



# Blood Pressure and Blood Sugar

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# We've all heard about them...

1. But what are they?
2. What do these values mean?
3. How can we control them?



# Let's start with the basics

- What is blood pressure (BP)?
- What do the two values mean?
- What is a “normal” blood pressure?



# BP varies

Systolic Pressure (Larger Number)	Diastolic Pressure (Smaller Number)	Clinical Definition
<130 mmHg	<80 mmHg	Normal
130 – 139 mmHg	80 – 89 mmHg	Pre – hypertension
140 – 159 mmHg	90 – 99 mmHg	Hypertension (Stage 1)
≥160 mmHg	≥100 mmHg	Hypertension (Stage 2)

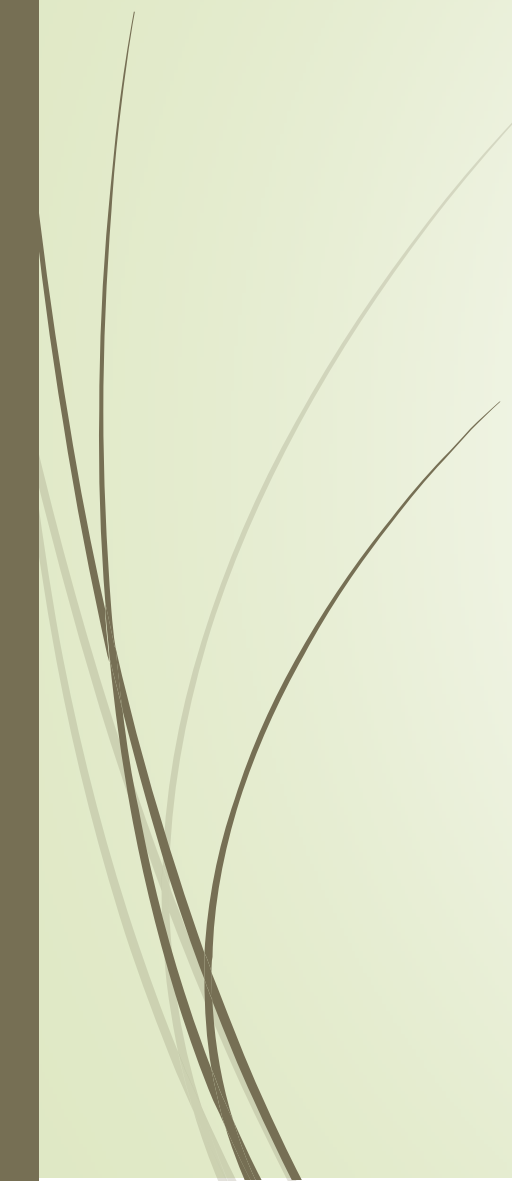


# Significance of high blood pressure

- High BP is the #2 cause of kidney damage
- Increases strain on the arteries, raising the risk for heart attacks, strokes, and even a ruptured blood vessel

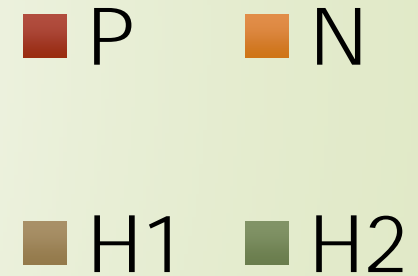
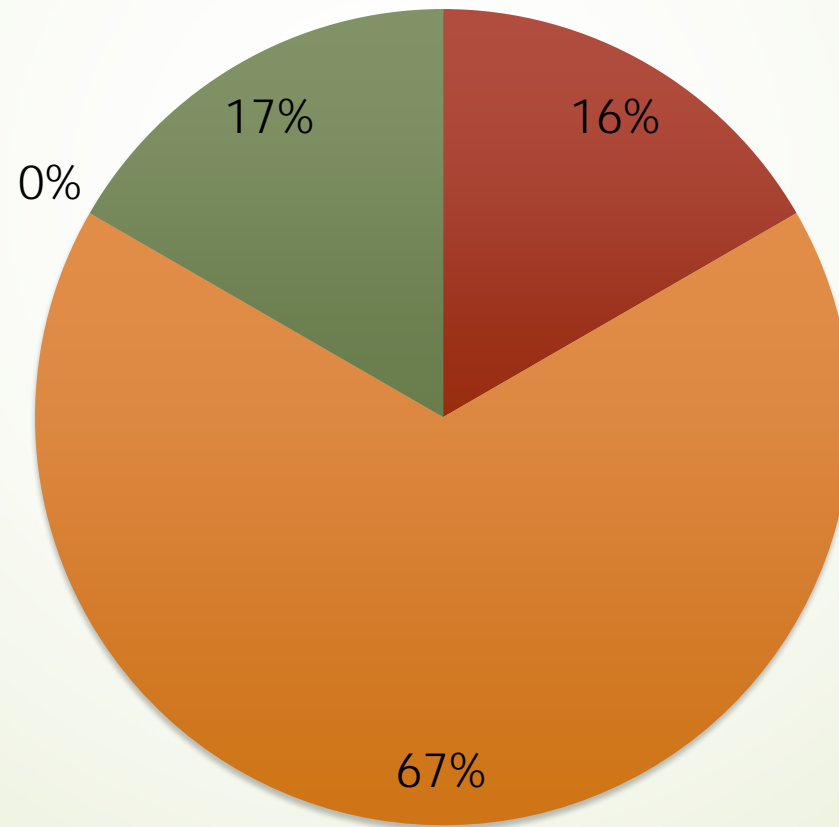


