



FCAAP OBESITY & NUTRITION TOOLKIT

RESOURCES FOR PEDIATRICIANS TO ADDRESS AND FIGHT
THE GROWING EPIDEMIC OF CHILDHOOD OBESITY

DISTRIBUTED BY:



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OBESITY & NUTRITION TOOLKIT



The FCAAP Obesity and Nutrition Committee has created the following tool kit to address and fight the growing epidemic of childhood obesity.

Our aim is to educate, empower and encourage lifelong healthy behaviors that promote health and wellbeing for all our children.

Effective management of childhood obesity is not achieved by single intervention, but by integrated multidisciplinary approach to reduce risk factors in their environments. Providers will find topics on nutrition, physical activity and mental wellness to share with patients and families.

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IMPACT OF PHYSICAL ACTIVITY ON CHILDHOOD OBESITY

Physical activity provides long-term health benefits for everyone! By being active, you will burn calories that you store from eating throughout the day. Exercise can be as easy as walking the dog or as rigorous as running a marathon. Providing opportunities for children to be active early on puts them on a path to better physical and mental health.

IT'S NEVER TOO LATE TO JUMPSTART A HEALTHY LIFESTYLE.

Physical activity, along with proper nutrition, is beneficial to people of all ages, backgrounds, and abilities. And it is important that everyone gets active: over the last 20 years, there's been a significant increase in obesity in the United States. About one-third of U.S. adults (33.8 percent) are obese and approximately 17 percent (or 12.5 million) of children and adolescents (ages 2–19 years) have obesity.

THE HEALTH IMPLICATIONS OF OBESITY IN AMERICA ARE STARTLING:

- If things remain as they are today, one-third of all children born in the year 2000 or later may suffer from diabetes at some point in their lives, while many others are likely to face chronic health problems, such as heart disease, high blood pressure, cancer, diabetes and asthma.
- Studies indicate that youth with overweight may never achieve a healthy weight, and up to 70 percent of teens with obesity may become adults with obesity.
- Even more worrisome, the cumulative effect could be that children born in the year 2000 or later may not outlive their parents.

The impact of obesity doesn't end there. Obesity has personal financial and national economic implications as well. Those with obesity have medical costs that are \$1,429 more than those without obesity on average (roughly 42% higher), and annual direct costs of childhood obesity are \$14.3 billion.



By incorporating physical activity into your daily life 30 minutes for adults and 60 minutes for children – as well as healthy eating, you will experience positive health benefits and be on the path for a better future.

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THE IMPACT OF PHYSICAL ACTIVITY ON YOUR HEALTH

REGULAR PHYSICAL ACTIVITY CAN PRODUCE LONG-TERM HEALTH BENEFITS.
IT CAN HELP:

- Prevent chronic diseases such as heart disease, cancer, and stroke (the three-leading health-related causes of death)
- Control weight
- Make your muscles stronger
- Reduce adipose tissue
- Promote strong bone, muscle, and joint development
- Condition heart and lungs
- Build overall strength and endurance
- Improve sleep
- Decrease potential of becoming depressed
- Increase your energy and self-esteem
- Relieve stress
- Increase your chances of living longer

WHEN YOU ARE NOT PHYSICALLY ACTIVE, YOU ARE MORE AT RISK FOR:

- High blood pressure
- Stroke
- Heart Disease
- High blood cholesterol
- Type 2 Diabetes
- Cancer



Children and adolescents ages 6 through 17 years should do 1 hour or more of moderate-to-vigorous physical activity every day!

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HOW MUCH PHYSICAL ACTIVITY DO CHILDREN NEED?

This depends on how old your child is and ranges from being active throughout the day for preschool-aged children (ages 3 through 5 years) to being active for 60 minutes or more for school-aged children and adolescents (ages 6 through 17 years). This may sound like a lot, but don't worry! Your child may already be meeting the recommended physical activity levels. And, you'll soon discover all the easy and enjoyable ways to help your child meet the recommendations. Encourage your child to participate in activities that are age-appropriate, enjoyable, and offer variety.

RECOMMENDED LEVELS FOR PRESCHOOL-AGED CHILDREN (AGES 3 THROUGH 5 YEARS)

Preschool-aged children (ages 3 through 5 years) should be physically active throughout the day for growth and development. Adult caregivers should encourage preschool-aged children to be active when they play.

RECOMMENDED LEVELS FOR SCHOOL-AGED CHILDREN AND ADOLESCENTS (AGES 6 THROUGH 17 YEARS)

Children and adolescents ages 6 through 17 years should do 60 minutes or more of moderate-to-vigorous intensity physical activity each day, including daily aerobic activity – and activities that strengthen bones (like running or jumping) – three days each week, and that build muscles (like climbing or doing push-ups) – three days each week.



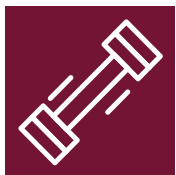
AEROBIC ACTIVITY

Most of your child's daily 60 minutes of physical activity should be aerobic activities, like walking, running or anything that makes their heart beat faster. In addition, encourage them to do aerobic activities at least three days a week that make them breathe fast and their hearts pound.



MUSCLE STRENGTHENING

Include muscle-strengthening activities, such as climbing or doing push-ups, at least three days per week as part of your child's daily 60 minutes or more.



BONE STRENGTHENING

Include bone-strengthening activities, such as jumping or running, at least three days per week as part of your child's daily 60 minutes or more



Preschool-aged children (ages 3 through 5 years) should be physically active throughout the day to enhance growth and development!

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HOW DO I KNOW IF MY CHILD'S AEROBIC ACTIVITY IS MODERATE- OR VIGOROUS-INTENSITY?

On a scale of 0 to 10, where sitting is a 0 and the highest level of activity is a 10, moderate-intensity activity is a 5 or 6. When your child does moderate-intensity activity, their heart will beat faster and they will breathe much harder than when they are at rest or sitting. Vigorous-intensity activity is a level 7 or 8. When your child does vigorous-intensity activity, their heart will beat much faster than normal and they will breathe much harder than normal.

Another example, is when your child walks to school with friends each morning. They're probably doing moderate-intensity aerobic activity. But while at school, when your child runs, or chases others by playing tag during recess, they're probably doing vigorous-intensity activity.

The RPE scale for kids stands for Relative Perceived Exertion. This means "how hard does it feel when I am exercising".

Kids who exercise in the yellow zone between 5-7 are getting moderate to vigorous exercise.

The goal is 60 minutes of exercise in the yellow zone every day.

RATING OF PERCEIVED EXERTION

10 MAXIMAL EXERTION
CANNOT PUSH ANY HARDER

9 VERY HARD ACTIVITY

8 HARD ACTIVITY
DIFFICULTY BREATHING, UNABLE TO SPEAK

7 HARD ACTIVITY
HEAVY SWEATING, DIFFICULTY SPEAKING

6 MODERATE ACTIVITY
MODERATE SWEATING, ABLE TO SPEAK

5 MODERATE ACTIVITY
LIGHT SWEATING, SPEAKING IS EASY

4 LIGHT ACTIVITY
BREAKING SWEAT, COMFORTABLE SPEAKING

3 LIGHT ACTIVITY
COMFORTABLE, SLIGHT DIFFICULTY BREATHING

2 MINIMUM ACTIVITY
BARELY ANY EXERTION

1 RESTING
NO EXERTION

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HOW TO GET AND KEEP MY CHILD ACTIVE?

As a parent, you can help shape your child's attitudes and behaviors regarding physical activity. Knowing the recommendations is a great place to start. Encourage your child to be physically active for 60 minutes or more each day, with activities ranging from informal, active play to organized sports. Here are some ways you can do this:

- Start early. Young children love to play and be active. Encouraging lots of safe and unstructured movement and play can help build a strong foundation for an active lifestyle.
- Set a positive example by leading an active lifestyle yourself.
- Make physical activity part of your family's daily routine by taking family walks or playing active games together.
- Give your children equipment that encourages physical activity.
- Take young people to places where they can be active, such as public parks, community baseball fields, or basketball courts.
- Be positive about the physical activities in which your child participates and encourage them to be interested in new activities
- Make physical activity fun. Fun activities can be anything your child enjoys, either structured or non-structured. Activities can range from team or individual sports to recreational activities such as walking, running, skating, bicycling, swimming, playground activities or free-time play.
- Instead of watching television after dinner, encourage your child to find fun activities to do on their own or with friends and family, such as walking, playing chase or riding bikes.
- Be safe! Always provide protective equipment such as helmets, wrist pads or knee pads for activities such as riding bicycles or scooters, skateboarding, roller skating, rock-wall climbing and other activities where there may be a high risk of injuries. Ensure also that activities are appropriate for the age of your child.



Turn off the screen! Limit the time your children watch television, play video games or surf the web to no more than two hours per day. AAP does not recommend television viewing for children aged 2 years or younger.

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HOW TO START AN EXERCISE PROGRAM: ENJOY WHAT YOU DO!

There are hundreds of ways to be active — biking, climbing, dancing, kickboxing and swimming to name a few. You will have the most success if you enjoy what you are doing.

WHAT ACTIVITIES DO YOU LIKE TO DO OR WANT TO TRY?

Make a list and start there. Check out the offerings at your local YMCA or recreation center for ideas. Of course, you don't have to join a gym to exercise; most local parks are free and offer programming year-round. You can even use household items for strength training.

INCLUDE THE FAMILY OR NOT?

Some of you may need “me” time away from the family. Take it. Let your exercise routine give you that solitude. Others may use an exercise program as a way to spend more time with their loved ones. If so, find activities that everyone likes to do or make a rotating schedule where a different person picks the activity each week. There are many exercise DVDs available with enough themes and intensities to match everyone's needs. These are great because they offer instruction on technique that can help limit injuries. Just know that DVDs geared toward adults may not be appropriate for children and adolescents.

START SLOWLY!

This is a marathon, not a sprint! A new exercise program should be the start to a lifetime of activity. Starting slowly and making small increases to your routine every week or month will help put you in a better position to be successful long-term. A little exercise each week over an entire year is better than a lot of exercise in just the first few weeks of January. Healthy adults should do at least 150 minutes of moderate-intensity exercise per week, and children and adolescents should do 60 minutes per day. Start with what you can manage and try to build up to these activity targets over time. Physical activity and exercise can offer great enjoyment. They have the added bonus of keeping you healthy.

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HOW TO START AN EXERCISE PROGRAM:

KNOW YOUR MOTIVATION.

Make a detailed list of the reasons you want to decrease your weight and increase your fitness. Be honest with yourself and tuck it away until you need it. That list can be the push you need to keep going or bring you back to the program if you start to slack off.

