Chapter 3
What is Healthy Food?
Before 1940 most of the food we ate was “whole”, meaning that it had little or no processing. Farming was organic—that was just how things were done.

After 1945, our agricultural system became more specialized—farmers increasingly focused on growing just one crop and not integrating plants and animals on the same farm. Farmers began to use more pesticides and synthetic fertilizers. Meat producers began to raise animals in confined spaces on diets that weren’t natural for them. They also started to use hormones to stimulate growth. Antibiotics were used to keep the animals from getting sick in the confined spaces. More recently, genetic engineering is creating plants that combine DNA from other, different plants, animals and bacteria.

At that same time, our food started to come in packages and contained chemicals to make it last longer when traveling or sitting on a store shelf. Fast food became part of our world.

Not all of these changes to the food system have helped us.

This chapter describes food that is healthy for our bodies, our communities and our Earth. You’ll find some strategies to save money, but the best way to save money and to have delicious, healthy food is to prepare it at home. Yes, cooking takes more time, but it’s worth the effort.

Every healthy choice you make provides everyone in your family with a better diet, and also helps protect the environment.
A healthy diet includes whole, unprocessed food.

**What is whole, unprocessed food? It...**
- can be identified as what it is: an apple, a carrot or a piece of chicken.
- is simply packaged or unpackaged: fresh fruit, vegetables, meat and dairy products, rice, whole grains, whole-grain flours, beans.
- has no ingredient list—the food IS the ingredient.
- is food your great-grandmother would have recognized.

**What’s good about whole, unprocessed food? It...**
- contains the full range of nutrients your body needs including vitamins and minerals, as well as important nutrients (phytochemicals and micronutrients, see Glossary, page 186) that we’re just now learning about.
- is generally less expensive than processed foods.

**What’s bad about processed food? It can...**
- contain added chemicals that do your body no good and could do harm.
- have extra sugar and fat that contribute to obesity.
- have extra salt that contributes to high blood pressure.
- depend on highly subsidized corn and soy products that are often genetically modified (GMOs).
- be made from ingredients that contain pesticide levels that are not good for you and kill beneficial insects such as bees and butterflies.
- be over-packaged, which consumes energy and creates waste.
Despite a goal of eating only unprocessed food, there are probably some packaged foods we still have to buy. What strategies can we use to avoid the worst ingredients in processed food? Look at the ingredient list on the container and choose the products with:

- names you can pronounce—they’re more likely real food, not chemicals.
- ingredients that you might have in your cupboard. For example, you probably have flour but not butylated hydroxyanisole or sodium carboxymethyl cellulose.
- food items that don’t have much sugar, fat and salt.
- fewer ingredients.

See “Food Labels,” page 190, to help you understand what is in the food.

### Comparison of Two Peanut Butters

<table>
<thead>
<tr>
<th>Peanut Butter Number 1</th>
<th>Peanut Butter Number 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roasted peanuts</td>
<td>Roasted peanuts</td>
</tr>
<tr>
<td>Sugar</td>
<td>Hydrogenated vegetable oils (cottonseed, soybean and rapeseed)</td>
</tr>
<tr>
<td>Salt</td>
<td></td>
</tr>
</tbody>
</table>

The added ingredients are sugar, fat and salt and can be bad for your health.

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**Why Are All These Extra Ingredients in the Packaged Food?**

Preservatives help the products last longer on the shelf. Extenders make the products bulkier. Artificial colors make the food look fresher or more appealing. Artificial flavors change the taste. None of these adds to the food value. In fact, some ingredients such as added sugar, salt and fat may make the food more addictive and worse for your health.
**Fresh and In-season Food**

Fresh and in-season food tastes better and is better for you. Consider choosing what to buy based on the season—buy peaches in the summer, switch to apples in the fall and citrus in winter. In-season foods will also cost less than out-of-season ones.

**How to Tell if It’s In-season Food**

If it’s fresh and from:

- the U.S., Mexico or Canada
- a local farm
- your garden

Labels on the store shelf or stickers on produce give the origin of the food. The food distributor is usually listed, but look for the “made in” or “produced in” or “product of” wording. Ask your grocer to provide that information if it isn’t obvious.

**Other Options: Frozen, Canned and Dried**

People have been preserving food for thousands of years. Now more people are preserving their own food, as they are growing more of their own food. Commercially preserved food can also be a good option, but when food is fresh and in-season, choose that first.

