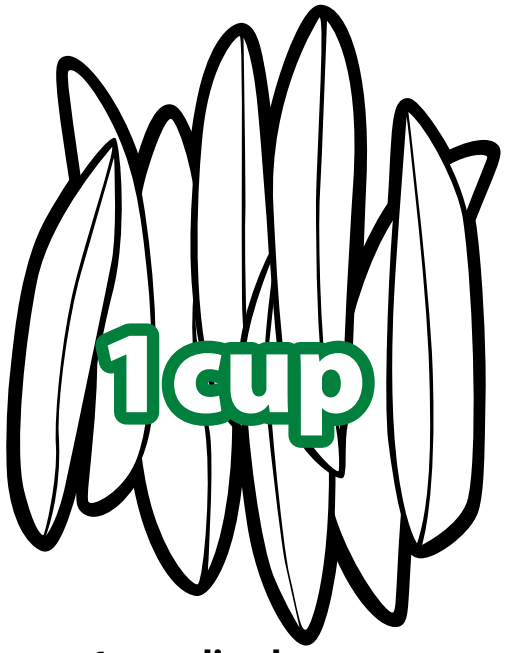
1 cup measures volume not shape

Hey kids! Have fun coloring.

=



=

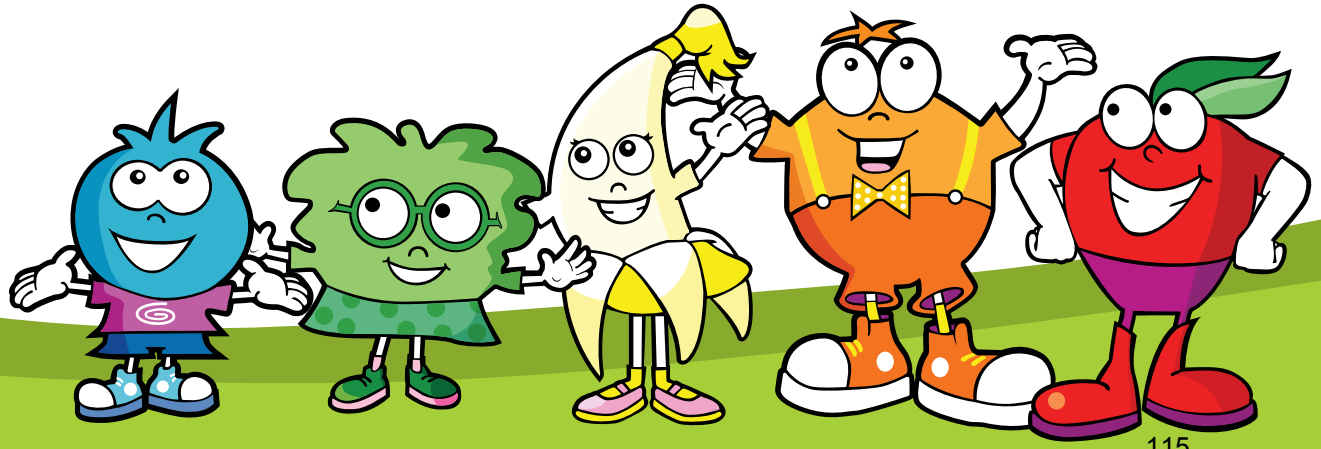


1 cup chopped yam

1 cup mashed yam

1 cup sliced yam

fruits & veggies more matters™
fruitsandveggiesmorematters.org



Using the Nutrition Facts Label

A How-To Guide for Older Adults

Inside

For more on nutrition for older adults, visit:
www.fda.gov/Food/ResourcesForYou/Consumers/Seniors

Why Nutrition Matters For You

Good nutrition is important throughout your life!

It can help you feel your best and stay strong. It can help reduce the risk of some diseases that are common among older adults. And, if you already have certain health issues, good nutrition can help you manage the symptoms.

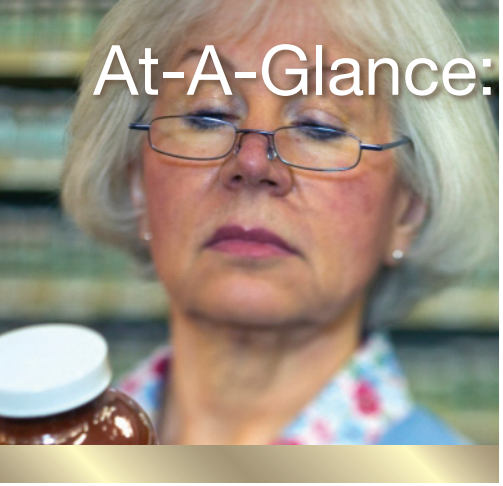
Nutrition can sometimes seem complicated. But the good news is that the **Food and Drug Administration** has a simple tool to help you know exactly what you're eating.

It's called the **Nutrition Facts Label**. You will find it on **all packaged foods and beverages**. It serves as your guide for making choices that can affect your long-term health.

This booklet will give you the information you need to start using the Nutrition Facts Label today!

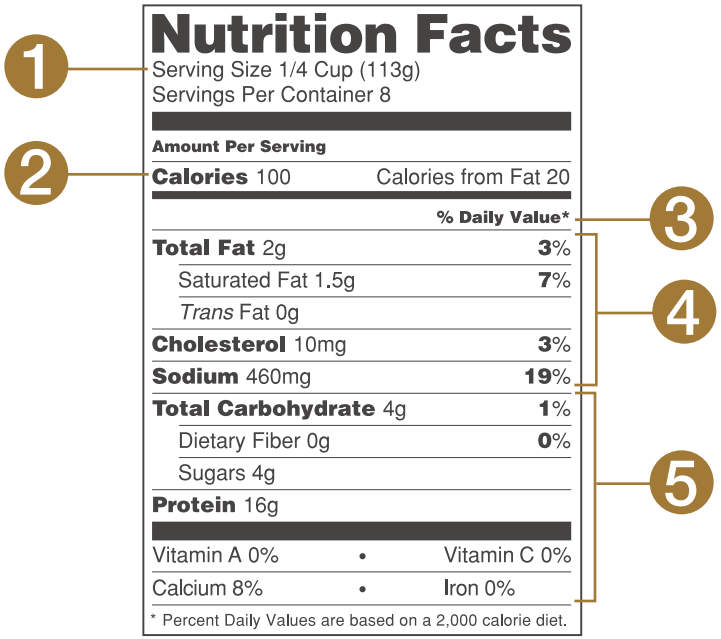
Good Nutrition Can Help You Avoid or Manage These Common Diseases:

- certain cancers
- type 2 diabetes
- heart disease
- high blood pressure
- obesity
- osteoporosis



At-A-Glance: The Nutrition Facts Label

Understanding what the Nutrition Facts Label includes can help you make **food choices** that are best for your health.



Nutrition Facts

Serving Size 1/4 Cup (113g)
Servings Per Container 8

Amount Per Serving	
Calories 100	Calories from Fat 20
	% Daily Value*
Total Fat 2g	**3%**
Saturated Fat 1.5g	**7%**
Trans Fat 0g	
Cholesterol 10mg	**3%**
Sodium 460mg	**19%**
Total Carbohydrate 4g	**1%**
Dietary Fiber 0g	**0%**
Sugars 4g	
Protein 16g	
Vitamin A 0% •	Vitamin C 0%
Calcium 8% •	Iron 0%

* Percent Daily Values are based on a 2,000 calorie diet.

1 Serving Size

This section shows how many servings are in the package, and how big the serving is. Serving sizes are given in familiar measurements, such as “cups” or “pieces.”

Remember: All of the nutrition information on the label is based upon **one serving** of the food.

A package of food often contains more than one serving!

2 Amount of Calories

The calories listed are for **one serving** of the food. “Calories from fat” shows how many fat calories there are in **one serving**.

Remember — a product that’s *fat-free* isn’t necessarily *calorie-free*. Read the label!

3 Percent (%) Daily Value

This section tells you how the nutrients in one serving of the food contribute to your total daily diet. Use it to choose foods that are high in the nutrients you should get more of, and low in the nutrients you should get less of.

Daily Values are based on a 2,000-calorie diet. However, your nutritional needs will likely depend on how physically active you are. Talk to your healthcare provider to see what calorie level is right for you.

4 Limit these Nutrients

Eating too much total fat (especially saturated fat and *trans* fat), cholesterol, or sodium may increase your risk of certain chronic diseases, such as heart disease, some cancers, or high blood pressure.

Try to keep these nutrients as low as possible each day.

5 Get Enough of these Nutrients

Americans often don’t get enough dietary fiber, vitamin A, vitamin C, calcium, and potassium in their diets. These nutrients are essential for keeping you feeling strong and healthy.

Eating enough of these nutrients may improve your health and help reduce the risk of some diseases.

3 Key Areas of Importance

As you use the Nutrition Facts Label, pay particular attention to Serving Size, Percent Daily Value, and Nutrients.

