

Meeting 6



Diabetes and a Healthy Heart

Welcome!

Welcome to the Diabetes and a Healthy Heart lesson! It's good to see you again! Before we visit with Uncle Tommy and Kaipo, let's take a few minutes to review the last five meetings.

Glucose Balance Makes a Difference!



In meeting 1, **Glucose Balance Makes a Difference**, we said to get and keep your glucose in balance, it is important to:

- ✓ Know your glucose numbers,
- ✓ Know what makes them go up and down,
- ✓ Self-test often, with a goal of 70 - 130 before eating, and lower than 180 two hours after eating, and
- ✓ Get A1c lower than 7.

Medicine Helps with Glucose Balance!



In meeting 2, **Medicine and Glucose Balance**, we said:

- ✓ Diabetes medicine is an important part of a diabetes treatment plan, and
- ✓ Diabetes medicine works together with healthy eating and physical activity to lower blood sugar.

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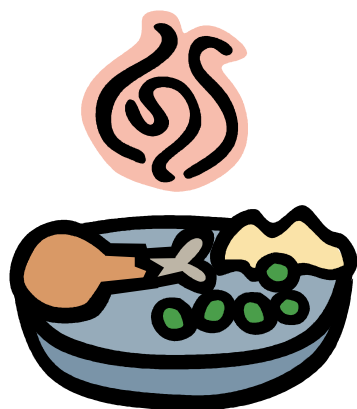


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In meeting 3, **Food and Glucose Balance**, we said to:

- ✓ Develop a routine to eat your meals and snacks at about the same time each day.
- ✓ Eat a variety of foods high in fiber and low in fat, calories and sugar, such as whole wheat bread, brown rice, and vegetables.
- ✓ Avoid foods high in fat or oil, like fried foods, bacon, sausage, mayonnaise, and cheeses.
- ✓ Read food labels to find the best foods for glucose balance!



In meeting 4, **Plan Meals for Glucose Balance**, we said:

- ✓ The three main food plans for glucose balance are:
 - 1) The Exchange Meal Plan
 - 2) The Glycemic Index Plan
 - 3) The Counting Carbohydrates Plan
- ✓ Counting Carbohydrates Plan may be the easiest to do because you can read food labels to monitor the number of carbs you eat.
- ✓ It is important to monitor your blood sugar to see how different foods affect glucose balance.

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**Physical activity
lowers blood
sugar!**

In meeting 5, **Move More, Sit Less** we said that healthy physical activity means:

- ❖ You do it at least 10 minutes a day all at one time
- ❖ You do it at least 3-4 times per week
- ❖ Your heart beats faster and you sweat a little
- ❖ It should be easy enough to talk to someone while your being active, and
- ❖ It's FUN!
- ❖ Plan to start being active 10 minutes each time if you haven't been active in a long time. It is best if you can work up to 30 minutes; then 60 minutes for most days of the week.

We know staying in balance is hard work, but think of this – you are working towards getting your glucose in balance so that you can enjoy a long and healthy life and spend time with your friends and family.

It is now the beginning of July and everyone in the neighborhood is busy getting ready for a big weekend. Kaipo and his dog Skip are helping Uncle Tommy get in shape for the Fourth of July Fun Run to raise money for the American Diabetes Association.



“Uncle, your time is 32 minutes,” said Kaipo as he looked at the stopwatch. “Whew! I need to work on my time if I expect to get anywhere, don’t I?” replied Uncle, as he laughed and began to stretch his legs. “Why are you working so hard?” asked Kaipo. “It is going to be hard to beat everyone else, especially Mr. Thomas.” “You know, Kaipo, I am not in the fun run to beat the others. I am an old man and I

can’t run as fast as the others. I just want to do the very best for my people and for me,” said Uncle Tommy.

“Let’s go get some water to drink and sit underneath that tree over there. I’ll tell you why it is so important to me,” said Uncle. “Come on Skip. You are probably thirsty too,” Kaipo said and motioned to his dog. After they drank their water and sat down, Uncle told Kaipo why being in the fun run was so important to him.

“Because I have diabetes, I really try to take care of myself so that I can be around for a long time,” said Uncle. “I know you do, Uncle. I see you checking your blood sugar and taking your medicine every day,” Kaipo said.





“Well, I also want to keep my heart healthy. Being active and eating healthy foods help keep my blood pressure and cholesterol in balance. As a community leader, I also want to be able to take part in the fun run so that I can be a role model for others in the community.”