BRAG ABOUT IT!

Sharing your successes with a close friends or the entire family and community can be very uplifting. Making small, attainable goals gives you even more victories to celebrate. And don't forget to recognize your effort along the way, not just the accomplishments.

TAKE IT TO THE NEXT LEVEL!

Once you have found what you like to do and have made exercise part of your daily routine, you are ready for the next step. The U.S. Department of Health & Human Services has guidelines for adults, children and many special populations regarding the intensity and amount of exercise recommended for longterm health benefits. Incorporate these guidelines into your fitness goals to bring your workouts to the next level.

**PHYSICAL ACTIVITY AND EXERCISE CAN OFFER GREAT ENJOYMENT.
THEY HAVE THE ADDED BONUS OF KEEPING YOU HEALTHY.**



Are my kids getting enough physical activity?

You know kids need physical activity to grow up strong and healthy.

But did you know it can help them feel better right away?



Better sleep



Better mood



Better grades

And when your kids are feeling good, your life is easier, too. So find ways to help your kids fit more activity into their day.

How much do they need?

Kids and teens ages 6 to 17 need at least **60 minutes** every day.

Most of it can be **moderate-intensity aerobic activity**. Anything that gets their heart beating faster counts.



At least 3 days a week, encourage your kids to step it up to **vigorous-intensity aerobic activity**.



Is it moderate or vigorous? Use the "talk test" to find out.

When you're being active, try talking:

- ✓ If you're breathing hard but can still have a conversation easily, it's **moderate-intensity activity**
- ✓ If you can only say a few words before you have to take a breath, it's **vigorous-intensity activity**

As part of their daily 60 minutes, kids and teens also need:

Muscle-strengthening activity

At least 3 days a week



Anything that makes their muscles work harder counts — like climbing or swinging on the monkey bars.

Bone-strengthening activity

At least 3 days a week



Bones need pressure to get stronger. Running, jumping, and other weight-bearing activities all count.

My kids are younger than 6. What about them?

Younger kids love to be active naturally!

- Aim to keep them moving 3 hours a day — and more is better
- Limit time when they're just sitting around (like screen time)

What counts?

Whatever gets them moving!



Encourage active play with friends



Give them rewards for active chores



Sign them up for free or low-cost sports or classes

Or get active together!



Make your morning walks a race



Dance while dinner's in the oven



Show them your favorite ways to move

Most of all, help them find activities they really like to do!

It all adds up. And so do the benefits.

Help them get active now, and they'll build healthy habits for life. So take the first step. Get your kids moving. And when you can, move with them!

Find out how your kids can get 60 minutes of activity every day.

health.gov/MoveYourWay/Get-Kids-Active



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– WEIGHT LOSS – ONE STEP AT A TIME, BENEFITS OF COUNTING STEPS 10,000 STEPS A DAY

My Physical Activity Tracker is a simple worksheet provided by the Centers for Disease Control and Prevention that allows you to keep track of your activity.

BREAK UP YOUR DAY!

Walking is the easiest way to increase your daily movement and burn more calories. Break up your day into smaller intervals of physical activity: walk 0.25 mile, walk 0.50 mile, walk 0.75 mile or walk one mile a day. One mile takes about 20 minutes at an average speed of three mph and may get you about 1500 to 1600 steps depending on your stride length. Half a mile may only take about 10 minutes.

Do you know how many steps you average each day? If you can rattle off the answer without even checking your watch, you're not alone. Thanks in part to fitness trackers, many of us know exactly how many steps we're clocking.

But knowing the number of steps you're taking each day may not be enough information. You also need to know how many you should be taking so that you can meet individual health goals.

HOW MANY STEPS DO I NEED PER DAY? 10,000

Why 10,000 steps? When you do the math, 10,000 steps works out to approximately five miles. That's a number said to help reduce certain health conditions, such as high blood pressure and heart disease. Your daily step count also contributes to the CDC's recommendation of at least 150 minutes of moderate exercise per week.



Inactive: less than 5,000 steps per day

Average (somewhat active): ranges from 7,500 to 9,999 steps per day

Very active: more than 12,500 steps per day

The number of steps you aim for in a day should be based on your goals. However, it's important not to get too focused on that number, at least in the beginning.

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IF YOU'RE LOOKING FOR A WAY TO COMPARE YOUR DAILY STEPS TO AN ACTIVITY LEVEL, CONSIDER THE FOLLOWING CATEGORIES:

HOW MANY STEPS FOR WEIGHT LOSS?

If dropping a few pounds is the overall goal, you'll want to aim for at least 10,000 steps in a day. While the exact number is based on factors, such as your age, gender and diet, one study found that getting at least 15,000 steps per day is correlated with lower risk of metabolic syndrome. But if 15,000 steps per day seems like a lofty goal, getting to about 10,000 steps will help you lose weight and improve mood.

YOU CAN ALSO CHALLENGE YOURSELF BY ADDING INTERVALS TO YOUR WALKING. HERE ARE TWO EXAMPLES FOR ADDING INTERVALS:



Run 30 seconds followed by two minutes of walking!
Run 15 seconds followed by one minute of walking!

The good news: The time you spend on exercise counts towards your daily step count.

HOW TO STAY MOTIVATED

Meeting your step count each day takes dedication and discipline. It also requires a commitment from you to put your health first.

If you're struggling with the motivation to stay on track, replace motivation with discipline. Once you do this, you will reach your goals sooner. Motivation will always come and go, but if you commit to a routine no matter how you feel, your discipline will keep you on track when your motivation is lacking.

Remind yourself that it's a choice you've committed to making, regardless of whether you feel motivated. Often what happens is that you may start out not feeling motivated, but if you do it anyway, once you start moving and the blood starts flowing, motivation starts to kick in again. Having an exercise buddy can help to keep our goals moving forward.

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WHAT IF MY CHILD HAS A DISABILITY?

Physical activity is important for all children. It's best to talk with a doctor before your child begins a physical activity routine. Try to get advice from a professional with experience in physical activity and disability. They can tell you more about the amounts and types of physical activity that are appropriate for your child's abilities.

Several studies have reported that people with disabilities are more likely to be sedentary and experience substantially more barriers to physical activity participation compared to the general population. This health risk can lead to a greater number of obesity-related secondary conditions (e.g., fatigue, pain, deconditioning, social isolation, difficulty performing activities of daily living) and can impose significant personal and economic hardship on the child and family.

Sedentary behaviors, such as watching television or videos, and/or playing computer games, have already been linked to reduced physical activity levels among youth without disabilities. These sedentary behaviors are likely to be higher among youth with disabilities because of physical, sensory, and/or cognitive impairments that make it more difficult to participate in competitive sports and recreational games with other youth who have more refined motor skills and higher fitness levels.

As a result of not being able to compete successfully in sports and recreational activities, youth with disabilities may avoid more physically demanding activities that require higher energy expenditure (i.e., soccer, basketball) and are therefore likely to have greater amounts of time (i.e., after school, weekends) spent in sedentary behaviors.

Secondary conditions associated with a primary disability can also adversely impact a youth's ability to participate in moderate to vigorous physical activity. For example, many youth with cerebral palsy and spina bifida experience joint and muscle pain resulting from the long-term effects of spasticity or overusing muscle groups necessary for manually pushing a wheelchair or using crutches to ambulate. Low physical fitness, balance impairments, and poor coordination skills also make it more difficult for youth with disabilities to participate in team sports with their non-disabled peers.



Children and adolescents with disabilities have a higher prevalence of being overweight compared to their non-disabled peers!

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FIND MORE INFORMATION ON YOUTH SPORTS AND FITNESS PROGRAMS ON THE NCHPAD WEBSITE

NCHPAD is the premier resource for information on physical activity, health promotion, and disability, serving persons with physical, sensory and cognitive disability across the lifespan. NCHPAD's features a variety of resources and services which can benefit all ages and populations and can be found online at nchpad.org.

FUN AND LEISURE  **LINK**

COMPETITIVE SPORTS  **LINK**

EXERCISE AND FITNESS  **LINK**

MAINTAINING OR IMPROVING FITNESS IN CHILDHOOD DISORDERS

THERA-BAND: ELASTIC BAND PROGRAM FOR KIDS  **LINK**

THERA-BAND: EXERCISE BALL PROGRAM FOR KIDS  **LINK**



Help Your Kids Find Their Way to Play

You know your kids need physical activity to be healthy. But did you know **playing sports** can give them benefits beyond physical health?

Sports teach kids the skills they need to succeed in life.



Focus



Teamwork



Leadership



Work ethic

So help your kids get in the game.

How can I get my kids interested in sports?

It's all about finding the right sports — and right level of competition — for your kids.



They can join a team



Or do their own thing

And they don't need to be athletic — no matter what their level of skill or experience is, they can find an option that works for them.

So encourage your kids to **try a variety of sports** during the year.



That can help them find sports they really love — and lower their risk of injury.

How can I make sports work for my family?

Youth sports can be a big commitment — but they don't have to be.



Look for free or low-cost leagues and classes



Choose local teams that don't travel for games




Play sports with your kids and get active together


Remember, kids need physical activity every day.


Kids and teens ages 6 to 17 need at least **60 minutes** of activity every day.

And sports can help them get it!

- Weekly practices and classes build activity into their routine
- Sports can give kids all **3 types** of activity they need

 **Aerobic** (makes their hearts beat faster) — like running

 **Muscle strengthening** — like throwing

 **Bone strengthening** — like jumping



When kids run, jump, climb, skate, swim, and play, they get the mix of activities they need to be healthy.

So help your kids find their way to play!

Every kid can find a sport that's fun for them.
Find more tips to help your kids get active.

health.gov/MoveYourWay/Parents



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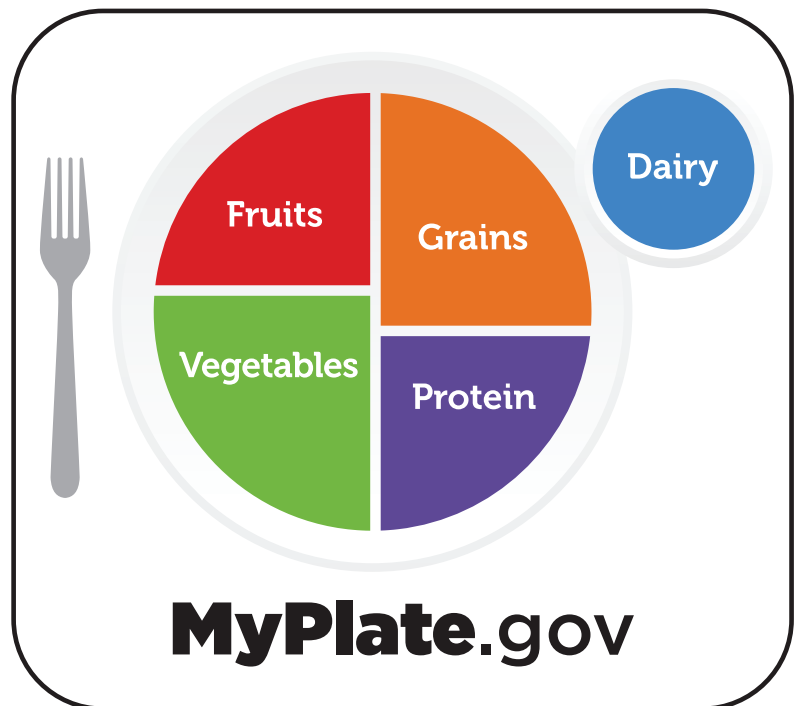
READING NUTRITION LABELS

Being able to take control of your health depends on how much you know about what you and your family are eating. One way to get a head start on your family's health is by learning how to read a Nutrition Label.