Serving Size

The top of the Nutrition Facts Label shows the **serving size** and the **servings per container**. Serving size is the key to the rest of the information on the Nutrition Facts Label.

Nutrition Facts
Serving Size 1/4 Cup (113g)
Servings Per Container 8

Amount Per Serving
Calories 100 — Calories from Fat 20

	% Daily Value*
Total Fat 2g	**3**%
Saturated Fat 1.5g	**7**%
Trans Fat 0g	
Cholesterol 10mg	**3**%
Sodium 460mg	**19**%
Total Carbohydrate 4g	**1**%
Dietary Fiber 0g	**0**%
Sugars 4g	
Protein 16g	

Vitamin A 0% • Vitamin C 0%
Calcium 8% • Iron 0%

* Percent Daily Values are based on a 2,000 calorie diet.

- The nutrition information about the food – like the calories, sodium, and fiber – is based upon **one serving**.
- If you eat **two servings** of the food, you are eating **double** the calories and getting **twice the amount** of nutrients, both good and bad.
- If you eat **three servings**, that means **three times** the calories and nutrients – and so on.

That is why knowing the serving size is important. It's how you know for sure how many calories and nutrients you are getting.

Check Serving Size!

It is very common for a food package to contain more than one serving. One bottled soft drink or a small bag of chips can actually contain two or more servings!

If you eat two servings . . .

Serving Size 1/4 Cup (113g)
Servings Per Container 8

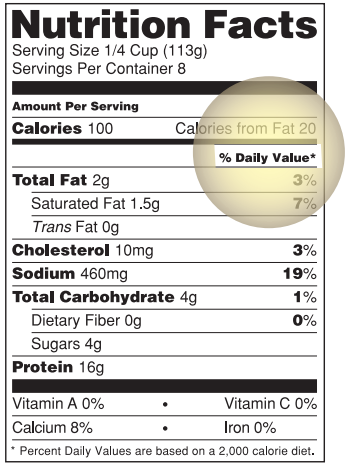
x2

Amount Per Serving
Calories 100 — Calories from Fat 20

Percent Daily Value (%DV)

The %DV is a general guide to help you link nutrients in **one serving** of food to their contribution to your **total daily diet**. It can help you determine if a food is high or low in a nutrient: 5% or less is low, 20% or more is high.

You can also use the %DV to make dietary trade-offs with other foods throughout the day.



Nutrition Facts
Serving Size 1/4 Cup (113g)
Servings Per Container 8

Amount Per Serving
Calories 100 — Calories from Fat 20

	% Daily Value*
Total Fat 2g	**3**%
Saturated Fat 1.5g	**7**%
Trans Fat 0g	
Cholesterol 10mg	**3**%
Sodium 460mg	**19**%
Total Carbohydrate 4g	**1**%
Dietary Fiber 0g	**0**%
Sugars 4g	
Protein 16g	

Vitamin A 0% • Vitamin C 0%
Calcium 8% • Iron 0%

* Percent Daily Values are based on a 2,000 calorie diet.

%DV: Quick Tips

You can tell if a food is high or low in a particular nutrient by taking a quick look at the %DV.

- If it has **5% percent** of the Daily Value or less, it is **low** in that nutrient.

  This can be good or bad, depending on if it is a nutrient you want more of or less of.

- If it has **20% or more**, it is **high** in that nutrient.

  This can be good for nutrients like fiber (a nutrient to get more of) . . . but not so good for something like saturated fat (a nutrient to get less of).

Using %DV

- Once you are familiar with %DV, you can use it to compare foods and decide which is the better choice for you. Be sure to check for the particular nutrients you want more of or less of.
- Using %DV information can also help you "balance things out" for the day.
  - *For example:* If you ate a favorite food at lunch that was high in sodium, a "nutrient to get less of," you would then try to choose foods for dinner that are lower in sodium.

Nutrients

A nutrient is an ingredient in a food that provides nourishment. Nutrients are essential for life and to keep your body functioning properly.

Nutrients To Get MORE Of:

There are some nutrients that are especially important for your health. You should *try to get adequate amounts* of these each day. They are:

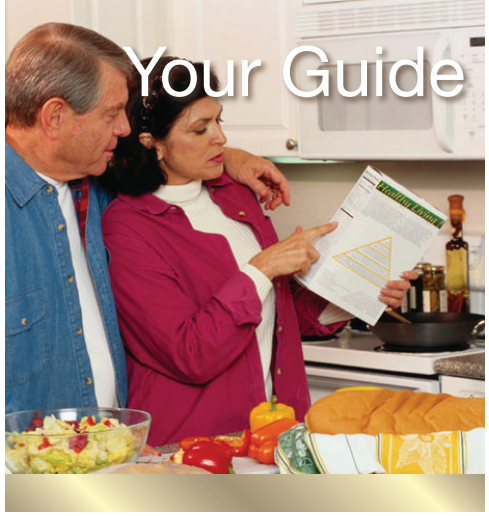
- calcium
- dietary fiber
- potassium*
- vitamin A
- vitamin C

* *Note:* The listing of potassium is optional on the Nutrition Facts Label.

Nutrients To Get LESS Of:

There are other nutrients that are important, but that you should *eat in moderate amounts*. They can increase your risk of certain diseases. They are:

- Total fat (especially saturated fat)
- Cholesterol
- Sodium

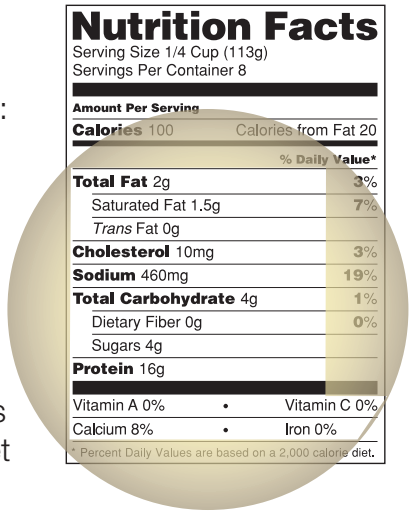


Your Guide to a Healthy Diet

The Nutrition Facts Label can help you make choices for **overall health**. But some nutrients can also affect certain health **conditions and diseases**.

Use this chapter as a guide for those nutrients that could impact your own health. Each nutrient section discusses:

- What the nutrient is
- What it can mean for your health
- Label-reading tips



Nutrition Facts
Serving Size 1/4 Cup (113g)
Servings Per Container 8

Amount Per Serving
Calories 100 — Calories from Fat 20

	% Daily Value*
Total Fat 2g	3%
Saturated Fat 1.5g	7%
Trans Fat 0g	
Cholesterol 10mg	3%
Sodium 460mg	19%
Total Carbohydrate 4g	1%
Dietary Fiber 0g	0%
Sugars 4g	
Protein 16g	

Vitamin A 0% • Vitamin C 0%
Calcium 8% • Iron 0%

* Percent Daily Values are based on a 2,000 calorie diet.

Watch for "nutrients to get less of" (the ones that you should try to limit), and "nutrients to get more of" (the ones that are very important to be sure to get enough of).

You also might want to talk to your healthcare provider about which nutrients you should track closely for your continued health. And remember – the **Nutrition Facts Label** is a tool that is available to you on every packaged food and beverage!

Test your Nutrition Facts Label knowledge with **Label Man**, FDA's online label-reading tool!

www.fda.gov/LabelMan

On the following pages, you'll find specific information about certain nutrients.

Some are **nutrients to** 

get less of;

others are **nutrients to** 

get more of.

All of them can have an impact on your **long-term health**.

In addition, here is an example of how the Nutrition Facts Label can guide you in making good decisions for long-term health and nutrition.

Example

Heart disease is the number one cause of death in the U.S. today. You can use the Nutrition Facts Label to compare foods and decide which ones fit with a diet that may help reduce the risk of heart disease. Choose foods that have **fewer calories per serving** and a **lower %DV** of these "nutrients to get less of":

- Total fat
- Saturated fat
- Cholesterol
- Sodium

To lower your risk of heart disease, it is also recommended that you eat *more* fiber.

Dietary Salt/Sodium

What It Is:

Salt is a crystal-like compound that is used to flavor and preserve food. The words "salt" and "sodium" are often used interchangeably. Salt is listed as "sodium" on the Nutrition Facts Label.

What You Should Know:

A small amount of sodium is needed to help certain organs and fluids work properly. But most people eat too much of it – and they may not even know it! That's because many packaged foods have a high amount of sodium, even when they don't taste "salty." Plus, when you add salt to food, you're adding *more* sodium.

Sodium has been linked to high blood pressure. In fact, eating less sodium can often help **lower blood pressure** . . . which in turn can help **reduce the risk of heart disease**.

And since blood pressure normally rises with age, limiting your sodium intake becomes even more important each year.