- Frozen food retains most nutrients when frozen directly after harvest. It keeps its color well and has a fresher taste than canned food.
- Canned food doesn’t need refrigeration, and is an alternative. It often has a lot of added salt. Compare products and choose the one with lower salt. If the food is still high in salt, rinse it before using. If organic options are available, buy those whenever possible.
- Dried food stores well and is convenient. Raisins and dried fruit are handy snacks, for instance.

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*Why Is Food From the Southern Hemisphere Fresh in the Winter Here?*

When it’s winter in the U.S., it is summer in the Southern Hemisphere in countries like New Zealand, Chile, Ecuador and Argentina. That’s why we can get summer crops, like peaches, from South America during our winter. These foods travel long distances using lots of fossil fuel and adding CO₂ into the air.
Most beef, pork and poultry in the U.S. is raised in factory farms, also called “Concentrated Animal Feeding Operations” (CAFOs). There is, however, an increase in the number of farms raising meat in the traditional way—in open fields on grass or other food natural for the animal. If the meat at the market isn’t labeled pasture-raised, grass-fed or organic, it almost certainly comes from a CAFO.

Pasture-raised meat is not available everywhere and is usually more expensive. Over time, customer demand may change this, but for now, many of us have few options. Do the best you can.

**Benefits of Pasture-raised Meat**

- Animals that have been fed well produce more nutritious meat.
- Animals have a better life and eat food that is natural for them.

**Problems with Factory-farmed Meats**

- Animals are usually treated cruelly.
- Animals are fed antibiotics to combat their unnatural diets and unsanitary housing. This has created disease bacteria that are now resistant to antibiotics. In people, resistant bacteria can cause illness that antibiotics will not cure. *E. coli* is one example that’s often in the news.
- CAFO meat has higher levels of bad fats and lower levels of good fats.
- CAFOs are a serious source of water, air and soil pollution.

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**Pasture-Raised Meat Can Be Affordable**

- Buy only what you need. Most of us eat about twice what our bodies need. Less than half a pound daily of animal protein (or three cups of grains, beans and legumes) will maintain optimal health.
- Instead of buying packaged meat, ask the butcher to make a package with just the amount you want.
- Use meat as an ingredient, not the main course. Include meat in stews or soups along with beans, grains or vegetables.
Many world cultures depend on a mostly plant-based diet. Some add eggs, dairy and fish. These are all good sources of protein.

A Plant-based Diet

- Provides the protein your body needs. When it comes to nutrients, your body doesn’t know beef from beans.
- Helps with weight loss, and improves overall vitamin absorption.
- Costs less than a meat-based diet.
- Includes a wide variety of high-protein foods such as nuts, seeds, beans, legumes, some grains and tofu.

Egg and Dairy Products . . .

- can save you money.
- are available from many types of stores.
- offer many creative meatless meal possibilities.

Fish

- Is a healthy source of protein, but needs to be selected carefully.
- When canned, fish such as tuna and salmon are convenient and ready to eat.

Problems with Fish

Fish is frequently farmed. Some types of farmed fish are healthy for your body and the Earth, but many are not. The issues with farmed fish are:

- Interbreeding with wild fish, thereby destroying native species.
- PCB (see Glossary, page 186) and antibiotic contamination of wild fish from fish farms
- Water pollution

Many wild fish species may be, or are currently, overfished and in danger of becoming extinct.

The Monterey Bay Aquarium’s Seafood Watch is a good guide for the “Best Choice,” “Good Alternative” and “Fish to Avoid.” http://www.seafoodwatch.org/
Excess sugar, fat and salt are the main dietary causes of obesity and obesity-related diseases such as type 2 diabetes, heart disease, high blood pressure and cancer. The current generation of children has a shorter life expectancy than their parents. Much of the problem is due to what the children are eating.

Extra salt, fat and sugar sneaks into our diets through processed snack foods and sugared drinks. Too much of these foods is bad. Moderation is the key.

Children don’t always recognize the negative consequences of eating extra sugar, fat and salt, so it’s important to give them healthy snack and drink options.

For delicious snack and drink options, pack...

• trail mix you’ve made with items from the bulk bins at the market.
• homemade muffins or cookies that include fruit and vegetables and lower sugar and fat levels.
• a selection of nuts.
• fresh fruit. Buy extra when it’s in season and dry it for a convenient snack. Make your own fruit leather (see page 134).
• bags of home-popped popcorn. Make up your own bags of microwave popcorn (see page 144).
• water, sparkling water, vegetable juice, diluted fruit juices, or milk instead of soft drinks, energy drinks and sugary flavored waters. Ideas for low-sugar flavored waters are in the recipe chapter on page 140. A special note on energy drinks: they also contain high levels of stimulants that may be harmful to kids.

