

HOW TO CONTROL YOUR HYPERTENSION

LEARNING TO CONTROL YOUR SODIUM INTAKE



UTHealth
The University of Texas
Health Science Center at Houston
School of Public Health
El Paso Regional Campus

CDC
CENTERS FOR DISEASE
CONTROL AND PREVENTION

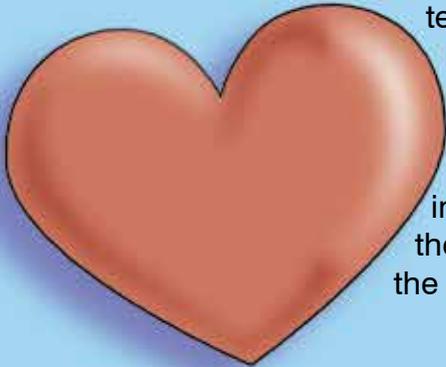
NUMBER 2 OF THE SERIES:
HOW TO CONTROL YOUR
HYPERTENSION



Acknowledgments

This fotonovela is part of the program “Promotoras de salud contra la hipertensión” and is number 2 in the series “Cómo controlar su hipertensión”. Raymundo and his family would like to invite you to read this fotonovela and learn about how to control sodium in your diet. This fotonovela can be integrated in many community health worker promotora programs working to control blood pressure in many Hispanic/Latino communities.

We would like to thank the Centers for Disease Control and Prevention project team of: Drs. Nell J. Brownstein, Carma Ayala and Dawn Brewer for their support and leadership.



The content of the fotonovela was developed by Claudia Méndez. Other members of the team included Mónica Chávez and Blanca Méndez and the promotoras de salud from AYUDA who helped in the development and focus groups activities.

Sincerely:

Dr. Héctor Balcázar
Principal Investigator
University of Texas
School of Public Health
El Paso Regional Campus

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Illustration and design by Salvador Sáenz

For more information about this fotonovela please contact doctor Balcázar at Hector.G.Balcazar@uth.tmc.edu or 915 747-8507

Introduction to the Ramirez Family

Raymundo: 55 years of age recently diagnosed with hypertension.



Doña Fela: Raymundo's mother, 75 years old.



Olivia: Community Health Worker, 45 years of age.



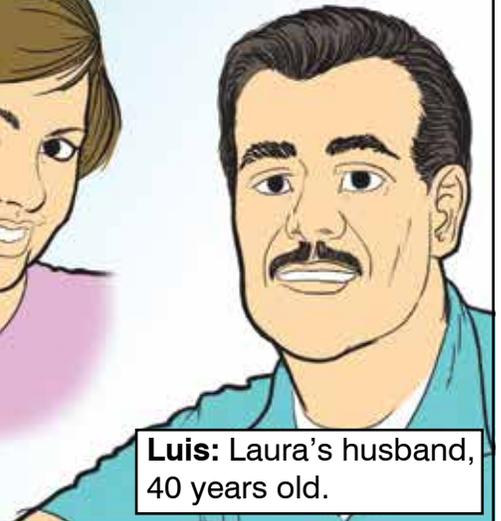
Paulina: Raymundo's wife, 55 years old.



Laura: Raymundo's eldest daughter, 32 years old.



Luis: Laura's husband, 40 years old.



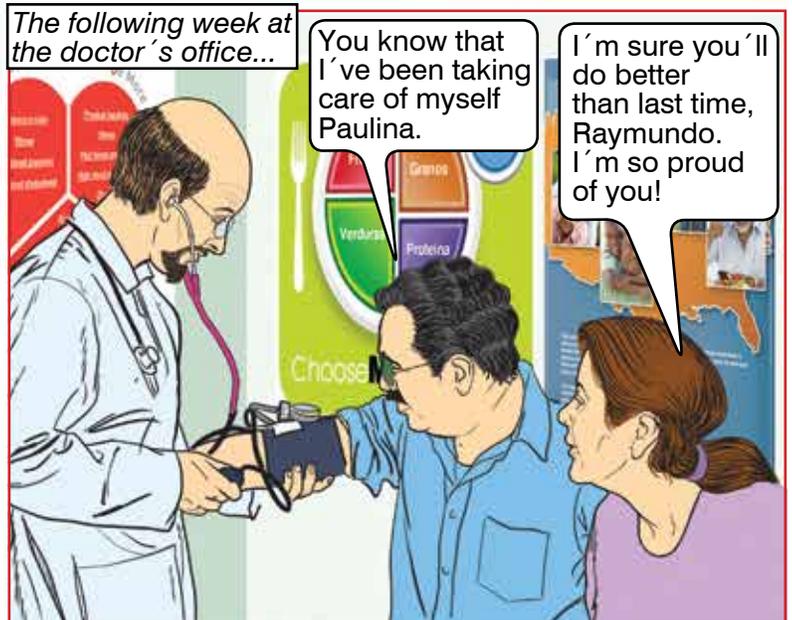
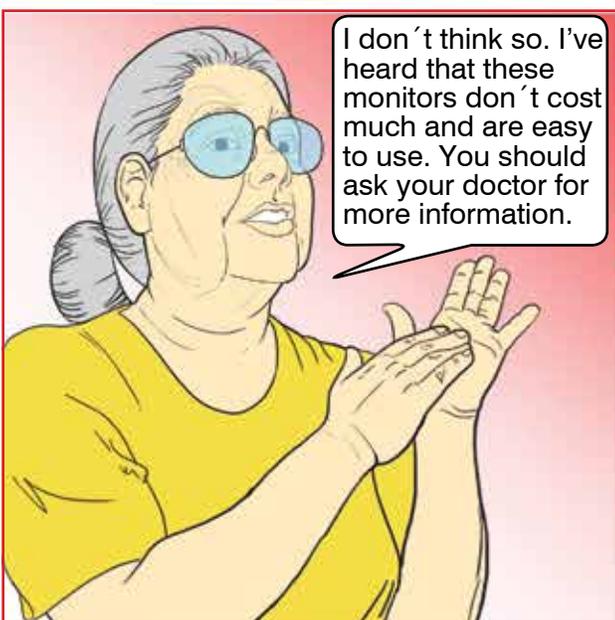
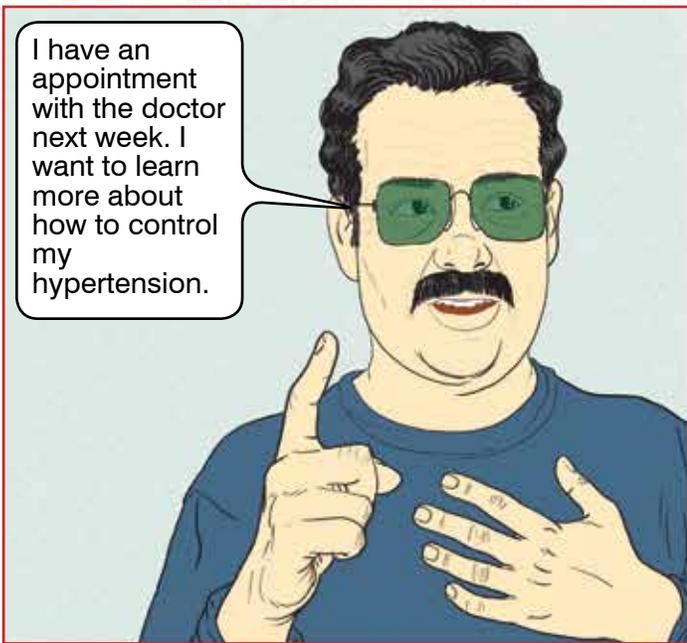
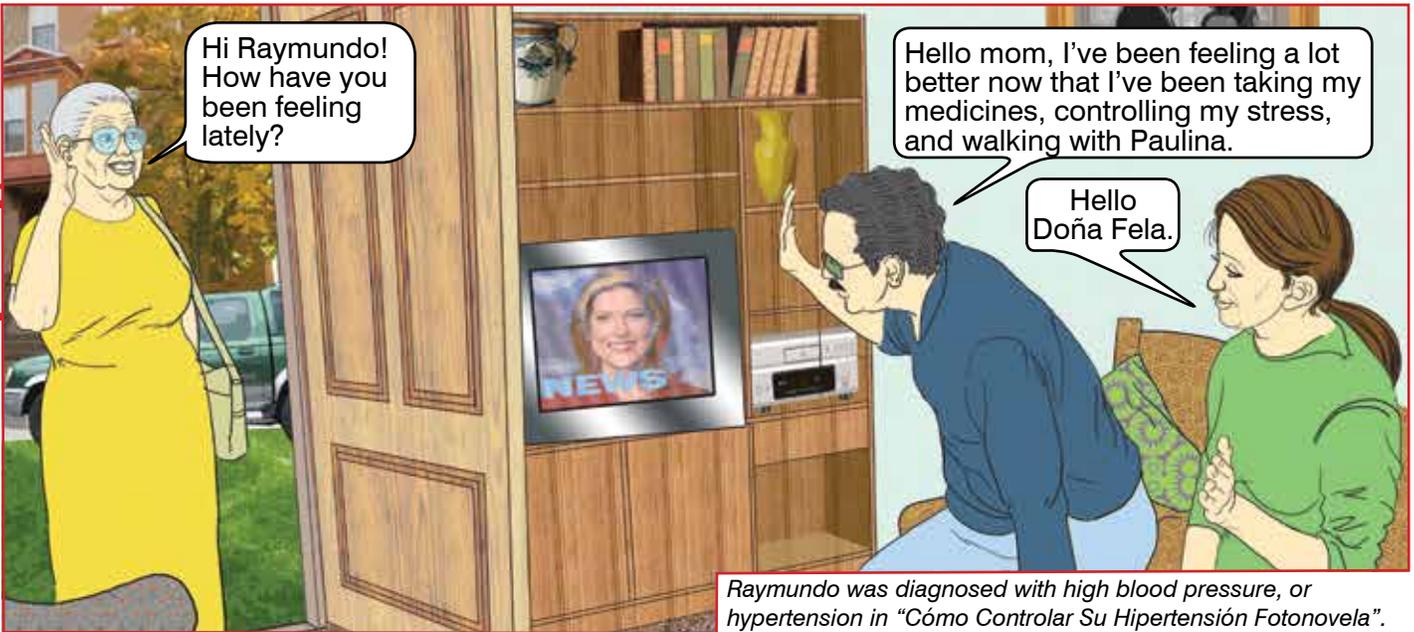
Carla: Raymundo's youngest daughter, 25 years old.