Salt/Sodium

- Read the label to see how much sodium is in the food you are choosing.
  - 5% DV or less is *low* in sodium
  - 20% DV or more is *high* in sodium.
- When you are deciding between two foods, compare the amount of sodium. Look for cereals, crackers, pasta sauces, canned vegetables, and other packaged foods that are lower in sodium.

Fiber

GET MORE OF

What It Is:

Fiber, or "dietary fiber," is sometimes called "roughage." It's the part of food that can't be broken down during digestion. So because it moves through your digestive system "undigested," it plays an important role in keeping your system moving and "in working order."

What You Should Know:

Fiber is a "nutrient to get more of." In addition to aiding in digestion, fiber has a number of other health-related benefits. These benefits are *especially* effective when you have a **high fiber diet** that is also **low in saturated fat**, **cholesterol**, ***trans* fat**, **added sugars**, **salt**, and **alcohol**.

- Eating a diet that is low in saturated fat and cholesterol and high in fruits, vegetables, and grain products that contain some types of dietary fiber, particularly soluble fiber, may help lower your cholesterol and reduce your chances of getting **heart disease**, a disease associated with many factors.
- Healthful diets that are low in fat *and* rich in fruits and vegetables that contain fiber may reduce the risk of **some types of cancer**, including colon cancer, a disease associated with many factors. In addition, such healthful diets are also associated with a reduced risk of **type 2 diabetes**.

- Fiber also aids in the regularity of bowel movements and preventing constipation. It may help reduce the risk of **diverticulosis**, a common condition in which small pouches form in the colon wall. This condition often has few or no symptoms; people who already have diverticulosis and *do* have symptoms often find that increased fiber consumption can reduce these symptoms. It's also important to note that if the pouches caused by diverticulosis rupture and become infected, it results in a more severe condition called **diverticulitis**.

Soluble v. Insoluble Fiber: Where To Get It, and What It Does

Fiber comes in two forms — insoluble and soluble. Most plant foods contain some of each kind.

- **Insoluble fiber** is mostly found in whole-grain products, such as wheat bran cereal, vegetables and fruit. It provides "bulk" for stool formation and helps wastes move quickly through your colon.
- **Soluble fiber** is found in peas, beans, many vegetables and fruits, oat bran, whole grains, barley, cereals, seeds, rice, and some pasta, crackers, and other bakery products. It slows the digestion of carbohydrates, and can help stabilize blood sugar if you have diabetes. In addition, it helps lower "bad cholesterol." This, in turn, reduces the risk of heart disease.

Check the **Nutrition Facts Label** to see which foods have a higher %DV of fiber.

Fiber

- **Read food labels.** The Nutrition Facts Label tells you the amount of dietary fiber in each serving, as well as the %DV of fiber that food contains.

  When comparing the amount of fiber in food, remember:

  - 5% DV or less is *low* in fiber
  - 20% DV or more is *high* in fiber

  The label won't indicate whether fiber is "insoluble" or "soluble," so it's best to try to get some of both. (See information on previous page)
- **Compare foods and choose the ones with higher fiber.** Look for and compare labels on whole-grain products such as bulgur, brown rice, whole wheat couscous or kasha and whole-grain breads, cereals and pasta. In addition, compare different styles/types of canned or frozen beans and fruit.

Total Fat

GET LESS OF

What It Is:

Fat, or "dietary fat," is a nutrient that is a major source of energy for the body. It also helps you absorb certain important vitamins. As a food ingredient, fat provides taste, consistency, and helps you feel full.

What You Should Know:

Eating too much fat can lead to a wide range of health challenges. The total amount and type of fat can contribute to and/or increase the risk of:

- heart disease
- high cholesterol
- increased risk of many cancers (including colon-rectum cancer)
- obesity
- high blood pressure
- type 2 diabetes

It is important to know that there are **different types of dietary fat**. Some have health benefits when eaten in small quantities, but others do not.

Unsaturated Fats

"Good" Fat: unsaturated fats (monounsaturated and polyunsaturated)

- These are healthful if eaten in moderation. In fact, small amounts can even help **lower cholesterol levels**!
- *Best Sources:* plant-based oils (sunflower, corn, soybean, cottonseed, and safflower), olive, canola and peanut oils, nuts, and soft margarines (liquid, tub or spray).

"Undesirable" Fat: saturated and *trans* fats. These can raise cholesterol levels in the blood – which in turn can contribute to heart disease.

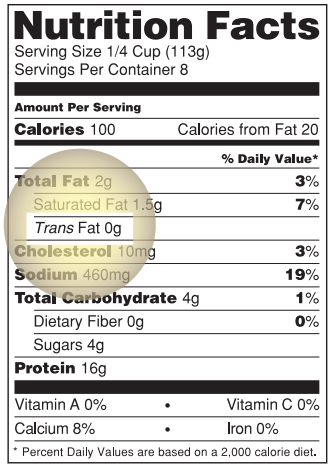
- *Common Sources:* meat, poultry, fish, butter, ice cream, cheese, coconut and palm kernel oils, solid shortenings, and hard margarines.
- Meat (including chicken and turkey) and fish supply protein, B vitamins, and iron. When selecting and preparing meat, poultry, fish and milk or milk products, choose those that are lean, low-fat, or fat-free. Doing this, along with removing the skin from fish and poultry, are good strategies for limiting "undesirable" fat from your diet. In addition, dry beans, which can be used as a meat substitute, are a good source of protein and are non-fat.

Understanding *Trans* Fat

Trans fat is one of the newest additions to the Nutrition Facts Label, so you may be hearing more about it. Here's what you need to know:

- Most *trans* fat is made when manufacturers "hydrogenize" liquid oils, turning them into solid fats, like shortening or some margarines. *Trans* fat is commonly found in crackers, cookies, snack foods, and other foods made with or fried in these solid oils.
- *Trans* fat, like saturated fat and cholesterol, **raises your LDL (bad) cholesterol**. But unlike these other nutrients, *trans* fat also **lowers your HDL (good) cholesterol**. This further increases your risk of coronary heart disease.

Trans Fat On the Label


Nutrition Facts
Serving Size 1/4 Cup (113g)
Servings Per Container 8
Amount Per Serving
Calories 100 Calories from Fat 20
% Daily Value*
Total Fat 2g 3%
Saturated Fat 1.5g 7%
Trans Fat 0g
Cholesterol 10mg 3%
Sodium 460mg 19%
Total Carbohydrate 4g 1%
Dietary Fiber 0g 0%
Sugars 4g
Protein 16g
Vitamin A 0% • Vitamin C 0%
Calcium 8% • Iron 0%
* Percent Daily Values are based on a 2,000 calorie diet.

There is no recommended total daily value for *trans* fat, so you won't find the %DV of *trans* fat on a food's Nutrition Facts Label. However, you can still use the label to see if a food contains *trans* fat and to compare two foods by checking to see if **grams** of *trans* fat are listed. If there is anything other than 0 grams listed, then the food contains *trans* fat.

Because it is extremely difficult to eat a diet that is completely *trans* fat-free without decreasing other nutrient intakes, just aim to keep your intake of *trans* fat as low as possible.

Total Fat

- When comparing foods, check the Nutrition Facts Label and choose the food with the lower %DV of total fat and saturated fat, and low or no grams of *trans* fat.
  - 5% DV or less of total fat is *low*
  - 20% DV or more of total fat is *high*
- When choosing foods that are labeled "fat-free" and "low-fat," be aware that *fat-free doesn't mean calorie-free*. Sometimes, to make a food tastier, extra sugars are added, which adds extra calories. Be sure to check the calories per serving.

Cholesterol

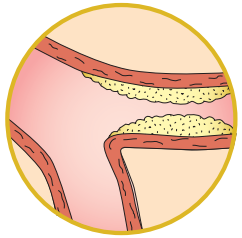
GET LESS OF

What It Is:

Cholesterol is a crystal-like substance carried through the bloodstream by lipoproteins – the "transporters" of fat. Cholesterol is required for certain important body functions, like digesting dietary fats, making hormones, and building cell walls.

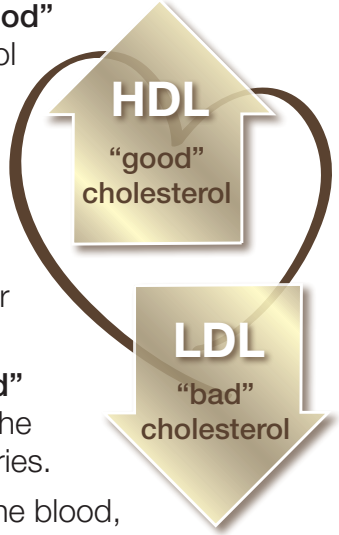
Cholesterol is found in animal-based foods, like meats and dairy products.

What You Should Know:



Too much cholesterol in the bloodstream can damage arteries, especially the ones that supply blood to the heart. It can build up in blood vessel linings. This is called **atherosclerosis**, and it can lead to heart attacks and stroke.

