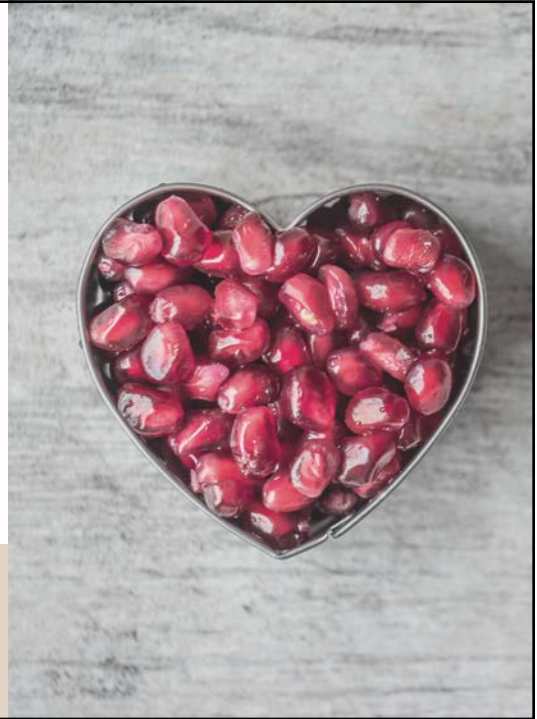


TEXAS A&M AGRILIFE EXTENSION SERVICE

# Why Nutrition Matters with Diabetes and Hypertension

Danielle Hammond-Krueger MPH, RD, LD  
Extension Program Specialist

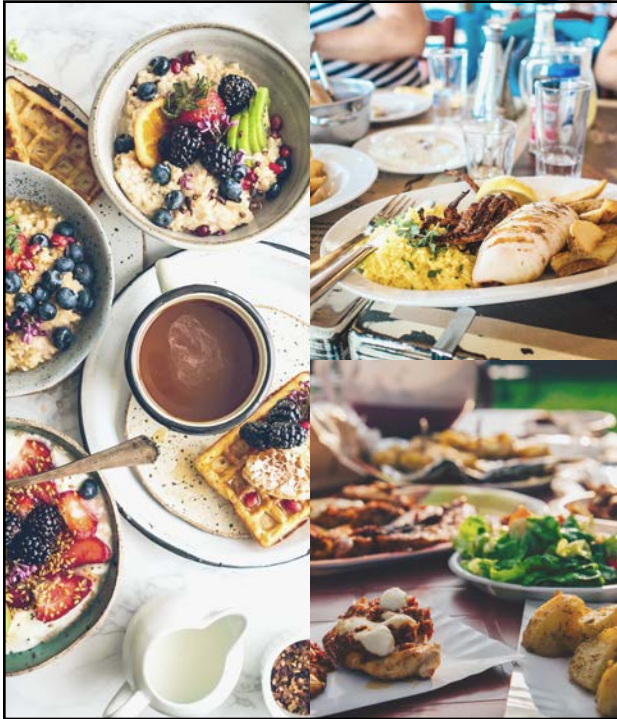


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## Today's Discussion

Define type 2 diabetes and hypertension  
Connection between food and diabetes/hypertension  
Extension Programs addressing these topics

2

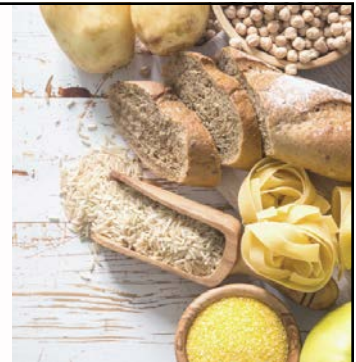


## WHAT IS TYPE 2 DIABETES?

A disease that occurs when your blood glucose is high. Diabetes is a problem with your body that causes blood glucose (sugar) levels to rise higher than normal.

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**BODY MAY NOT USE INSULIN EFFECTIVELY**



**BODY MAY NOT PRODUCE INSULIN OR ENOUGH INSULIN**

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**TYPE 2  
DIABETES**

**WE EAT FOODS WITH CARBOHYDRATES**

**OUR BODIES BREAKDOWN CARBOHYDRATES INTO GLUCOSE**

**GLUCOSE IS CARRIED THROUGH THE BLOOD**

**PANCREAS DOESN'T RELEASE ENOUGH INSULIN OR THE INSULIN DOESN'T WORK EFFECTIVELY**

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**FOODS THAT AFFECT OUR BLOOD GLUCOSE THE MOST = CARBOHYDRATES**

SOURCE: 2019 STANDARDS OF MEDICAL CARE FOR DIABETES

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# What's in a carbohydrate



Starch



Sugar



Dietary Fiber

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Starch



Sugar

**CARBOHYDRATE FOODS  
BREAKDOWN INTO  
GLUCOSE**

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# Focus on the amount of carbohydrates

- COUNTING CARBOHYDRATES
- FOCUSING ON A PLATE METHOD

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## foods higher in carbohydrates



### GRAINS

Bread, cereal, rice, pastas, and tortillas



### FRUIT

Fruit juices, dried, canned or frozen fruit.