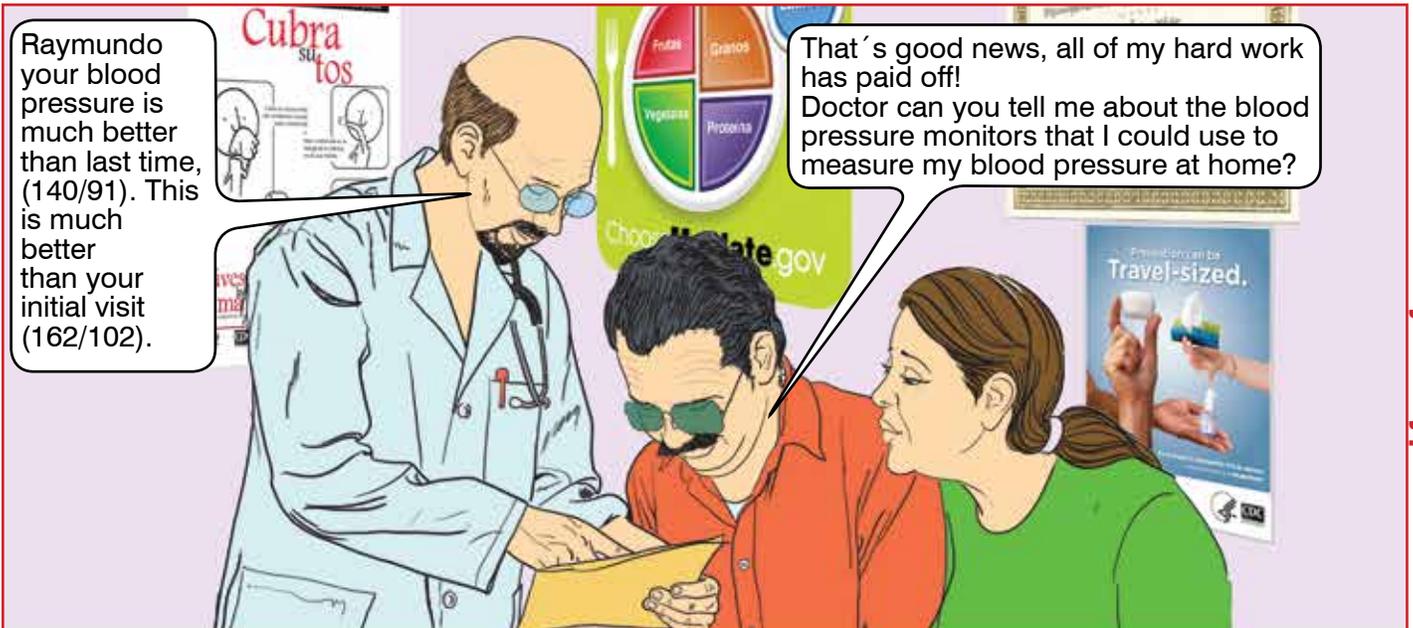


Carmen: Laura and Luis' daughter, 11 years old.



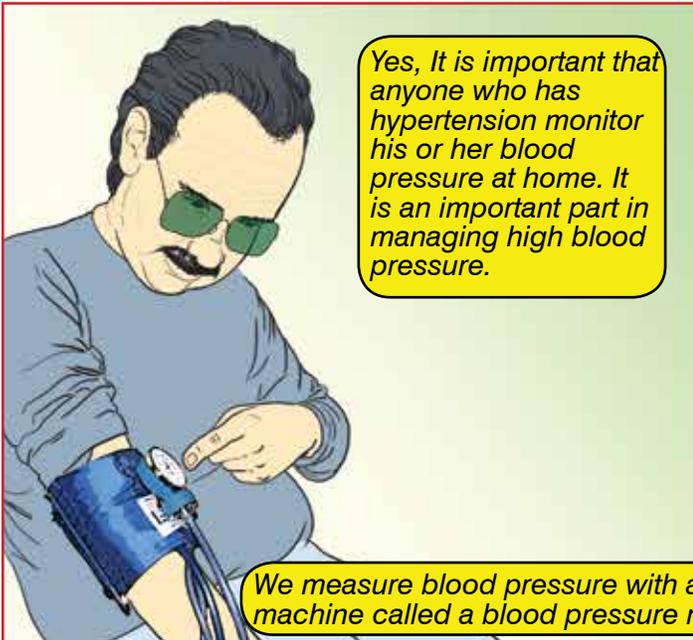
Pedro: Laura and Luis' son, 7 years old.





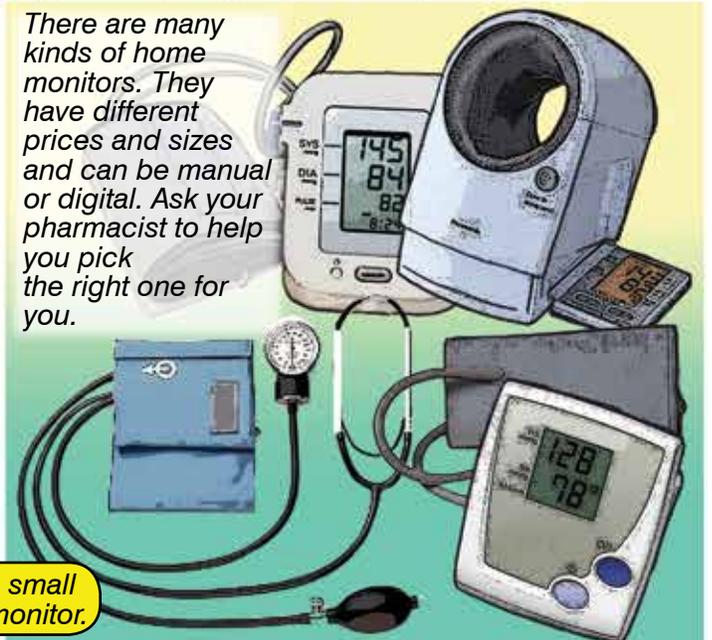
Raymundo your blood pressure is much better than last time, (140/91). This is much better than your initial visit (162/102).

That's good news, all of my hard work has paid off! Doctor can you tell me about the blood pressure monitors that I could use to measure my blood pressure at home?



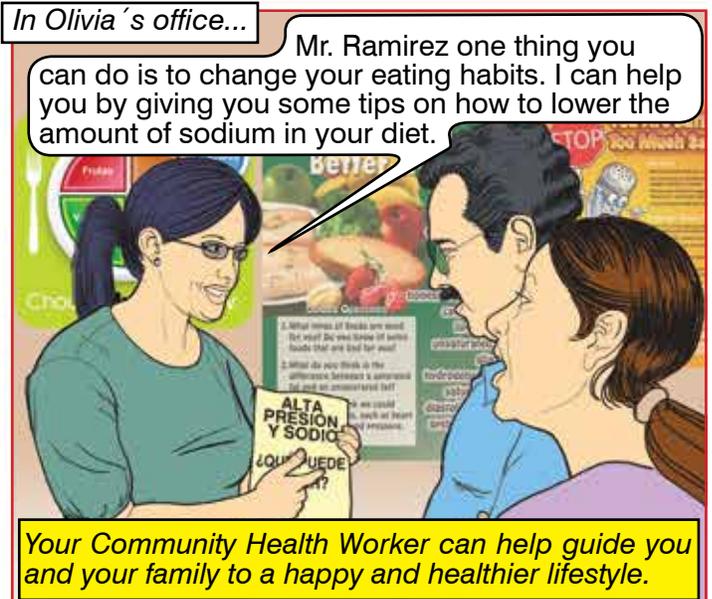
Yes, It is important that anyone who has hypertension monitor his or her blood pressure at home. It is an important part in managing high blood pressure.

We measure blood pressure with a small machine called a blood pressure monitor.



There are many kinds of home monitors. They have different prices and sizes and can be manual or digital. Ask your pharmacist to help you pick the right one for you.

In addition to limiting alcohol and sodium in the diet, it is also key to avoid tobacco, keep a healthy weight, and take part in regular physical activity to control blood pressure. Olivia our Community Health Worker will give you some information about how to live with less sodium.



In Olivia's office...

Mr. Ramirez one thing you can do is to change your eating habits. I can help you by giving you some tips on how to lower the amount of sodium in your diet.

Your Community Health Worker can help guide you and your family to a happy and healthier lifestyle.

It is important to know how much sodium is in the food you eat. Most packaged and canned food have a lot of sodium. We get the majority of the sodium in our diets from processed and restaurant foods. These foods include smoked, cured meats such as bacon, sausages, hot dogs, baloney, and fried meats like hamburger.