However, it's important to know that not all cholesterol is bad. There are **two kinds of cholesterol** found in the bloodstream. How much you have of each is what determines your risk of heart disease.



High-density lipoprotein (HDL): This **"good" cholesterol** is the form in which cholesterol travels *back to the liver*, where it can be eliminated.

- HDL helps prevent cholesterol buildup in blood vessels. A higher level of this cholesterol is better. Low HDL levels increase heart disease risk. Discuss your HDL level with your healthcare provider.

Low-density lipoprotein (LDL): This **"bad" cholesterol** is carried *into the blood*. It is the main cause of harmful fatty buildup in arteries.

- The higher the LDL cholesterol level in the blood, the greater the heart disease risk. So, a lower level of this cholesterol is better.

Cholesterol

- Cholesterol is a "nutrient to get less of." When comparing foods, look at the Nutrition Facts Label, and choose the food with the lower %DV of cholesterol. Be sure not to go above 100% DV for the day.
  - 5% DV or less of cholesterol is *low*
  - 20% DV or more of cholesterol is *high*
- One of the primary ways LDL ("bad") cholesterol levels can become too high in the blood is by eating too much saturated fat and cholesterol. **Saturated fat raises LDL levels more than anything else in the diet.**

Calcium

GET MORE OF

What It Is:

Calcium is a mineral that has a lot of uses in the body, but it is best known for its role in building healthy bones and teeth.

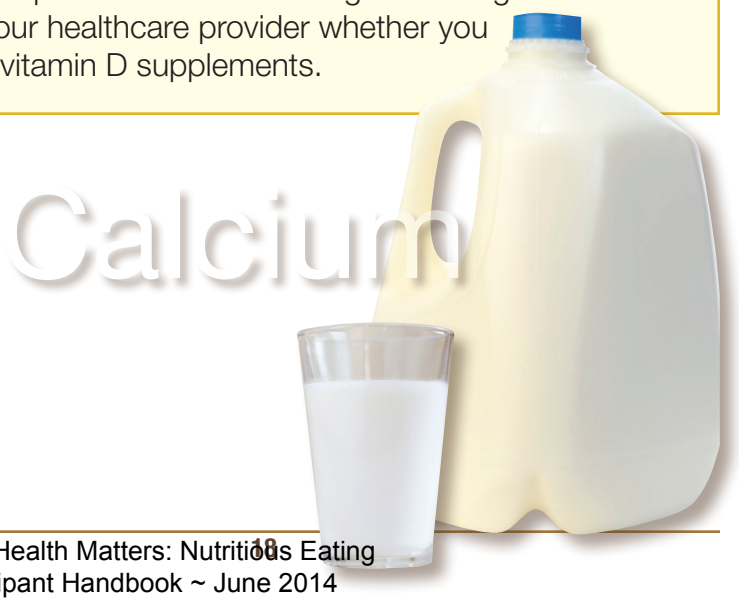
What You Should Know:

Lack of calcium causes **osteoporosis**, which is the primary cause of hip fractures. In fact, the word "osteoporosis" means "porous bones." It causes progressive bone loss as you age, and makes bones fragile – so that they can break easily. It's extremely important (especially for women) to get enough calcium throughout your life, especially after menopause. Women are at much higher risk for osteoporosis, but men can get it too.

A Note About Vitamin D

For calcium to be properly absorbed by the body, you also need to get enough vitamin D. Many milk products and cereals are fortified with vitamin D; also, vitamin D is produced by the body when exposed to sunlight.

If you aren't exposed to outdoor sunlight on a regular basis, ask your healthcare provider whether you should take vitamin D supplements.



It's true that many dairy products, which contain high levels of calcium, are relatively high in fat and calories. But keep in mind that **fat-free or low-fat types of milk products** are excellent calcium sources. Nutritionists recommend that you try to get most of your calcium from calcium-rich foods, rather than from calcium supplements. The Nutrition Facts Label can help you make good high-calcium choices.

Other good sources of calcium are:

- canned salmon (with bones, which are edible)
- calcium-fortified soy beverages
- tofu (soybean curd that is "calcium-processed")
- certain vegetables (for example, dark leafy greens such as collards and turnip greens)
- legumes (blackeyed peas and white beans)
- calcium-fortified grain products
- calcium-fortified juice

Calcium

- Read the label to see how much calcium is in the food you are choosing.
  - 5% DV or less is *low* in calcium
  - 20% DV or more is *high* in calcium
- Select foods that are high in calcium as often as possible.

Glossary of Key Nutrition Label Terms

Calcium: a mineral that builds and maintains strong bones. Calcium helps prevent osteoporosis.

Calories: the energy provided by food/nutrients. On the label, calories shown are for *one serving*.

Calories from Fat: Fat calories shown on the label are for *one serving*.

Cholesterol: a necessary nutrient from animal-based foods that is carried in the bloodstream. LDL cholesterol is "bad" and HDL cholesterol is "good."

Daily Value: the amount of certain nutrients that most people need each day.

Nutrient: an ingredient in a food that provides nourishment or nutritional benefit.

Nutrition Facts Label: the black-and-white box found on food and beverage packages.

Percent Daily Value (%DV): the percentage of a nutrient found in one serving of food, based on the established standard of 2000 calories per day.

Saturated Fat: a type of fat that is solid at room temperature. It is usually animal-based. This type of fat is associated with certain health risks.

Sodium: dietary salt that is important in the diet. However, too much sodium can lead to high blood pressure and risk of heart disease.

Total Fat: the combined fats that provide energy to the body. Some types of fat are healthier than others.

***Trans* Fat:** a type of fat that is created when liquid fat is turned into solid fat during manufacturing. *Trans* fat has no daily value, and should be replaced with unsaturated fat in your diet whenever possible.

Unsaturated Fat: a type of fat that is liquid at room temperature; can be plant-based or animal-based. These are usually "good fats."

The web links provided in this booklet were current at time of publication. In the event that they change, please visit **www.fda.gov** and search by topic, such as "Seniors" or "Labelman."

Older Adults
and the
Nutrition Facts Label

Glossary of Terms for Nutrition

BILE	A bitter, alkaline, yellow or greenish liquid, secreted by the liver that aids in absorption and digestion of foods, especially of fats.
CALORIE	A measurement that expresses energy or heat producing value in a food when it oxidizes in the body. Carbohydrate, protein, fat and alcohol provide calories in the diet. Carbohydrate and protein have 4 calories per gram, fat has 9 calories per gram, and alcohol has 7 calories per gram.
CHYME	The semi fluid mass into which food is converted by gastric chemical and mechanical action which passes from the stomach into the small intestine.
DIETARY FIBER	Nondigestable carbohydrates from plant foods.
ESOPHAGUS	Passageway that uses peristalsis to move food from the mouth to the stomach.
GALL BLADDER	This organ produces juices that help the small intestine digest fats and proteins and stores bile made by the liver.
LARGE INTESTINE	This organ receives the liquid food mix from the small intestine after most of the nutrients have been absorbed and prepares what the body does not use to exit the body.
LIVER	The body's largest organ. This organ changes food into energy, removes alcohol and poisons from the blood, and makes bile, a substance that breaks down fats and helps rid the body of wastes.
MOUTH	This organ receives food and begins digestion by mechanically reducing the size of solid particles and mixing them with saliva.
NUTRIENT	Nourishment or benefit we obtain from different types of food which includes macronutrients (carbohydrates, protein, fat) and micronutrients (vitamins, minerals).
PANCREAS	This organ produces juices that help the small intestine digest fats and proteins; makes insulin and enzymes for digestion; located behind the lower part of the stomach and is about the size of a hand.
PERISTALSIS	A progressive wave of contraction and relaxation of the esophagus and small intestine by which the contents are forced through the system.
STOMACH	This organ receives food from the esophagus, churns food and mixes it with gastric juice into a substance called chyme, initiates the digestion of proteins, carries on a limited amount of absorption, and moves food into the small intestine.
SMALL INTESTINE	This organ receives chyme from the stomach and further breaks down food with help from the pancreas, gall bladder, and liver for absorption of the nutrients the body needs like vitamins, proteins, carbohydrates, and fats.

Acknowledgements:
Edited by Ann-Marie Hedberg, DrPH, RD, LD, Heather Hochberg-Garrett, MPH, RD, LD, Rhonda Hatcher and Nathalie Sessions, The University of Texas Health Science Center at Houston
American Diabetes Association Web site: www.diabetes.org
U.S. Department of Health & Human Services Dietary Guidelines for Americans Glossary of Terms Web site: www.health.gov/dietaryguidelines/dga2005/document/html/appendixC.htm

List of Additional Resources

Internet sites are provided for convenience and are not necessarily intended as an endorsement.