I have heard too many people tell me how hard it is to take care of themselves, or that they just leave it up to the doctor to take care of their health problems for them. That should not be. We have the gift of wisdom that has been handed down to us by our ancestors and we can't lose that. It is also important that we do not let diabetes get us down. We need to be a strong people again,” Uncle said with a strong voice. “This is what I want for my people and it's what I want for you and for me.”

“Well, I guess we better get back to practicing,” said Kaipo.



The weekend came and Uncle, Kaipo and Skip participated in the fun run. People from the entire community came and either walked or ran. It was a great day. Mr. Thomas came in first. Uncle cut his time down to 30 minutes and he knew that he had done his best and was proud of it! He was also proud that his people were trying to be healthier too.



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Take Care of Your Heart



As we heard from Uncle Tommy, there are many things we can do to keep our hearts healthy. It is important to do these things because heart disease is more common in people with diabetes. People with diabetes need to take extra care of their hearts so that they can enjoy a long and healthy life.

The good news is that you can keep your heart healthy by:

1. Keeping your glucose in balance,
2. Eating low-fat, healthy foods and more fruits and vegetables,
3. Exercising most days for at least 20 minutes, but more is better, and
4. If necessary, taking medicine to keep your blood pressure and glucose in balance.



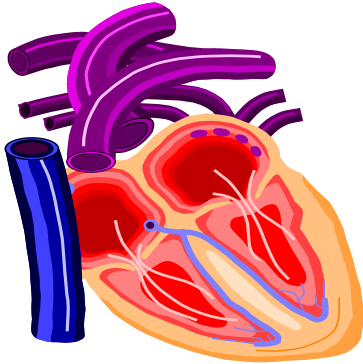
It is important to talk with your provider about how you can keep your heart and blood vessels healthy. Learn as much as you can about your heart.



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Heart Action!



Let's talk about how the heart works.

The heart pumps blood to all parts of the body and needs to have all the arteries and blood vessels healthy and unblocked to carry enough blood.

Keeping your glucose in balance (fasting blood glucose 70-130, and lower than 180 one to two hours after a meal) helps keep your heart, arteries, and blood vessels healthy, smooth, and clear.

Hardening of the Arteries (Atherosclerosis) ath-er-o-skler-o-sis

If glucose is high, it may cause the walls of the arteries to become rough. This allows fat (plaque) to build up on the walls of the arteries. This is called hardening of the arteries, or atherosclerosis. When fat builds up on the artery walls, the arteries get narrow and partly blocked. This causes less blood to flow to that part of the heart.

The heart muscle cannot get enough oxygen and becomes damaged. Over time, it may become completely blocked and cause a heart attack. So, keeping your glucose in balance is one way to have a healthy heart and prevent heart disease.



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Blood Pressure Control Makes a Difference!

Hypertension hi-per-ten-shun

Keeping your blood pressure in balance is another way to have a healthy heart and prevent heart disease.

High blood pressure means that blood is pressing too hard against the artery walls, wearing down the lining of the arteries, and letting fat (plaque) build up in them.

Hypertension is the medical term for high blood pressure. High blood pressure has no signs or symptoms. A person can have high blood pressure and not even know it. People with diabetes are as much as three times more likely to have high blood pressure than people without diabetes.

High blood pressure is not good for the heart, the kidneys, or the eyes. High blood pressure can cause a stroke, a heart attack, kidney failure, and even death.

The good news is that high blood pressure can be managed. There are two numbers for blood pressure:

- Systolic (top number) measures the pressure when your heart beats and pushes blood into blood vessels.
- Diastolic (bottom number) measures the pressure when the heart rests between beats.