Here are some popular foods that can be high in sodium. Many of these foods can be found in low-sodium or no salt added versions. You can choose foods with lower amounts of sodium. We will talk about how to read the Nutrition Facts label on products to find out how much sodium is in the foods you are eating.



1 medium serving of french fries.



1 burger double meat with cheese.



1 chorizo link pork and beef.



1 small bag of potato chips.



1 plate of flautas with rice and beans.



1 meat taco.



4 pork meat tamales.



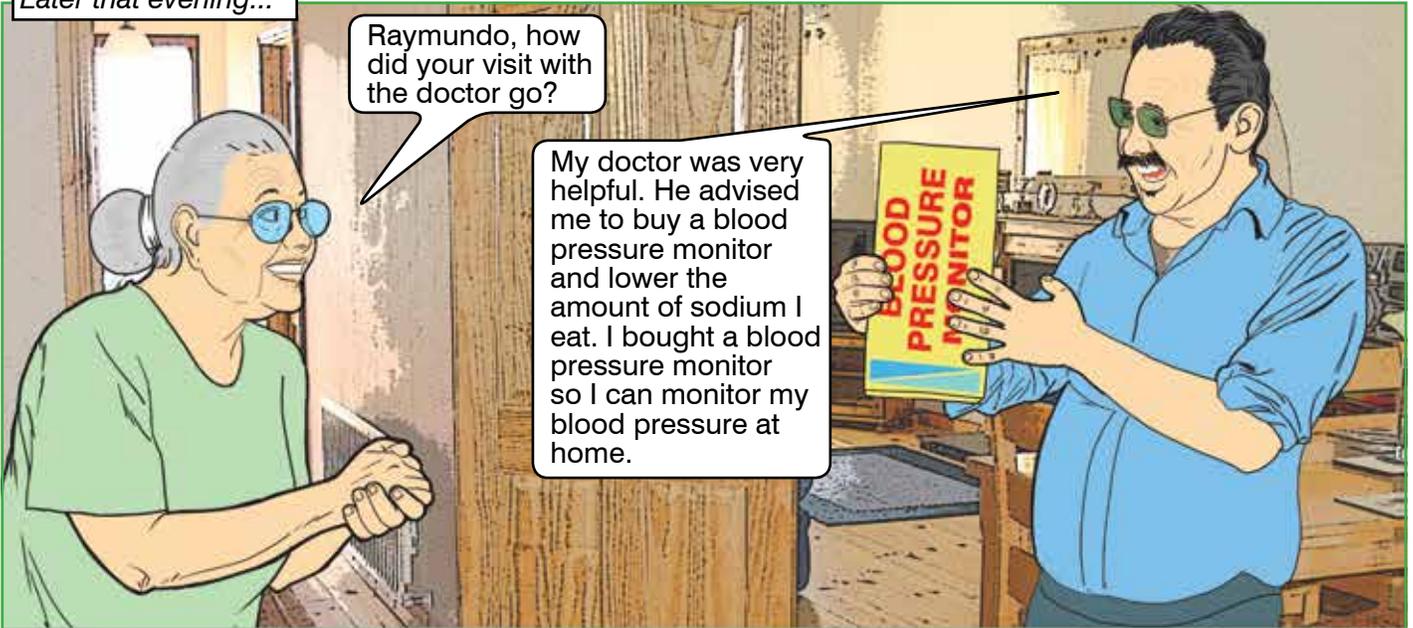
1 medium plate of menudo.



One cup of instant noodles.

Other food high in sodium includes canned soups and fish, potato chips, fries, most types of cheese, tomato juice, frozen meals, breaded or fried foods, salad dressings, cottage cheese, crackers, salted nuts, pretzels, pickles, and quick-cooking rice and noodles.

Later that evening...

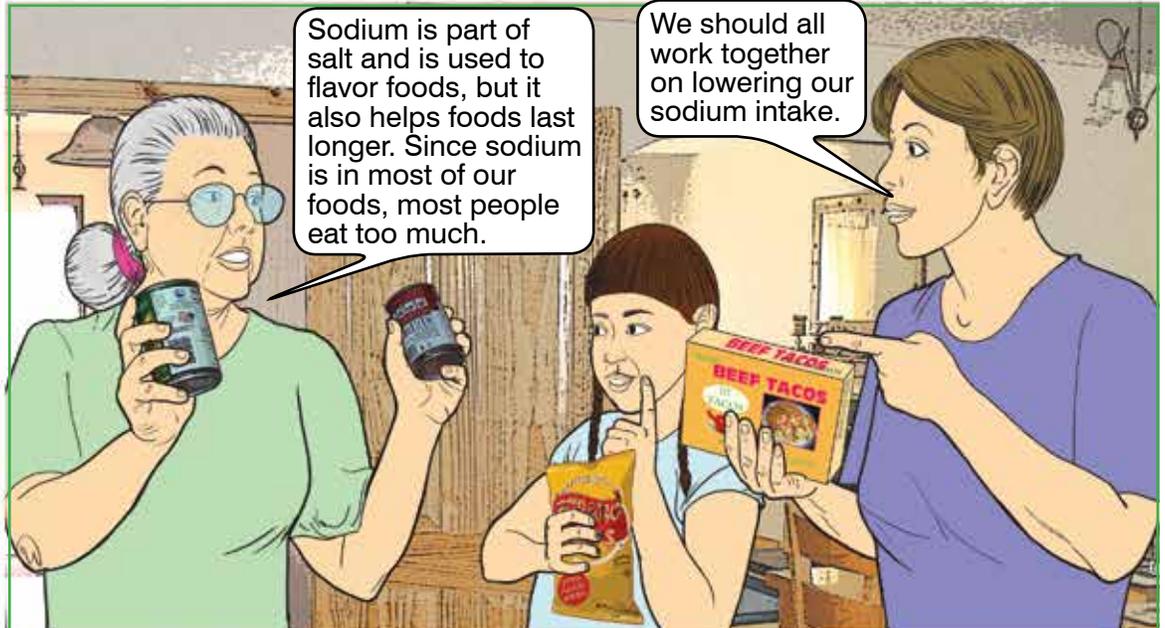


Raymundo, how did your visit with the doctor go?

My doctor was very helpful. He advised me to buy a blood pressure monitor and lower the amount of sodium I eat. I bought a blood pressure monitor so I can monitor my blood pressure at home.



WHAT IS SODIUM?



Sodium is part of salt and is used to flavor foods, but it also helps foods last longer. Since sodium is in most of our foods, most people eat too much.

We should all work together on lowering our sodium intake.



Let's talk with Olivia the Community Health Worker, she may be able to help us choose foods lower in sodium the next time we go to the grocery store.

That is a great idea. It is important that the whole family should eat less sodium.

Thank you for your help. Your encouragement and support will make this a lot easier for me.

Blood Pressure Record

Know your Numbers!

Each blood pressure reading has a pair of numbers showing the highest and lowest pressure during each heart cycle. The higher number is called the systolic pressure and the lower number is called the diastolic pressure.



Normal blood pressure is less than:

Systolic

120
80
May / 15 / 2013

Diastolic

Write down your blood pressure the next time you visit your doctor or check your blood pressure at home.

Start

End

Explanation:

At the beginning write down your systolic blood pressure in the upper left hand corner and your diastolic blood pressure in the lower right hand corner in the box labeled START.

Once you are done, record your goal blood pressure in the last box. This number should represent the blood pressure you will be aiming for throughout this program.

Now, take this sheet home with you. Everytime you take your blood pressure, either at home or at the doctor's office, record them in the boxes above. Bring this sheet with you during your next class.

Take your reading at the same time each day. Don't drink coffee or exercise 30 minutes before measuring. Sit still in a chair and support your arm in front of you (level with your heart). Keep your feet flat on the floor. Wrap the cuff snugly around your upper arm, just above your elbow.



Additional information and activities are available in our previous fotonovela "Cómo controlar su hipertensión".

If you do not have a monitor at home, visit your local pharmacy for a public blood pressure monitor. This may not be as accurate as an at home blood pressure monitor.

You may be able to get your blood pressure taken at your local fire department by a trained fireman. Ask your Promotora/Community Health Worker about other places where you may have your blood pressure taken at no cost.

Go to this web site to learn more about taking blood pressure at home

http://www.heart.org/HEARTORG/Conditions/More/ToolsForYourHeartHealth/Cardiovascular-Conditions-Video-Library_UCM_432751_SubHomePage.jsp

That weekend at the supermarket.

Olivia has been studying the "Su Corazón, Su Vida" manual and will help us identify sodium in different foods. She will also give us nutrition tips.

I am so excited to help you and your family learn more about sodium. There is so much we can learn!

Most sodium in our diets comes from processed foods that are canned, packaged, or frozen, such as soups, frozen meals, meats and chips, as well as from fast food, and restaurant food.



It is not only the type of food you eat, but also the amount of food that can raise your blood pressure.

It's best to break the habit of salting foods before tasting them. This habit can add a lot of extra sodium to your diet. Try taking the salt shakers off the table to help break this habit.



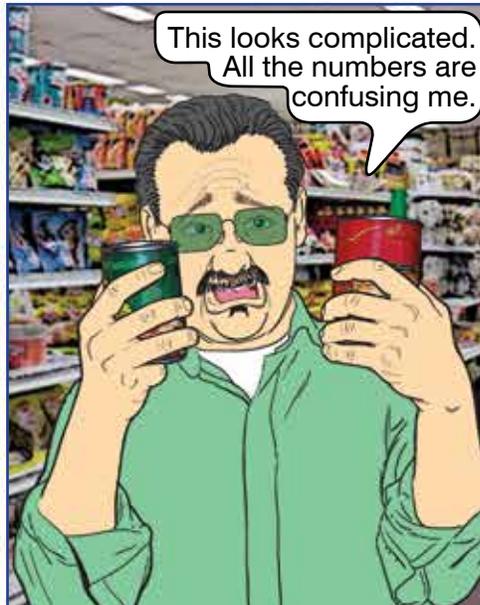
Don't add salt while you are cooking or fixing food.