In ancient times, when food was scarce, the best strategy to survive was to get fat when there was food and hope you didn’t starve when there was none. For this reason, it’s natural for humans to like sweets and fats, which are rich in calories. Salt was crucial to replenish sweat from hard work. Nowadays we lead less harsh and more predictable lives, but we still need these three—in moderation!
What is Healthy Food?

The Evil Trio: Sugar, Fat and Salt

Why is it easy to eat too much sugar, fat and salt?

- Manufacturers heavily advertise foods that contain these items. Look at kids’ TV programming and count how many foods fall into this category.
- These products are sold everywhere. Is it easier to find a soda or a fresh carrot?
- These foods are addictive.
- They are cheap because they often use government-subsidized corn and soybean products, including high-fructose corn syrup. Fresh fruits and vegetables have little or no subsidy. Reversing the subsidies would help make healthy food less expensive and unhealthy food more expensive.

Find the Hidden Sugar

How do you spell “sugar”? Look at package labels and find how much sugar processed food really contains.

Here are some other names for sugar:

- Barley malt
- High-fructose corn syrup
- Corn syrup
- Maple syrup
- Glucose
- Maltodextrin
- Sucrose

- Brown sugar
- Powdered sugar
- Raw sugar
- Honey
- Molasses
- Fructose
- Dextrose
- Lactose

Kitchen Test

There are about 17 teaspoons of sugar in a 20-ounce soda. Get a teaspoon and bag of sugar and measure this into a bowl.

Next, pour the sugar into 20 ounces of water and taste it. What do you think?

If you drink three 20-ounce sodas a day, that’s 720 calories, or almost half of all the calories you need in a day.

Amount of Sugar you Consume if you Drink 1, 2 or 3 20-ounce Sugary Drinks a Day

<table>
<thead>
<tr>
<th>17</th>
<th>34</th>
<th>51</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaspoons of Sugar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What!!!
Fast food can make you sick!
It’s bad for you!
That food is so filled with sugar, fat and salt that it’s even addictive. It can cause obesity, which leads to other diseases, like type 2 diabetes, heart disease, cancer, high blood pressure, and a shortened life. Yuck!
You can avoid these problems if you eat healthy snacks like fresh fruit, vegetables, and trail mix.
And by the way, lay off those sugary drinks!
Did You Know?

- The average person eats almost 100 pounds of added sugar a year – that’s about one quarter of a pound of added sugar a day!
- Soda is the #1 source of added sugar in the American diet.
- Over 30% of all calories from added sugars consumed daily are from sweetened beverages.
- Extra calories from all this sugar may lead to weight gain, putting people at risk for lifelong health problems such as diabetes and heart disease.
- 2 out of 3 Americans are overweight or obese.

Be Sugar Savvy!

Take a look at how much sugar is in these popular drinks:

<table>
<thead>
<tr>
<th>Drink</th>
<th>Calories</th>
<th>Teaspoons of Sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soda 20 oz.</td>
<td>250</td>
<td>17</td>
</tr>
<tr>
<td>Orange Drink 16 oz.</td>
<td>260</td>
<td>15</td>
</tr>
<tr>
<td>Sweetened Tea Drink 20 oz.</td>
<td>220</td>
<td>13</td>
</tr>
<tr>
<td>Tamarindo Big Pouch 13.5 oz.</td>
<td>186</td>
<td>12</td>
</tr>
<tr>
<td>Grass Jelly Drink 11.25 oz.</td>
<td>152</td>
<td>9.5</td>
</tr>
<tr>
<td>Sports Drink 11 oz.</td>
<td>143</td>
<td>8.6</td>
</tr>
<tr>
<td>Water 20 oz.</td>
<td>140</td>
<td>0</td>
</tr>
</tbody>
</table>

Challenge yourself to make a difference in your health.
Commit to drinking:

- Water
- Non-fat or low-fat milk
- Unsweetened iced tea
- 100% fruit juice in limited amounts

Commit to drinking water or unsweetened beverages!

I, __________________, will drink water instead of sugary drinks this month. (print your name)

Keep track of your healthy drink days! Check ✓ a box for every day that you drink water instead of sugary drinks.