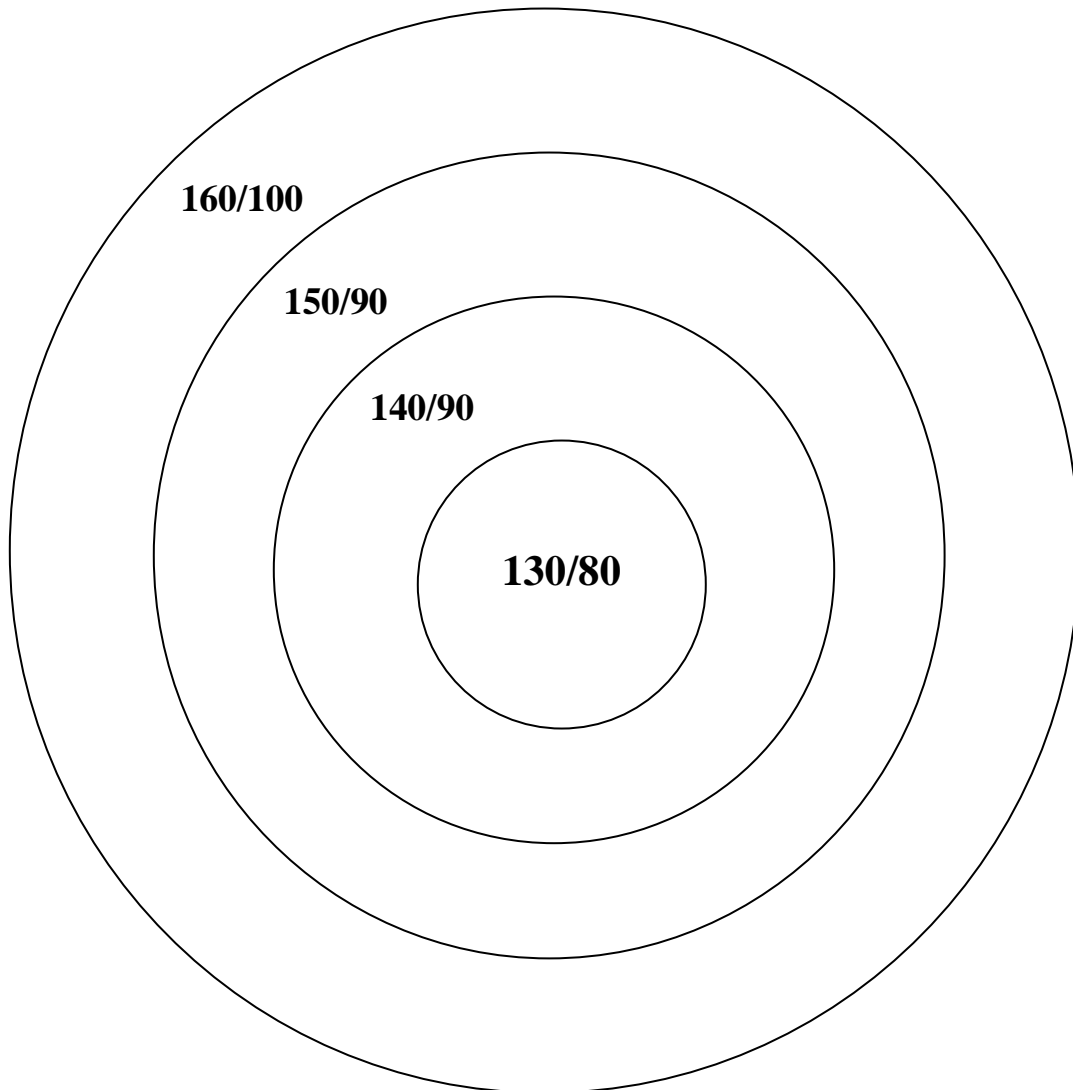


For people with diabetes, it is best to have a blood pressure of **130/80 or lower**.

Blood Pressure Target

Let's color the blood pressure target:

1. Color the center circle green for the number to aim for 130/80.
2. Color the 140/90 circle yellow.
3. Color the 150/90 circle blue.
4. Color the 160/100 circle red.

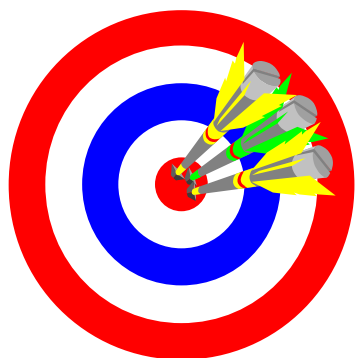


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What is Your Blood Pressure?



Blood Pressure Medicine

Do you know what your blood pressure number is? If you know what your blood pressure number is, write the number on the blood pressure target. Is it close to the bull's eye of 130/80? It is important to have your blood pressure checked at every clinic visit, or at least every three months.

Blood pressure medicine can help get blood pressure in balance so you can reach the center of the target.

Blood pressure medicine is often called an antihypertensive. Blood pressure medicine helps relax blood vessels. This helps the heart pump blood through the blood vessels more easily.

It is also important for you to:

- Know how and when to take your blood pressure medicine,
- Take them at the same time each day (use a pill box to help you remember),
- Let your provider know about any side effects right away, such as feeling tired, dizzy, nauseated, having a rash, or other symptoms,
- Always talk to your provider, pharmacist, or diabetes educator if you have any questions, and
- Take all your medicine as directed by your provider or pharmacist. Do not stop taking the medicine unless your provider or pharmacist tells you to.

This chart shows the many kinds of blood pressure medicines.