If you keep salt shakers off the table you will not be tempted to add salt to your food.

Learning and knowing how to read a Nutrition Facts label is the BEST tool in choosing healthy foods.



This looks complicated. All the numbers are confusing me.



It is easier than it looks. I'll show you how easy it is to read a Nutrition Facts label.



Please!

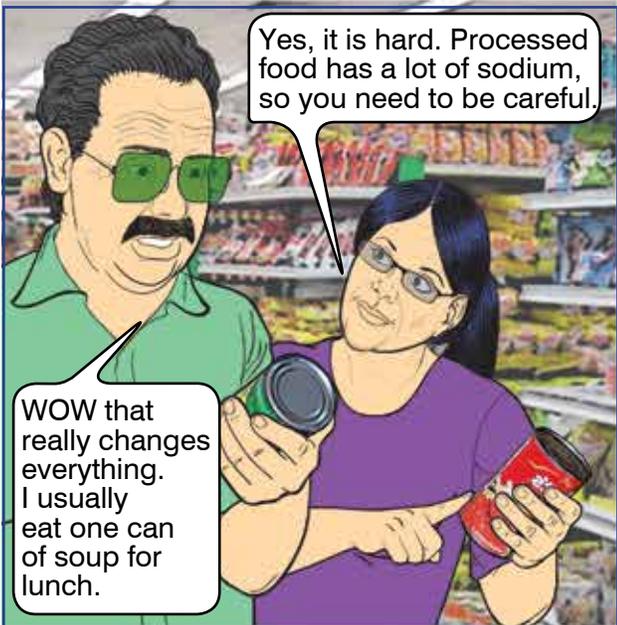
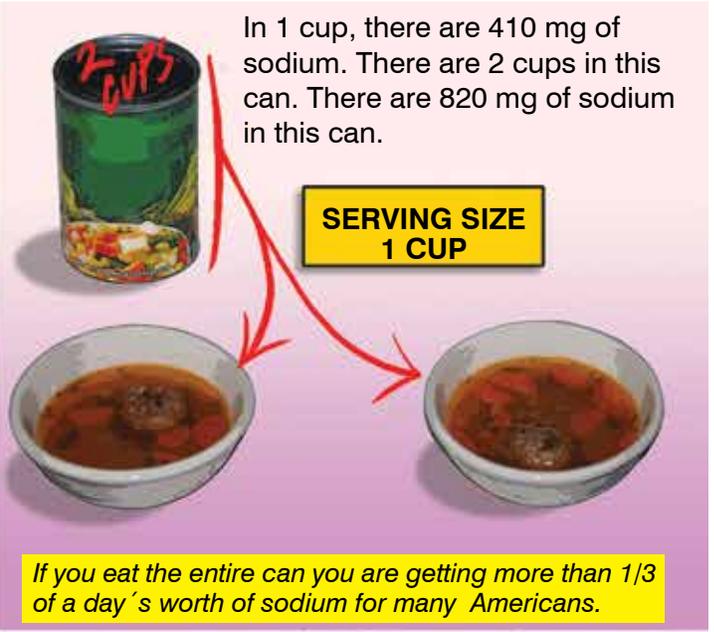
Your Community Health Worker, who knows about the amount of sodium on the Nutrition Food label, can help you.

3 Identification of sodium in foods

The Nutrition Food label tells the number of servings there are per item, the amount of calories, sodium, saturated fats, trans fats, cholesterol, and sugar per ONE serving.

Nutrition Facts	
Serving Size one cup 8 oz (340 g)	
Servings Per Container 2	
Amount Per Serving	
Calories 130	Calories from Fat 20
% Daily Value*	
Total Fat 2g	3%
Saturated Fat 1g	5%
Trans Fat 0	
Cholesterol 15mg	5%
Sodium 410mg	17%
Total Carbohydrate 10g	6%
Dietary Fiber 3g	12%
Sugars 5g	12%
Protein	9g
Vitamin A 9%	Vitamin C 112%
Calcium 10%	Iron 21%

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



According to the Community Health Worker, Raymundo needs to eat more fruits, vegetables, and whole grains. What if I started to pack him 1 cup of soup, 1 apple, 2 slices of low sodium whole grain bread and a salad for lunch?





Add up your daily sodium intake and reduce it to less than 2,300 mg for people without hypertension and 1,500 mg among people who are 51 and older and those of any age that are African American or have hypertension, diabetes, chronic kidney disease.



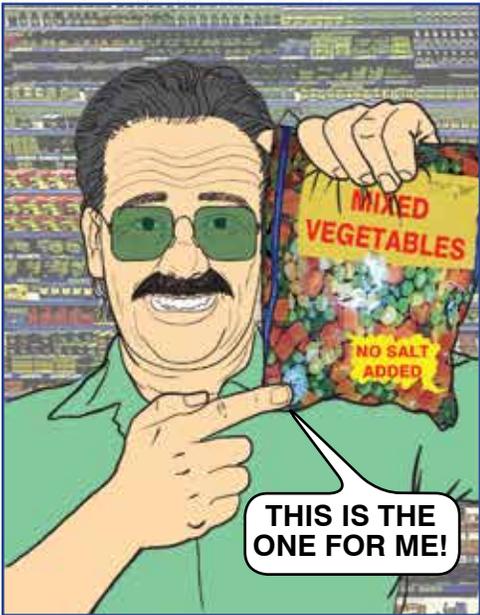
Once it becomes a habit to look at the Nutrition Facts label, it will be much easier.



Learn the meaning of the labels

- **SODIUM-FREE** = less than 5 mg of sodium per serving
- **VERY LOW-SODIUM** = 35 mg or less per serving
- **LOW-SODIUM** = 140 mg or less per serving
- **REDUCED SODIUM** = usual sodium level is reduced by 25 percent
- **UNSALTED, NO SALT ADDED OR WITHOUT ADDED SALT** = made without the salt that's normally used, but still contains the sodium that's a natural part of the food itself

"Sodium-free", "low" and "very low in sodium" are good words to look for. Don't be fooled by the words "reduced sodium", it may not be as low in sodium as low sodium or very low sodium foods.



Activity Sheet: Fill in the blank sheet comparing Nutrition Facts labels

Nutrition Facts		Amount / Serving	% Daily Value*	Amount / Serving	% Daily Value*		
Serving Size 2/3 cup (85g) Servings Per Container about 5		Total Fat	0g	0%	Total Carbohydrate	11g	4%
Calories 60 Calories from Fat 0		Saturated Fat	0g	0%	Dietary Fiber	2g	8%
		Trans Fat	0g		Sugars	4g	
		Cholesterol	0mg	0%	Protein	2g	
		Sodium	70mg	3%			
		Vitamin A 20% • Vitamin C 6% • Calcium 0% • Iron 2%					

INGREDIENTS: CORN, CARROTS, GREEN PEAS, GREEN BEANS, SALT.

Nutrition Facts		Amount Per Serving	% Daily Value*	
Serving Size 1 Tbsp (16g) Servings Per Container About 18		Calories 10	Calories from Fat 0	
		Total Fat	0g	0%
		Saturated Fat	0g	0%
		Trans Fat	0g	
		Polyunsaturated Fat	0g	
		Monounsaturated Fat	0g	
		Cholesterol	0mg	0%
		Sodium	80mg	3%
		Potassium	40mg	1%
		Total Carbohydrate	2g	1%
		Dietary Fiber	0g	0%
		Sugars	0g	
		Protein	<1g	

Nutrition Facts		Amount Per Serving	% Daily Value*	
Serving Size 3/4 cup (28g) Servings Per Container 9		Calories 160	Calories from Fat 90	
		Total Fat	10g	16%
		Saturated Fat	1g	6%
		Trans Fat	0g	
		Cholesterol	0mg	0%
		Sodium	250mg	10%
		Total Carbohydrate	15g	5%
		Dietary Fiber	1g	4%
		Sugars	3g	
		Protein	2g	

Nutrition Facts		Amount Per Serving	% Daily Value*		
Serving Size 15 chips (28g) Servings Per Container 5		Calories 150	Calories from Fat 90		
		Total Fat	10g	15%	
		Saturated Fat	2g	10%	
		Trans Fat	0g		
		Cholesterol	0mg	0%	
		Sodium	160mg	7%	
		Total Carbohydrate	10g	5%	
		Dietary Fiber	1g	4%	
		Sugars	0g		
		Protein	2g		
		Vitamin A	0%	Vitamin C	10%
		Calcium	0%	Iron	2%
		* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:			
		Calories:	2,000	2,500	
Total Fat	Less than	65g	80g		
Sat. Fat	Less than	20g	25g		
Cholesterol	Less than	300mg	300mg		
Sodium	Less than	2,400mg	2,400mg		
Potassium	Less than	3,500mg	3,500mg		
Total Carbohydrate		300g	375g		
Dietary Fiber		25g	30g		
Calories per gram:					
	Fat	9	Carbohydrate	4	
			Protein	4	

INGREDIENTS: POTATOES, SUNFLOWER OIL AND/OR CORN OIL, SALT.

