



Diabetes and Nutrition in the Latino Community: The role that nutrition plays in managing and preventing diabetes.

Lorena Drago, MS RD CDN CDE
March 21, 2012



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Things To Remember

- We will not use chat feature; except for technical issues
 - Send a chat to the host privately (Betsy Rodríguez)
- We will not answer questions during the presentation
 - We will allow 10 minutes at the end for questions and answers
 - You can use the Q&A feature to send your questions to the host privately; **please do not send questions to the presenter!**
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This webinar is presented to you by the
NATIONAL DIABETES EDUCATION PROGRAM's (NDEP)
Hispanic/Latino Stakeholder Group

Host:
Betsy Rodríguez
CDC/NDEP Deputy Director

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So, if you love food or by any chance, you are hungry today... I honestly can't say if this is the right Webinar! (Comedic pause) Today's Webinar is brought to you by the National Diabetes Education Program's CDC Hispanic/Latino Stakeholder Group. My name is Betsy Rodriguez, deputy director at NDEP and your host this afternoon.



- Lorena is a registered dietitian, certified diabetes educator and Hispanic educator specialist.
- Ms. Drago will discuss culturally oriented nutrition education information that is needed to better improve the lives of Hispanics or Latinos with diabetes or at risk for the disease.

Lorena Drago, MS, RD, CDN, CDE

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Our presenter today is Lorena Drago, Lorena is a registered dietitian, certified diabetes educator and Hispanic educator specialist, and maintains a private practice. Ms. Drago also works as a consultant, conducting lectures, self-management workshops and diabetes patient education for managed care organizations, businesses and individuals. Ms. Drago will discuss the role that nutrition plays in managing and preventing diabetes, as well as focusing on motivating clients for behavior change, primarily in the Latino community. So, without further introductions, I leave you with Ms. Lorena Drago. Lorena?

LORENA BEGINS....

Objectives of this Webinar

- State three goals of Medical Nutrition Therapy (MNT) for diabetes.
- Describe one component of the nutritional management of diabetes.
- Describe at least two nutrition interventions targeting Hispanic/Latinos with diabetes.
- Highlight NDEP's nutrition educational materials.



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Thank you. Thank you and I will be happy to share this - the next 45 minutes with all of you.

The objectives of this webinar are to; state three goals of medical nutrition therapy for diabetes; describe one component of the nutritional management of diabetes; to describe at least two nutrition interventions targeting Hispanics or Latinos with diabetes -- I'm going to be using that term interchangeably throughout the conference; and highlight the NDEP's nutrition education materials.

Hispanic/Latino Demographics

Hispanic Population in the US

- 50.5 million, 16.3% of population*
- 55.5% of nation's growth since 2000

Largest Hispanic Groups in the US

- Mexican – 63%
- Puerto Rican – 9.2%
- Cuban – 3.5%
- Salvadoran – 3.3%
- Dominican – 2.8%
- Guatemalan – 2.1%

2020 Projections

- 66.4 million, 19.4% (US Census Pop. Projections, 2008)



* US Census 2010

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Source: U.S. Census Bureau, 2010 Decennial Censuses; 2008 National Population Projections

Let me start with giving you a snapshot of Hispanic demographics. Based on the 2010 U.S. Census Survey, we can see that the Hispanic population has grown almost 56% in the United States. The largest Hispanic groups in the United States still remain Mexicans with 63%, followed by Puerto Ricans almost 10%, and then we have Other Hispanic subgroups.

And this is very important for those of you who are counseling Hispanic patients to understand that Hispanics come from many different locations and their health attitude, their culture, as well as their food preferences will vary from one group to another. The projection for 2020 is that almost - there will be a almost 20% growth in the Hispanic population.

Racial and Ethnic Differences in Prevalence of Diagnosed Diabetes

- In 2010
 - 6.0% of non-Hispanic whites
 - 6.4% of Asian Americans
 - 9.5% of non-Hispanic blacks

Source: <http://www.cdc.gov/diabetes/statistics/prev/national/figbyrace.htm> Accessed 3-1-2012

- Among Hispanics, age-adjusted rates were:
 - 9.3% All Hispanics
 - 7.3% for Cubans
 - 10.2% for Mexican Americans
 - 11.2% for Puerto Ricans

Source: <http://www.cdc.gov/diabetes/statistics/prev/national/figbyhispanic.htm> accessed 3-1-2012



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When we look at diabetes and the racial and ethnic differences in the prevalence of diabetes in these communities we see that 6% of non-Hispanic whites, and this is based on 2010, have diabetes. When we look at Hispanics, the age adjusted rate were 9.3% of all Hispanics.

When we look at diabetes and the racial and ethnic differences in the prevalence of diabetes in these communities we see that 6% of non-Hispanic whites, and this is based on 2010, have diabetes. When we look at Hispanics, the age adjusted rate were 9.3% of all Hispanics.

But as I was mentioning before, there is a difference in the prevalence of diagnosed diabetes among different Hispanic subgroups. So we look here, that the highest prevalence will be for Mexican-Americans and also for Puerto Ricans and the ones that we have documented the least will be for Cubans.

Three Goals of Medical Nutrition Therapy (MNT) in Diabetes Management

- Achieve and maintain:
 - Blood glucose levels in the normal range or as close to normal as is safely possible
 - A lipid and lipoprotein profile that reduces the risk for vascular disease
 - Blood pressure levels in the normal range or as close to normal as is safely possible

American Diabetes Association, 2008



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Now what are the three goals of medical nutrition therapy in diabetes management? The three goals are; to achieve or maintain a blood glucose level in the normal range and of course or close to that normal as long as it is safe for the patient to do so; a lipid and lipoprotein profile that reduces the risk for vascular disease; and then the blood pressure, to maintain the levels once again, just like blood glucose, to be as close to normal as is safely possible.

And this is taken from the American Diabetes Association Clinical Practice Guidelines the - in 2008, and it has remained so even at the Clinical Guidelines of 2012.

Effectiveness of MNT

- MNT has reported decreases in HbA1c of:
 - ~1% in type 1
 - 1-2% in type 2
- MNT reduces LDL-C
 - 15-25mg/dl
- MNT effective in reducing HTN
- Improvements apparent in 3-6 months



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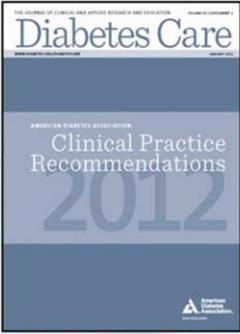
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Now how effective, when we talk about food, when we talk about management of food and diabetes, how effective is medical nutrition therapy? Well when we look at the studies that have been conducted, there is a report of A1C of roughly a decrease of 1% in Type 1 and 1 to 2% in Type 2, and this is just with meal planning and with meal modification that is specific for the person with diabetes. And this is excluding all types of medication.

So medical nutrition therapy, it is very effective in managing blood glucose, and it has also been shown to reduce LDL cholesterol 15 to 25 points, effective in reducing hypertension, and the improvement of hypertension becomes apparent in three to six months. So medical nutrition therapy is an adjunct to medication, exercise and other lifestyle modifications for the person with diabetes.



Summary of MNT General Recommendations 2008 and 2012

Nutrition Recommendations and Interventions for Diabetes:
A position statement of the American Diabetes Association
American Diabetes Association
Diabetes Care 31:S61-S78, 2008
Diabetes Care 35:S21-24

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I am going to share with you some of the general medical nutrition therapy recommendations for 2008, those that was a review of all the recommendations that exist today and every year thereafter, including 2012, there has been some modification. So I'm going to be using both recommendations.

Recommendations for primary prevention of diabetes

- Moderate Weight Loss
 - 7% of body weight
 - Low-carbohydrate, low-fat calorie restricted, Mediterranean diet, vegetarian
 - Regular physical activity (150min/week)
- Intake of dietary fiber 14g/1,000kcal
- Consume whole grains (one-half of grain intake)
- Limit intake of sugar-sweetened beverages
 - 26% of greater risk of developing diabetes



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The recommendations for the primary prevention of diabetes, so we know that not only do we have diagnosed cases of diabetes, but we also have a large percentage of individuals that might be in this pre-diabetes zone, meaning that they are at risk of developing diabetes. So the studies have shown that a moderate weight-loss -- so we're talking about 7%, sometimes even up to 10%, of their body weight -- might impact positively on an individual's risk of preventing diabetes.

When it comes to different kinds of diets, whether it's a low carbohydrate diet, a low fat calorie restricted, a Mediterranean, and even a vegetarian diet, as long as the calories are kept to sustain the person's bodyweight or achieve the weight-loss have been equally affected; of course adding physical activity, about 150 minutes per week, also increasing dietary fiber 14 grams for every 1000 calories.

The consumption of whole grains is also very important. At least half of the grains that are consumed by persons at risk of developing diabetes, and I should say almost every individual, should come from whole grains, and to limit the intake of sugar sweetened beverages -- and that has been an epidemic in the nation is the use of sugar sweetened beverages. And what we see is that there is a 26% greater risk of developing diabetes where individuals consumed sugar sweetened beverages consistently.

Soluble Fiber

 1 ½ cup	 1 cup	 1 cup
 1 apple	 8 units	 1 cup



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Data suggests that consuming a high-fiber diet (50 g fiber/day) reduces glycemia in subjects with type 1 diabetes and glycemia, hyperinsulinemia, and lipemia in subjects with type 2 diabetes.

Encourage fiber intake goals set for the general population of 14 g/1,000 kcal

Now we just talked about those 14 grams of fiber for every 1000 calories. So here we have some examples of what foods contain soluble fiber. So we have 1-1/2 cup oats, we have 1 cup of cooked kidney beans, we have 1 cup of ochre, an apple, strawberries, and a cup of cooked broccoli -- all these foods contain soluble fiber.

But what I would like you to do right now, and we can go to Poll Question Number 1 is, "From those foods, which one is highest in soluble fiber?" And if you could please, okay we're going to be closing the poll so make your selections. Okay, the polls are closed now and I see that 43% selected kidney beans, and oats was the second most popular.

So let's go back to the slide and we'll see that most of you were correct.