Here are a few tips and explanations about each component of the nutrition label.

Don't be fooled: Start with the serving size! We often assume that one bottle, pouch, or box is one single serving, but this is typically not the case. Any nutrient amounts you see listed on the label should be multiplied by the number of servings you plan to have.

Nutrition Facts	
4 servings per container	
Serving size 1 1/2 cup (208g)	
Amount per serving	
Calories	240
% Daily Value*	
Total Fat 4g	5%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 430mg	19%
Total Carbohydrate 46g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%



Graphic courtesy FDA.gov

LEARN MORE NUTRITION FACTS: [LINK](#) [LINK](#)

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PROTEIN/FIBER

Go for the gold: Hone in on protein and fiber. These key nutrients help us stay satisfied longer, build muscle, and keep our gut healthy. Generally speaking, the higher the protein and fiber content in a packaged food, the better. Fiber is typically found in higher quantities in plant-based items which contain fruits, veggies, and legumes (like beans and lentils) and whole grains (like oats and brown rice).

Nutrition Facts	
4 servings per container	
Serving size 1 1/2 cup (208g)	
Amount per serving	
Calories	240
<small>% Daily Value*</small>	
Total Fat 4g	5%
Saturated Fat 1.5g	8%
<i>Trans Fat</i> 0g	
Cholesterol 5mg	2%
Sodium 430mg	19%
Total Carbohydrate 46g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

PROTEIN

WHAT IT IS

Protein is found in foods from both plants and animals. Protein is made up of hundreds or thousands of smaller units, called amino acids, which are linked to one another in long chains. The sequence of amino acids determines each protein’s unique structure and its specific function.

There are 20 different amino acids that can be combined to make every type of protein in the body. These amino acids fall into two categories:

- Essential amino acids are required for normal body functioning, but they cannot be made by the body and must be obtained from food. Of the 20 amino acids, 9 are considered essential.
- Nonessential amino acids can be made by the body from essential amino acids consumed in food or in the normal breakdown of body proteins. Of the 20 amino acids, 11 are considered non-essential.

WHERE IT IS FOUND

Protein is found in a variety of foods, including:

- Beans, peas, and lentils
- Dairy products (such as milk, cheese, and yogurt)
- Eggs
- Meats and poultry
- Nuts and seeds
- Seafood (fish and shellfish)
- Soy products
- Whole grains and vegetables (these generally provide less protein than is found in other sources)

WHAT IT DOES

- Protein provides calories, or “energy” for the body. Each gram of protein provides 4 calories.
- Protein is a component of every cell in the human body and is necessary for proper growth and development, especially during childhood, adolescence, and pregnancy.
- Protein helps your body build and repair cells and body tissue.
- Protein is a major part of your skin, hair, nails, muscle, bone, and internal organs. Protein is also found in almost all body fluids.
- Protein is important for many body processes, such as blood clotting, fluid balance, immune response, vision, and production of hormones, antibodies, and enzymes.

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PROTEIN/FIBER

Go for the gold: Hone in on protein and fiber. These key nutrients help us stay satisfied longer, build muscle, and keep our gut healthy. Generally speaking, the higher the protein and fiber content in a packaged food, the better. Fiber is typically found in higher quantities in plant-based items which contain fruits, veggies, and legumes (like beans and lentils) and whole grains (like oats and brown rice).

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Total Fat 4g	5%
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Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 430mg	19%
Total Carbohydrate 46g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%
<small>* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

DIETARY FIBER

WHAT IT IS

Dietary fiber is a type of carbohydrate made up of many sugar molecules linked together. But unlike other carbohydrates, dietary fiber is bound together in such a way that it cannot be easily digested in the small intestine.

There are two types of dietary fiber:

- Soluble dietary fiber dissolves in water to form a thick gel-like substance in the stomach. It is broken down by bacteria in the large intestine and provides some calories.
- Insoluble dietary fiber does not dissolve in water and may pass through the gastrointestinal tract relatively intact and, therefore, is not a source of calories.

WHERE IT IS FOUND

Naturally occurring dietary fiber is found in a variety of foods, including:

- Beans, peas, and lentils
- Fruits
- Nuts
- Seeds
- Vegetables
- Wheat bran
- Whole grains (such as whole oats, brown rice, popcorn, and quinoa) and foods made with whole grain ingredients (such as some breads, cereals, crackers, and pasta).

WHAT IT DOES

- Soluble dietary fiber can interfere with the absorption of dietary fat and cholesterol. This, in turn, can help lower low-density lipoprotein (LDL or “bad”) cholesterol levels in the blood. Soluble fiber can also slow digestion and the rate at which carbohydrates and other nutrients are absorbed into the bloodstream. This can help control the level of blood glucose (often referred to as blood sugar) by preventing rapid rises in blood glucose following a meal.
- Insoluble dietary fiber can speed up the movement of food and waste through the digestive system.
- Both soluble and insoluble dietary fiber can make you feel full, which may lower your calorie intake by helping you eat less and yet stay satisfied longer.

OBESITY & NUTRITION TOOLKIT

CARBOHYDRATES

Carbohydrates are a staple but they are not all created equal: Complex carbohydrates are found in grains, starches, and legumes like beans and lentils for example. These foods tend to have higher fiber and mineral content, which our bodies need! All carbohydrates break down to glucose eventually, but complex carbs break down more slowly, which is helpful for our bodies!

Nutrition Facts	
4 servings per container	
Serving size 1 1/2 cup (208g)	
Amount per serving	
Calories	240
% Daily Value*	
Total Fat 4g	5%
Saturated Fat 1.5g	8%
<i>Trans Fat</i> 0g	
Cholesterol 5mg	2%
Sodium 430mg	19%
Total Carbohydrate 46g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

TOTAL CARBOHYDRATE

WHAT IT IS

Carbohydrates are found primarily in plant foods; the exception is dairy products, which contain milk sugar (lactose). Total Carbohydrate on the Nutrition Facts label includes:

- Dietary fiber is a type of carbohydrate made up of many sugar molecules linked together in such a way that it cannot be easily digested in the small intestine. Dietary fiber can increase the frequency of bowel movements, lower blood glucose and cholesterol levels, and reduce calorie intake.
- Total sugars include sugars that are naturally present in food and added sugars, which include sugars that are added during the processing of foods (such as sucrose or dextrose), foods packaged as sweeteners (such as table sugar), sugars from syrups and honey, and sugars from concentrated fruit or vegetable juices. Sugars are the smallest type of carbohydrate and are easily digested and absorbed by the body.
- Sugar alcohols are a type of carbohydrate that chemically have characteristics of both sugars and alcohols but are not completely absorbed by the body—providing a sweet taste with fewer calories per gram than sugar.

WHERE IT IS FOUND

- Total sugars include sugars found naturally in foods such as dairy products, fruits, and vegetables and added sugars often found in foods such as candies, desserts, sweet snacks, and sugar-sweetened beverages and cereals.
- Sugar alcohols are found naturally in small amounts in a variety of fruits and vegetables and are also commercially produced and added as reduced-calorie sweeteners to foods (such as chewing gum, baked goods, desserts, frostings, and sweets).

WHAT IT DOES

- Carbohydrates provide calories, or “energy,” for the body. Each gram of carbohydrate provides 4 calories. The human body breaks down carbohydrates into glucose. Glucose in the blood (often referred to as blood sugar) is the primary energy source for the body’s cells, tissues, and organs (such as the brain and muscles). Glucose can be used immediately or stored in the liver and muscles for later use.

OBESITY & NUTRITION TOOLKIT

FAT

Don't fear fat: When it comes to fat content in a food, know that fat is okay and even needed in moderation. Ideally the fats in our diet come from mostly plant-based sources, such as olive oils, nuts, seeds and their "butters", avocado, and fish for example. Healthy fats are needed to help to absorb vitamins from other foods.

Nutrition Facts	
4 servings per container	
Serving size 1 1/2 cup (208g)	
Amount per serving	
Calories	240
<small>% Daily Value*</small>	
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SATURATED FAT

WHAT IT IS

Saturated fat is found in higher proportions in animal products and is usually solid at room temperature. An exception is seafood, which is generally low in saturated fat. The human body makes all the saturated fat that it needs, so it is not necessary to get saturated fat from food.

WHERE IT IS FOUND

Saturated fat is found in a variety of foods, including:

- Beef fat (tallow and suet), chicken fat, pork fat (lard), and vegetable shortening
- Baked goods (such as brownies, cakes, cookies, doughnuts, pastries, and pies)
- Condiments, gravies, and salad dressings
- Tropical plant oils (such as coconut, palm, and palm kernel oils)

WHAT IT DOES

- Like all fats, saturated fat provides calories or "energy" for the body, helps the body absorb certain vitamins, and supports many body processes. Diets higher in saturated fat are associated with an increased risk of developing cardiovascular disease.

OBESITY & NUTRITION TOOLKIT

SODIUM

Sodium is found in many packaged and especially processed foods to make them tasty but also to keep them shelf stable. It is quite easy to exceed your daily recommended amount of sodium. Excess sodium contributes to elevated blood pressure. Look for “low sodium” options, which often taste very similar but are a healthier option for us all.

Nutrition Facts	
4 servings per container	
Serving size 1 1/2 cup (208g)	
Amount per serving	
Calories	240
% Daily Value*	
Total Fat 4g	5%
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SODIUM

WHAT IT IS

The words “table salt” and “sodium” are often used interchangeably, but they do not mean the same thing. Table salt (also known by its chemical name, sodium chloride) is a crystal-like compound that is abundant in nature. Sodium is a mineral and one of the chemical elements found in table salt.