Nutrition Facts		Amount Per Serving	% Daily Value*	
Serving Size 1 cup (245g) Servings Per Container About 2		Calories 190	Calories from Fat 80	
		Total Fat	9g	14%
		Saturated Fat	1.5g	8%
		Trans Fat	0g	
		Polyunsaturated Fat	5g	
		Monounsaturated Fat	2g	
		Cholesterol	5mg	2%
		Sodium	890mg	37%
		Potassium	320mg	9%
		Total Carbohydrate	22g	7%
		Dietary Fiber	2g	8%
		Sugars	1g	
		Protein	5g	

1. How many servings are there in the Nutrition Facts label #1? _____
2. How many servings are there in the Nutrition Facts label #3? _____
3. If you had 1 cup of item #5 how much sodium would you be eating? _____
4. What is the amount of sodium (mg) per serving on label #2? _____
5. How much sodium is there in 15 chips on the Nutrition Facts label #4? _____

Answers: (1.) 5 servings (2.) 9 servings (3.) 890 mg (4.) 80 mg (5.) 160 mg

This can has a total of 1,880 mg of sodium. That is more than a day's worth for people with hypertension.

Nutrition Facts	Amount/serving	%DV*	Amount/serving	%DV*
	Total Fat 12g	18%	Sodium 940mg	39%
	Sat. Fat 6g	30%	Total Carb. 24g	8%
	Polysat. Fat 1.5g		Dietary Fiber 1g	4%
	Monounsat. Fat 2.5g		Sugars 1g	
	Cholest. 60mg	20%	Protein 10g	20%
Vitamin A 0% • Vitamin C 0% • Calcium 6% • Iron 8%				

INGREDIENTS: WATER, CHICKEN STOCK, ENRICHED PASTA (SEMOLINA WHEAT FLOUR, EGG WHITE SOLIDS, NIACIN, IRON, THIAMINE MONONITRATE [VITAMIN B1], RIBOFLAVIN [VITAMIN B2] AND FOLIC ACID), CHEESE (DERIVED FROM MILK), CHICKEN, CONTAINS LESS THAN 2% OF CHEESE (GRANULAR, PARMESAN AND ROMANO), PASTEURIZED SWEETENED CONDENSED MILK, BUTTER (SALT, LACTIC ACID, CITRIC ACID AND DISODIUM PHOSPHATE), BUTTER (SALT, LACTIC ACID, CITRIC ACID AND DISODIUM PHOSPHATE), MODIFIED CORN STARCH, SALT, WHOLE EGG SOLIDS, SUGAR, DATEM, RICE STARCH, GARLIC, XANTHAN GUM, CHEESE FLAVOR (PARTIALLY HYDROGENATED SOYBEAN OIL, FLAVORINGS AND SALT), MUSTARD FLAVOR, ISOLATED SOY PROTEIN AND SODIUM PHOSPHATE

The main thing to check on the Nutrition Facts label to find out about sodium is the **servings size** and the **amount of sodium for each serving**.



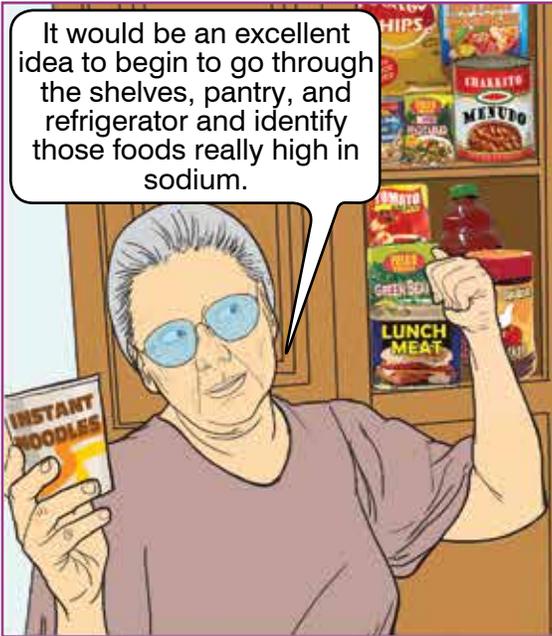
It was a pleasure to see you all. Remember always use the Nutrition Facts label to compare the sodium content in foods and try to select those products with lower sodium.

Thank you for your help Olivia. I think if we use what you taught us today we will be able to lower the sodium in our diets and make healthier food choices.

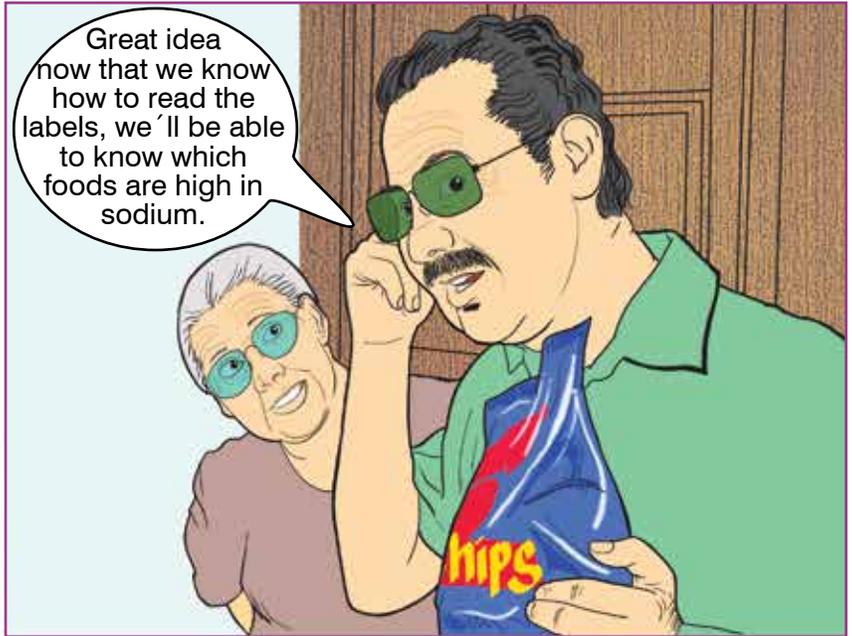


Check the food you're eating and start changing your eating habits.





It would be an excellent idea to begin to go through the shelves, pantry, and refrigerator and identify those foods really high in sodium.



Great idea now that we know how to read the labels, we'll be able to know which foods are high in sodium.



Let's check our pantry and see which foods are higher in sodium.



WOW! JUST LOOK AT THIS, THIS HAS A LOT OF SODIUM!

	100g	1 portion (100g)	% Daily Value*
Energía (kJ)	445	4.5	9%
Energía (kcal)	11	26	6%
Carbohidratos (Hidratos de carbono) (g)	61	1 082	800
Sodio (mg)	0	0	0
Colesterol (mg)			



Some of these foods are really high in sodium, I think I'll try to eat these less often.



How much of this food are you eating daily Raymundo?