The University of Texas Community Outreach Program Partner Sites

Brownsville: http://www.sph.uth.tmc.edu/brownsville/

Contributing Project Sites

HEADS UP www.sph.uth.tmc.edu/headsup

CATCH www.sph.uth.tmc.edu/catch

U. S. Government Health-Related Sites

Centers for Disease Control & Prevention www.cdc.gov

National Institutes of Health (NIH) Office of Science Education science-education.nih.gov

National Heart Lung and Blood Institute's We Can! (Ways to Enhance Children's Activity & Nutrition) Educational Campaign: Choosing Foods – Go-Slow-Whoa
http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/eat-right/choosing-foods.htm

My Pyramid www.mypyramid.gov

U.S. Food and Drug Administration (FDA) Food Labeling and Nutrition www.cfsan.fda.gov/label.html

Dietary Guidelines for Americans http://www.health.gov/dietaryguidelines/

U.S. Department of Agriculture Food Safety and Inspection Service – Fact Sheets: Safe Food Handling
http://www.fsis.usda.gov/factsheets/basics_for_handling_food_safely/index.asp

Texas Department of Agriculture – Food & Nutrition Division / Square Meals www.squaremeals.org

Texas Public School Nutrition Policy
www.squaremeals.org/fn/render/parent/channel/0,1253,2348_2350_0_0,00.html

Government information on food and human nutrition www.nutrition.gov

Institute of Medicine of the National Academies Report and Fact Sheet:
Nutrition Standards for Foods in Schools: Leading the Way Toward Healthier Youth
www.iom.edu/CMS/3788/30181/42502.aspx

Government Food Safety website http://www.foodsafety.gov/

U.S. Department of Agriculture Food Safety for People with Diabetes
http://www.fsis.usda.gov/PDF/Food_Safety_for_Diabetics.pdf

National Diabetes Education Program www.ndep.nih.gov

National Diabetes Information Clearinghouse www.niddk.nih.gov

List of Additional Resources

Internet sites are provided for convenience and are not necessarily intended as an endorsement.

Professional Organizations

American Dietetic Association www.eatright.org

Fruits & Veggies More Matters http://www.fruitsandveggiesmorematters.org/

American Diabetes Association www.diabetes.org

American Association of Diabetes Educators www.diabeteseducator.org

Miscellaneous

Nutrition and Physical Activity Fair Planning Guide
http://fcs.tamu.edu/health/nutrition_physical_activity_fair_planning_guide/index.php

Berkeley Nutrition Services Diet Assessment www.nutritionquest.com/freetools/fv_screener.htm

Mayo Clinic Food and Nutrition www.mayoclinic.com/health/food-and-nutrition

Kids Health www.kidshealth.org/kid/

Smart Snacks for kids http://kidnetic.com/Recipes/?c=Smart+Snacks

The University of Georgia Department of Foods and Nutrition http://www.fcs.uga.edu/fdn/

Fight BAC http://fightbac.org/

The University of Mississippi National Food Service Management Institute *Mealtime Memo: Proper Food Preparation Techniques* http://www.nfsmi.org/documentlibraryfiles/PDF/20080610112044.pdf.

Videos and Interactive

More Matters Fruit & Vegetable Video Center
http://www.fruitsandveggiesmorematters.org/video/VideoCenter.php

American Dietetic Association Interactive Quiz, Games, etc.
www.eatright.org/cps/rde/xchg/ada/hs.xsl/NNM_2007_landing_14227_ENU_HTML.htm

Test Your Food Label Knowledge www.cfsan.fda.gov/~dms/flquiz1.html

Rate Your Plate Quiz http://bms.brown.edu/nutrition/acrobat/RYP.pdf

Expert Committee Recommendations on the Assessment, Prevention and Treatment of Child and Adolescent Overweight and Obesity - 2007

- An Implementation Guide from the Childhood Obesity Action Network -

Overview:

In 2005, the AMA, HRSA and CDC convened an Expert Committee to revise the 1997 childhood obesity recommendations. Representatives from 15 healthcare organizations submitted nominations for the experts who would compose the three writing groups (assessment, prevention, treatment). The initial recommendations were released on June 6, 2007 in a document titled "Appendix: Expert Committee Recommendations on the Assessment, Prevention and Treatment of Child and Adolescent Overweight and Obesity" (www.ama-assn.org/ama/pub/category/11759.html)

In 2006, the National Initiative for Children's Healthcare Quality (NICHQ) launched the Childhood Obesity Action Network (COAN). With more than 40 healthcare organizations and 600 health professionals, the network is aimed at rapidly sharing knowledge, successful practices and innovation. This Implementation Guide is the first of a series of products designed for healthcare professionals by COAN to accelerate improvement in the prevention and treatment of childhood obesity.

The Implementation Guide combines key aspects of the Expert Committee Recommendations summary released on June 6, 2007 and practice tools identified in 2006 by NICHQ from primary care groups that have successfully developed obesity care strategies (www.NICHQ.org). These tools were developed before the 2007 Expert Recommendations and there may be some inconsistencies such as the term *overweight* instead of *obesity* for BMI ≥ 95%ile. The tools are intended as a source of ideas and to facilitate implementation. As tools are updated or new tools developed based on the Expert Recommendations, the Implementation Guide will be updated. The Implementation Guide defines 3 key steps to the implementation of the 2007 Expert Committee Recommendations:

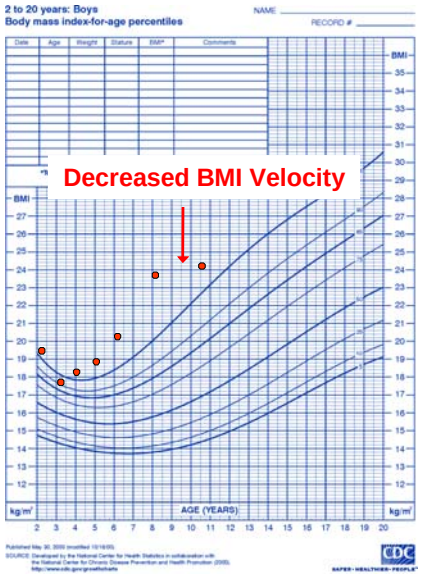
- **Step 1 – Obesity Prevention at Well Care Visits** (Assessment & Prevention)
- **Step 2 – Prevention Plus Visits** (Treatment)
- **Step 3 – Going Beyond Your Practice** (Prevention & Treatment)

Step 1 – Obesity Prevention at Well Care Visits (Assessment & Prevention)

Action Steps	Expert Recommendations	Action Network Tips and Tools
Assess all children for obesity at all well care visits 2-18 years	Physicians and allied health professional should perform, at a minimum, a yearly assessment.	A **presentation** for your staff and colleagues can help implement obesity prevention in your practice.
Use Body Mass Index (BMI) to screen for obesity	▪ **Accurately measure height and weight** ▪ **Calculate BMI** BMI (English):[weight (lb) ÷ height (in) ÷ height (in)] x 703 BMI (metric):[weight (kg) ÷ height (cm) ÷ height (cm)] x 10,000 ▪ **Plot BMI on BMI growth chart** ▪ Not recommended: skinfold thickness, waist circumference	BMI is very sensitive to measurement errors, particularly height. Having a standard measurement protocol as well as training can improve accuracy. **BMI calculation** tools are also helpful. Use the CDC BMI %ile-for-age **growth charts**.
Make a weight category diagnosis using BMI percentile	▪ < 5%ile Underweight ▪ 5-84%ile Healthy Weight ▪ 85-94%ile Overweight ▪ 95-98%ile Obesity ▪ ≥ 99%ile	Until the BMI 99%ile is added to the growth charts, **Table 1** can be used to determine the 99%ile cut-points. **Physicians should exercise judgement when choosing how to inform the family. Using more neutral terms such as *weight, excess weight, body mass index, BMI, or risk for diabetes and heart disease* can reduce the risk of stigmatization or harm to self-esteem.**
Measure blood pressure	▪ Use a cuff large enough to cover 80% of the upper arm ▪ Measure pulse in the standard manner	Diagnose hypertension using **NHLBI tables**. An abbreviated table is shown below (**Table 2**).
Take a focused family history	▪ Obesity ▪ Type 2 diabetes ▪ Cardiovascular disease (hypertension, cholesterol) ▪ Early deaths from heart disease or stroke	A child with one obese parent has a 3 fold increased risk of becoming obese. This risk increases to 13 fold with 2 obese parents. Using a **clinical documentation** tool can be helpful.