WHERE IT IS FOUND

Over 70% of dietary sodium comes from eating packaged and prepared foods, whereas only a small portion (about 11%) comes from table salt added to food when cooking and eating.

According to the Centers for Disease Control and Prevention, about 40% of the sodium consumed by Americans comes from the following foods, many of which are commercially processed or prepared:

- Deli meat sandwiches
- Pizza
- Burritos and tacos
- Soups
- Savory snacks (e.g., chips, crackers, popcorn)
- Poultry
- Pasta mixed dishes
- Burgers
- Egg dishes and omelets

WHAT IT DOES

- Sodium is an essential nutrient that the human body needs in relatively small amounts (provided that substantial sweating does not occur).
- Sodium is important for many body processes, such as fluid balance, muscle contraction, and nervous system function.
- As a food ingredient, sodium is used in multiple ways, including curing meat, baking, as a thickening agent, as a flavor enhancer, as a preservative, and to retain moisture. Diets higher in sodium are associated with an increased risk of developing high blood pressure, which can raise the risk of heart attacks, heart failure, stroke, kidney disease, and blindness.

OBESITY & NUTRITION TOOLKIT



WHAT'S THE DEAL WITH "PROCESSED" FOODS?

The USDA defines a processed food as one that has "undergone any change to its natural state". This includes washing and cleaning, chopping, cooking, and packaging. All of the products we find in the supermarket are processed to some degree: An apple may have been cleaned and placed in a package with other apples.

On the other end of the spectrum, there are food items on grocery store shelves in boxes and cans and in the freezer sections are highly or ultraprocessed. This means that they have many additives including salt and sugar to keep them shelf stable, ready-to-eat, and lasting in your pantry for a long time as well as to make them very palatable. There are associations between increased consumption of ultraprocessed foods and the rise of obesity around the world.

A good rule of thumb when grocery shopping is to spend most of your time shopping around the perimeter of the store, where you will find mostly fresh, whole, minimally processed foods like vegetables, fruits, eggs, meat, fish, milk, etc.

DON'T BE FOOLED:

"Whole" or unprocessed foods are ideal for providing nutrients without less healthy additives. Eating mostly whole, plant-based foods is associated with better health outcomes. But do note that just because a food item is labeled "plant based", "gluten free", or "organic" for example, does not mean that it is an excellent choice: Sometimes foods with these labels are actually highly processed. Check the ingredient label to get a better idea of what has been added to the foods you eat!

MORE INFORMATION:  [LINK](#)

OBESITY & NUTRITION TOOLKIT



MEASURING CARBOHYDRATE EFFECTS CAN HELP GLUCOSE MANAGEMENT.



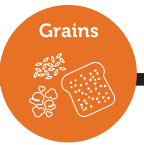


The glycemic index is a value assigned to foods based on how quickly and how high those foods cause increases in blood glucose levels. Foods low on the glycemic index (GI) scale tend to release glucose slowly and steadily. Foods high on the glycemic index release glucose rapidly. Low GI foods tend to foster weight loss, while foods high on the GI scale help with energy recovery after exercise, or to offset hypo- (or insufficient) glycemia. Long-distance runners would tend to favor foods high on the glycemic index, while people with pre- or full-blown diabetes would need to concentrate on low GI foods.

Why? People with type 1 diabetes can't produce sufficient quantities of insulin and those with type 2 diabetes are resistant to insulin. With both types of diabetes, faster glucose release from high GI foods leads to spikes in blood sugar levels. The slow and steady release of glucose in low-glycemic foods helps maintain good glucose control.

To help you understand how the foods you are eating might impact your blood glucose level, a complete glycemic index chart can be [found here](#).

OBESITY & NUTRITION TOOLKIT

SUMMARY OF RECOMMENDED DAILY NUTRITIONAL GOALS

 Fruits	 Vegetables	 Grains	 Protein	 Dairy
<p>Focus on whole fruits like fresh, frozen, canned, or dried.</p> <p>Buy fruits to have them available to add to your meal or eat as a snack. If you buy juice, select 100% fruit juice.</p>	<p>Eat a variety of vegetables and add them to mixed dishes like casseroles, sandwiches, and wraps.</p> <p>Fresh, frozen, and canned count, too. Look for “reduced sodium” or “no-salt-added” on the label.</p>	<p>Choose whole-grain versions of common foods such as bread, pasta, and tortillas.</p> <p>Not sure if it’s whole grain? Check the ingredients list for the words “whole” or “whole grain.”</p>	<p>Eat a variety of protein foods such as beans, soy, seafood, lean meats, poultry, and unsalted nuts and seeds.</p> <p>Select seafood twice a week. Choose lean cuts of meat and ground beef that is at least 93% lean.</p>	<p>Choose low-fat (1%) or fat-free (skim) dairy. Get the same amount of calcium and other nutrients as whole milk, but with less saturated fat and calories.</p> <p>Lactose intolerant? Try lactose-free milk or a fortified soy beverage.</p>
<p>Daily Food Group Targets — Based on a 2,000 Calorie Plan Visit MyPlate.gov/MyPlatePlan for a personalized plan.</p>				
<p>2 cups</p> <p><i>1 cup counts as:</i></p> <ul style="list-style-type: none"> 1 small apple 1 large banana 1 cup grapes 1 cup sliced mango ½ cup raisins 1 cup 100% fruit juice 	<p>2½ cups</p> <p><i>1 cup counts as:</i></p> <ul style="list-style-type: none"> 2 cups raw spinach 1 cup cooked collard, kale, or turnip greens 1 small avocado 1 large sweet potato 1 cup cooked beans, peas, or lentils 1 cup cut cauliflower 	<p>6 ounces</p> <p><i>1 ounce counts as:</i></p> <ul style="list-style-type: none"> 1 slice of bread ½ cup cooked oatmeal 1 small tortilla ½ cup cooked brown rice ½ cup cooked couscous ½ cup cooked grits 	<p>5½ ounces</p> <p><i>1 ounce counts as:</i></p> <ul style="list-style-type: none"> 1 ounce cooked lean chicken, pork, or beef 1 ounce tuna fish ¼ cup cooked beans, peas, or lentils 1 Tbsp peanut butter 2 Tbsp hummus 1 egg 	<p>3 cups</p> <p><i>1 cup counts as:</i></p> <ul style="list-style-type: none"> 1 cup dairy milk or yogurt 1 cup lactose-free dairy milk or yogurt 1 cup fortified soy milk or yogurt 1½ ounces hard cheese 1 cup kefir



Choose foods and beverages with less added sugars, saturated fat, and sodium.

Limit:

- Added sugars to <50 grams a day.
- Saturated fat to <22 grams a day.
- Sodium to <2,300 milligrams a day.



Activity

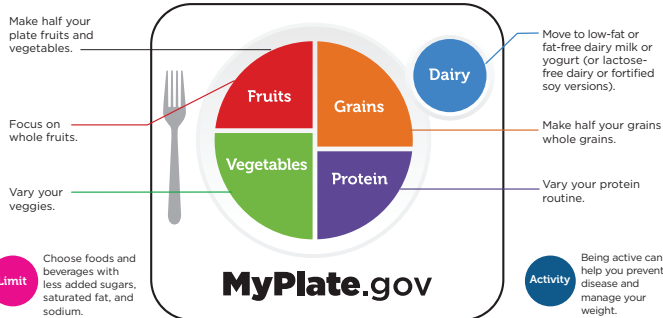
Don’t forget physical activity!

Being active can help you prevent disease and manage your weight.

Kids ≥ 60 min/day Adults ≥ 150 min/week

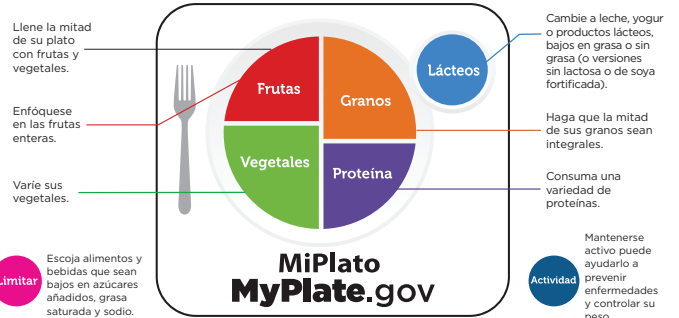
Start simple with MyPlate

Healthy eating is important at every life stage, with benefits that add up over time, bite by bite. Small changes matter.



Comience de una forma sencilla con MiPlato

Una alimentación saludable es importante en todas las etapas de la vida, con beneficios que se acumulan con el tiempo, bocado a bocado. Los cambios pequeños son importantes.



OBESITY & NUTRITION TOOLKIT



PICKY EATERS

Picky eating in childhood, especially between 2- and 4-years-old, is very common. It can cause a lot of mealtime conflict, with parents highly invested in children eating their vegetables and children highly invested in refusing to do so.

Recognizing that pickiness is normal and usually short-lived can make mealtimes more enjoyable. A low-key approach to picky eating can help kids come around and try a wider variety of foods. Here are some basic strategies to try.

WHENEVER POSSIBLE, EAT FAMILY MEALS TOGETHER AND MODEL HEALTHY AND ADVENTUROUS EATING.

Children often watch and adapt habits from parents, older siblings, and peers. When the rest of the family eats well balanced meals that include fruits and vegetables, children are more likely to do the same. And when parents show a willingness to try new foods, kids will, too.

FOLLOW REGULAR AND STRUCTURED MEAL AND SNACK TIMES.

Make it a rule that kids sit at the table to eat free of distractions and devices.

LET YOUR CHILD CHOOSE WHAT AND HOW MUCH TO EAT FROM WHAT'S OFFERED.

At the same time, avoid offering separate meals or snacks if they refuse to eat. Include at least one food at meals and snacks that the child likes.

ALLOW THEM TO REJECT OR REFUSE A FOOD, BUT STILL OFFER IT AGAIN LATER.

It can take children 15-20 tries to like a new food. Repeated exposure may help a rejected food become a new favorite.

INVOLVE KIDS IN HELPING TO SELECT, GROW, AND COOK FOODS.

The more engaged they are, the more likely they will be to try the foods eventually.

SHOW AN INTEREST IN LEARNING ABOUT FOOD, NUTRITION, FARMING, AND COOKING.

Many kids will also become interested in foods and seeing what they taste like.

OBESITY & NUTRITION TOOLKIT

PICKY EATERS: AGE-SPECIFIC STRATEGIES

YOU MIGHT ALSO WANT TO TRY THESE TIPS GEARED TOWARD SPECIFIC AGE AND DEVELOPMENTAL STAGES:

DURING PREGNANCY:

Make a habit of eating at least one “unusual,” new, or bitter food a few times per week. The flavors pass into the amniotic fluid, giving your unborn baby an early “taste” of foods that they may then be more willing to eat later. Plus, the more you try new foods, the more you will grow to like and model eating them.