Blood Pressure Medicine

Type of Medicine	Generic Name	Brand Name	Possible side effects
ACE Inhibitors (Angiotension- converting enzyme)	benazepril	Lotensin	<ul style="list-style-type: none"> - Cough - Increase in potassium - Do not use potassium or salt substitutes without asking your doctor first
	captopril	Capoten	
	enalapril	Vasotec	
	fosinopril	Monopril	
	lisinopril	Prinivil, Zestril	
	moexipril	Univasc	
	perindopril	Aceon	
	quinapril	Accupril	
	ramipril	Altace	
Angiotensin II receptor blockers	trandolapril	Mavik	<ul style="list-style-type: none"> - May cause dizziness and upset stomach - Do not use potassium or salt substitutes without asking your doctor first
	candesartan	Atacand	
	eprosartan	Teveten	
	irbesartan	Avapro	
	losartan	Cozaar	
	olmesartan	Benicor	
	telmisartan	Micardis	
	valsartan	Diovan	
Calcium Channel Blocker	amlodipine	Norvasc	<ul style="list-style-type: none"> - Constipation, dizziness, upset stomach, and flushing - Call doctor for shortness of breath, unusual heart beat, or swelling in feet or hands
	diltiazem	Cardizem LA Cardizem CD Dilacor XR Tiazac	
	felodipine	Plendil	
	isradipine	DynaCirc CR	
	nicardipine	Cardene SR	
	nifedipine	Adalat CC Procardia XL	
	nisoldipine	Sular	
	verapamil	Calan	

		Calan SR Covera HS Isoptin Isoptin SR Verelan Verelan PM	
Thiazides and related diuretics	bedroflumethiazide	Naturetin	<ul style="list-style-type: none"> - May increase blood glucose - Take in morning to minimize diuretic effect at night - May cause low potassium
	chlorothiazide	Diuril	
	chlorthalidone	Hygroton	
	hydrochlorothiazide	HydroDIURIL Microzide	
	indopamide	Lozol	
	methyclothiazide	Enduron	
	metolazone	Mykrox Zaroxolyn	
Loop Diuretics	bumetanide	Bumex	<ul style="list-style-type: none"> - May cause low potassium - need blood test to monitor level - May cause photosensitivity – sunscreen recommended
	ethacrynic acid	Edecrin	
	furosemide	Lasix	
	torseamide	Demodex	
Potassium-sparing diuretics	amiloride	Midamor	<ul style="list-style-type: none"> - Do not use potassium or salt substitutes without asking your doctor first
	triamterene	Dyrenium	
Aldosterone receptor blockers	eplerenone	Inspra	<ul style="list-style-type: none"> - Need to monitor potassium level
	spironolactone	Aldactone	
Beta-Blockers	acebutolol	Sectral	<ul style="list-style-type: none"> - Can keep people from feeling symptoms of hypoglycemia (low blood glucose) - Call doctor for slow heart rate, confusion, or swelling in feet or legs - Do not stop taking medication abruptly
	atenolol	Tenormin	
	betaxolol	Kerlone	
	bisoprolol	Zebeta	
	carteolol	Cartol	
	metoprolol	Lopressor Toprol XL	
	nadolol	Corgard	
	penbutolol	Levatal	
	pindolol	Visken	
	propranolol	Inderal Inderal LA	
	timolol	Blocadren	

Alpha-Blockers	doxazosin	Cardura	- Dizziness
	prazosin	Minipress	
	terazosin	Hytrin	
Combined alpha and beta blockers	carvedilol	Coreg	- Can keep people from feeling symptoms of hypoglycemia (low blood glucose) - Take with food to avoid upset stomach
	labetolol	Normodyne Trandate	
Direct vasodilators	hydralazine	Apresoline	- May cause headaches, fluid retention, or fast heart rate
	midoxidil	Loniten	
Central alpha agonists	clonidine	Catapres Catapres TTS	- Do not stop taking medication abruptly without talking to your doctor first
	methyldopa	Aldomet	
	guanfacine	Tenex	
Peripheral Anti-adrenergics	guanadrel	Hylorel	- May cause dizziness, nasal congestion, and depression
	guanethidine	Ismelin	
	resperine		

CC=extended release XL=extended release SR=sustained release CR=controlled release CD=extended release XR=extended release PM=extended release, controlled onset HS=extended release, controlled onset LA=long acting

For all blood pressure medicines:

- Ask pharmacist before using over the counter products.
- Monitor blood pressure regularly.
- To prevent dizziness, stand up slowly.

Information about high blood pressure can be found at these Web sites:

- Information for people with diabetes: <http://www.nhlbi.nih.gov/hbp>
- Drugs used to treat high blood pressure: <http://www.nhlbi.nih.gov/guidelines/hypertension/express.pdf>

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Ask your doctor or pharmacist



If you are taking blood pressure medicine, did you find your medicine in the chart?