Take a focused review of systems	Take a focused review of systems	See **Table 3**. Using a **clinical documentation** tool can be helpful.
Assess behaviors and attitudes	**Diet Behaviors** ▪ Sweetened-beverage consumption ▪ Fruit and vegetable consumption ▪ Frequency of eating out and family meals ▪ Consumption of excessive portion sizes ▪ Daily breakfast consumption **Physical Activity Behaviors** ▪ Amount of moderate physical activity ▪ Level of screen time and other sedentary activities **Attitudes** ▪ Self-perception or concern about weight ▪ Readiness to change ▪ Successes, barriers and challenges	Using **behavioral risk assessment** tools can facilitate history taking and save clinician time.
Perform a thorough physical examination	Perform a thorough physical examination	See **Table 3**. Using a **clinical documentation** tool can be helpful.
Order the appropriate laboratory tests	**BMI 85-94%ile Without Risk Factors** ▪ Fasting Lipid Profile **BMI 85-94%ile Age 10 Years & Older With Risk Factors** ▪ Fasting Lipid Profile ▪ ALT and AST ▪ Fasting Glucose **BMI ≥ 95%ile Age 10 Years & Older** ▪ Fasting Lipid Profile ▪ ALT and AST ▪ Fasting Glucose ▪ Other tests as indicated by health risks	Consider ordering ALT, AST and glucose tests beginning at 10 years of age and then periodically (every 2 years). Provider **decision support** tools can be helpful when choosing assessment and treatment options. Delivering lab results can be one way to open the conversation about weight and health with a family.
Give consistent evidence-based messages for all children regardless of weight	▪ Limit sugar-sweetened beverages ▪ Eat at least 5 servings of fruits and vegetables ▪ Moderate to vigorous physical activity for at least 60 minutes a day ▪ Limit screen time to no more than 2 hours/day ▪ Remove television from children's bedrooms ▪ Eat breakfast every day ▪ Limit eating out, especially at fast food ▪ Have regular family meals ▪ Limit portion sizes	An example from the Maine Collaborative: ▪ **5** fruits and vegetables ▪ **2** hours or less of TV per day ▪ **1** hour or more physical activity ▪ **0** servings of sweetened beverages Exam and waiting room **posters** and family **education materials** can help deliver these messages and facilitate dialogue. Encourage an authoritative parenting style in support of increased physical activity and reduced TV viewing. Discourage a restrictive parenting style regarding child eating. Encourage parents to be good role models and address as a family issue rather than the child's problem.
Use Empathize/Elicit - Provide - Elicit to improve the effectiveness of your counseling	Assess self-efficacy and readiness to change. Use Empathize/Elicit - Provide - Elicit to improve the effectiveness of your counseling. **Empathize/Elicit** ▪ Reflect ▪ What is your understanding? ▪ What do you want to know? ▪ How ready are you to make a change (1-10 scale)? **Provide** ▪ Advice or information ▪ Choices or options **Elicit** ▪ What do you make of that? ▪ Where does that leave you?	A possible dialogue: **Empathize/Elicit** "Yours child's height and weight may put him/her at increased risk for developing diabetes and heart disease at a very early age." "What do make of this?" "Would you be interested in talking more about ways to reduce your child's risk?" **Provide** "Some different ways to reduce your child's risk are…" "Do any of these seem like something your family could work on or do you have other ideas?" **Elicit** "Where does that leave you?" "What might you need to be successful?" **Communication guidelines** can helpful when developing communication skills.

Step 2 – Prevention Plus Visits (Treatment)

Action Steps	Expert Recommendations	Action Network Tips and Tools
Develop an office based approach for follow up of overweight and obese children	A staged approach to treatment is recommended for ages 2-19 whose BMI is 85-94%ile with risk factors and all whose BMI is ≥ 95%ile. In general, treatment begins with Stage 1 Prevention Plus (**Table 4**) and progresses to the next stage if there has been no improvement in weight/BMI or velocity after 3-6 months and the family is willing/ready. The recommended weight loss targets are shown in **Table 5**. **Stage 1 - Prevention Plus** ▪ Family visits with physician or health professional who has had some training in pediatric weight management/behavioral counseling. ▪ Can be individual or group visits. ▪ Frequency - individualized to family needs and risk factors, consider monthly. ▪ **Behavioral Goals** – - Decrease screen time to 2 hr/day or fewer - No sugar-sweetened beverages - Consume at least 5 servings of fruits and vegetables daily - Be physically active 1 hour or more daily - Prepare more meals at home as a family (the goal is 5-6 times a week) - Limit meals outside the home - Eat a healthy breakfast daily - Involve the whole family in lifestyle changes - More focused attention to lifestyle changes and more frequent follow-up distinguishes Prevention Plus from Prevention Counseling ▪ **Weight Goal** – weight maintenance or a decrease in BMI velocity. The long term BMI goal is <85%ile although some children can be healthy with a BMI 85-94%ile. ▪ Advance to Stage 2 (Structured Weight Management) if no improvement in weight/BMI or velocity in 3-6 months and family willing/ready to make changes.	Prevention Plus visits may include: ▪ Health **education materials** ▪ **Behavioral risk assessment and self-monitoring** tools ▪ **Action planning and goal setting** tools ▪ **Clinical documentation** tools ▪ **Counseling protocols** ▪ Other health professionals such as dietitians, psychologists and health educators Besides behavioral and weight goals, improving self-esteem and self efficacy (confidence) are important outcomes. Although weight maintenance is a good goal, more commonly, a slower weight gain reflected in a decreased BMI velocity is the outcome seen in lower intensity behavioral interventions such as Prevention Plus. Measuring and plotting BMI after 3-6 months is an important step to determine the effectiveness of obesity treatment. 
Use motivational interviewing at Prevention Plus visits for ambivalent families and to improve the success of action planning	Use patient-centered counseling – motivational interviewing	Research suggests that motivational interviewing may be an effective approach to address childhood obesity prevention and treatment. Motivational interviewing is particularly effective for ambivalent families but can also be used for action planning. Instead of telling patients what changes to make, you elicit "change talk" from them, taking their ideas, strengths, and barriers into account. **Communication guidelines** and **communication training** can be helpful with skill development.
Develop a reimbursement strategy for Prevention Plus visits		**Coding strategies** can help with reimbursement for Prevention Plus visits. Advocacy through professional organizations to address reimbursement policies is another strategy.

Step 3 – Going Beyond Your Practice (Prevention & Treatment)

Action Steps	Expert Recommendations	Action Network Tips and Tools
Advocate for improved access to fresh fruits and vegetables and safe physical activity in your community and schools	The Expert Committee recommends that physicians, allied healthcare professionals, and professional organizations advocate for: ▪ The federal government to increase physical activity at school through intervention programs as early as grade 1 through the end of high school and college, and through creating school environments that support physical activity in general. ▪ Supporting efforts to preserve and enhance parks as areas for physical activity, informing local development initiatives regarding the inclusion of walking and bicycle paths, and promoting families' use of local physical activity options by making information and suggestions about physical activity alternatives available in doctors' offices.	Physicians and health professionals can play a key role in advocating for policy and built environment changes to support healthy eating and physical activity in communities, child care settings, and schools (including after-school programs). **Advocacy tools and resources** can be helpful in advocacy efforts. Partnering with others and using evidence-based strategies are also critical to the success of **multi-faceted community interventions**.
Identify and promote community services which encourage healthy eating and physical activity	Promote physical activity at school and in child care settings (including after school programs), by asking children and parents about activity in these settings during routine office visits.	Public Health Departments and Parks and Recreation are good places to start looking for community programs and resources. You can work on developing your own partnerships with community organizations (Physical Activity Directory template and/or referral forms).
Identify or develop more intensive weight management interventions for your families who do not respond to Prevention Plus	The Expert Committee recommends the following staged approach for children between the ages of 2 and 19 years whose BMI is 85-94%ile with risk factors and all whose BMI is ≥ 95%ile: ▪ **Stage 2 - Structured Weight Management** (Family visits with physician or health professional specifically trained in weight management. Monthly visits can be individual or group.) ▪ **Stage 3 - Comprehensive, Multidisciplinary Intervention** (Multidisciplinary team with experience in childhood obesity. Frequency is often weekly for 8-12 weeks with follow up.) ▪ **Stage 4 - Tertiary Care Intervention** (Medications - sibutramine, orlistat, Very-low-calorie diets, weight control surgery - gastric bypass or banding.) Recommended for select patients only when provided by experienced programs with established clinical or research protocols. Gastric banding is in clinical trials and not currently FDA approved.	Stage 2 could be done without a tertiary care center if community professionals from different disciplines collaborated. For example, if a physician provided the medical assessment, a dietitian provided classes, and the local YMCA provided an exercise program. Partnering with your community tertiary care center can be an effective strategy to develop or link to more intensive weight management interventions (Stages 3 and 4) as well as referral protocols to care for families who do not respond to Prevention Plus visits. Provider **decision support** tools can be helpful when choosing appropriate treatment and referral options. **Weight management protocols and curriculum** can also be helpful when getting started.
Join the Childhood Obesity Action Network to learn from your colleagues and accelerate progress		The Childhood Obesity Action Network has launched "The Healthcare Campaign to Stop the Epidemic." **Join the network** (www.NICHQ.org) to learn from our national obesity experts, share what you have learned and access the tools in this guide. ***Together we can make a difference!***

Implementation Guide Authors: Scott Gee, MD, Victoria Rogers, MD, Lenna Liu, MD, MPH, Jane McGrath, MD
Implementation Guide Contact: obesity@nichq.org

Table 1 – BMI 99%ile Cut-Points (kg/m^2)