Soluble Fiber

		
<p>1 ½ cup 3g</p>	<p>1 cup 6g</p>	<p>1 cup 4g</p>
		
<p>1 apple 3g</p>	<p>8 units 3g</p>	<p>1 cup 3g</p>

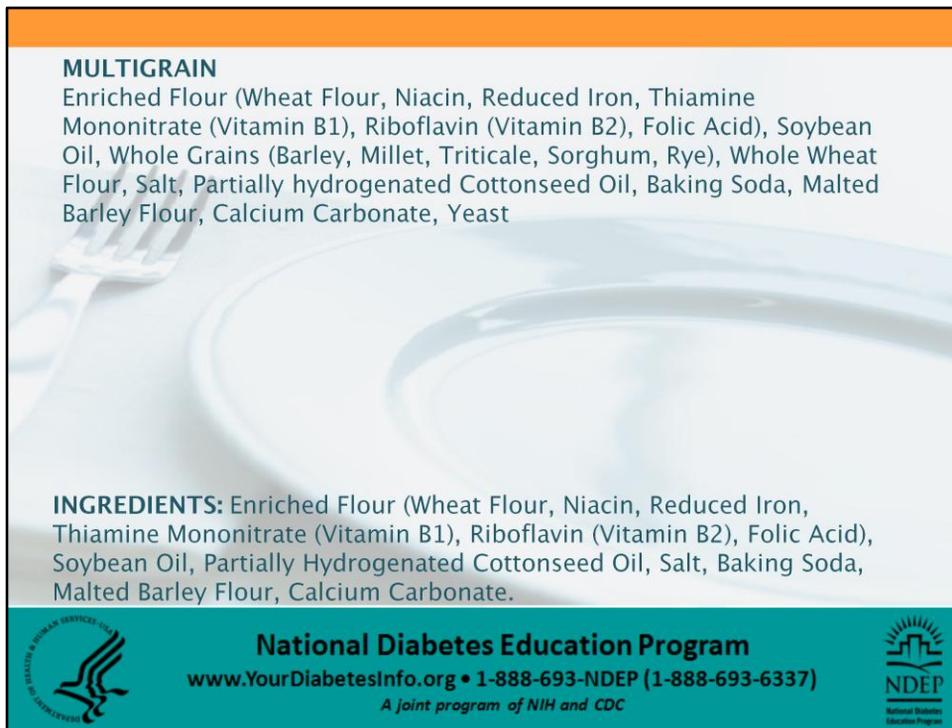


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One cup of kidney beans has 6 grams of soluble fiber compared to 1-1/2 cups of cooked oats with 3 grams of fiber. Nevertheless all of these foods are healthy.

And when we think about needed 14 grams of fiber for every 1000 calories that we need, so we're talking about 28 grams of soluble fiber if a person consumes a 2000 calorie diet, so it could be easily met by a combination of fruit, vegetables, as well as beans and peas.



MULTIGRAIN
Enriched Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Soybean Oil, Whole Grains (Barley, Millet, Triticale, Sorghum, Rye), Whole Wheat Flour, Salt, Partially hydrogenated Cottonseed Oil, Baking Soda, Malted Barley Flour, Calcium Carbonate, Yeast

INGREDIENTS: Enriched Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Soybean Oil, Partially Hydrogenated Cottonseed Oil, Salt, Baking Soda, Malted Barley Flour, Calcium Carbonate.

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The other recommendation was to include multi-grains, whole grains, et cetera. What I wanted to show here is it is very difficult to distinguish what is a whole grain and what is not.

MULTIGRAIN

Enriched Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Soybean Oil, Whole Grains (Barley, Millet, Triticale, Sorghum, Rye), Whole Wheat Flour, Salt, Partially hydrogenated Cottonseed Oil, Baking Soda, Malted Barley Flour, Calcium Carbonate, Yeast



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In this example we have two crackers and most people will probably select the one on the right, the multi-grain cracker as the whole grain.

How to Choose Whole Grain Foods

YES	MAYBE	NO
Whole grain	Wheat flour	Enriched wheat flour
Whole wheat	Semolina	Degerminated (corn meal)
Whole (corn, rice)	Durum Wheat	Bran
Brown rice	Organic flour	Wheat germ
Oats/Oatmeal	Multigrain	Pearled Barley
Wheatberries	Stoneground	Grits, hominy, farina
Buckwheat	Unbleached	
Bulgur		
Barley Hulled		
Cracked/Crushed Wheat		



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You'll rarely see the words "whole grain rice" -- more often, just brown rice. Whole grain rice comes in other colors too, such as black, purple and red. Wild rice is not technically a form of rice, but it IS a whole grain.

Even instant oatmeal contains all the bran, germ and endosperm.

Bulgur is made by cooking wheat kernels, then drying them and breaking them into small pieces. Cracked wheat is raw broken wheat kernels, while bulgur is cooked broken wheat kernels.

Two kinds of barley grow in the fields. Most is what's called "covered" barley which has an inedible hull firmly attached to the kernel. If part of the bran is lost in scraping off the hull, the result is pearled barley, which is not considered a whole grain. Less common "naked" barley does not have this tough hull. Look for hulled barley (covered barley with the hull carefully removed to minimized bran loss) or hull-less barley (naked barley that never had the close-fitting hull) to be sure you're getting whole grain.

Graham flour is a kind of coarse whole wheat flour. But be careful! Most graham crackers are NOT made with graham flour.

Whole white wheat is a special variety of whole wheat that grows naturally with a lighter color and milder flavor. It has all the same good nutrition as regular (red) whole wheat. You can trust the words "whole white wheat."

MAYBE Flour: FDA defines as meaning "refined wheat flour."

Wheat flour: An honest term for refined wheat flour. Watch out for products that say 100% wheat flour as this is most likely not whole grain! Organic, natural, unbleached -- all healthy sounding words that do not guarantee whole grains -- although whole grains can be all these things.

Semolina is a kind of finely ground durum wheat used in pasta. It can be whole or refined.

Multigrain just means there are several different grains. If you refine wheat, corn, oats and rye and mix them together you can make a "multigrain" bread without any whole grains. This word **OFTEN** fools shoppers.

Stoneground just means the grain was milled on stones rather than metal rollers. The bran and/or germ may still have been removed.

NOT WHOLE GRAIN: Enriched flour -- refined flour with 5 nutrients added back in, not nearly replacing the dozens of nutrients removed or diminished by refining.

Bran, Germ -- these are two of the **PARTS** of a whole grain. Alone they are never a whole grain. Remember, we need bran, germ and endosperm (all three parts) all present to consider something a whole grain.

Degerminated -- You'll often see this on cornmeal. The germ's missing so it's not whole grain.

Pearled barley -- missing some of the bran. See earlier slides.

Grits, hominy, farina -- all terms for foods that are almost invariably refined.

What happens is, what you need to do as a health care professional as well as a consumer, is to look at the ingredient list and you will see that the first ingredient on both is enriched flour, which is not multi-grain. What multi-grain means is that at least five different grains should be added to a product in order to be called multigrain, but it doesn't mean that the product in itself is a wholegrain product.

So here at a glance, when you want to choose wholegrain foods, this is what you should be looking for when you're looking at the ingredient list. So the word Whole should be - should precede the grain, and we're talking about whole wheat, whole corn, or rice, browned rice, and then some of the maybes might be wheat flour, semolina, et cetera. They might or might not be whole grain. And definitely when you see Enriched Wheat Flour, that is not whole grain.

Recommendations for the Management of Diabetes

- Weight Loss
 - About 5% associated with decreased insulin resistance
- Monitor carbohydrate intake
- Limit saturated fat to <7% of total calories
- Minimize intake of trans fats

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So these are now the recommendations for the management of diabetes. We looked at the prevention of diabetes with the weight loss, including whole grains, reduction of calories to meet that goal. And now we're looking at the recommendation for the management of diabetes.

Well the research has shown that about a 5% weight loss is associated with a decrease of insulin resistance. So again, the message should be, "Any kind of weight loss is beneficial for person with diabetes."

The other recommendation is; to monitor carbohydrate intake, foods with carbohydrate, and we will take a look at what those foods are; to limit the saturated fat to less than 7% of total calories, and we're going to see an example of how you can take this recommendation and put it into action; and also to minimize the intake of trans fats. And trans fats are those foods that contain partially hydrogenated oil as listed as one of the ingredients.

What are Some Foods that are High in Saturated Fats?

Some cuts of Meats



Chocolate and Ice Cream



Yogurt (made with whole milk), Whole Milk and Cheese



Butter, Lard and Pork Fats



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These are some examples of foods that are high in saturated fat. It might be certain cuts of meat, chocolate and ice cream -- definitely one of my favorite high saturated fat food -- and dairy products made with whole milk, and of course the usual culprits, butter, lard, pork-fat, etcetera.

So when we talk about what is that 7% of our calories when we translate it into our budget, we're talking about between 12 to 16 grams of fat per day. That should be the budget for someone that might be consuming an 1800 calorie diet, which will be perhaps what the average American would be eating. Weight reduction plans might be somewhere between 1200 to 1400 calories and the fat will be reduced.

HOW Much Saturated Fat?

- Daily Budget: Between 12 to 16 grams
- Amount of Saturated Fat in:
 - 1 ounce of American cheese
 - 1 ounce low-fat Cheddar
 - 3 ounces of skinless drumstick
 - 3 ounces of chicken breast
 - 1 glass of whole milk
 - 1 glass of 1% milk
 - 1 egg

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So here we have some common foods, American cheese, cheddar, etcetera. And what I would like to know is, and we can go to poll Question Number 2, "From those foods that are listed, which foods have the highest amount of saturated fat?" And you can make your selections now. Okay and make your selections, polls are closed.

So we have one glass, 8 ounces of whole milk as our winner. And an ounce of American cheese as the runner-up. Let's go back to the slide, and for those of you that selected American cheese, you are correct; 6 grams of saturated fat, for the most part, and of course each brand might vary a bit. And a glass of whole milk was - is 5 grams of saturated fat.

HOW Much Saturated Fat?

- Daily Budget: Between 12 to 16 grams
- Amount of Saturated Fat in:
 - 1 ounce of American cheese 6
 - 1 ounce low-fat Cheddar 3
 - 3 ounces of skinless drumstick 2.5
 - 3 ounces of chicken breast 1
 - 1 glass of whole milk 5
 - 1 glass of 1% milk 1.5
 - 1 egg 1



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So as you can see, very easily someone that is consuming one to two glasses of milk, let's say 10 grams of fat, and has a grilled cheese sandwich with two or three slices of American cheese can really go over their daily budget. So 12 to 15 grams of saturated fat per day really does not give you a lot of wiggle room.

And many times, many of our patients are limiting their egg consumption because of their cholesterol content -- and I'm referring to the yolk. But you see that one egg, including the yolk, only has 1 gram of saturated fat.

What is the Optimal Mix of Macronutrients?



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So when you're counseling you have to pay attention to the consumption of other foods that others might not feel that they need to limit from their diet, and that that might be the cause of their high cholesterol levels. A diet that is high in saturated fat will increase LDL cholesterol, and that's one of the goals of diabetes management. So pay attention to those foods in the diet.