INFANCY:

Eating a wide variety of foods while breastfeeding can increase your child’s exposure to those foods through breastmilk. Making flavors more familiar decreases the chance your child will reject them in solid foods.

Once you do introduce solids at about 6 months old, offer one new food at a time, with a plan to include bitter vegetables, fish, and a little bit of spice from the very beginning. Introduce foods with a variety of textures and smells. (Once all the ingredients of a recipe have been introduced, it is fine to prepare them together.) Babies have immature taste buds, which make them open to eating just about anything their first year or so of eating solid foods. When starting solids, be sure the food is soft and small enough to prevent choking.

TODDLER:

Between 18 months and 2 years of age, many children start to show a dislike of unfamiliar foods called “neophobia.” Go with the flow while also making it a habit to eat family meals together. Resist the urge to force a child to eat or engage in mealtime battles. But don’t cater to picky preferences, either.

Continue offering at least one food your child likes at each meal along with a healthy balance of other foods whether your child eats them or not. To avoid food waste, serve small portions of foods more likely to be rejected.

PRESCHOOL:

Engage preschoolers in the process of choosing and preparing foods. Kids are more likely to eat what they grow, choose, or prepare. Preschoolers tend to love garden-grown vegetables paired with a dip, sauce or nut butter.

SCHOOL-AGED:

Help kids learn where their food comes from by growing a miniature garden. Plant easy-to-grow foods that the child might otherwise resist trying, such as spinach or sweet peppers.

ADOLESCENCE:

Make a commitment to eat family meals together at least 2 to 3 times per week. This makes it more likely a teen will eat a balanced meal. In addition, research shows shared family mealtimes can help strengthen family relationships and decrease the likelihood of risk-taking behaviors.

Task your teen with occasionally helping to choose and prepare meals, which will help them develop cooking skills. Require that the meal contain a protein, grain, fruit, and vegetable, but otherwise avoid the urge to micromanage what your teen chooses.

OBESITY & NUTRITION TOOLKIT



FIVE-TWO-ONE-ALMOST NONE



**5 OR MORE
FRUITS AND VEGETABLES**



**2 HOURS OR LESS
OF RECREATIONAL SCREEN TIME**



**1 HOUR OR MORE
OF PHYSICAL ACTIVITY**



**0 SUGARY DRINKS
MORE WATER AND LOW-FAT MILK**

OBESITY & NUTRITION TOOLKIT



HEALTHY HABITS AS EASY AS 5-2-1-0



National Institute for Children's Health Quality

Healthy Care for Healthy Kids: Obesity Toolkit



30 Winter Street, 6th Floor, Boston, MA 02108
Phone 617-391-2700 Fax 617-391-2701 www.nichq.org

Your Weekly Log

Growing Up Healthy and Strong Is as Easy as 5-2-1-1!
 5—Record the servings of fruits and veggies you eat each day. 5 or more each day is the healthy goal.
 2—Limit your screen time (TV, cell, or game) to 2 hours or less.
 1—Add up your time to get the activity message—get 1 hour or more to build a strong core.
 0—Track your progress every day. Record each answer in the chart below.

Family Member Name: _____
 Week of: _____

	Mon. Date	Tue. Date	Wed. Date	Thurs. Date	Fri. Date	Sat. Date	Sun. Date
5 Fruits & Veggies	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
2 Screen Time	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under
	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.
1 Physical Activity	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more
	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more

Completed by participating family member: _____
 Confirmed by another family member: _____

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	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
2 Screen Time	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under
	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.
1 Physical Activity	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more
	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more

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	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
2 Screen Time	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under	≤ 2 hrs. or under
	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.	Over 2 hrs.
1 Physical Activity	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more	≥ 1 hr. or more
	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more	≤ 30 minutes or more

Completed by participating family member: _____
 Confirmed by another family member: _____

OBESITY & NUTRITION TOOLKIT



MAKE A PLAN: PLAN YOUR WEEKLY MEALS

Making a plan before heading to the store can help you get organized, save money, and choose healthy options. Here are some simple tips to get you started:

SEE WHAT YOU ALREADY HAVE.

Look in your freezer, cabinets, and refrigerator. You can save money by using these items in the upcoming week's meals.

WRITE DOWN YOUR MEALS. [LINK](#)

It's helpful to write out your meals for the week including breakfast, lunch, dinner and snacks. You can also use the Create a Grocery Game Plan - Weekly Calendar as a guide.

LIST OUT RECIPES TO TRY. [LINK](#)

Find new ideas for healthy and low-cost meals based on what you have on hand, foods your family enjoys, and foods that are good buys. Browse Shop Simple Recipes for low cost meal inspiration.

THINK ABOUT YOUR SCHEDULE.

Choose meals you can easily prepare when you're short on time. Save ones that take longer for days off or when family members are free to help.

PLAN TO USE LEFTOVERS.

Think about making larger recipes with enough servings for another meal. On busy days, just heat and serve.

MAKE A GROCERY LIST. [LINK](#)

Organize your grocery list by store section or food groups to make shopping quick and easy. For a free template, try the Create a Grocery Game Plan - Grocery List.

BUILD YOUR SHOPPING LIST AS YOU GO.

Keep an ongoing list of foods you need on your refrigerator or on a free mobile app and add items as you run out. Some mobile apps allow you to sync grocery lists with others in your household.

BUY A COMBINATION OF FRESH, FROZEN, AND NON-PERISHABLE ITEMS.

Plan for a mix of fresh, frozen, and shelf-stable foods in your meals. Eat your fresh food first so they don't go bad. Stock your freezer and pantry with items you can eat later.

OBESITY & NUTRITION TOOLKIT



MAKE A PLAN: SAVE MORE AT THE STORE

ASK AROUND.

Ask friends, family, or post a question on social media to see where others shop and find great bargains! Grocery stores, ethnic markets, dollar stores, retail supercenters, and wholesale clubs may offer good deals.

READ THE SALES FLYER.

Sales flyers usually come out mid-week and can be found at the store's entrance, in the newspaper, on their website, or social media pages.

EAT BEFORE YOU SHOP.

Grocery shopping while hungry can lead to impulse buying and unhealthy food choices. This is a simple, yet effective way to keep you on task.

JOIN YOUR STORE'S LOYALTY PROGRAM.

Most stores offer a free loyalty program. Get special offers, coupons, and discounts for being a member.

GET FRESH PRODUCE TO YOUR DOOR. **LINK**

Search online for low-cost produce delivery services in your area. Or support local farms by joining a Community Supported Agriculture (CSA) program. Find one in your area by visiting the USDA's CSA Directory.

THINK OUTSIDE THE STORE. **LINK**

Farmers markets and farm stands can be great options for picking up fresh produce at a discount. Search for farmers market locations near you.

VISIT THE MYPLATE WEBSITE **LINK**

Resources are available in English, Spanish, and more!

OBESITY & NUTRITION TOOLKIT

VEGETARIAN NUTRITION: TODDLERS AND YOUNG CHILDREN (AGE 2-5 YEARS)

A WELL-PLANNED VEGETARIAN DIET CAN BE HEALTHY AND TASTE GREAT!

The diet includes a variety of healthy foods including whole grains, cooked beans, fruits, vegetables, and soy foods. If your child does not consume dairy products, here are some options getting these nutrients from other healthy foods:

- Vitamin B12: soymilk, breakfast cereal, veggie burgers, or vitamin supplements
- Calcium: kale, broccoli, soymilk, and orange juice
- Vitamin D: soymilk or fruit juice

If you plan to have your young children follow a vegetarian diet, a registered dietician nutritionist can help design an eating plan to meet your child's needs

Some vegetarian children have a difficult time getting enough calories because their meals contain very high fiber; high fiber meals can make you feel full quickly. Here are some tips to cut back on fiber:

- Peel fruits before serving them
- Serve more cooked vegetables than raw ones
- Do not give your child fiber supplements

HERE ARE SOME RECOMMENDED HEALTHY FOODS TO INCLUDE IN YOUR CHILD'S VEGETARIAN DIET:

- Grains: whole wheat, barley, corn, quinoa, wild rice, and oats
- Protein: legumes (dried beans, lentil, or peas), soy (tofu or tempeh), Nuts and seeds, Eggs
- Dairy: low-fat or fat-free milk, yogurt, or cheese
- Vegetables: dark-green, red and orange, legumes, and starchy vegetables
- Fruit: fresh, frozen, canned, or dried fruits
- Fruit juice: 100% and limit to no more than 4 ounces per day for 2-3 year-olds
- Oils: olive, peanut
- Beverages: water

SAMPLE MENU FOR 1-DAY FOR VEGETARIAN CHILDREN

- Breakfast: ½ cup fortified whole grain ready-to-eat breakfast cereal; ½ banana; ¾ cup of whole milk. Snack can include ½ English muffin, 1 tablespoon of avocado, and ½ cup of plain water.
- Lunch: ½ slice of whole wheat bread; tofu salad made with ¼ cup of mashed tofu; 1 teaspoon of mayonnaise; ¼ cup of mashed sweet potatoes with 1 teaspoon of smooth nut butter; ½ cup of strawberries; ½ cup of whole milk; ½ cup of plain water. Afternoon snack can include ¼ of cantaloupe and ⅔ cup of whole milk.
- Dinner: ½ cup of spaghetti; ¼ cup of kidney beans; ¼ cup of meatless of marina sauce; ¼ cup of steamed broccoli; 1 teaspoon of olive oil; ½ cup of whole milk; ½ cup of plain water.

OBESITY & NUTRITION TOOLKIT

PLANT-BASED MILKS FOR INFANTS & YOUNG CHILDREN: GOOD OR BAD?