Age (Years)	Boys	Girls
5	20.1	21.5
6	21.6	23.0
7	23.6	24.6
8	25.6	26.4
9	27.6	28.2
10	29.3	29.9
11	30.7	31.5
12	31.8	33.1
13	32.6	34.6
14	33.2	36.0
15	33.6	37.5
16	33.9	39.1
17	34.4	40.8

Table 2 – Abbreviated NHLBI Blood Pressure Table

Blood Pressure 95% by Age, Sex and Height %

AGE	BOYS HEIGHT %		GIRLS HEIGHT %	
	50%	**90%**	**50%**	**90%**
2 Yr	106/61	109/63	105/63	108/65
5 Yr	112/72	115/74	110/72	112/73
8 Yr	116/78	119/79	115/76	118/78
11 Yr	121/80	124/82	121/79	123/81
14 Yr	128/82	132/84	126/82	129/84
17 Yr	136/87	139/88	129/84	131/85

Pediatrics Vol. 114 No. 2 August 2004 pp. 555-576

Table 3 – Symptoms and Signs of Conditions Associated with Obesity

Symptoms	Signs
➢ **Anxiety, school avoidance, social isolation** (Depression) ➢ **Polyuria, polydipsia, weight loss** (Type 2 diabetes mellitus) ➢ **Headaches** (Pseudotumor cerebri) ➢ **Night breathing difficulties** (Sleep apnea, hypoventilation syndrome, asthma) ➢ **Daytime sleepiness** (Sleep apnea, hypoventilation syndrome, depression) ➢ **Abdominal pain** (Gastroesophageal reflux, Gall bladder disease, Constipation) ➢ **Hip or knee pain** (Slipped capital femoral epiphysis) ➢ **Oligomenorrhea or amenorrhea** (Polycystic ovary syndrome)	➢ **Poor linear growth** (Hypothyroidism, Cushing's, Prader-Willi syndrome) ➢ **Dysmorphic features** (Genetic disorders, including Prader–Willi syndrome) ➢ **Acanthosis nigricans** (NIDDM, insulin resistance) ➢ **Hirsutism and Excessive Acne** (Polycystic ovary syndrome) ➢ **Violaceous striae** (Cushing's syndrome) ➢ **Papilledema, cranial nerve VI paralysis** (Pseudotumor cerebri) ➢ **Tonsillar hypertrophy** (Sleep apnea) ➢ **Abdominal tenderness** (Gall bladder disease, GERD, NAFLD) ➢ **Hepatomegaly** (Nonalcoholic fatty liver disease (NAFLD)) ➢ **Undescended testicle** (Prader-Willi syndrome) ➢ **Limited hip range of motion** (Slipped capital femoral epiphysis) ➢ **Lower leg bowing** (Blount's disease)

Table 4 – A Staged Approach to Obesity Treatment

	BMI 85-94%ile No Risks	BMI 85-94%ile With Risks	BMI 95-98%ile	BMI >= 99%ile
Age 2-5 Years	Prevention Counseling	**Initial:** Stage 1 **Highest:** Stage 2	**Initial:** Stage 1 **Highest:** Stage 3	**Initial:** Stage 1 **Highest:** Stage 3
Age 6-11 Years	Prevention Counseling	**Initial:** Stage 1 **Highest:** Stage 2	**Initial:** Stage 1 **Highest:** Stage 3	**Initial:** Stage 1-3 **Highest:** Stage 3
Age 12-18 Years	Prevention Counseling	**Initial:** Stage 1 **Highest:** Stage 3	**Initial:** Stage 1 **Highest:** Stage 4	**Initial:** Stage 1-3 **Highest:** Stage 4

Stage 1	**Prevention Plus**	Primary Care Office
Stage 2	**Structured Weight Management**	Primary Care Office with Support
Stage 3	**Comprehensive, Multidisciplinary Intervention**	Pediatric Weight Management Center
Stage 4	**Tertiary Care Intervention**	Tertiary Care Center

Table 5 – Weight Loss Targets

	BMI 85-94%ile No Risks	BMI 85-94%ile With Risks	BMI 95-98%ile	BMI >= 99%ile
Age 2-5 Years	Maintain weight velocity	Decrease weight velocity or weight maintenance	Weight maintenance	Gradual weight loss of up to 1 pound a month if BMI is very high (>21 or 22 kg/m2)
Age 6-11 Years	Maintain weight velocity	Decrease weight velocity or weight maintenance	Weight maintenance or gradual loss (1 lb per month)	Weight loss (average is 2 pounds per week)*
Age 12-18 Years	Maintain weight velocity. After linear growth is complete, maintain weight	Decrease weight velocity or weight maintenance	Weight loss (average is 2 pounds per week)*	Weight loss (average is 2 pounds per week)*

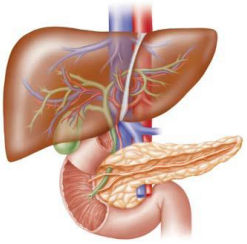
* Excessive weight loss should be evaluated for high risk behaviors

Diabetes Bonus Material

American Diabetes Association

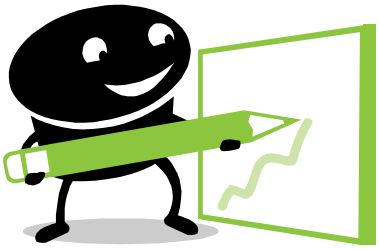
Diabetes Risk Assessment Online Tool

Activity: The Pancreas and Blood Sugar Levels



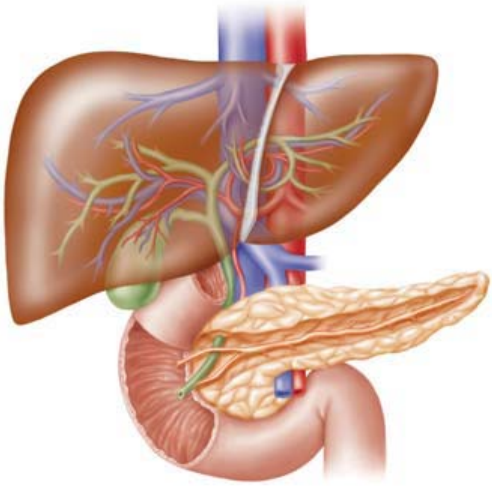
Activity: Case Study Living with Diabetes

Activity: Diabetes Poster/Brochure



The Pancreas and Blood Sugar Levels
Worksheet

Circle the pancreas in the picture below.



List the two functions (jobs) of the pancreas.

1. _____

2. _____

Label the fasting blood sugar levels listed below as Normal or High.

107 mg/dl _____ 126 mg/dl _____

135 mg/dl _____ 110 mg/dl _____

100 mg/dl _____ 137 mg/dl _____

147 mg/dl _____ 75 mg/dl _____

Activity: Case Study: Living with Diabetes

Case Study: Living with Diabetes

Helen loves to cook, and used to be a gourmet chef. She would cook delicious meals for her family with little regard for calories. For a long time, Helen accepted her overweight body as just the way she was. Despite a father who had type II diabetes, Helen never worried about ever becoming chronically ill.

Then in August 2003, Helen moved back to her home state of Texas. Her allergies and asthma were acting up and she was desperate for some relief from the symptoms. She made an appointment with a doctor who specializes in the treatment of allergies. The doctor ran several tests on Helen; one of the tests came back positive for type II diabetes. Helen was shocked to find out that she may have been living with this disease for as long as seven or eight years. Half of all people with diabetes may go that long without even knowing it. Helen's life began to change dramatically.

Helen learned about her own diabetes as well as how to manage it. Like most of all adult diabetics, Helen's management of her diabetes doesn't require her to take insulin shots. The approach she has taken involves lifestyle choices such as regular exercise and careful eating habits. Beginning an exercise program was not easy, but Helen found that walking and water aerobics worked well for her. Changing eating habits was equally challenging. Helen's family had always eaten fairly healthy and Helen enjoyed cooking, but she admits that they often ate too much and too often. It was hard for Helen to change her habits, but she developed lower-calorie versions of gourmet recipes filled with whole grains, fruits, and vegetables that help her to still enjoy being in the kitchen and cooking. In addition to diet and exercise, she must get regular blood glucose tests and take some medication. Helen sees her doctor often.

The other thing that Helen learned is that coping with an illness can be very difficult, even depressing at times. Working closely with a support group and interacting with others has helped her to get through the hard times. Helen's involvement with others and their health concerns prompted her to decide she wanted to return to school to pursue a master's degree in public health. Although Helen is happy to be following her dream, her return to school has made managing her diabetes even harder. She drives a long distance several times each week to attend classes and finds it increasingly difficult to make time for exercise and to take the time to cook right, but she is learning to adapt. Effective management of diabetes is about routine and balancing other demands with a busy lifestyle.