**What is the Optimal Mix of
Macronutrients?**

Daily Recommended Intake

CARBS	45-65%
PROTEIN	15-20%
FAT	15-30%

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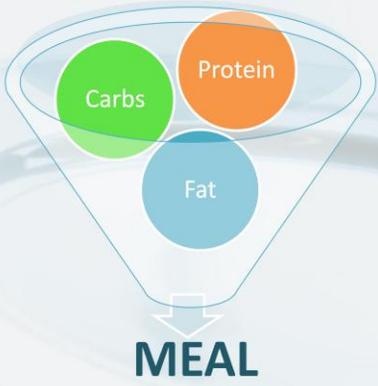
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Okay, so we talked about carbohydrates. And people talk about a low carbohydrate diet; is it better than a low fat diet, better than a Mediterranean diet? And the optimum mix of macro-nutrients really mostly should come from carbs.

And again, we talked about fruits, vegetables, beans, legumes in general, and whole grains. That's where most of the carbohydrates should be coming from, the protein and the fat will - most likely should come from lean, and also the good and the healthy fat.

So while saturated fat might need to be decreased, there are other types of fats that are considered to be healthy. But above all, the total number of calories does matter regardless of that macro-nutrient mix. And the number of calories should be appropriate for a person's age, height, weight, physical activity, medication and their blood glucose levels.

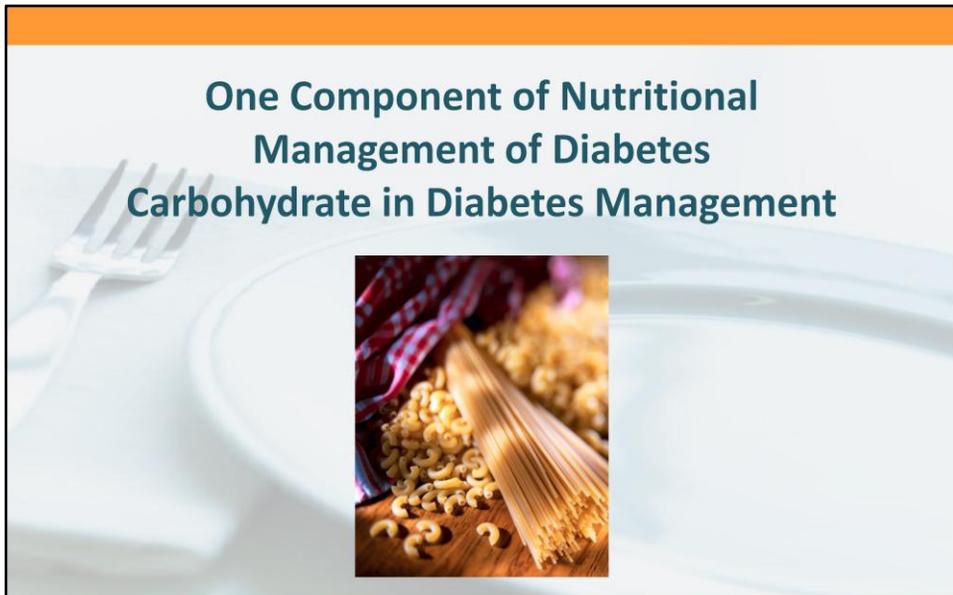
Deconstructing a Meal



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So when we look at a meal and we deconstruct that meal, we see that the meal that you have on the left, it's a mix of carbohydrates, protein and fat. Very seldom do we consume just one type of food.



**One Component of Nutritional
Management of Diabetes
Carbohydrate in Diabetes Management**

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And I want to focus, even though our foods come from carbs, protein and fat, I want to focus of just one component of the nutritional management of diabetes, and that will be for today's lecture, the carbohydrate in diabetes management.

Carbohydrate

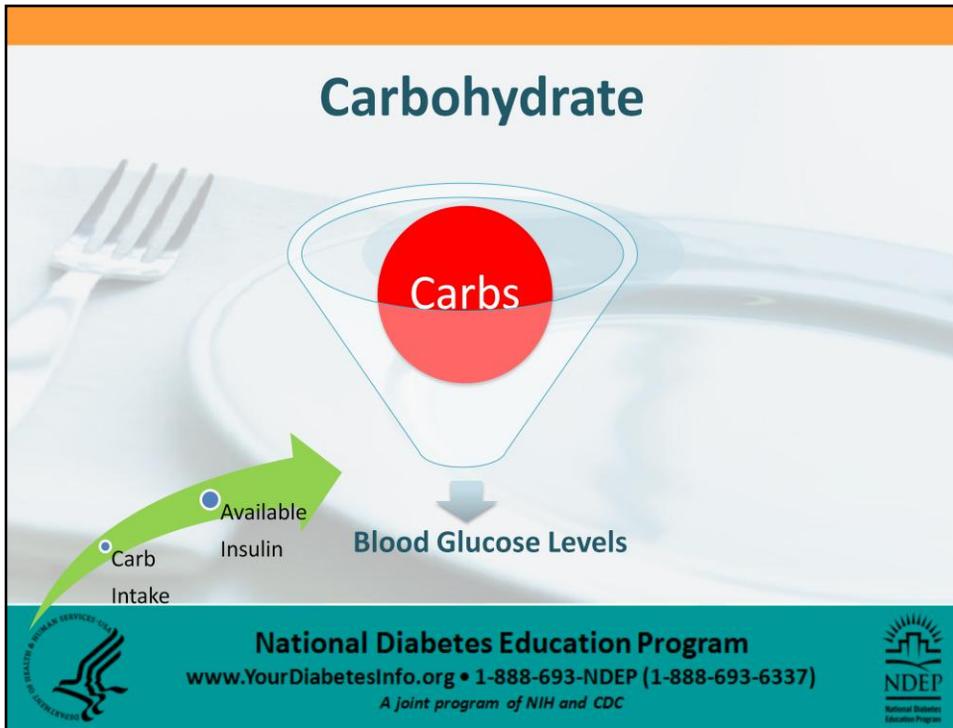
Carbs

Blood Glucose Levels

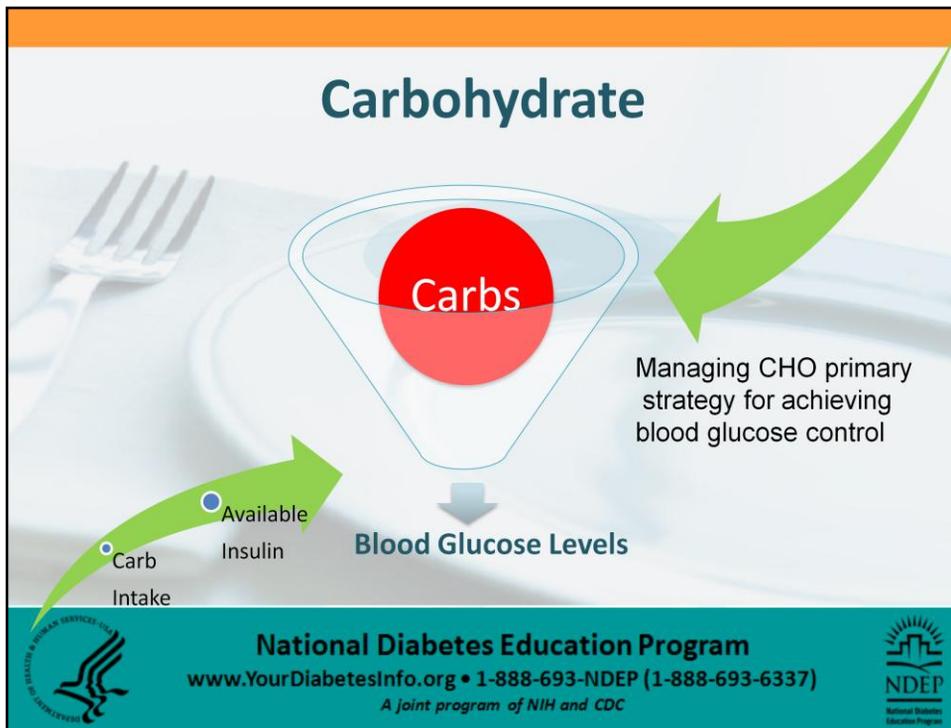
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Carbohydrate and available insulin are the primary determinants of post prandial blood glucose levels.



And the reason that I want to focus on carbohydrate is because carbohydrate in foods is what effects blood glucose levels the most. So that's the reason why that will be the choice.



So when we're talking about carbohydrate, I want to use managing carbohydrate as the primary strategy for achieving blood glucose control. And the blood glucose levels, it's a combination of how much carbohydrate a person with diabetes eats, how much available insulin they have, and that determines their blood glucose levels.

Carbohydrate

- What is the **minimum** daily carbohydrate recommendation?
 - 100g
 - 130g
 - 150g



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So, what is the minimum daily carbohydrate recommendation? Is it 100, 130 or 150? When we're talking about going low-carb or having enough carbs to sustain health, what would that look like?

Carbohydrate

- What is the **minimum** daily carbohydrate recommendation?
 - 100g
 - 130g
 - 150g

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And the answer is 130, that's the American Diabetes Association recommendation.

Now, what is 130? How many cups of rice can I eat for 130? How much bread can one eat with 130? Let me just give you an idea of what 130 looks like in terms of food. One cup of cooked rice -- one cup -- will have 45 grams of carbohydrate, and that's about 1/5 course. So that means that if a person has two servings, or two cups of cooked rice, that will use 90 grams of the 130 grams that are budgeted for the day.

Carbohydrates (ADA 2008b)

- A dietary pattern that includes carbohydrate from fruits, vegetables, whole grains, legumes, and low-fat milk is encouraged for good health. (B)
- Fiber intake goal of 14g/1000kcal. Encourage 5g/serving
- Low-carbohydrate diets, restricting total carbohydrate to <130 g/day, are not recommended.
- The use of glycemic index and load may provide a modest additional benefit over that observed when total carbohydrate is considered alone. (B)
- Sucrose-containing foods can be substituted for other carbohydrates in the meal plan. Care should be taken to avoid excess energy intake. (A)



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I will just summarize some of the recommendations by the American Diabetes Association and I will just reiterate that the fiber intake is very important. When the fiber is increased in the diet that can help to manage hunger and also soluble fiber can help to manage cholesterol levels. And very high fiber diet can even help to manage blood glucose levels.

Some - the diet should be a combination of fruits and vegetables and whole grains, legumes and low fat milk and dairy products. We also talked about the amount of carbohydrate and how quickly those 130 grams might go in one day when a person counts carbohydrate.

Another recommendation is to use the glycemic index and load as an advantage. And I'm not going to go into the definition or examples, but I will just say that the glycemic index is really how quickly the blood glucose level rises depending on the type of carbohydrate that is consumed. And foods that have sugar can be substituted for other carbohydrate foods, even though they might not be as nutritious, but they can be used.

Which Foods Contain Carbohydrate?