### STARCHY VEGETABLES

Potatoes, corn, peas, beans, lentils, and winter squashes



### DAIRY

Dairy milk, yogurt, and smoothies



### SWEETS & SWEETENED BEVERAGES

Cakes, jellies, cookies, ice creams, or sport drinks

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# foods lower in carbohydrates



## PROTEIN

lean meat, poultry, seafood,  
and shellfish



## FATS

Olive oil, canola, sunflower,  
peanut, or corn oils



## NON-STARCHY VEGETABLES

Broccoli, cauliflower,  
eggplant, carrots, turnips,  
summer squashes

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# NUTRITION'S ROLE



Assist in blood glucose management



Delay or prevent complications from type 2 diabetes



Provides a lifestyle approach

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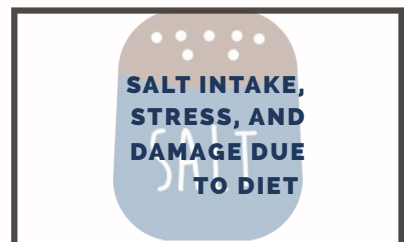
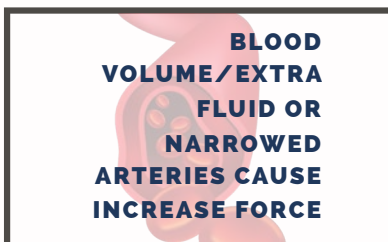
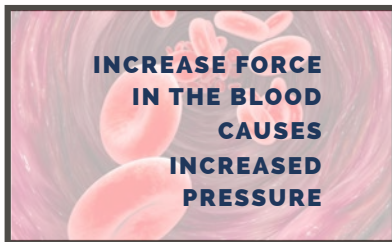
## WHAT IS HYPERTENSION?

A condition in which blood pressure (BP) remains elevated over time. In adults, HTN or HBP is defined as a systolic blood pressure (SBP) of 130mmHg or greater and a diastolic blood pressure (DBP) of 80mmHg or greater.

SOURCE: EVIDENCE ANALYSIS LIBRARY - ACADEMY OF NUTRITION AND DIETETICS ; 2018

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## HYPERTENSION



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## salty six



BREADS  
& ROLLS



PIZZA



SANDWICHES



COLD CUTS  
& CURED  
MEATS



SOUPS

SOURCE: [HTTPS://WWW.HEART.ORG/EN/HEALTHY-LIVING/HEALTHY-EATING/EAT-SMART/SODIUM/SALTY-SIX-INFOGRAPHIC](https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sodium/salty-six-infographic)

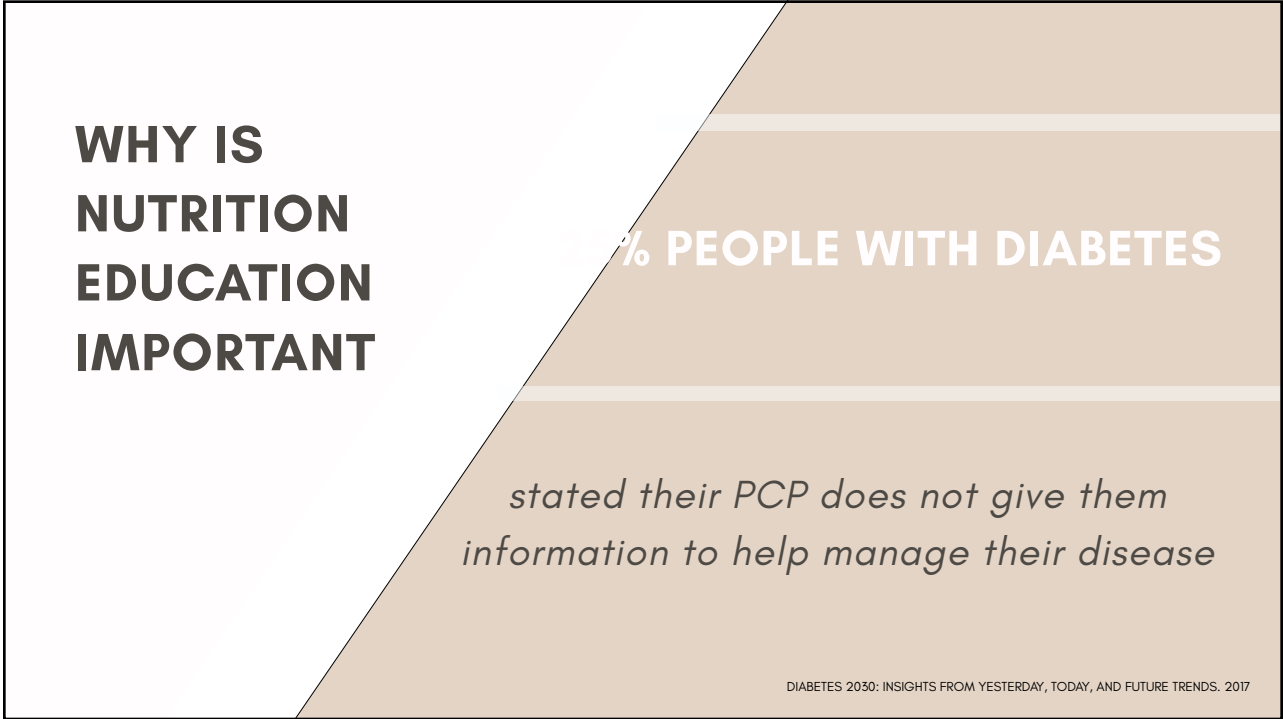
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## NUTRITION'S ROLE