- Parents and caretakers are increasingly feeding infants and young children plant-based “milk” alternatives to cow milk. The important thing to be aware of is the nutritional difference provided by plant-based milk versus cow’s milk.
- The North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) members attest that when plant-based beverages are fed inappropriately to infants there is a potential for serious adverse effects.
- We want to ensure infants and young children are being appropriately fed and that their nutritional needs are met. Feeding plant-based milks inappropriately to infants and young children has been reported to affect growth and nutritional status.
- The universally preferred milk for infants is human milk; there are many infants who are fed infant formula because of maternal choice or other factors.
- Breast milk or infant formula (most commonly containing cow’s milk) should be an infant’s sole food for the first 4 to 6 months of life.
- By 1 year of age, most infants are weaned to cow’s milk.
- Cow’s milk significantly contributes to linear growth, vitamin D status, and bone health; plant-based milks does not meet the same nutritional needs or offer the same benefits as cow’s milk.
- Some Plant-based milks do not contain enough calories or have low energy content compared to what is provided by cow’s milk.
- Plant-based milks have lower protein content per serving compared to cow’s milk. They are not fortified with multiple micronutrients.
- It has been stated in several literature studies that plant-based milk can cause slow linear growth, poor weight gain, and protein calorie malnutrition, as well as vitamin deficiencies such as iron deficiency anemia, rickets, or scurvy.
- There is raising concern that plant-based milks can cause metabolic and electrolyte disturbances in children which can cause kidney stones.
- More recently, there is evidence that some children can develop enterocolitis with plant-based beverages. It is recommended by the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) to use protein hydrolysate or amino acid-based infant formula in the first year of life or longer in children with cow’s milk allergy.
- We believe most adverse nutritional outcomes related to plant-based milk intake can be preventable through FDA-mandated labeling and consumer education.
- The NASPGHAN letter to the FDA states that it is advisable that products labeled as “milk” should provide comparable nutritional value to standard cow’s milk products.
- Most children tolerate cow’s milk-based formulas and milks; for those who have true cow’s milk protein allergy or intolerance, it is recommended to use hypoallergenic formulas such as soy formula or soy milk.
- Pea milk, and possibly oat milk, may be more reasonable plant-based milk alternatives for young children requiring a cow’s milk or soy alternative.
- In cases where plant-based milks are used as primary milk source in older children, it is strongly recommended to carefully plan a diet which will include dietary sources of protein, calcium, iron, and vitamins B-12 and D. These may be from a plant or animal sources.

OBESITY & NUTRITION TOOLKIT

IMPORTANCE OF CALCIUM AND VITAMIN D

WHAT IS THE ROLE OF CALCIUM?

- Calcium is needed for our heart, muscles, and nerves to function properly and for blood to clot.
- 49% of children aged 4–18 years and 39% of all individuals aged 4 and older consume less than the Estimated Average Requirement for calcium from foods and supplements.

WHAT CAN HINDER CALCIUM ABSORPTION?

- Insufficient Vitamin D
- Excessive salt intake

BEST SOURCES OF CALCIUM IN FOODS

- 3 servings of dairy or calcium-fortified soy versions per day, ie. low-fat or whole milk, soymilk or yogurt
- Leafy green vegetables, calcium-fortified tofu, canned sardines and salmon with soft bones
- Calcium-fortified 100% fruit juices and ready-to-eat cereals

CALCIUM SUPPLEMENT RECOMMENDATIONS

- If one has trouble getting enough calcium from diet, you may need to take a Vitamin D3 supplement
- Better absorbed when taken in small doses (500mg or less) several times throughout the day, with food, to meet estimated requirements
- Sources include calcium carbonate, calcium citrate

THE ROLE OF VITAMIN D

- The body needs Vitamin D to absorb calcium
- Without enough Vitamin D, one can't form enough calcitriol, the "active Vitamin D"

BEST SOURCES OF VITAMIN D

- Sunlight
- Supplement
- Vitamin D-rich foods: egg yolks, saltwater fish, liver, fortified milk

RECOMMENDED CALCIUM INTAKES

LIFE-STAGE GROUP	MG/DAY	LIFE-STAGE GROUP	MG/DAY
Infants 0 to 6 months	200	19 to 30 years old	1,000
Infants 6 to 12 months	260	31 to 50 years old	1,000
1 to 3 years old	700	51- to 70-year-old males	1,000
4 to 8 years old	1,000	51- to 70-year-old females	1,200
9 to 13 years old	1,300	70 years old	1,200
14 to 18 years old	1,300	14-18 years old, pregnant/lactating	1,300
		19 to 50 years old, pregnant/lactating	1,000

Source: Food and Nutrition Board, Institute of Medicine, National Academy of Sciences, 2010.

OBESITY & NUTRITION TOOLKIT

BREASTFEEDING

BREASTMILK: THE BEST START FOR YOUR BABY

Congratulations on deciding to give your baby human milk! Human milk is the best milk for human babies. Your milk is specifically designed to meet your baby's need for immune protection and nutrition. The amazing thing is that your milk will change to meet your baby's changing needs as your baby grows.

GETTING OFF TO A GREAT START!

Getting off to a good start with breastfeeding begins long before your baby arrives. [Droplets](#) is a great place to start! Their Breastfeeding in the First Hour video provides a ton of helpful information about getting things started off right.

A FEW IMPORTANT TIPS TO KEEP IN MIND:

1. **Skin-to-Skin** in the first hour after delivery is critical to getting your breastfeeding journey started off right. Place baby skin-to-skin on your chest often and feed at first signs of hunger.
2. **Follow your baby's cues, not the clock.** Feeding early (at the first sign of hunger cues) and often will help to call in and maintain your milk supply.
3. **Supply and demand** dictates how much milk you will make. The fastest way to loose your milk supply is to not empty your breasts. Empty breasts signal your brain to make more milk so feeding frequently is very important. Your baby will typically breastfeed 2-3 times in the first 24 hours, 3-4 times on day 2 and as often as 10-12 times in 24 hours from days 3 to 10.
4. **Nighttime feedings** are critical to establishing your milk supply! Most newborns will cluster feed (approximately every 30 minutes) at night and sleep longer during the day. It's important that you sleep whenever baby is sleeping. Having a support system is critical! Let your friends and family take care of meals and household chores so you can sleep during the daytime. Plan to be up all night feeding your baby for the first several days. It'll taper off with time. By 6-months most infants will be sleeping for about 4-6 consecutive hours overnight. Babies will typically cluster feed at nights again during the 2-week and 2-month growth spurts so be ready. Do not try to sleep train infants under 6-months as this is not physiological!
5. **Breastfeeding should not hurt!** The key to successful breastfeeding is good position and latch. If you have pain this is likely a sign that your baby is not attached deeply enough. Babies do not get milk by sucking on the nipple like a straw! It is important that your baby has a deep latch to ensure that your milk is actually being transferred. [Watch this video](#) from 44 to 2:17 to see the difference in milk transfer between a shallow versus deep latch.
6. **Initial weight loss is typical!** Don't panic if your baby weighs less than birth weight at their first check up. Two naked weights on the same scale at least 24 to 48 hours apart is required for accuracy. Be sure your doctor is using the Newborn Weight loss Tool ([NEWT](#)) to assess whether your baby's loss is physiologic or concerning.
7. **Breastmilk is best milk*.** Feed only breastmilk to your baby until 6 months, after that you may begin to add complimentary foods. Once your baby is able to sit up unsupported in a high chair or at the table, you may start serving them soft finger foods. Continue to breastfeed for as long as desired. However, the recommendation is that breastfeeding continue until at least 2 years of age.

OBESITY & NUTRITION TOOLKIT

ADDRESSING CHALLENGES TO BREASTFEEDING

MATERNAL MEDICATIONS

Most medications are safe to use while breastfeeding. Ask your doctor to check the [NIH's Drugs and Lactation Database](#) before advising you about whether a medication is safe to use while breastfeeding.

SMOKING

While quitting is strongly encouraged, it is safe to breastfeed if you are a smoker. Do not smoke while nursing your baby. Smoking increases your baby's risk of sudden unexplained infant death (SUID), upper respiratory and lung infections. Breastfeeding helps to reduce these risks.

ALCOHOL

It is best to avoid consuming alcoholic beverages while breastfeeding. However, an occasional alcoholic beverage will not be harmful. It is recommended that you wait at least 6 hours after drinking before breastfeeding or pumping.

SUBSTANCE USE

Breastfeeding is NOT advised if you are regularly using substances such as marijuana, opioids, heroin or cocaine.

INFECTIONS

It is safe to breastfeed if you have Hepatitis. Moms with HIV who have zero viral load and consistently take their antiretroviral medications may safely breastfeed in consultation with their infectious disease doctor and baby's pediatrician. For more information visit the [CDC website](#).

OTHER MEDICAL CIRCUMSTANCES

It is best to consult with a provider specifically trained in breastfeeding medicine for assistance with managing breastfeeding in special medical circumstances. These may include, but are not limited to any of the following: history of breast surgery, breast cancer (current or past), polycystic ovarian syndrome, endocrine issues such as diabetes or thyroid disorders. Find a breastfeeding medicine physician [here](#).

RETURN TO WORK

Transitioning back to work is a tough challenge but you can do it! If possible, it's helpful to plan for pumping before you return to work. Start at least 1-2 weeks ahead of your return date.

Start by pumping once after your 1st morning feed & save it in the fridge. You will only get a little at first until your body adjusts to your pumping routine. Keep adding to whatever you've pumped until you have at least 2 ounces. It's a good idea to freeze your milk in 2-ounce aliquots to avoid waste. Label it with the date & time it was pumped. See [chart for CDC storage guidelines](#):

HUMAN MILK STORAGE GUIDELINES

Type of breast milk	Storage Location and Temperatures		
	Countertop 77°F (25°C) or colder <small>(room temperature)</small>	Refrigerator 40°F (4°C)	Freezer 0°F (-18°C) or colder
Freshly expressed or pumped	Up to 4 hours	Up to 4 days	Within 6 months is best, up to 12 months is acceptable
Thawed, previously frozen	1-2 hours	Up to 1 day (24 hours)	NEVER refreeze human milk after it's thawed.
Leftover from a feeding (baby didn't finish bottle)	Use within 2 hours after the baby is finished feeding.		

© Joan Younger Meek, Lawrence Noble; Section on Breastfeeding; Policy Statement: Breastfeeding and the Use of Human Milk. Pediatrics July 2022; 150 (1): e2022057988. 10.1542/peds.2022-057988

OBESITY & NUTRITION TOOLKIT

AGE 0 TO 1 YEAR – BREASTFEEDING

BIRTH – 1 MONTH:

- 8-12 feeds per day
- Exclusive breast feeding: on demand every 2-3 hours for 15 minutes or more
- If expressed: 2-4 ounces of breastmilk per feed
- No water supplementation

2 – 3 MONTHS

- 8-10 feeds per day
- Exclusive breast feeding: on demand every 2-3 hours for 15 minutes or more
- If expressed: 2-6 ounces of breastmilk per feed
- No water supplementation

4 – 5 MONTHS

- 5-8 feeds per day
- Exclusive breast feeding: on demand every 3-4 hours for 15 minutes or more
- If expressed: 6-7 ounces of breastmilk per feed
- No water supplementation

6 MONTHS

- 5-8 feeds per day
- Exclusive breast feeding: on demand every 3-4 hours for 15 minutes or more
- If expressed: 6-7 ounces of breastmilk per feed
- Begin “Iron Rich” food
- Begin supplementing sips of water, 4 ounces per day

7 – 8 MONTHS

- 3-4 feeds per day
- Exclusive breast feeding: on demand every 4-6 hours for 15 minutes or more
- If expressed: 7-8 ounces of breastmilk per feed
- Finger feeding begins
- Water: 4 ounces per day

9 – 10 MONTHS:

- 3-4 feeds per day
- Exclusive breast feeding: on demand every 6-8 hours for 15 minutes or more
- If expressed: 7-8 ounces of breastmilk per feed
- Water: 4 ounces per day

11 – 12 MONTHS:

- 3-4 feeds per day
- Exclusive breast feeding: on demand every 6-8 hours for 15 minutes or more
- If expressed: 7-8 ounces of breastmilk per feed
- Water: 4 ounces per day

1 YEAR:

- Continue breast feeding up to 2 years or as long as mother and baby desire!