- Old fashioned Oats
- Barley
- Spinach
- Cottage cheese
- Pork Chop
- Banana
- Bran Flakes
- Broccoli
- Sugar-free cookies
- Ketchup
- Balsamic Vinegar
- Green Tea
- Tuna
- Low-fat salad dressing
- Lentil Soup
- Chicken Cutlets
- Whole-wheat Bread
- Low-Carb pasta



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Now let me just give you a couple foods, some of the foods that may contain carbohydrate, and some of them may not. So let's go to Poll Question Number 3 and there are six foods. What I want you to do is select the food that does not contain carbohydrate. Okay let's close the poll.

Foods with Carbohydrate

- ✓ Old fashioned Oats
- ✓ Barley
- ✓ Spinach
 - Cottage cheese
 - Pork Chop
- ✓ Banana
- ✓ Bran Flakes
- ✓ Broccoli
- ✓ Sugar-free cookies
- ✓ Ketchup
- ✓ Balsamic Vinegar
 - Green Tea
 - Tuna
- ✓ Low-fat salad dressing
- ✓ Lentil Soup
 - Chicken Cutlets
- ✓ Whole-wheat Bread
- ✓ Low-Carb Pasta

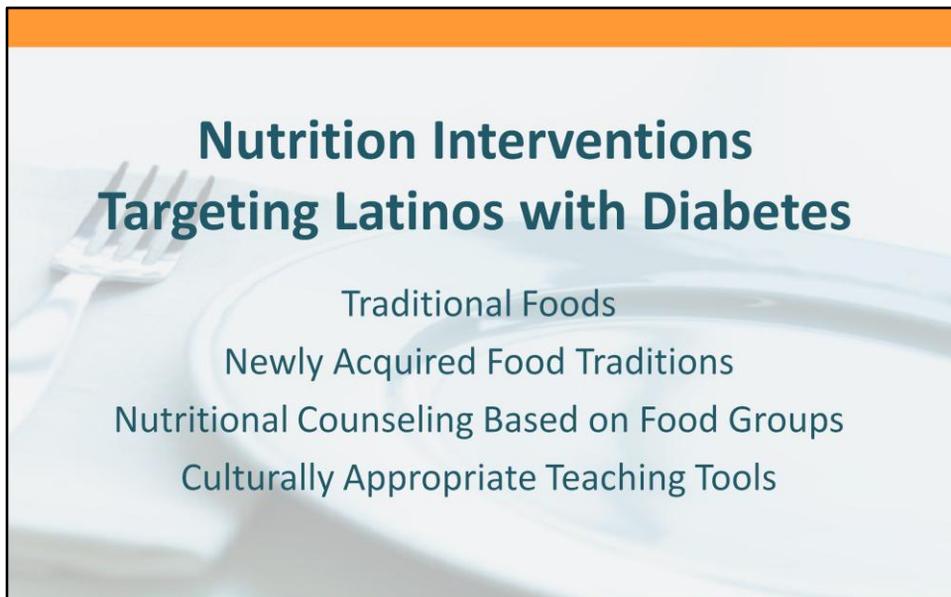

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Okay, so the first answer, chicken cutlets the most popular one, followed by spinach, and sugar free cookies. And let's go back to the slide, and I just want to show, the foods that are now in red, those are the foods that have carbohydrate. Chicken cutlet was the correct answer, unless the chicken cutlet is breaded or it has flour, but just a chicken cutlet that is not a food that contains carbohydrate.

Spinach might be a surprise for some of you since it is a dark green and very nutritious vegetable. Most non-starchy vegetables do have carbohydrate, however the amount is very little. I would say that when I compare one cup of cooked rice, having 45 grams of carbohydrate, if I had one cup of cooked spinach, the amount would be 10 grams of carbohydrate.

However, because there is so little amount of carbohydrate in most vegetables and people do not consume a lot of vegetables in one meal, that many meal recommendations advice not even to count these vegetables as a source of carbohydrate unless there eating very large quantities.

And I just want to remind you that sugar-free foods might be sugar-free, but they are not necessarily carbohydrate-free. Even though the sugar might not be an ingredient in that cookie or cake, there is flour, and there might be fruit added to it, or milk. And all those three foods that I just mentioned, they have carbohydrate. And that's very important to talk to people with diabetes about because they might assume that once a product says, "Sugar-free," it is equivalent to carbohydrate-free.



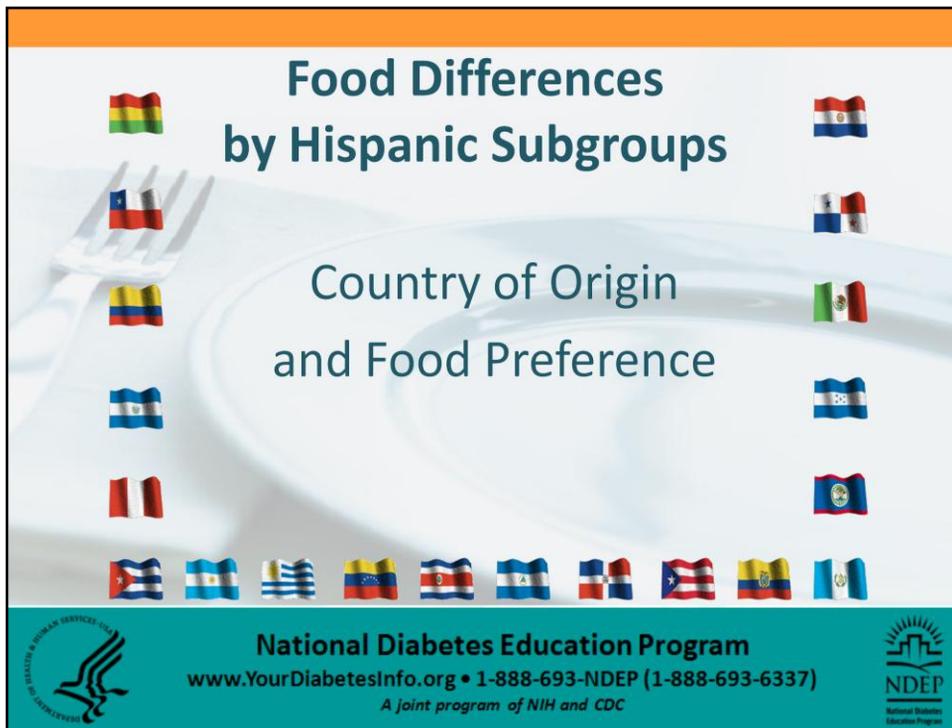
Nutrition Interventions Targeting Latinos with Diabetes

Traditional Foods
Newly Acquired Food Traditions
Nutritional Counseling Based on Food Groups
Culturally Appropriate Teaching Tools

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Now I'm moving to some nutrition interventions targeting Latinos with diabetes. I'm going to talk about traditional foods, newly acquired food traditions, nutritional counseling based on the food groups, and I'm going to share with you some of the tools that I have used in practice that I have deemed to be culturally appropriate teaching tools.



The first item will be the food differences by Hispanic groups. As I was mentioning before, just as the prevalence of diabetes is different among certain Hispanic groups, so is the countries of origin and the food prices.

So our Mexican patients with diabetes stem from different parts of Mexico. Depending on where they come from, their food, habits and preferences will be different.

Mexico

- Dishes flavored with tomato sauces and rich chili pastes
- Seafood, poultry and pork
- Thin cuts of meat preferred
- Stews, moles and braised meat and poultry are common
- Corn and beans staples
- Cinnamon, clove, cilantro, thyme, marjoram, and epazote are regularly used spices



Technomic Inc. "Grow in America Chain Store Guide: Top 50 Hispanic Markets Report 2005;
 "Targeting the Hispanic Foodservice Consumer: Keys to Future Success," January 2006



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Would like to add that Mexico itself has very different food preferences depending on what region you are in, just as regions in the US have favorite foods. It is a large area of land to cover...

Individuals that live in the Caribbean part of Mexico, let's say in the Yucatan Peninsula, will have access to different kinds of food such as fish, compared to people that are coming from the Northern part of Mexico, especially the Central part in which goat might be a preferred meat. Corn and beans though are two of the staple carbohydrate sources.

They use seafood, poultry and pork, depending on what part of Mexico they come from. And it is ubiquitous to use chili throughout Mexico. Some places might prefer to have corn tortillas and some other places might prefer to have flour tortillas.

Central America

- Tomatoes and onions used to flavor food; chiles used sparingly
- Pork, chicken and beef are used in stews or are grilled or roasted
- Raisins, olives, red pimentos, hard boiled eggs and chocolate are often used in ingredients
- Rice, bean and corn are staples



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 Technomic Inc. "Grow in America Chain Store Guide: Top 50 Hispanic Markets Report 2005;
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TALKING POINTS: *Might be nice to mention to audience examples of countries in Central America – **SALVADOR** – PUPUSAS, **GUATEMALA** - Guatemalan Quesadilla prepared with flour, sugar, sour cream, parmesan cheese, eggs, butter, baking powder mixed well, decorated with sesame seeds and baked. Guatemalan Tamales - They key variations are what is in the masa or dough (corn, potatoes, rice), what's in the filling (meat, fruits, nuts), and what is it wrapped with (leaves, husks). Tamales in Guatemala tend to be wrapped in green leaves, (mashan), while Chuchitos — which resemble Mexican tamales — are wrapped in corn husks. The masa is made out of corn that is not sweet, such as what is known as feed corn in the U.S. In Guatemala, this non-sweet corn is called maize and the corn that Americans are used to eating on the cob (sweet corn), Guatemalans call elote. Tamales in Guatemala are more typically wrapped in plantain or banana leaves and mashan leaves than corn husks. Additionally Guatemalan tamales use cooked masa, something that takes a lot of time and work.*

PANAMA – Carimanolas – with *yuca* (cassava) dough and filled with ground beef

When we look at the countries from Central America, I am just going to focus here on the staples. As we saw in Mexico, corn and beans are the staples; those are two sources of carbohydrate. Now rice, bean and corn are staples in Central America. Pork, chicken and beef are also used as the sources of protein. And it is seasoned also with tomatoes and onions. And chilies are not used as prevalently as in Mexico.

South America

- Annatto, coriander, onion, tomatoes and green peppers provide flavoring to most dishes
- Seafood, poultry and pork are preferred
- Red meats preferred in Argentina and Brazil
- Potatoes, corn and rice are staples



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When we look at South America it's a vast territory, so it would be very difficult to just summarize all the different foods in South America. Once again, the coastal regions will have a very different food traditions and food cultures as the inland part of the countries. Going back again to the staples that are traditional in South America; potatoes, corn and rice are staples.