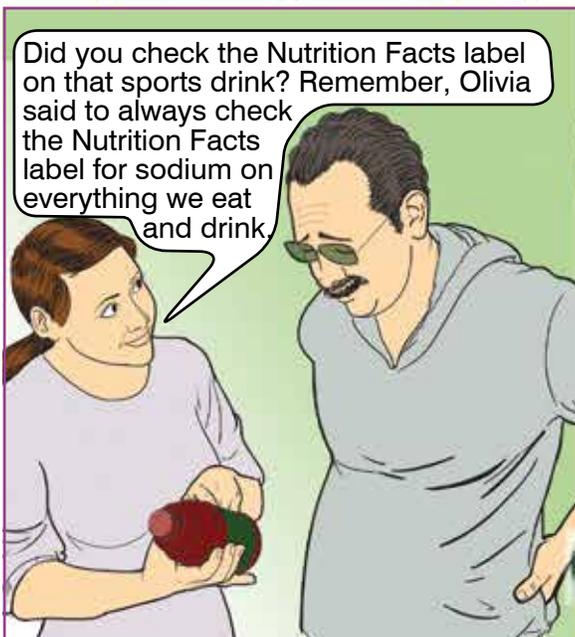
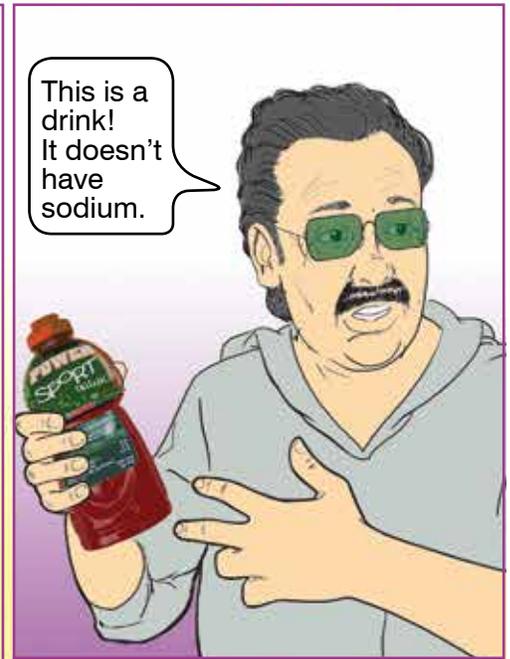
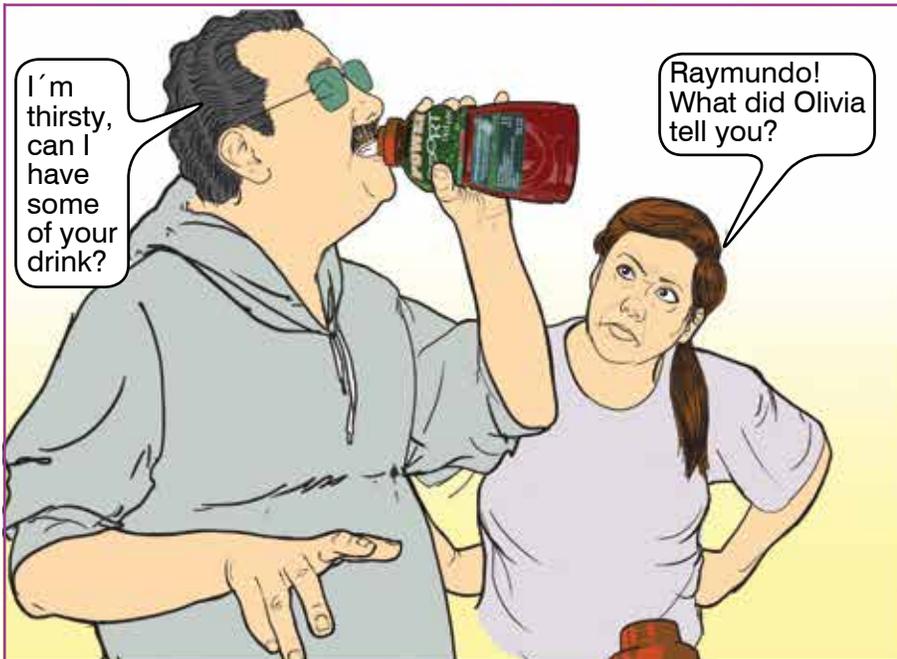
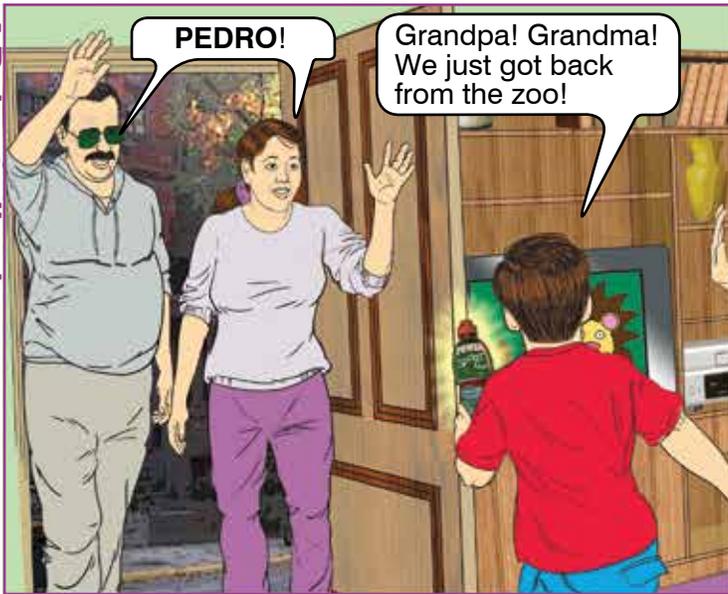
Activity Sheet: Help Raymundo, Doña Fela, and Paulina Clean out the Pantry

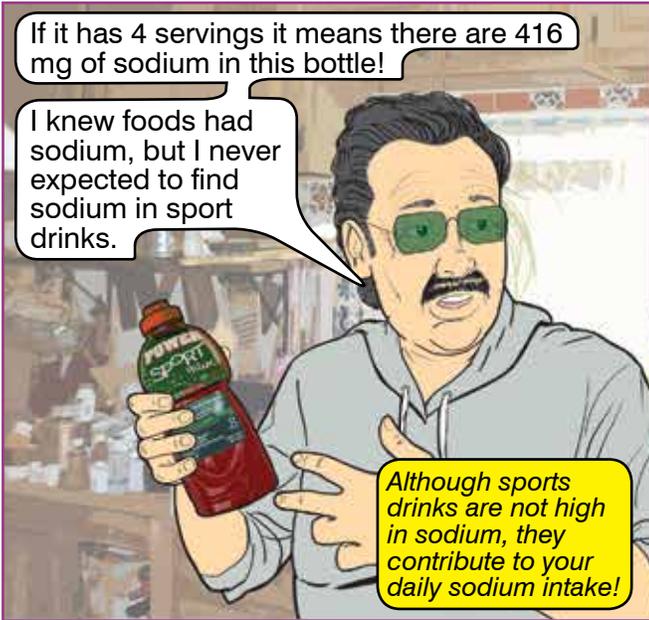
4 rules to live by



1. Which foods pictured above are commonly considered high in sodium? _____
2. Which of the three nuts pictured above could someone with hypertension eat for a snack? _____
3. Which 5 foods above are low in sodium? _____
4. Which of the 2 popcorns pictured above should Raymundo eat while watching tonight's baseball game? _____
5. Should Paulina continue to buy the family the green beans pictured above? _____

Answers: (1.) Salty almonds, lunch meat, instant noodles, tomato sauce, chicken noodle soup, 8V, potato chips, salted & buttered popcorn, frozen dinner, chorizo, and bologna (2.) Low Sodium pistachio's, unsalted peanuts (3.) No salt added popcorn, no salt added mixed vegetables, low sodium green beans, unsalted green beans, unsalted peanuts (4.) No salt added popcorn (5.) Yes, they are labeled "low sodium"





If it has 4 servings it means there are 416 mg of sodium in this bottle!

I knew foods had sodium, but I never expected to find sodium in sport drinks.

Although sports drinks are not high in sodium, they contribute to your daily sodium intake!



I've heard sports and vegetable drinks can be very high in sodium. I can try a lower sodium version of my vegetable juice.



We should both drink water instead!



GOOD we have all learned a lot today!

Carla, thank you again for inviting Olivia to the grocery store.

Hey! Where's my drink?



What else can we do to reduce our sodium intake?



We already know that we should always read the nutrition label and look for foods with less sodium.



Yes, I'm sure there is something else we can do.



Sodium is everywhere and we use it daily. We can start by...

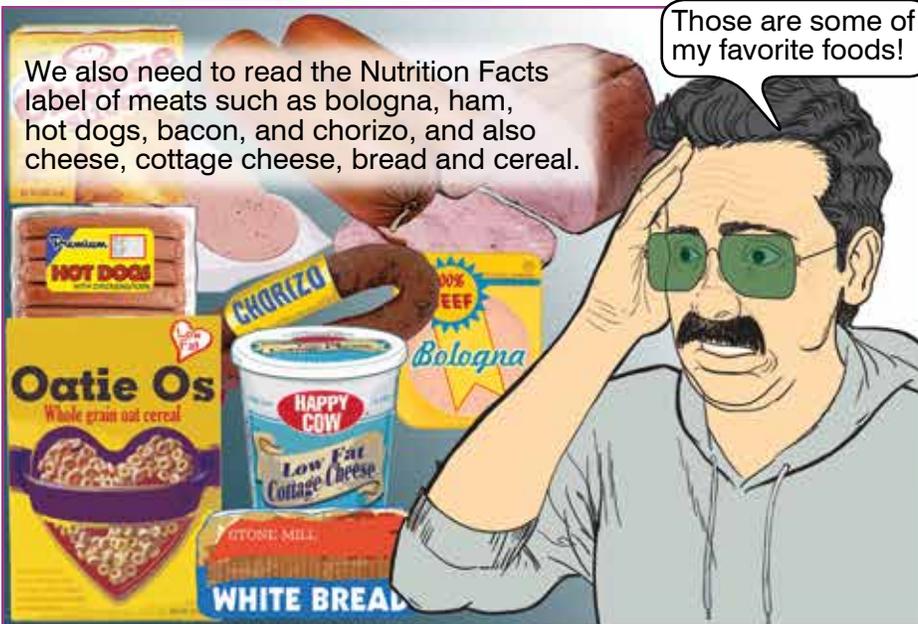
...reducing little by little the amount of sodium we use during cooking until we no longer need salt for flavor.



Always read the labels and ask your grocer to carry more low-salt items; ask for low salt options in restaurants.



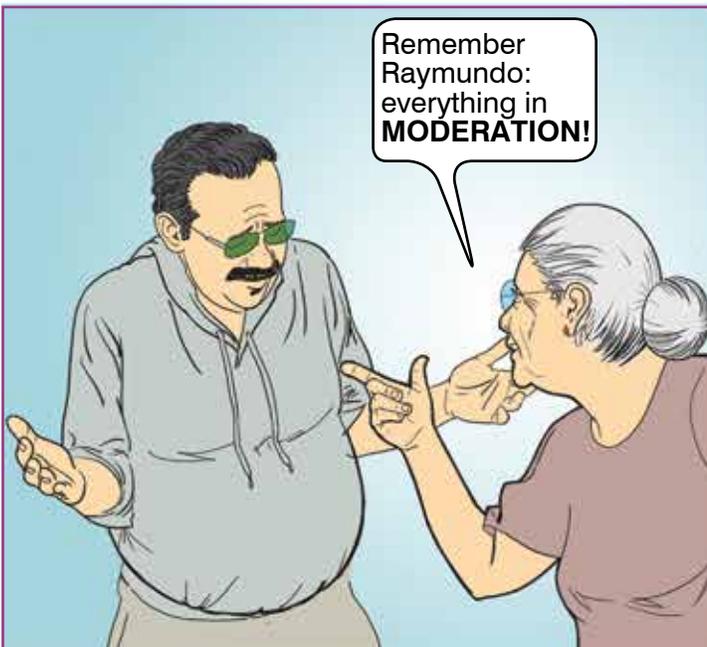
We also need to read the Nutrition Facts label of meats such as bologna, ham, hot dogs, bacon, and chorizo, and also cheese, cottage cheese, bread and cereal.