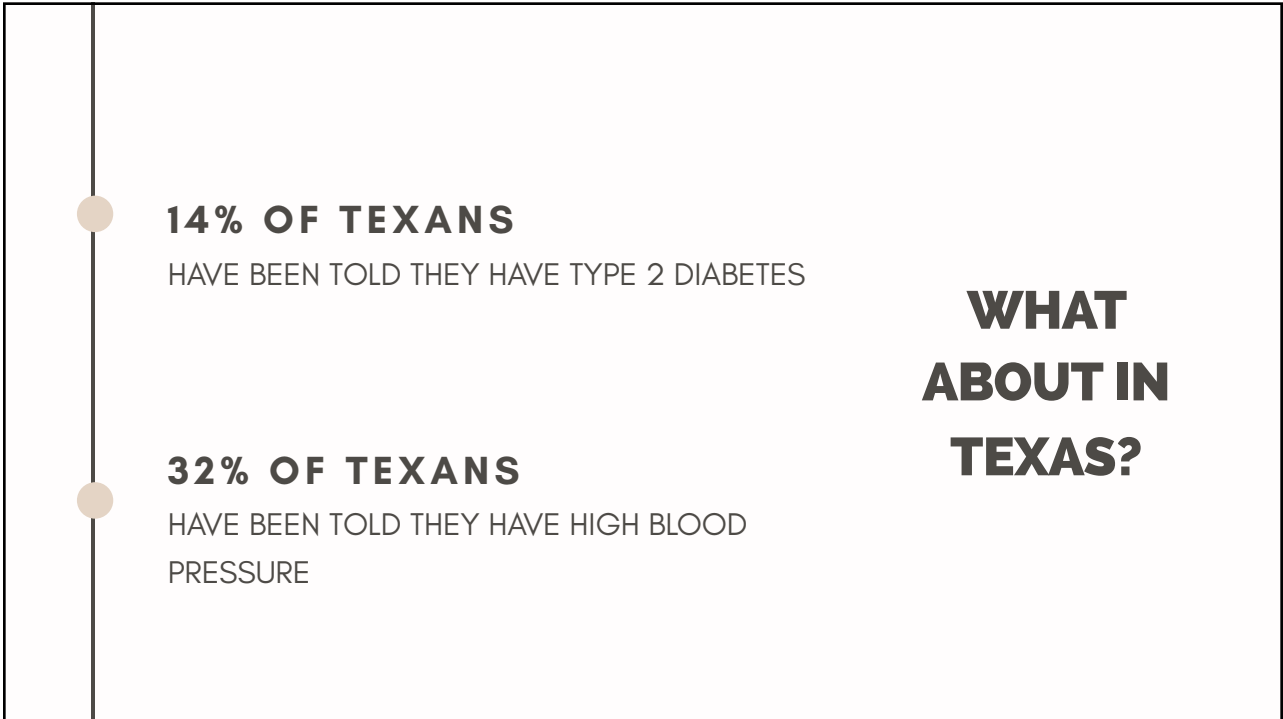
- increasing vegetable and fruit intake increases potassium and helps to reduce blood pressure
- Delay or prevent complications from high blood pressure
- Delay or prevent cardiovascular complications

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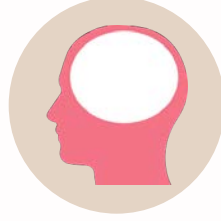
## WHY DO NUMBERS MATTER?