Caribbean

- Seafood, pork and poultry are dominant: roasted, grilled or fried
- Garlic, coconut milk and *adobos* provide flavoring
- Preferred root vegetables: yuca, malanga, yams
- Okra, black eyed peas and pigeon peas are common
- Rice and beans are staples

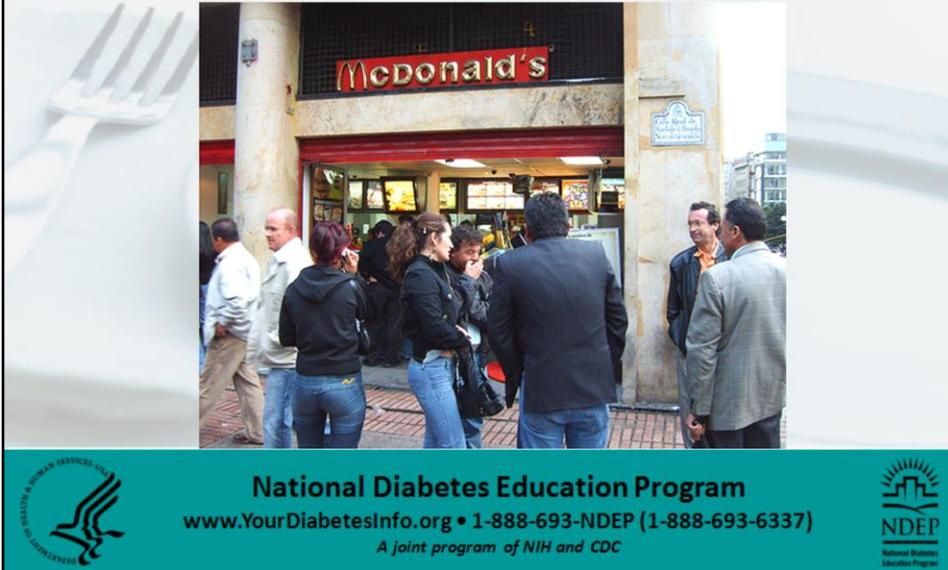
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Will mention examples of countries in the Caribbean...

Difference between Spanish food from SPAIN or Spanish food from other countries.

Now the Caribbean, from Puerto Rico, Dominican Republic and Cuba, rice and beans are staples, but now I'm going to add something else which are starchy root vegetables, which are also predominant in the diet. So things such as cassava, taro and yams are also part of the traditional meals. And when counseling persons that coming from the Caribbean, it is very important to be aware that these are sources of starch and carbohydrates.

Globalization of Food



MC Donald's in Colombia

TALKING POINTS: As per Dr. Escamilla, emphasize that it is important to take into consideration the life experiences of Latinos before moving to the United States. The globalization of food (i.e. availability of fast food chains in Latin America) may have permeated the traditional diet of Latinos before migrating to the United States. Therefore the dietetic professional may not assume that Hispanics have not already altered their traditional diet. Other considerations: socioeconomic aspects, educational status of the Hispanic immigrant.

I wanted to mention the globalization of food. And that is because many times we assume that when a person comes from any Latin American country or region that they're only eating their traditional foods, and it's not the case anymore.

This is a McDonald's in Bogota, Columbia, so many of the younger persons from a particular country might already be exposed to some of the same foods that we are exposed here. This is a Kentucky Fried Chicken in Oaxaca, Mexico. And here we have the places where Dunkin Donuts has stores.

Globalization of Food



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KFC in Oaxaca Mexico

This is a Kentucky Fried Chicken in Oaxaca, Mexico. And here we have the places where Dunkin Donuts has stores.

Globalization of Food



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So we are not - we should not assume that just because someone is coming from Mexico, from Columbia, and they're coming from another region that they might not already be mixing traditional with non-traditional foods. And here we have McDonald's that is already ethnically correct, with a selection of McPinto, which is a combination of rice and beans.

Globalization of Food



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In Costa Rica's McDonald's you can find a prototypical traditional dish: seasoned rice and black bean dish, called Gallo Pinto or McPinto. It is served with scrambled eggs and sour cream. Gallo Pinto is considered the national dish

So not only do we become "Americanized," but even a chain like McDonald's becomes also, should I say, "Guatamalized," and it even has fried plantains.

Food Group	What you need to know	What your clients need to know/do
Meats/ Poultry/ Legumes	<ul style="list-style-type: none"> ■ Hispanics consume more beef than non-Hispanic whites ■ Beans are staple 	Encourage: Leaner cuts of pork and other meats More beans – less rice
Fruit	<ul style="list-style-type: none"> ■ Added to milk (batidos/licuados) ■ Preserves, frozen pulp, nectars (added sugar) 	Difference between juice drinks and 100% fruit juice Tang is not OJ Tampico is not 100% juice
Nuts/Fats/ Oils	<ul style="list-style-type: none"> ■ Cashew fruit, pumpkin seeds, sesame seeds 	Calories in nuts Mazola oil Olive oil still has calories Avocado does not have cholesterol but portion matters



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I am briefly going to go over what the main point of this slide. And as you can see on the left hand side you have all the different food groups. The column in the center, it says, "What you need to know," meaning as the person that is teaching diabetes education, that is bringing nutrition messages to groups and individuals of persons with diabetes or pre-diabetes. And then the right hand column is what your clients or your patients need to know and do.

Food Group	What you need to know	What your clients need to know/do
Grains/ Cereals	<ul style="list-style-type: none"> ■ Corn, corn flour, cornstarch, corn dough – tortillas, tamales, empanadas, arepas, drinks ■ Oats - beverage 	Read and use nutrition label Choose healthier fats Portion matters even if foods are healthy
Starchy Vegetables	<ul style="list-style-type: none"> ■ Cassava, cassava flour, plantain, ■ Plantain is also eaten at breakfast, fried, mashed with added oil 	To reduce fat intake, combine fried/bake cooking methods (fried green plantains) Avoid oversized portions
Vegetables	<ul style="list-style-type: none"> ■ Vegetables used to season dishes such as sofrito ■ Other vegetables: Jicama, pumpkin, chayote, nopal, 	Encourage salads and adding vegetables to soup and rice dishes

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Again, very useful, great info...

So if you are not familiar with Hispanics in general, what you need to know in the Meat category is that Hispanics consume more beef than non-Hispanic whites. And what you need to share is to encourage the leaner cuts of the different foods.

Where rice and beans is prevalent, rice is much more prevalent on the plate and less beans, so it should be switched around. Fruit is also added to shakes and it's eaten and preserved in juice, et cetera. And many times it is important to differentiate real juice from juice drinks.

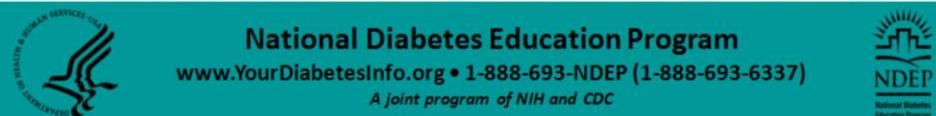
I also want to highlight that many times when we talk about healthy oils, such as olive oil or canola oil, that we need to emphasize to our patients that oils, even though they - some of them might be very healthy, they still have calories. And that's very important for them to know. They might think, "Well I'm just having olive oil, I'm cooking with olive oil, therefore I can use as much as I want because it's healthy."

Very important to look at nutrition labels, especially when they are using certain foods such as corn flour to cook with, choose healthier fat, and again I want to stress this, that portions matter even if the foods are healthy. Somebody might be drinking an oat beverage or eating oatmeal because they have heard that it's healthy, but one cup is - I mean, it might be healthy, but not three and four cups. And vegetables, encourage the use of vegetables in stews and soups, etcetera.

SUPERMARKET TOUR for Latinos with Diabetes



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Love this intro! **We can use this theme and the next two slides to talk about our own experience and that of our patients/clients**

I am going to share with you a program that I spearheaded, that I developed, and it was - it's a supermarket tour for Latinos with diabetes, and how to make this program culturally competent. In this particular program I walked with a group of 10 to 12 individuals with diabetes, and some of them had pre-diabetes, to teach them about meal planning, reading food labels, etcetera.

Does a **ONE** size Diet Fits?



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It is very important that instead of just providing information, that the program was culturally appropriate. When we started in the Produce section, many of the handouts and food lists include starchy foods such as squashes and sweet potatoes, etcetera.

Does a **ONE** size Diet Fits?

Starchy Vegetables

Acorn/butternut squash/pumpkin	1 cup
Corn	½ cup
Green peas	½ cup
Parsnips	1 small
Potato, baked	½ cup
Mashed Potato	½ cup
Sweet Potato	½ cup



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So this might be a common list of certain foods that are included.

However, translating this into Spanish might not be culturally appropriate.

A Food **PLAN** that Fits!



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This is a picture of the actual supermarket where I was conducting the tour. And as you can see, the starchy vegetables that are here include things such as cassava, it also includes taro, different kinds of yam.

A Food **PLAN** that Fits!

Starchy Vegetables	
Pumpkin	1 cup
Corn	½ cup
Green peas	½ cup
Cassava	1/3 cup
Potato, baked	1 small
Plantain	1/3 cup
Yam (ñame)	½ cup
Taro	1/3 cup



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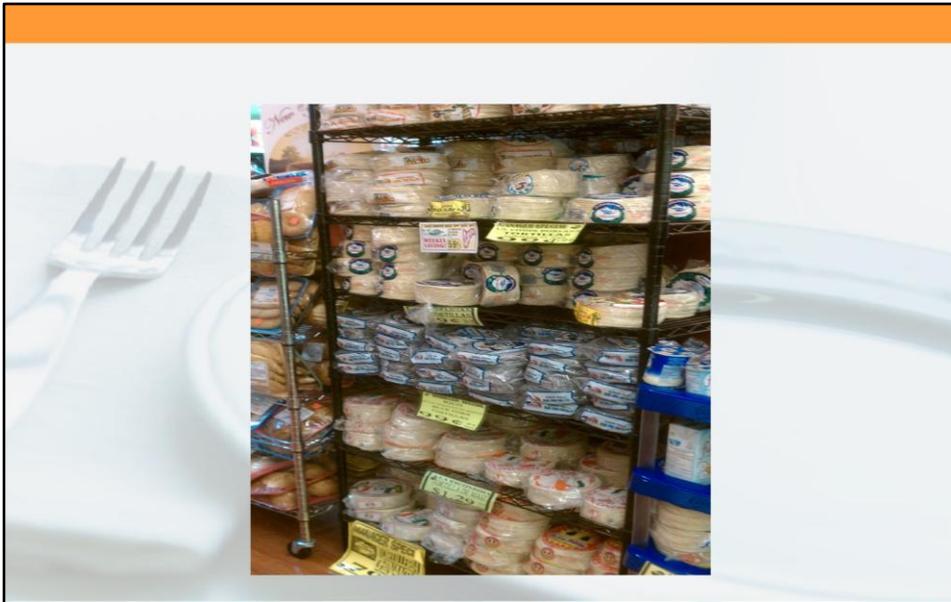
So when I had to culturally adapt the list, I included things such as the pumpkin, cassava, plantain, the yam and the taro. It is important to include in your handouts, even if they are in Spanish, not just the foods that are commonly traditionally listed, but the foods that the group consumes.