OBESITY & NUTRITION TOOLKIT

DEVELOPMENTAL FEEDING SKILLS:

BIRTH – 5 MONTHS

- Skills: suck / swallow reflex, tongue thrust reflex, poor head control
- Baby can: swallow liquids but pushes solids out

4 – 6 MONTHS

- Skills: draws in lower lip, food front to back of tongue, good head control
- Baby can: take spoonful of pureed foods, swallow without choking

5 – 9 MONTHS

- Skills: sits no support, pincer grasp
- Baby can: eats mashed food, eats from spoon

8 – 11 MONTHS

- Skills: side-side tongue movement, curves lip for cup
- Baby can: eats ground/chopped food, feeds self

10 – 12 MONTHS

- Skills: spoon in mouth, holding cup
- Baby can: drinks from cup, eats small pieces of food

IMPORTANT FACTS:

- NO honey until 1 year of age
- CHOKING HAZARDS: grapes, nuts, seeds, hot dogs, hard candy, popcorn, and large beans.

FRESH BREAST MILK STORAGE

- 4 hours on the counter @ 77°F
- 4 days in the fridge @ 40°F
- Up 12 months in the freezer @ 0°F

FROZEN BREAST MILK

- 1-2 hours on the counter @ 77°F
- 1 day in fridge @ 40°F
- NEVER refreeze!

SUPPLEMENTATION:

- VITAMIN D: Beginning at birth for exclusively breastfed infants (400 IU/day)
- IRON: After 6 months of age, foods introduced should be “iron rich” as maternal iron stores are decreased in infant
Breastfeeding mothers should continue to eat “iron rich” diet
Examples: iron-fortified cereals, sweet potatoes, kale
Supplement vitamin C rich foods with iron!

OBESITY & NUTRITION TOOLKIT

WAYS TO IMPROVE HBA1C, LFTS, TRIGLYCERIDES AND TOTAL CHOLESTEROL IN CHILDREN AND TEENS

If your child is struggling with high cholesterol, fat, and sugar, it can be very overwhelming to know where to start. There are many different factors including lifestyle, activity, diet, and genetics that are at play when understanding laboratory tests and their results. Seek support from your pediatrician as you work toward making positive lifestyle changes to improve your child's health.

UNDERSTANDING LAB RESULTS

WHAT IS HEMOGLOBIN A1C (HBA1C)?

Hemoglobin A1c is a measure of how much glucose (sugar) is on a red blood cell and reflects how much glucose in your blood. Since the lifespan of a red blood cell is about 2-3 months, it's a good average of blood glucose over time. High Hemoglobin A1c can be the first sign diabetes and can be caused by:

- Poor diet
- Genetics (family history of Type 2 diabetes)
- Obesity
- Medications, such as steroids

WHAT ARE LIVER FUNCTION TESTS (LFTS)?

Liver function test panels typically include AST, ALT, Alkaline Phosphatase, and GGT. The liver releases extra amounts of these enzymes into the blood when the liver is stressed or not working properly, so these levels can be used to indicate disease or injury to the liver. Proper liver function is necessary to help the body remove toxins and turn food into fuel. Some causes of high LFT's include:

- Diets high in fats
- Infection, such as hepatitis and other viruses
- Some medications
- Diseases of the gallbladder

WHAT ARE TRIGLYCERIDES?

Triglycerides are a type of fat found in the blood. High levels of triglycerides increase risk of heart disease and may be caused by

- Diet high in fat and sugar
- Diabetes
- Obesity
- Genetics (familial hypertriglyceridemia)
- Kidney and liver disease
- Hypothyroidism

OBESITY & NUTRITION TOOLKIT

WAYS TO IMPROVE HBA1C, LFTS, TRIGLYCERIDES AND TOTAL CHOLESTEROL IN CHILDREN AND TEENS

WHAT IS CHOLESTEROL?

Cholesterol is a type of fat found in the body that is a building block for the body’s cells, but too much cholesterol increases the risk of heart disease and is associated with:

- Genetics (Familial dyslipidemia)
- Obesity
- Nephrotic syndrome
- Chronic inflammatory disease
- Medications
- Excessive dietary intake of saturated fats

HOW TO HELP YOUR CHILD ACHIEVE GOOD LAB RESULTS

- Healthy diets that reduce sugar, saturated fat, and cholesterol have a significant impact in reducing your child’s risk of developing diabetes and heart disease.
- Your child will probably need help making healthier food choices and limiting food portions
- Make healthy eating a goal for the entire family. Setting a good example is important
- Also, it’s important to be aware of the correct portion size for your child’s age

Food Group	Servings per Day	Portion Size for Ages 1 to 3	Portion Size for Ages 4 to 6	Portion Size for Ages 7 to 10
Fruits	2-3 servings	¼ cup cooked, frozen, or canned ½ piece fresh ¼ cup 100% juice	¼ cup cooked, frozen, or canned ½ piece fresh ¼ cup 100% juice	½ cup cooked, frozen, or canned 1 piece fresh ½ cup 100% juice
Vegetables	2-3 servings	¼ cup cooked	¼ cup cooked ½ cup salad	½ cup cooked 1 cup salad
Grains	6-11 servings	½ slice bread ¼ cup cooked cereal, rice, or pasta ½ cup dry cereal 2-3 crackers	½ slice bread ½ cup cooked cereal, rice, or pasta ½ cup dry cereal 3-4 crackers	1 slice bread ½ cup cooked cereal, rice, or pasta ¾-1 cup dry cereal 4-5 crackers
Meats and other proteins	2 servings	1 ounce meat, fish, chicken, or tofu ¼ cup cooked beans ½ egg	1 ounce meat, fish, chicken, or tofu ½ cup cooked beans 1 egg	2-3 ounces meat, fish, chicken, or tofu ½ cup cooked beans 1 or 2 eggs
Dairy	2-3 servings	½ cup milk ½ ounce cheese ½ cup yogurt	½ cup milk 1 ounce cheese ½ cup yogurt	1 cup milk 1 ounce cheese ¾-1 cup yogurt

Adapted from Dietz WH, Stern L, eds. Nutrition: What Every Parent Needs to Know; 2nd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2012:194.

OBESITY & NUTRITION TOOLKIT

WAYS TO IMPROVE HBA1C, LFTS, TRIGLYCERIDES AND TOTAL CHOLESTEROL IN CHILDREN AND TEENS

WAYS TO REDUCE SUGAR, FAT, AND CHOLESTEROL IN YOUR CHILD'S DIET

- Provide whole-grain breads and cereals
- Keep fresh fruits and vegetables available.
- Avoid beverages with sugar and fat such as juice, soda and whole milk
- Limit processed snacks such as chips, cookies, and gummies. Instead, provide low-fat yogurt, granola, fresh fruits, and vegetables.
- When cooking, choose fat-free techniques such as baking, broiling, and grilling. Avoid using butter, and instead try using non-stick vegetable sprays.
- Don't keep unhealthy drinks and snacks easily accessible in the house and avoid purchasing these unhealthy food items for the home

PHYSICAL ACTIVITY ALSO PLAYS AN ACTIVE ROLE IN REDUCING RISK FOR CHRONIC ILLNESS, DISABILITY, AND INJURY.

- Activity can include playing structured sports, or simply riding a bike or taking walks.
- Try doing family walks in the evening before a bedtime routine or maybe have family "dance parties" and encourage everyone to get up and move
- CDC recommends that preschool children are active throughout the day, every day, at least 15 minutes for every hour that they are awake. Children over 6 years old and teenagers should have at least 60 min of physical activity per day.
- Reducing screen time and encouraging physical activity can help your child meet those goals.

HEALTHY HABITS, TIPS AND TRICKS

- All of these changes may feel overwhelming for you and your child, but lowering your child's HbA1C, LFT's, Triglycerides, and Cholesterol will have a lifelong impact on their wellness
- Try to focus on the "Do's" foods they should eat, and healthy activities that they should be doing every day, try not to focus only on the "Don'ts" or things to avoid
- Try making small changes one at a time, for example, eliminate Sodas on Monday, start walks on Thursday and eliminate candy on Sunday.
- It's okay to have a treat every once in a while, but limit how much and how often
- Track all the good changes you and your child have made, and celebrate wins with praise or special activities

OBESITY & NUTRITION TOOLKIT



WAYS TO IMPROVE HBA1C, LFTS, TRIGLYCERIDES AND TOTAL CHOLESTEROL IN CHILDREN AND TEENS

RESOURCES

- [Ways to Protect Your Kids Against Metabolic Syndrome](#)
- [How to Reduce Fat and Cholesterol in Your Child's Diet](#)
- [Diabetes Mellitus Type 1](#)
- [Cholesterol LDL, HDL, and Triglycerides in Children and Teens](#)
- [Physical Activity and Nutrition Interventions](#)
- [Approach to Hypertriglyceridemia](#)
- [Portions and Serving Sizes](#)
- [The Role of Diet Nutrition and Exercise](#)

OBESITY & NUTRITION TOOLKIT



SERVING SIZE OPTIONS – BREAKFAST FOR KIDS!