Don't worry Raymundo I will still make you your favorite breakfast! But instead of eating them daily, I will only prepare them once or twice a week.



Remember Raymundo: everything in **MODERATION!**



Doña Fela, can you tell me about how to cook without salt.

Of course! When I was little, my grandmother had a secret recipe...





...She used to season all of her foods with a combination of herbs and spices.

She didn't use any salt at all!



I'm sure this seasoning is hard to make.



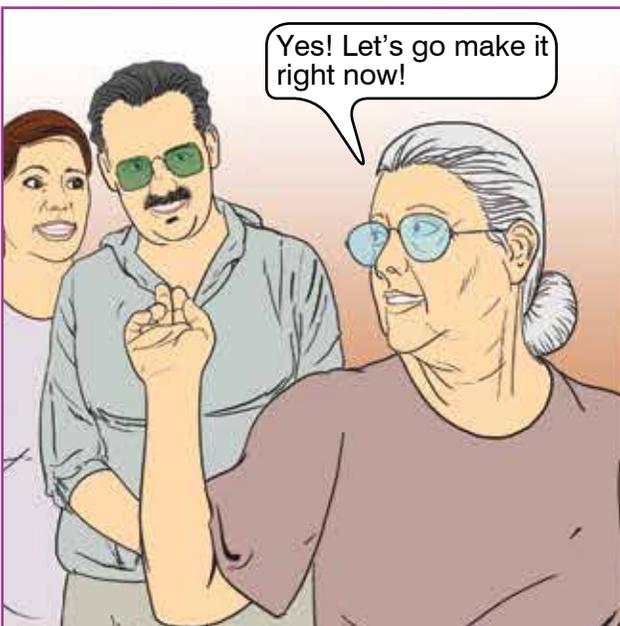
No, it is very easy. My grandmother was a great cook! I used to love her arroz con pollo!



Can we make her arroz con pollo using the old family recipe?

Sure we can Paulina!

Try to find fresh and frozen poultry that does not have a sodium and flavor solution added (which adds sodium)*



Yes! Let's go make it right now!



There are some homemade salt substitutes that can be made using herbs and spices that can enhance the flavor of foods.

Another option is to check in your grocery store for salt free seasonings.

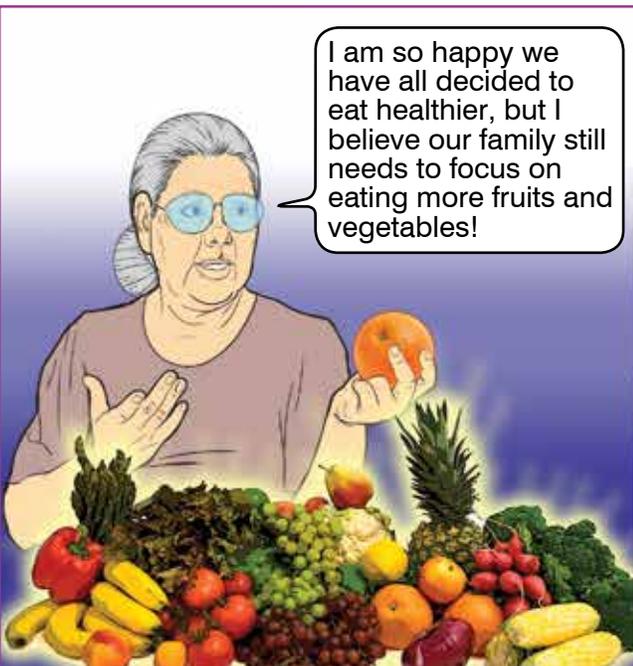
*Source: American Heart Association.

Activity Sheet: We invite you to make Doña Fela's Secret Family Recipe

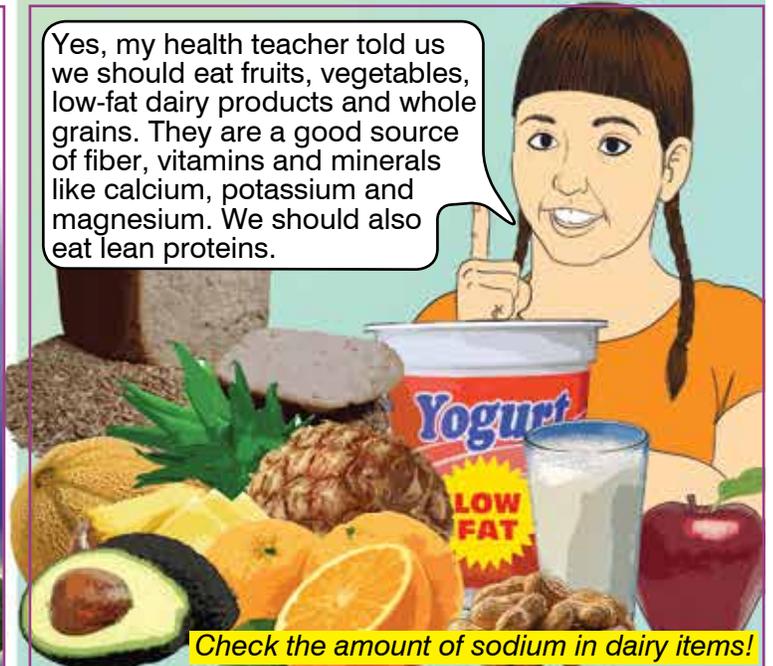
Fill the salt shaker with these herbs and spices, and use it to flavor foods instead of salt.

- 1/4 cup chili powder
- 2 tbsp paprika
- 2 tsp oregano
- 1/4 tsp dry mustard
- 1/4 tsp garlic powder
- 1 tsp black pepper
- 1 tsp red pepper

This recipe can be found in *Your Heart Your Life a Community Health Worker's Manual for Hispanics*.



I am so happy we have all decided to eat healthier, but I believe our family still needs to focus on eating more fruits and vegetables!



Yes, my health teacher told us we should eat fruits, vegetables, low-fat dairy products and whole grains. They are a good source of fiber, vitamins and minerals like calcium, potassium and magnesium. We should also eat lean proteins.

Check the amount of sodium in dairy items!

As you can see there are some foods that fit into more than one group.



CALCIUM

Is a building block of bones and teeth. It affects blood vessels and blood pressure.

- Yogurt
- Milk
- Sardines
- Cheese
- Tofu
- Beans
- Fortified ready to eat cereal
- Fortified orange juice

Check the amount of sodium in dairy items!

We should all make it a goal to fill half of our plate with fruits and vegetables.

YUM! Now I'm craving for a salad with whole wheat crackers!



I'll make a chicken salad tonight!



POTASSIUM

Potassium may play a role in decreasing blood pressure.

- Fish (Halibut, Tuna, Rockfish, Cod, Rainbow trout)
- Juice (Prune, carrot, tomato and orange)
- Tomato (Paste, puree and sauce)
- Legumes (White beans, soybeans, lima beans, pinto beans, kidney beans and lentils)
- Pork loin, center rib, lean, roasted
- Evaporated milk
- Sweet potato
- Clams, canned
- Prunes, stewed
- Cantaloupe
- Honeydew
- Beets
- Yogurt
- Corn
- Plantains
- Milk
- Apricots
- Potatoes
- Bananas
- Peach
- Carrots
- Spinach

MAGNESIUM

Magnesium helps the heart to pump more effectively.