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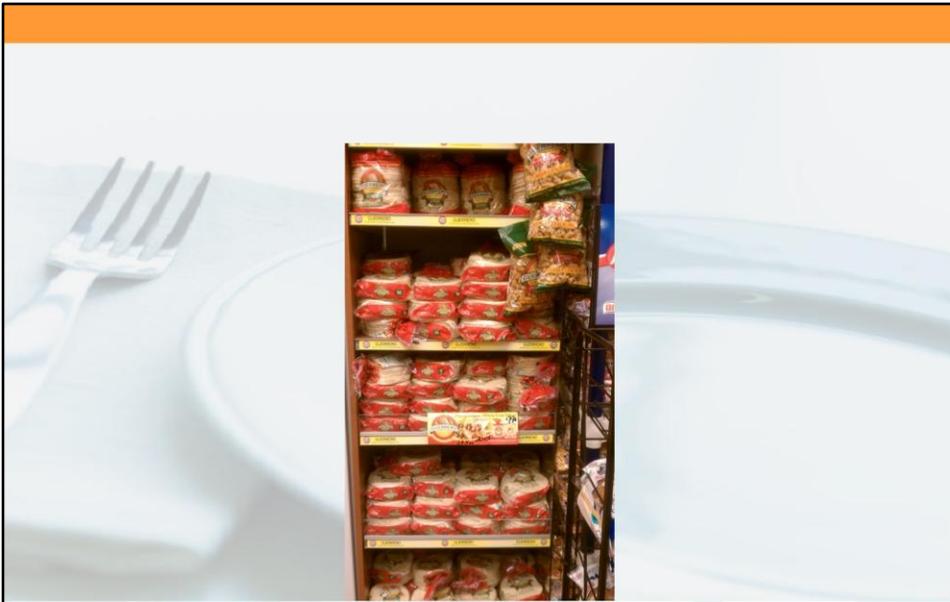
Same thing here, instead of just listing the breads and the different types of breads, as you can see here



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...there is one aisle with tortillas, another aisle with tortillas...



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...and more...



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...and more!

More Carbohydrates



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Here we have another aisle with tortillas and more carbohydrates in the form of corn flours to make different products.



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And of course from the floor all the way to the ceiling, rice and beans.

So it is very important to once again, and I am going to reiterate this, that when you're creating a program for Latinos, it's not just about translating the existing food list, but to incorporate those foods that are traditionally found in the Hispanic group that you're working with so that they actually know what to do.

Fats?



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This is again another picture of - and many of you might not know of what this is, but it's called crema, which is the sour cream equivalent which is widely used in Central America.

Fats?



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So we have avocado, we needed to include that.

Fats?

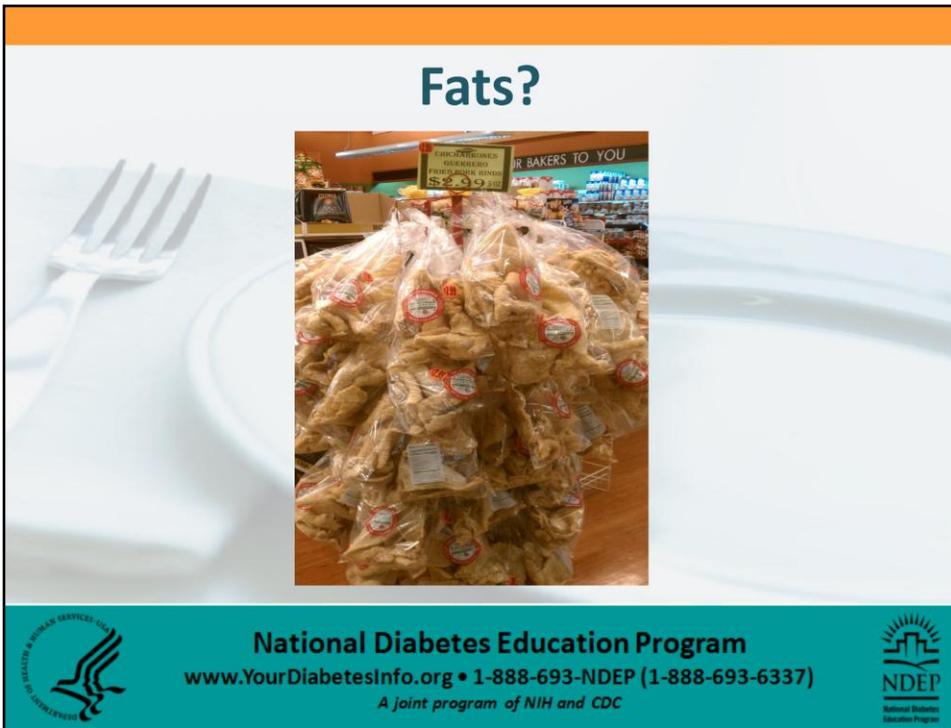
Fats
Mayonnaise
Cream cheese
Sour Cream
Salad dressing
Oils

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So a list of traditional fats for the American population may include mayo, cream cheese, sour cream, salad dressing and oils.

Fats?



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But then what happens is, look at this picture, again this is pork skin. So there is this giant display of pork skin. Now if a person with diabetes that consumes pork skin, how are they going to be able to manage their pork skin and still manage their diabetes?

Fats?

Fats
Cremas
Butter
Margarine
Avocado
Pork Rind
Oils

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So my fat list included crema, included pork rinds, and included avocado. Again, to make it culturally acceptable to an individual so that they know how to fit that pork rind in their meal plan.



Carbohydrate Teaching Tools for Latinos

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These are some carbohydrate teaching tools for Latinos. And the population that I worked with at the supermarket, many of them were not literate in Spanish, or in English. So what I did was at the end of the supermarket, I just created a visual tool. And my goal was for them to identify the foods that had carbohydrate.

Foods with carbohydrates



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So it was a mixture of just pictures that I had copied and pasted from Google, and but it includes things such as cassava, plantains and different - and of course tortillas that are ubiquitous in the person's diet. And then I wanted to show them the foods that didn't have any carbohydrates so that they could relate to that concept during our first visit to the supermarket.

Foods **without** carbohydrates



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And again I included things such as chicharrón, which means pork back fat. And I also included the crema, which are the jar that you see at the right hand side, right above the avocado.

Which has carbohydrates?



The other part of the - at the end of our presentation I wanted to make it real. We don't eat carbohydrates, protein in foods, we eat food. So what I did was I showed them a meal that had many different types of carbohydrate. And most of these patients came from El Salvador, so I wanted to create a visual that brought the foods that they're familiar with, the foods that they like to eat.

And as you can see here, we have pupusa, which is made out of corn, we had cassava, fried plantain, we had pork, we had an empanada, which is a patty, and we had two different kinds of tamale, one made out of chicken and the other one made out of corn.

How many carbohydrates?

A photograph of a plate of traditional Mexican food, including pupusas, tamales, and fried plantains. Red arrows point from labels to the corresponding items on the plate. The labels and their carbohydrate counts are as follows:

Food Item	Carbohydrate Count
Pupusa	30
Tamal de Pollo	15
Tamal de Elote	15
Yuca	15
Plátano frito	15
Puerco/Cerdo	0
Empanada	20

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So what I did was I asked them first, "Which of these foods have carbohydrate?" And I had them just point at the food or just call it out loud. And then I told them how much carbohydrate was in all the foods that they had selected. And I asked them, "Well if you have a 50 gram budget for this meal, you clearly have gone over. So what would you do to bring it to a 50 gram budget or you can change it to 75?"

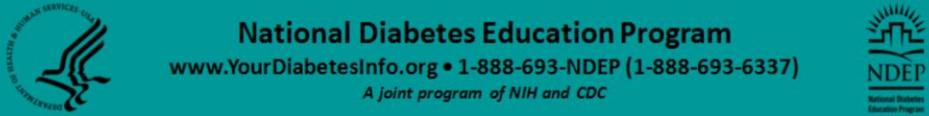
And then I have the individual say, "Well, I guess I'm not going to have the pupusa, or I'm not going to have the tamale, or I'm going to eliminate." So this way they were able to think about what they would do at home. It was not just about the numbers, but it was about meal planning with real foods.

Meal Makeover

BEFORE – Twice grain **AFTER – Twice vegetable**



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TALKING TIPS: Discuss meal modification – before and after – will also include fruit options

We also looked at before and after, this is the Plate Method. And we said, "Well you still can eat your rice and beans, but instead of having two scoops or two cups, maybe have one and then increase the amount of vegetables."

Meal Makeover: Arroz con Pollo

Before – Less vegetables



After - More vegetables



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TALKING TIPS: Discuss meal modification – before and after – will also include fruit options

We also looked about adding more vegetables into a meal like “Arroz con pollo”, fewer vegetables, more vegetables. We looked about food preparation. And we looked about plantains, deep fried or oven fried. And how do we teach portion control?

Meal Makeover: Plantains

Before: Deep Fried



After: Oven "fried"



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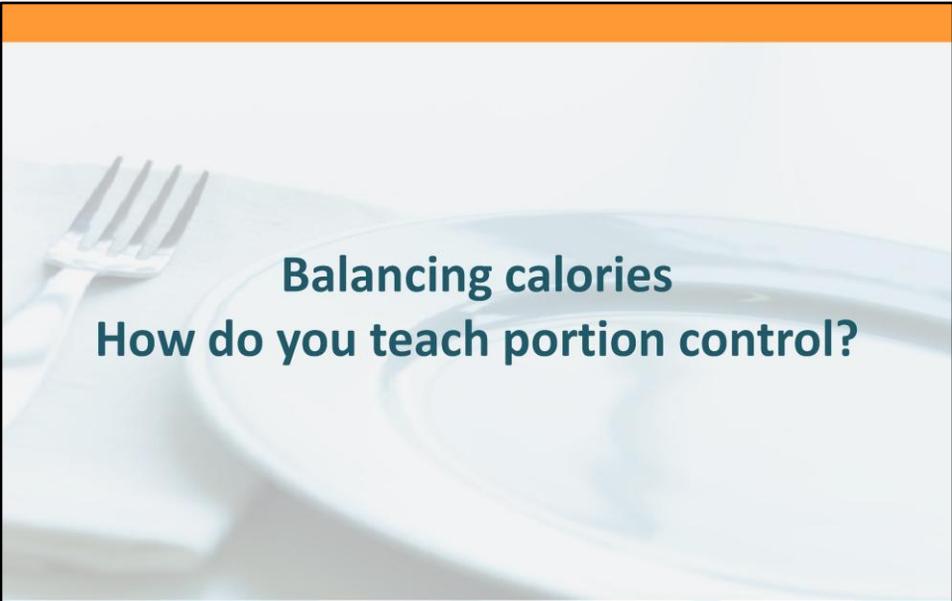
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Savory fried plantains vs

Sweet oven fired plantains rolled in corn flakes



Balancing calories
How do you teach portion control?