# How do we control BP?

- Exercise
  - Reduced salt intake
  - Reduced fluid intake
  - Diuretics (“water pills”)
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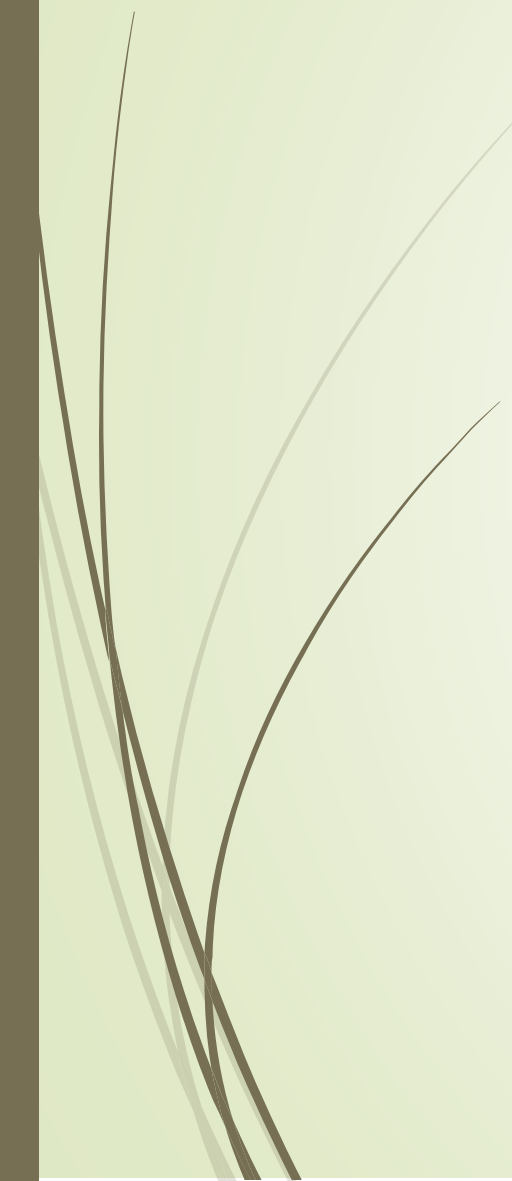
# BP Data from Today

## Blood Pressure Distribution





# More basics

- What is blood sugar?
  - Where does it come from?
  - What is a normal blood sugar level?
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# In patients without diagnosed diabetes

Values When Fasting (Before Eating)	Clinical Significance
<100 mg/dl	Normal
100 – 125 mg/dl	Impaired Fasting Glucose
>125 mg/dl	Indicated Diabetes

Non-Fasting Values (After Eating)	Clinical Significance
<140 mg/dl	Normal
140 – 200 mg/dl	Impaired Fasting Glucose
>200 mg/dl	Indicates Diabetes



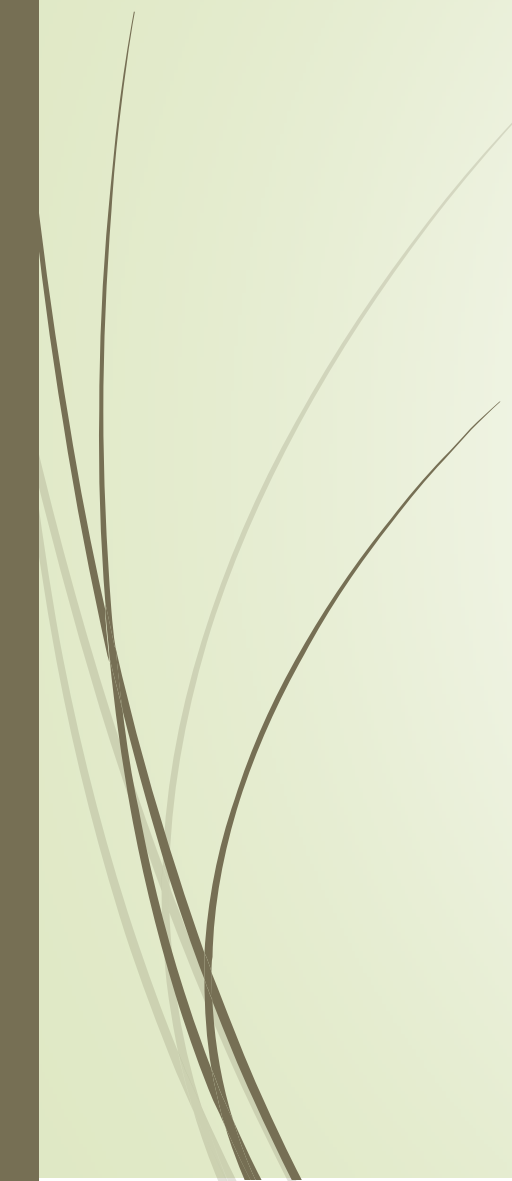
# In patients with diagnosed diabetes

Values When Fasting (Before Eating)	Clinical Significance
<80 mg/dl	Below target range
80 – 120 mg/dl	Within target range
>120 mg/dl	Above target range

Non-Fasting Values (After Eating)	Clinical Significance
$\leq$ 180 mg/dl	Within target range
>180 mg/dl	Above target range



# Why control blood sugar?

- Unusual blood sugar levels generally indicate diabetes
  - Diabetes is the number one cause of kidney disease!
  - Long term damage from diabetes is generally permanent
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# How do you control blood sugar?

- ▶ Watch the sugar content of your foods – lifestyle is important!
  - ▶ This is important even if you are not diabetic
- ▶ If you are diabetic, take your insulin as directed



# Can YOU answer the three questions?

1. What are blood pressure and blood glucose?
2. What do they mean?
3. How do we control them?



# Another note:

- Understanding your blood pressure and blood glucose can be tricky – values vary!
- Even the ideal values are actually ranges. They vary from person to person
- It is critical for you to communicate with your medical team in order to understand what is happening in your body