WRITE IN THE DATES: SUN MON TUE WED THU FRI SAT

Week:

Week:

Week:

Week:
Real Dairy Products

- Choose real cheese. Processed cheese is less than 51 percent milk and may be mostly vegetable oil.
- Use plain yogurt, or make your own. Commercially flavored yogurt contains excess sugar and many additives, including “natural” flavorings that can be questionable (see sidebar). Add your choice of fresh fruit to plain yogurt.

Whole Grains

- Whole grains are the entire seed and include wheat, corn, brown rice, oats, barley, sorghum, spelt, rye and more (See “Grains of the World, page 96).
- The original outer layer of the grain contains healthy fats and vitamins that get lost in the milling process. “Enriched” grains have some, but not all, of the nutrients added back in an artificial form.
- White flour is so highly processed that it is like sugar—nearly pure carbohydrate that contributes to obesity, diabetes and heart disease.
- Eating whole grains reduces the risk of obesity, diabetes, heart disease, stroke and cancer.

Weird Source of Natural Fruit Flavors

Did you know that some yogurts, ice creams and candies are flavored with castoreum? This natural flavor enhancer comes from an anal gland of beavers. Flavor manufacturers extract it from the glands of beavers that have been killed for their fur.

The word “natural” can mean a lot of things! How about just using real fruit instead of stuff from beavers’ butt glands?

Popcorn is a whole grain!
The labels “organic” and “certified organic” have legal definitions, so you know what you are buying. Organic food does not contain pesticides, hormones, antibiotics, artificial ingredients or Genetically Modified Organisms (GMOs). Buying organic is a way to assure yourself that you will not be affected by the negative aspects of these substances.

**When available and affordable, consider buying organic because it...**

- contains no pesticide residue.
- is safer for farmers and farm laborers because no toxic chemicals are used.
- does not cause water pollution because it does not contribute excessive fertilizer to the water system, thus preventing ocean dead zones.
- does not destroy topsoil, as does much of industrial farming.
- does not create air pollution produced by the use of synthetic fertilizers.

**To Save Money**

- Shop for organic food at a co-op.
- Grow your own food.
- Use money-saving tips for buying directly from the farmer (see pages 18 and 19).
- Check price of organics at big-box stores. Look for the U.S. Department of Agriculture (USDA) approved organic label.
- Buy organic. If more people demand organic foods, it will again become more available and prices will drop.

**What About Buying Products labeled “Natural”?**

Unlike organic, “natural” has no legal definition—good, bad or neutral. However, the word “natural” has been hijacked by advertisers to convince consumers that natural is equal to organic. It isn’t. Read the ingredients on all food labels to know what you are buying. (See page 190)

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**Organic**

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36 What is Healthy Food?
Organic food is not available everywhere and can be more expensive than industrially grown food. Do your best to buy organic when you can.

Where to Put Your Money If You Can’t Buy All Organic

Some foods have more pesticide residues than others. Use the tables on the right to help decide where organic is most important to reduce pesticide exposure. The list shows conventionally grown foods with the highest and lowest pesticide levels. Go to the Environmental Working Group’s website (www.ewg.org) to learn more and download a pocket guide to keep in your wallet when you’re shopping.

Other Ways to Reduce Pesticide Exposure:

• Trim outer portions of leafy vegetables and peel root vegetables.
• Wash all produce before eating.
• Buy produce grown in the U.S. that’s regulated by the USDA.

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Genetically Modified (GMO) Food

GMOs are genetically modified organisms. This means the genetic code (DNA) in plants, animals or bacteria have been changed or mixed together. Genetic modifications allow big companies to profit from seed and pesticide sales. GMO seeds are more expensive for farmers and often require the use of specific pesticides manufactured by the company that produced the seeds.

Are GMOs safe? This is what we know:

- GMOs have not been proven to be safe for animals or humans.
- There is conflicting but growing evidence as to whether GMOs can cause health problems, especially in children.
- GMOs increase the use of pesticides.
- Some GMO foods contain bacterial genes that create an insecticide inside the food itself. If the insecticide is in the food, you can’t wash it off. You eat it!
- GMOs can cross pollinate with, and contaminate, non-GMO plants.

As products containing GMOs are not usually labeled in the U.S., the only way to guarantee their absence in your food is to buy USDA Organic or grow your own food from organic seeds.

The most common GMO foods are…

- corn, cornstarch and corn syrup, including high-fructose corn syrup
- cottonseed and canola oils
- soy products
- beet sugar

These foods are also the most common ingredients in processed foods, including most snacks and sugary drinks. Most conventional (non-organic) processed foods contain GMOs. Avoiding processed food products will lower your exposure to GMO foods.