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Portion Control Teaching Tools

Serving Spoon



Comparison





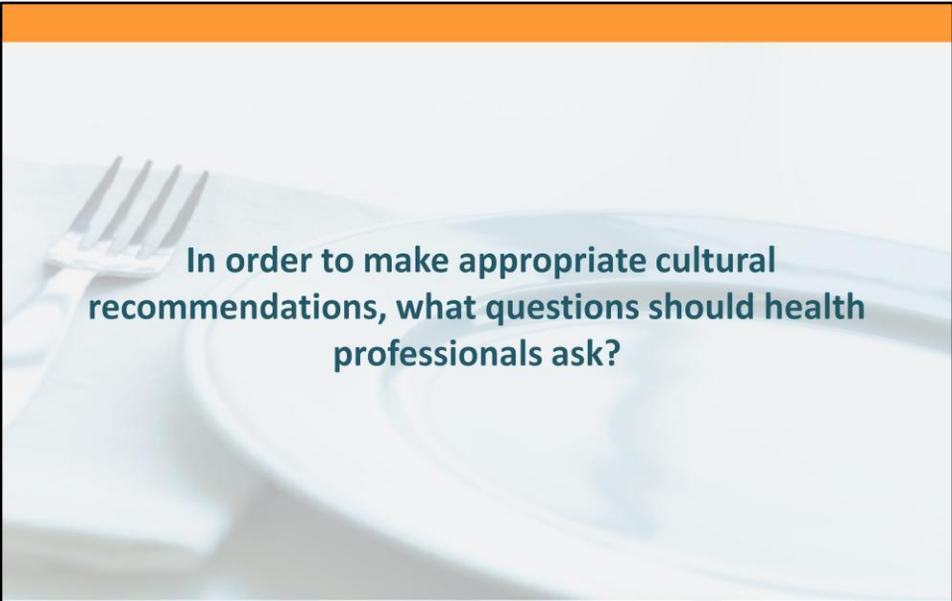
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TALKING POINTS: Serving Spoon – cucharon instead of measuring cups

Some comparison “objects” are more effective than others when describing portions: i.e. domino vs. computer mouse – One slice of cheese is about the same size as a domino tile

We look at the spoon method; how many spoons can I have of these foods in order to be balanced. And using comparisons that people were familiar with; one ounce of cheese doesn't mean much, however when I told them that 1 ounce of cheese looks like a tile of domino, especially Puerto Ricans that love to play domino, at least here in New York, they knew exactly what 1 ounce looked like. So using, not just the light bulb and other things, but things that are meaningful to the culture.



**In order to make appropriate cultural
recommendations, what questions should health
professionals ask?**



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Questionnaire

- WHAT'S in the (i.e Mexican/Colombian) Shopping Cart?
 - Top 20 foods consumed
 - Foods consumed/avoided in health and disease
 - Food preparation
 - Supermarket
 - Brands of choice
 - Recipes
 - Holiday foods
 - Rites of passage foods



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So what questions should you ask? This is really my little quick questions that I have used and that is, "Tell me about the Top 20 foods that you buy in your house. If I went to your house right now, what would be in your pantry, what would be in your kitchen?" I asked them, "What would a Mexican/Columbian/Venezuelan, have in the shopping cart?"

And, some other questions, which are not listed there.

Take Home Messages

- **Hispanics**
 - Comprise the largest minority in US...and growing
 - Very diverse groups from over 20 different countries
 - Food preferences vary widely among ethnicities
- **Medical Nutrition Therapy**
 - Manage blood glucose levels, minimize cardiovascular disease, and hypertension
- **Energy balance**
 - Quality and Quantity of Nutrient Mix
- **Use culturally appropriate teaching tools**



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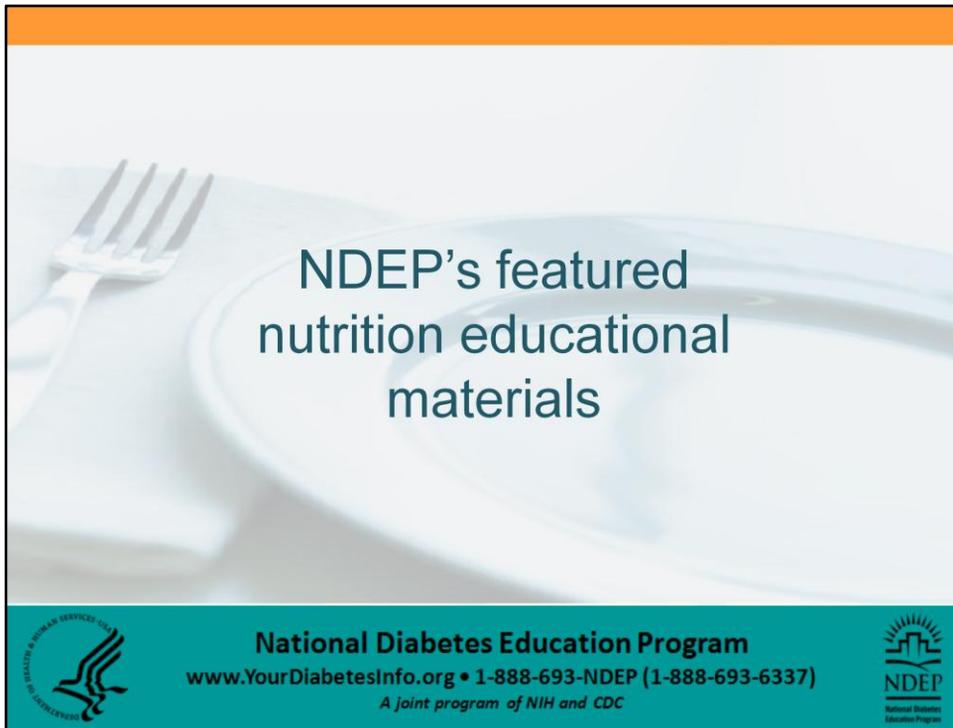
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Would like easy to digest take home messages that will help RDs improve their ability to serve Latino patients

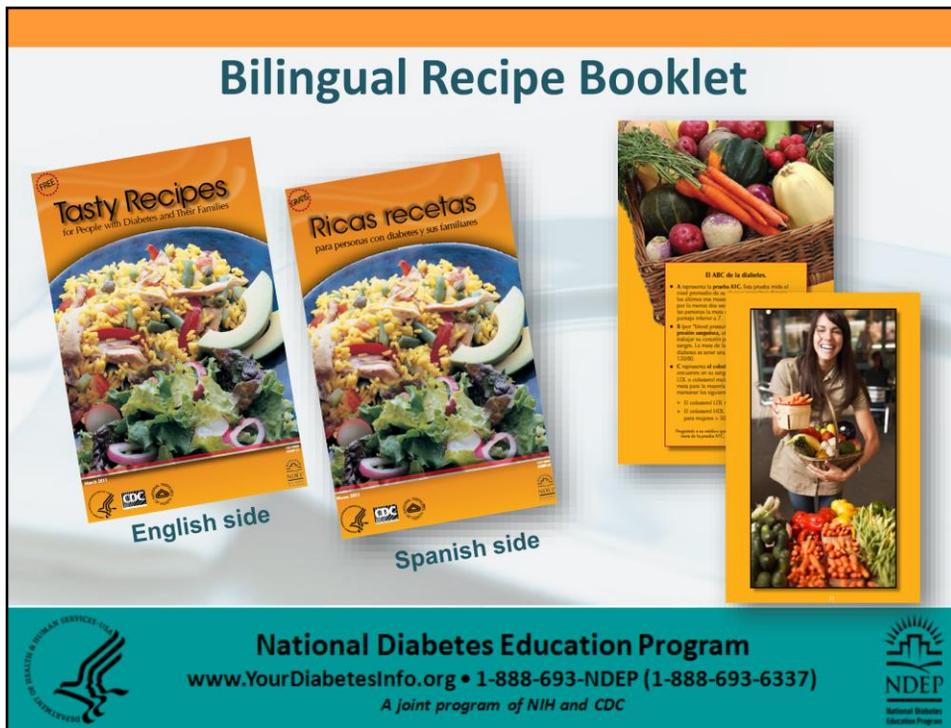
So the take home message is Hispanics comprise the largest minority in the United States, they're a very diverse group, and their food preferences vary widely amongst the different Hispanic regions. So you better ask, "What are your Top 20 favorite foods?"

Medical Nutrition Therapy, the three goals are to; manage blood glucose levels, minimize cardiovascular disease and hypertension, the energy balance should be good, quality, wholesome food in the appropriate quantity and use culturally appropriate teaching tools. And we looked at carbohydrate as one tool to manage diabetes -- not the only one, but one that we use today.



NDEP'S FEATURED EDUCATIONAL MATERIALS

Now I want to highlight a few of NDEP resources that you might want to check on the NDEP website right after we conclude this Webinar, that might be good resources for you and your patients.



BILINGUAL RECIPE BOOKLET

Among some of my favorite resources to use during diabetes and nutrition classes, I came across the NDEP bilingual recipe booklet, *Tasty Recipes for People with Diabetes and Their Families* or *Ricas recetas para personas con diabetes y sus familiares* in Spanish. And their latest edition contains new and revised recipes plus additional and more detailed information about diabetes control and prevention messages for people with diabetes and their families.

The recipes included in this recipe booklet are: the Spanish omelet, beef stew, red Caribbean snapper, two cheese pizza, arroz con pollo, pozole, avocado tacos, and tropical fruits fantasia. But besides these delicious recipes, the booklet has information that’s even more important. Topics include: What is diabetes; symptoms of diabetes; types of diabetes; tips in how to control diabetes; the ABCs of diabetes; the creation of a healthy meal plan; healthy food selection; and other links to obtain additional information. Plus, recipes are accompanied by their nutritional facts table. This effective, yet practical, educational tool is a terrific addition to any diabetes management class, nutrition class or as a giveaway to patients or clients.