Our modern lifestyle can be full of poor eating habits (by choosing foods that are high in sugar and fat) and a serious lack of physical activity. Type II diabetes is becoming increasingly common among adults and many doctors are giving patients over the age of 40 annual tests for diabetes so that it doesn't go undiagnosed and unmanaged for years before serious symptoms appear. In addition, these tests are being given to

young children as childhood obesity is now a problem. Years ago, it was rare for young people to be diagnosed with type II diabetes; now it is more common.

Helen doubts that there is much she could have done to prevent her diabetes. Although she admits that a regular exercise program and a more healthy diet may have delayed her symptoms, she believes that with her family history (genetics) there would have been no escaping it. Not too long after Helen's diagnosis, her mother was also diagnosed with diabetes. Besides both parents, her grandmother also had diabetes for twenty years before her death. Helen's brothers and sisters are concerned that they will also develop the disease so they are tested regularly.

Despite her struggles, Helen is grateful that her disease has led her into public health. Perhaps with her knowledge and personal experience she will be able to influence and help even more individuals dealing with diabetes or other chronic illness.

Case Study: Living with Diabetes
Worksheet

Getting the Facts

1. What kind of a doctor first diagnosed Helen's diabetes? _____

2. Some diabetics may go how many years before being diagnosed? (circle one)

   a) 1-2
   b) 15-20
   c) 7-8
   d) 3-4

Making Inferences

3. What do you think the word "chronic" in the first and last paragraphs means? (circle one)

   a) Painful
   b) Unimportant
   c) a way to describe a disease that comes and goes
   d) a way to describe a disease that is always with a person

4. Do you think Helen has lost weight since she found out she was diabetic? Give two reasons to support your answer.

   _____

   _____

   Why does Helen think that even with a good diet and exercise she would not have been able to avoid getting diabetes?

   _____

Glossary of Terms for Diabetes

Blood Glucose/ Blood Sugar	the main sugar found in the blood and the body's main source of energy
Diabetes	a chronic, incurable disease that results when the body either does not produce enough insulin or the body cannot properly use the insulin it does make
Gestational Diabetes	a form of diabetes similar to Type 2 diabetes that some women develop during pregnancy
Glucose	a simple sugar that human cells use for energy
Insulin	a hormone that helps the body use energy from foods; insulin acts like a gatekeeper opening gates on cell membranes so that glucose can flow into the cell and be used immediately for energy
Pancreas	the organ located behind the lower part of the stomach and is about the size of a hand; the pancreas produces juices that help the small intestine digest fats and proteins and makes insulin and enzymes for digestion
Pancreatic Beta Cells	cells in the body that produce insulin
Pre-Diabetes	a condition characterized by blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes
Prevalence	percentage of people that have a specific disease at a given point in time
Type 1 Diabetes	formerly called Juvenile diabetes because it usually appears in children or young adults; the body does not produce enough (or any) insulin; develops when the body's immune system destroys the pancreatic beta cells
Type 2 Diabetes	accounts for about 90% of all patients with diabetes; sometimes called insulin-resistant diabetes; the body produces insulin, but the cells stop properly latching that insulin into place on the cell membrane so that it can open the gates for glucose to flow through

Acknowledgements:
Adapted with permission from the HEADS UP project © 2009 University of Texas Health Science Center at Houston
American Diabetes Association Web site www.diabetes.org
National Diabetes Information Clearinghouse Web site: http://diabetes.niddk.nih.gov/dm/pubs/dictionary/index.htm

Nutrition Guidelines for People with Diabetes

1. **Develop a routine. Eat about the same time each day. Space meals no more than 4 1/2 or 5 hours apart when awake. Do not skip meals.** If hungry between meals, eat fresh vegetables (like: cucumber, celery, tomatoes, carrots, broccoli or radishes).
2. **Eat three (3) balanced meals daily. Control your portion sizes and avoid second helpings. Eat a variety of foods. Limit protein foods to approximately 6 ounces per day.** Eat lean meats, fat-free or low-fat cheeses and dairy products.
3. **Try to eat fewer calories if you need to lose weight.** Your doctor can refer you to a registered dietitian for nutrition counseling. The dietitian can help you with meal plans that are individualized for your needs. Also, ask your doctor if it is safe to be physically active. Being active can help you burn calories and keep you fit.
4. **Limit starchy foods to 1-2 servings per meal:**

1/2 cup corn	1/3 cup pasta	6 plain crackers
1/2 cup peas	1 slice bread, roll or biscuit	3 graham cracker squares
1/2 cup pinto beans	1/2 cup cooked cereal	1/2 hot dog or hamburger bun
1/3 cup rice	3/4 cup dry cereal	1/4 bagel (4 oz)
1/2 cup winter squash	1 tortilla, corn/flour	1/2 potatoes

5. **Limit fruits to 1 serving for lunch and 1 serving for supper.** No fruit for breakfast. Avoid fruit juice, except for low blood sugar.
6. **Limit milk to 2 cups of skim or fat-free milk per day for adults.**
7. Avoid foods high in fat or oil (like: fried foods, bacon, sausage, bologna, mayonnaise, salad dressing and cheeses).
8. **Eat more high fiber foods, like beans, whole grains** (whole wheat bread, brown rice) fresh fruits and vegetables. Don't peel your fruit, it has lots of fiber. Eat 14 grams of fiber for every 1,000 calories on your meal plan per day. Example: 21 grams of fiber for 1,500 calories, 28 grams of fiber for 2,000 calories. Fiber works best when you drink plenty of water!

9. **Use sugar substitutes like Equal, Splenda, and Sweet'N Low to sweeten your beverages.** Drink all beverages sugar-free such as sodas and sports drinks. Try using a sugar substitute when making a dessert.

10. **Limit alcoholic drinks.** They can interact with your medicine. If you drink alcohol, make sure you have eaten some food. Alcohol lowers your blood sugar. It also has calories that you may not want.
11. **Limit desserts to one of the following and count as a starchy food at mealtime.**

    One slice of plain cake (such as angel food), no icing

    Six vanilla wafers or 3 gingersnap cookies

    One-half cup sugar-free ice cream or pudding

    One slice sugar-free pie (count as 1 fruit and 2 fats)
12. **Limit low-calorie foods to 20 calories per meal.**

    Examples: 1 tablespoon regular catsup, 1 tablespoon low-sugar jam or jelly
12. **Use sugar-free, calorie-free items as desired.**

    Examples are: tea, sugar-free Kool-Aid, diet soda, diet gelatin, sugar-free popsicles, sugar-free syrup, sugar-free jelly, sugar-free gum, etc. Note: Sugar-free candies and cookies have sugar-alcohols that might cause you to get diarrhea. If you eat them, try not to eat too many. They still have calories and fat.

FOODS TO LIMIT

sugar	glazes	gelatin
syrup	ice cream	sherbet
brownies	doughnuts	pudding
regular chewing gum	sweet pickles	molasses
honey	sorbet	candy
jelly/jam	preserves	pan dulce
cake with icing	pie	cobblers
regular (sugared) soft drinks	breath mints	brown sugar

Any meat or vegetable made with a glaze or syrup, and all foods and beverages prepared with regular sugar.

New Food Labels Are Here!

The new food label can be found on food packages in your supermarket. Reading the label tells more about the food and what you are getting. What you see on the food label—the nutrition and ingredient information—is required by the government.

This brochure shows what the new label looks like and explains some of its new features.

Nutrition Facts Title
The new title "Nutrition Facts" signals the new label.

Serving Size
Similar food products now have similar serving sizes. This makes it easier to compare foods. Serving sizes are based on amounts people actually eat.

New Label Information
Some label information may be new to you. The new nutrient list covers those most important to your health. You may have seen this information on some old labels, but it is now required.

Vitamins and Minerals
Only two vitamins, A and C, and two minerals, calcium and iron, are required on the food label. A food company can voluntarily list other vitamins and minerals in the food.

Label Numbers
Numbers on the nutrition label may be rounded for labeling.

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 90 — Calories from Fat 30

	% Daily Value*
Total Fat 3g	5%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 300mg	13%
Total Carbohydrate 13g	4%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 3g	

Vitamin A 80% • Vitamin C 60%
Calcium 4% • Iron 4%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Why do some food packages have a short or abbreviated nutrition label?

Foods that have only a few of the nutrients required on the standard label can use a short label format. What's on the label depends on what's in the food. Small- and medium-sized packages with very little label space can also use a short label.

% Daily Value
% Daily Value shows how a food fits into a 2,000 calorie reference diet.

You can use % Daily Value to compare foods and see how the amount of a nutrient in a serving of food fits in a 2,000 calorie reference diet.

Daily Values Footnote
Daily Values are the new label reference numbers. These numbers are set by the government and are based on current nutrition recommendations.

Some labels list the daily values for a daily diet of 2,000 and 2,500 calories. Your own nutrient needs may be less than or more than the Daily Values on the label.

Calories Per Gram Footnote
Some labels tell the approximate number of calories in a gram of fat, carbohydrate, and protein.