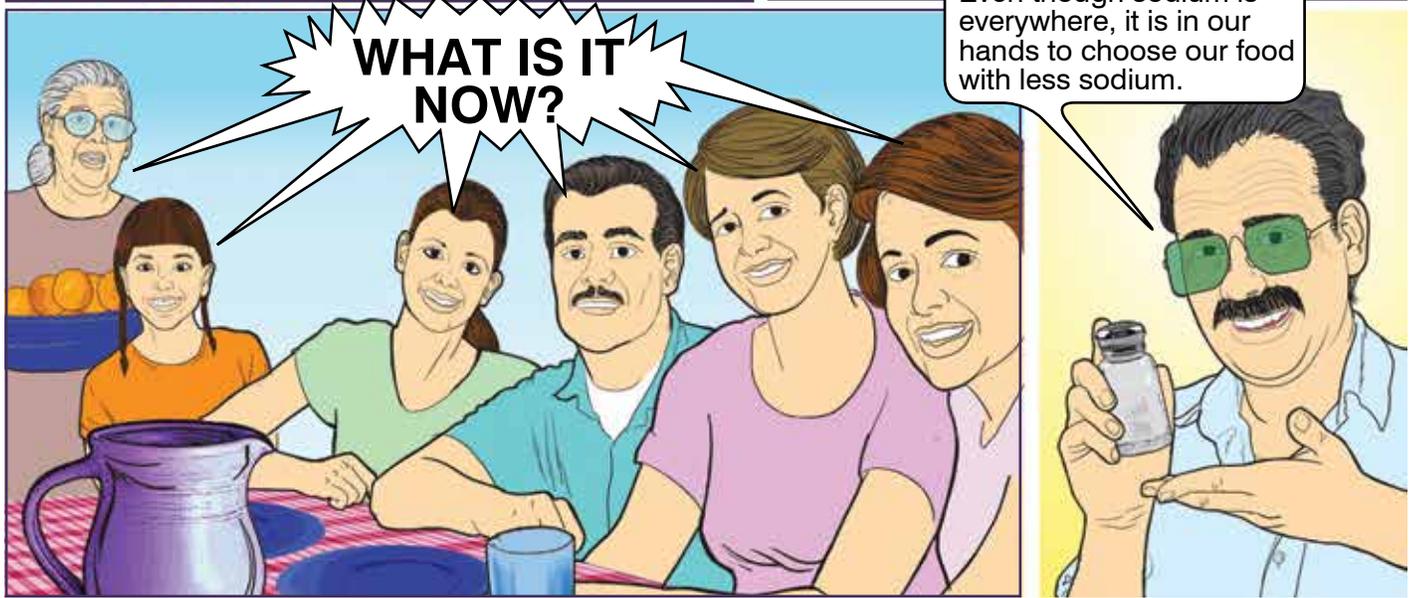
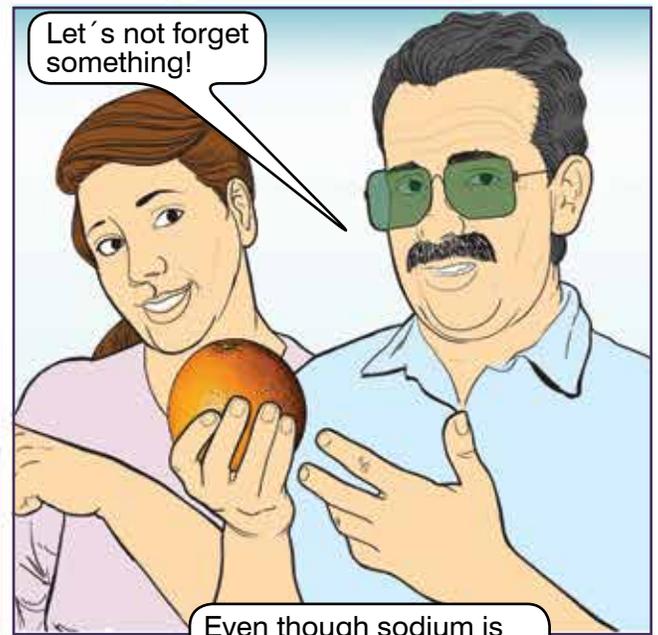
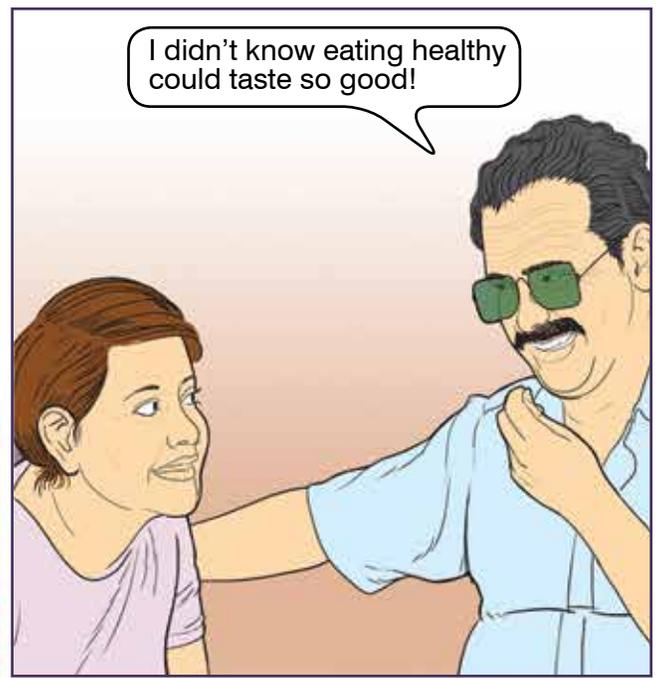
- Almonds
- Nuts: Brazil, Cashew, Peanuts, Pine nuts, Hazelnuts, Walnuts
- Wheat flour, whole
- Branflakes cereal
- Shredded wheat cereal
- Black eyed peas
- Pumpkin seeds
- Sweet potatoes
- Coconut
- Chick peas
- Peanut butter
- Garbanzos
- Rice, brown
- Wheat bran
- Wheat germ
- Pinto beans
- Cornmeal
- Cowpeas
- Lentils
- Oat bran
- Peas
- Oatmeal
- Spinach
- Pumpkin
- Banana
- Beans

FIBER

Fiber helps you feel full and helps move food through your system.

Check the amount of sodium in grain items!

- Whole grain breads
- Bran Flakes
- Whole wheat
- Whole-wheat pastas
- Whole grains: Barley, popcorn, corn and brown rice
- Dried fruits: Apricots, dates, prunes
- Berries such as: Blackberries, raspberries
- Fruits: Oranges, apple with skin and pear
- Broccoli, spinach green peas
- Dried peas and beans
- Chick peas and lentils
- Nuts and seeds
- Artichoke
- Potatoes and sweet potatoes
- Pumpkin
- Sauerkraut
- Banana
- Squash
- Tomato sauce



You can still eat almost everything, but keep in mind that some foods give you in just 1 portion more than the daily sodium recommended.

Remember that food labeled as low or reduced sodium does not necessarily mean that you can eat all you want of that food.

Each can of soup has 2 servings, and if you eat the whole can you will be getting a lot of sodium.

Always try to pick tasty natural food that is low in sodium.

SALTED **NATURAL**

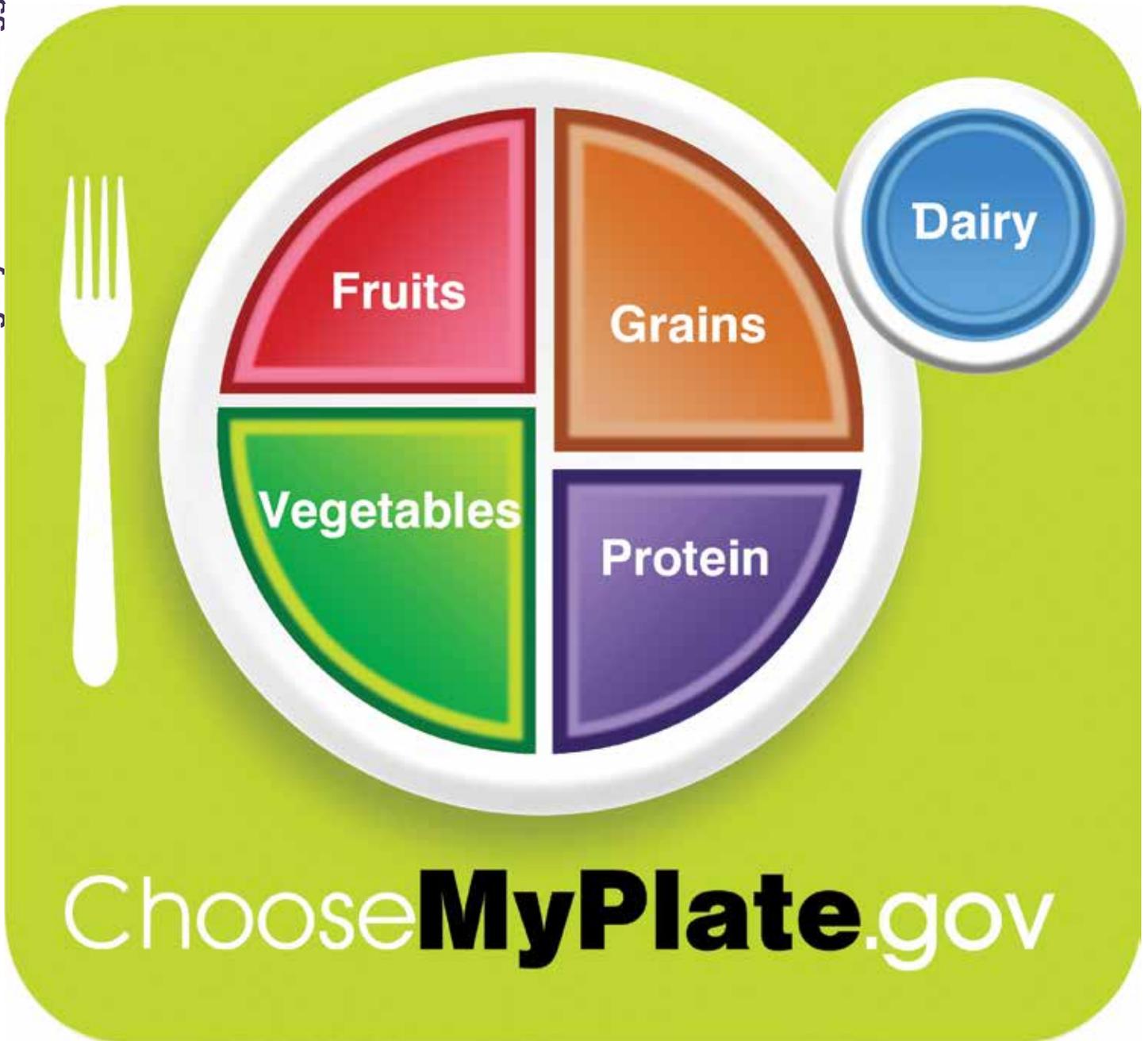
It'll always be better if it is low in sodium.

Prepared at home better than processed.

For you and your family's health you can't go wrong if you choose natural unsalted food over processed food.

Activity Sheet: Constructing a plate!

5 Don't forget your fruits and veggies



HOW TO USE THE “MY PLATE METHOD”

BALANCING CALORIES

- Enjoy your food, but eat less.
- Avoid oversized portions.

FOODS TO INCREASE

- Make half your plate fruits and vegetables.
- Make at least half your grains whole grains.
- Switch to fat-free or low-fat (1%) milk.

FOODS TO REDUCE

- Compare sodium in foods like soup, bread, and frozen meals and choose the foods with lower numbers.
- Drink water instead of sugary drinks.