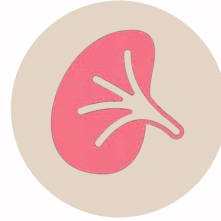
Heart Disease



Stroke



Cognitive Decline



Other Organs

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## DIABETES CURRICULUM


Do Well, Be Well with  
Diabetes

Si Yo Puedo & Wisdom,  
Power, & Control

Cooking Well with  
Diabetes

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# DIABETES CURRICULUM



Do Well, Be Well with  
Diabetes

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## DO WELL, BE WELL WITH DIABETES

- 5 CLASS SERIES - TAUGHT BY LOCAL HEALTH PROFESSIONALS OR AGENTS (WEEKLY)
- DIVIDED INTO SELF-CARE AND DIETARY COMPONENTS OF DIABETES MANAGEMENT
- IMPROVE DIETARY AND SELF-CARE BEHAVIORS AND CONFIDENCE IN CARING FOR DIABETES (PREDIABETES, DIABETES, OR CAREGIVERS)
- EVALUATED USING PAIRED PRE AND POST EVALUATIONS ENTERED INTO QUALTRICS

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## DO WELL, BE WELL WITH DIABETES

CLASS 1: GETTING STARTED: HOW FOOD AFFECTS YOUR BLOOD GLUCOSE

CLASS 2: ARE YOU EATING THE RIGHT NUMBER OF CARBOHYDRATES

CLASS 3: BEYOND THE DIET: IMPROVING YOUR BLOOD GLUCOSE CONTROL WITH PHYSICAL ACTIVITY

CLASS 4: BEYOND DIET AND PHYSICAL ACTIVITY: IMPROVING YOUR BLOOD GLUCOSE CONTROL WITH MEDICATION

CLASS 5: CELEBRATING DIABETES CONTROL: HAVING YOUR CAKE (OR SNACK) AND EATING IT, TOO!

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## WAYS TO HELP

<input type="checkbox"/> RECRUITMENT OF HEALTH LOCAL HEALTH PROFESSIONALS OR PARTICIPANTS	<input type="checkbox"/> ASSIST WITH CLASS FOOD DEMONSTRATION AND CLASS MATERIALS	<input type="checkbox"/> ASSIST WITH DATA ENTRY OF SURVEY
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**HYPERTENSION CURRICULUMS**

DASHing Your Way to Improved Health

Do Well, Be Well with Hypertension

Cooking Well with High Blood

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**HYPERTENSION CURRICULUMS**

DASHing Your Way to Improved Health

Do Well, Be Well with Hypertension

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## DASHING YOUR WAY TO IMPROVED HEALTH



1 SHOT SERIES - IMPLEMENTED AS STAND ALONE OR PRE HYPERTENSION SERIES



PROVIDES A BASIC OVERVIEW TO THE DASH EATING PLAN



IMPROVE KNOWLEDGE OF BLOOD PRESSURE AND VEGETABLE AND FRUIT INTAKE FOR HYPERTENSION



CUSTOMER SERVICE SURVEY

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## DO WELL, BE WELL WITH HYPERTENSION



4 CLASS SERIES (OPTIONAL 5TH CLASS) - TAUGHT BY AGENTS TRAINED ON HYPERTENSION (BI WEEKLY OR WEEKLY)



DIVIDED INTO DASH EATING PLAN COMPONENTS - VEGETABLES, FRUITS, DAIRY, AND OVERVIEW



IMPROVE BLOOD PRESSURE AND VEGETABLE AND FRUIT INTAKE FOR HYPERTENSION (ELEVATED, HYPERTENSIVE, OR CAREGIVERS)



EVALUATED USING PAIRED PRE AND POST (FOLLOW-UP) EVALUATIONS ENTERED INTO QUALTRICS

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## DO WELL, BE WELL WITH HYPERTENSION

CLASS 1: MAKING A DATE WITH THE DASH

CLASS 2: BE DASHING WITH FRUITS AND VEGETABLES

CLASS 3: MAKE THE DASH TO SHAKE YOUR SALTY HABIT

CLASS 4: DASHING WITH DAIRY

CLASS 5: OPTIONAL - UNCOVERING ADDED SUGARS

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## WAYS TO HELP



RECRUITMENT OF PARTICIPANTS



ASSIST WITH CLASS FOOD DEMONSTRATION AND CLASS MATERIALS



ASSIST WITH DATA ENTRY OF SURVEY

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# Thank You!

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