AGES 1-3

- DAIRY : 2 cups per day
- FRUIT: ½ - 1 cup per day
- VEGETABLES: ½ - 1 cup per day
- GRAINS: ¼ cup per day
- PROTEIN: ¼ cup (14 grams) per day
- SAMPLE BREAKFAST:
 - 1 scrambled egg
 - ¼ mashed sweet potatoes
 - ½ small banana
 - ¾ cup whole milk

AGES 4-6

- DAIRY: 2 - 2 ½ cups per day
- FRUIT: 1 – 1 ½ cups per day
- VEGETABLES: 1 – 1 ½ cups per day
- GRAINS: ½ cup per day
- PROTEIN: 1/3 (19 grams) per day
- SAMPLE BREAKFAST:
 - 2 hard-boiled eggs
 - ¼ cup raw peppers
 - ½ slice whole wheat toast
 - ½ cup mandarin orange slices
 - ¾ cup 1% milk

AGES 7-12

- DAIRY: 2 ½ cups per day
- FRUIT: 1 ½ - 2 cups per day
- VEGETABLES: 1 ½ - 2 cups per day
- GRAINS: ¾ cup per day
- PROTEIN: 2/3 cup (34 grams) per day
- SAMPLE BREAKFAST:
 - ½ whole wheat bagel with 1 avocado spread
 - 1 cup strawberries
 - ½ cup carrots
 - ½ cup fat free milk

AGES 13-18

- DAIRY: 3 cups
- FRUIT: 2 cups per day
- VEGETABLES: 2 ½ cups per day
- GRAINS: 1 cup per day
- PROTEIN: 1 cup (45 grams) per day
- SAMPLE BREAKFAST:
 - 2 scrambled eggs
 - 1 cup cantaloupe
 - 1 slice whole wheat toast with 1 tablespoon peanut butter
 - ½ cup orange juice

VITAMIN A: 3 TO 4 PER WEEK

- Melons, peaches, carrots, apricots, broccoli, squash, pumpkin, sweet potatoes

VITAMIN C: ONCE PER DAY

- Berries, tomatoes, citrus, cauliflower, broccoli, cabbage

OBESITY & NUTRITION TOOLKIT



MENTAL WELLNESS

Children today are faced with more emotional stressors and environmental risk factors that impact weight management. In the following section topics on addressing weight stigma, parent and caregiver roles, importance of sleep, tools to improve self esteem, and mindful eating will be covered.

WHAT CAN PARENTS DO TO HELP?

CHILDREN AND TEENS WITH OVERWEIGHT AND OBESITY ARE EXPOSED TO MANY FORMS OF WEIGHT STIGMA, INCLUDING:

VERBAL TEASING BY PEERS

- Name calling
- Negative remarks
- Being made fun of
- Social exclusion by peers
- Social media/cyber bullying
- Being ignored
- Being excluded from peer activities
- Being a target of rumors

PHYSICAL BULLYING BY PEERS

- Hitting
- Kicking
- Pushing
- Shoving

DIFFERENT EXPECTATIONS FROM ADULTS

- Their parents and parents of their peers
- Coaches
- Teachers

OBESITY & NUTRITION TOOLKIT



HOW DOES WEIGHT STIGMA IMPACT CHILDREN AND WHAT PARENTS CAN DO TO HELP?

BECOME AWARE OF THEIR PERSONAL ATTITUDES ABOUT WEIGHT

Parental attitudes about weight are often unintentionally communicated to children. Here are some things to think about when it comes to your own attitudes about weight:

- Do I make assumptions about a person's character, ability or lifestyle based on their weight?
- What are my views about the causes of obesity?
- Do I believe common stereotypes about people with obesity to be true?

USE SENSITIVE AND APPROPRIATE LANGUAGE ABOUT WEIGHT

Children are very aware about what you say and how you feel. It is important to avoid making negative comments about your own or another person's weight in front of your child. It is also important to talk with your child about what words they feel comfortable using when discussing weight.

WATCH FOR SIGNS THAT YOUR CHILD IS SUBJECT TO WEIGHT STIGMA

It is key that parents are mindful of the signs your child is the subject of weight stigma. Look for changes in behavior or eating. Talk with your child if you think they are having problems. Offer to help and provide support.

INCREASE AWARENESS OF WEIGHT STIGMA AT YOUR CHILD'S SCHOOL

Parents can be the best source of change in schools. Talk with your child's teacher or principal about promoting awareness of weight stigma. You have the right to express your concerns about this issue and ask what the school can do to help.

FIND ROLE MODELS TO BOOST CONFIDENCE AND SELF-ESTEEM

It is important that children and teens see role models who are not thin. Talk with your child about the fact that weight does not limit success.

DISCUSS HEALTH RATHER THAN SIZE

Focusing on weight loss and size can add to weight stigma, even if meant to be supportive. Talk about making choices to live a healthy life. Keep talks positive and do not let the size and weight issue become all you talk about.

OBESITY & NUTRITION TOOLKIT

IMPORTANCE OF SLEEP IN HEALTHY WEIGHT MANAGEMENT

WHY IS SLEEP IMPORTANT TO HEALTHY WEIGHT?

Certain body functions related to growth and metabolism have a rhythm that are established by the sleep-wake cycle. When we don't sleep long enough or maintain a sleep routine, these rhythms are disrupted. This can lead to changes in appetite, exercise stamina and eventually weight gain. There's also concern that the longer we stay awake, the more likely we are to look for something to eat or drink. Over time, this pattern of behavior can also lead to weight gain or make it difficult to lose weight.

WHY IS IT IMPORTANT FOR CHILDREN AND ADOLESCENTS TO GET ENOUGH SLEEP?

Sleep not only affects weight, but also affects mood and cognition. Toddlers and preschoolers who get enough sleep have fewer outbursts and tantrums. School-aged children who get enough sleep have improved academic performance, better memory and focus. Research suggests that teenagers who have inadequate or irregular sleep are more likely to engage in risk-taking behaviors, have a higher incidence of accidents and are more likely to have suicidal thoughts.

HOW MUCH SLEEP YOUR CHILD NEEDS, DEPENDS ON AGE.

The younger the child, the more sleep they need. In general, it's recommended that toddlers and preschoolers get 10 to 14 hours of sleep per day, including naps. School-aged children and preteens are recommended to get 9 to 12 hours of sleep per night; and teens in middle and high school are recommended to get at least eight hours of sleep per night.

There are common concepts between achieving healthy weight, feeling good and getting adequate sleep – quality, quantity, and consistency. The quality of sleep and mealtime are both affected by the setting, presence of electronic devices and/or use of substances (caffeine, prescribed medications, alcohol or other drugs). Just as we monitor portion sizes and number of servings to ensure the right quantity is being offered, we also need to monitor sleep. Try to maintain consistency in bedtime and night time routine – even on the weekends.

Similarly, attempt to eat at regular intervals to avoid being overly hungry. Fatigue and excessive hunger negatively impact food choices maintain consistency in bedtime and night time routine – even on the weekends.

6 TIPS FOR SLEEPING:

1. Make sure your bedroom is cool, dark and quiet (no screens in the bedroom)
2. Try to go to bed at the same time each night (stick to a schedule)
3. Exercise during the day (tired body sleeps better)
4. Don't drink soda or beverage with caffeine (especially in the afternoon and at night)
5. Avoid big meals right before bedtime (choose a light healthy snack like fruit before bed)
6. Have a bed time routine (relaxing habits like a warm shower or reading so your body knows its time ...to get ready to sleep)

OBESITY & NUTRITION TOOLKIT

WAYS TO IMPROVE A CHILD'S SELF-ESTEEM AND CURB CHILDHOOD OBESITY.

When dealing with pediatric obesity, we encounter kids and teens with low self-esteem almost daily. Many reduce the chronic medical condition of obesity to numbers – BMI, amount of weight lost, amount of weight gained. What is often left out is the interaction between self-esteem, mood and emotional eating. We have met many kids who tell the same story: Teasing or bullying about their weight happens at home or at school, makes them feel sad and depressed and causes them to look for comfort in high-calorie, processed foods, leading to weight gain. This often results in negative thoughts about themselves, lack of self-confidence and low self-esteem.

These kids don't feel they are able to change their eating habits or increase their physical activity because they always fail. They say they are used to failing and think the failures are their fault, even if they are not. If this sounds like a child you know, the following tips might be helpful to kickstart their self-esteem and begin to help put them on the road to being healthy.

8 WAYS TO IMPROVE A CHILD'S SELF-ESTEEM AND CURB CHILDHOOD OBESITY

- **Focus on self-esteem!** Shift the attention away from weight and towards self-esteem. Doing this can help change a child's weight without directly focusing on it.
- **Talk about health, not weight.** Learning how to be healthy is a wonderful goal for all children and does not promote stigmas about body shape/size or create the association that excess weight equals bad.
- **When talking about health, use positive language**, such as saying, "Vegetables are a healthy choice for our bodies." Avoid saying things like, "Potato chips are unhealthy and bad for us."
- Consider enrolling your child in a program that addresses self-esteem and poor body image with the added benefit of increasing physical activity, like a running club or scouting activities. **Participating in non-competitive physical activity often increases a child's feelings of selfworth**, regardless of weight.
- **Use praise to bring attention to your child's healthy decisions.** Praise should always be specific and behavioral. For example, if your child chooses to snack on apples and peanut butter instead of chips, say, "Picking apples and peanut butter was a very healthy choice for your body and will give you lots of good energy!" Avoid simply saying, "Good job. " By adding specific details to the praise, you help your child learn which behaviors they should do more of and help them develop a sense of mastery.
- **Start small.** Help your child create a small, achievable daily goal (such as adding a fruit or vegetable to their packed lunch or walking to the neighbor's house and back) and give them praise when they complete the goal. Begin to add onto the goal gradually, helping them realize that they can accomplish these goals.
- If you notice that your child reaches for extra snacks or larger portions after having a stressful day, talk to them about it and listen to what they say. Give them an opportunity to talk about their feelings and help them **develop different ways to cope with their feelings that do not involve food.**
- **Model healthy behaviors**, such as the use of age-appropriate coping skills for sadness, stress or worry. Eat fruits and vegetables, as well as a range of other healthy foods. Talk positively about yourself and avoid saying things like "I'm stupid" or "I'm dumb" even if you feel that way. If you think your child needs additional help with self-esteem and weight, talking to your child's doctor is often the first step. They may refer you to a counselor or psychologist who can help.

OBESITY & NUTRITION TOOLKIT

MINDFUL EATING/ TYPES OF HUNGER

Stress eating is a common response to periods of heightened stress and uncertainty. Many factors may be triggering you or a loved one to stress eat in response.

RECOGNIZING YOUR HUNGER SCALE TO DEVELOP MINDFUL EATING

HUNGER AND FULLNESS SCALE

Become a mindful eater. Use this scale to check in with your natural hunger and fullness signals.

Eat when you are at a 3 or 4.
Stop eating when you are at a 5 or 6.

- 

1. Starving, dizzy
- 

2. Very hungry, irritable or headache
- 

3. Hungry, growling stomach
- 

4. Beginning to feel hungry
- 

5. Comfortable, neither hungry nor full
- 

6. Satisfied
- 

7. Full, slightly uncomfortable
- 

8. Stuffed, uncomfortably full
- 

9. Very uncomfortably full, need to loosen pants
- 

10. Feeling sick