Recipe cards – Set 1

The image displays four recipe cards arranged in a 2x2 grid. Each card has an orange header and footer. The top-left card is for 'TORTILLA Española' (Spanish Omelette) with a photo of a golden omelette. The top-right card is for 'TACOS de aguacate' (Avocado Tacos) with a photo of a taco. The bottom-left card is for 'Fantasía de FRUTAS TROPICALES' (Tropical Fruit Fantasy) with a photo of various fruits. The bottom-right card is for 'Arroz con Pollo a la ESPAÑOLA' (Spanish Chicken and Rice) with a photo of a rice dish. Each card includes the title in both Spanish and English, a small paragraph of text in both languages, and logos for the National Diabetes Education Program (NDEP) and the National Institutes of Health (NIH).

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RECIPE CARDS – SET 1

Because of the popularity of the recipe booklet, and people wanting to share the recipes with others, the NDEP came up with another yet great idea and produced recipe cards of all the recipes.

Here you can see some samples of the most recent *Más que comida es vida* recipe cards. This is the 1st. set that was produced that is available for downloading from the NDEP site. It is worth mentioning that all the recipe card sets are available in English or Spanish.

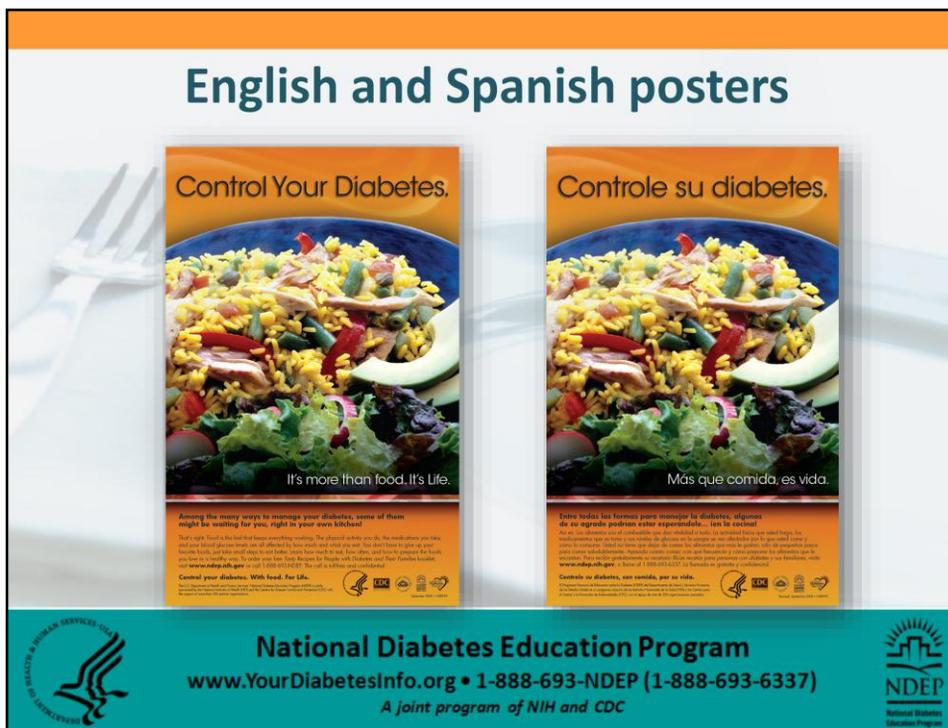
Recipe cards – Set 2

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RECIPE CARDS – SET 2

This is the 2nd set that is available for ordering or downloading from the NDEP site. All The recipe card sets are available in English or Spanish in packages of 4 cards, which make the set.

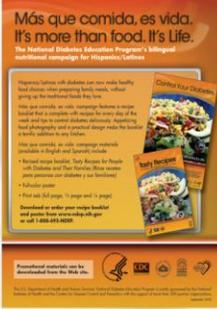
And besides these sample products that I am showing you here, there are plenty of other great resources on the NDEP website that I recommend checking out.



ENGLISH AND SPANISH POSTERS

Other great resources that are part of NDEP's Mas que comida, es vida is the poster. This is a back to back piece (one side is in English and one side is in Spanish), showcasing the control message in the header. This is a good piece to post in waiting rooms, cafeterias, libraries, laundries, supermarkets or bodegas, restaurants, or in clinical settings...

Sample Ads



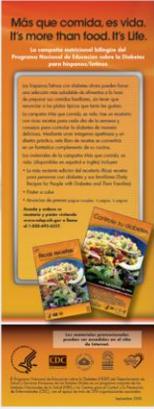
1 page - English



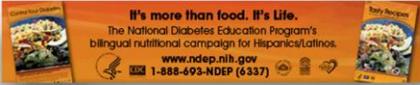
½ horizontal page - English



¼ page - Spanish



½ vertical page - Spanish



Online banner (English & Spanish)



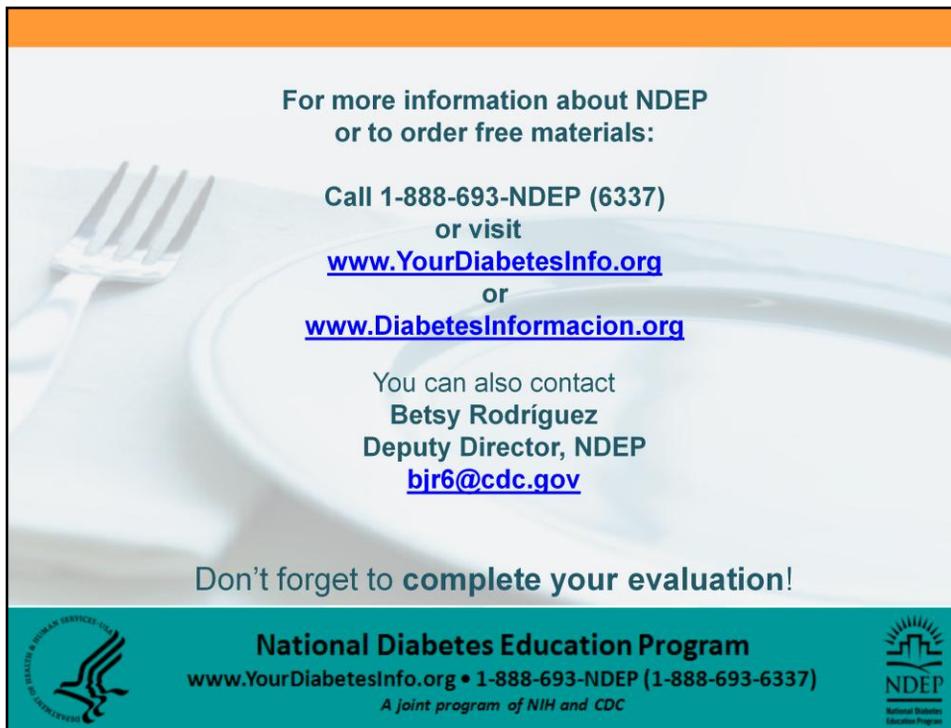
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SAMPLE ADS

And if you want to go further, you could tap on these ads and web banners that could be printed as flyers, or in a newsletter, e-mail message, e-blast, or any other form of communication that you or your organization publish. As you can see, they come in various sizes and formats.

Now I turn back this presentation to Betsy, who will tell you where to get these resources and then, I'll answer some questions from participants.



For more information about NDEP
or to order free materials:

Call 1-888-693-NDEP (6337)
or visit
www.YourDiabetesInfo.org
or
www.DiabetesInformacion.org

You can also contact
Betsy Rodríguez
Deputy Director, NDEP
bjr6@cdc.gov

Don't forget to **complete your evaluation!**

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For more information, or to order materials please call our number at 888-693-NDEP or visit our Website at www.yourdiabetesinfo.org. Search under “Diabetes Topics” and select “Recipes”.

For questions or comments about this webinar or the NDEP’s Mas que comida, es vida, please send an email to Betsy Rodríguez at bjr6@cdc.gov.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Diabetes Education Program

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NDEP is a partnership of the [National Institutes of Health](#), the [Centers for Disease Control and Prevention](#), and more than 200 public and private organizations.

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I Have Diabetes



NDEP translates the latest science and spreads the word that diabetes is serious, common, and costly, yet *controllable* and, for type 2, *preventable*.

Diabetes Topics:

Find Publications for Me

To search the NDEP database for publications specifically for you, select from the options below. To view more publications, select fewer options. At least one option must be selected.

Age

Diabetes Status

Ethnicity/Place

Language

Am I at Risk?



Health Care Professionals, Businesses & Schools



Partners & Community Organizations



Publications [View more Publications >](#)

4 Steps to Control Your Diabetes. For Life. (NDEP-47)
These four steps help people with diabetes understand, monitor, and manage their diabetes to help them stay healthy. This publication is excellent for people newly diagnosed with diabetes or who just want to learn more about controlling the disease.

Small Steps. Big Rewards. Your GAME PLAN to Prevent Type 2 Diabetes. Information for Patients. (NDEP-48)
This three-booklet package helps people assess their risk for developing diabetes and implement a program to prevent or delay the onset of the disease. Includes an activity tracker and a fat and calorie counter.

Guiding Principles for Diabetes Care. (NDEP-148)
This evidence-based booklet outlines important patient-centered principles of diabetes care, helping health care professionals identify people with pre-diabetes and undiagnosed diabetes for treatment.

What's New

[Mas que comida, es vida. It's more than food, it's Life's National Poster](#)
This poster is designed to dispel misunderstandings about healthy eating and teaches Hispanics/Latinos to adopt a meal plan that maintains the cultural uniqueness of their food.

[Ten Smart Snacks for Teens](#)
Teens need snacks as part of their daily food intake – the trick is making healthy food choices in the right amounts. NDEP offers 10 simple and healthy snack suggestions.

[Better Diabetes Care](#) 
[diabetesatwork.org](#)
diabetesatwork.org



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We invite you to use the resources on our website at www.yourdiabetesinfo.org. Here you will find information for people with diabetes, at risk for diabetes, health care professionals, businesses, schools, and community organizations.

About the National Diabetes Education Program

NDEP spreads the word that diabetes is serious, common, and costly, yet controllable and preventable.



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Thank you for participating in this webinar. The National Diabetes Education Program is a partnership of the Centers for the Disease Control and Prevention, the National Institutes of Health, and more than 200 public and private partners. Our goal is to reduce the illness and deaths caused by diabetes

NDEP translates the latest science and spreads the word that diabetes is serious, common, and costly, yet controllable and preventable.



Q&A Section *¿Preguntas?*



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iiii MUCHAS GRACIAS !!!!!



Please complete evaluation and e-mail it to
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Well thank you very much, “gracias”, for being in our webinar. I'm hoping that this webinar was informative and you are learned how to deal with the Latino population and diabetes.

I want to thank Lorena Drago for being our speaker for today. And I want for all of you to give her a little applause. So thank you very much Lorena. And thanks everybody.