If you have any questions about blood pressure medicine, write them down and ask your provider or pharmacist. They are the best people to answer your questions.

What else can I do to keep my heart healthy?



Here are some ways to keep your heart healthy:

1. Eat heart healthy foods like high fiber foods, fruits and vegetables.
2. Drink low-fat, or fat-free milk and cheese. A recent study (Dietary Approaches to Stop Hypertension) showed that calcium could help lower blood pressure.
3. Be physically active every day. Physical activity lowers glucose and blood pressure.

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Keep Your Heart Healthy!



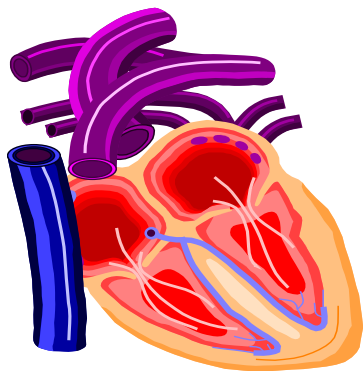
4. Eat less salt/sodium.
 - Use less salt when you prepare foods - try using herbs and other non-salt seasonings.
 - Cut down on processed foods, such as foods you buy in cans and jars, pickled foods, lunchmeats, and snack foods, such as chips.
5. Cigarette smoke can harm the body, especially if a person has diabetes. Smoking may lead to heart attacks, cancer and lung disease. So if you smoke, work on stopping. Talk to your health care provider about new ways to help you stop. It can be done!
6. Find ways to reduce stress. We will talk about some ways you can do this in Meeting 9.
7. Take medicines as prescribed by your doctor. Ask your doctor if you should take an aspirin everyday to reduce the risk of heart disease and stroke.
8. Lose weight if you need to.

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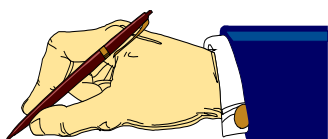
Let's Review!



You can have a healthy heart by:

- Keeping the glucose in balance: 70 - 130 before a meal; lower than 180 one to two hours after a meal; an A1c lower than 7.
- Working toward a blood pressure of 130/80,
- Setting small reachable goals to get your blood pressure in balance,
- Taking medicine(s) if prescribed,
- Working as a partner with your provider and diabetes team, and
- Ask questions!

Set a Goal!



Take a few minutes now to write down one goal that you plan to work on this week to keep your heart healthy. Remember all that we have talked about today.

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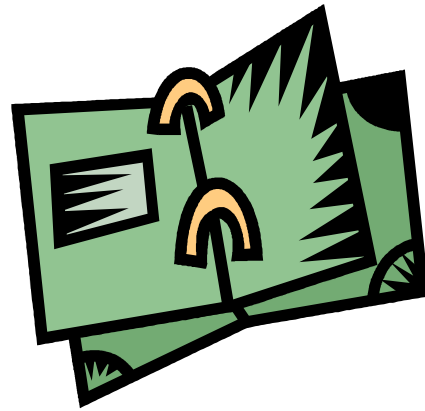


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Thank You!

Thank you for coming and I look forward to seeing you at our next meeting when we will talk about Cholesterol and Diabetes.

Don't forget to bring your notebook.



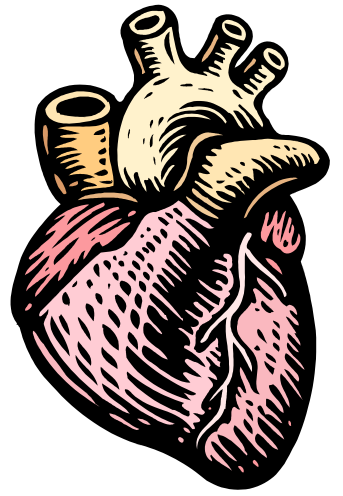


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Questions, Dictionary and Brochures

Diabetes and a Healthy Heart

By asking questions, you become an active partner in your health care. Here are a few questions that you may want to ask of your provider.



- ◆ What is my blood pressure today?
- ◆ Can we work on a plan together to get my numbers within the normal range of 130/80?
- ◆ Should I take an aspirin each day?
- ◆ When is the best time to take my blood pressure?
- ◆ What kind of results should I see with this medicine?
- ◆ Are there any side effects from the blood pressure medicine?
- ◆ How often should I have my blood pressure checked to see if the medicine is working?
- ◆ If I forget to take my medicine and remember later in the day, when should I take it?
- ◆ Will I always have to take my medicine?

These are just a few of the questions you may have about blood pressure. If you have questions, write them down and take them with you to your next clinic visit. Remember, your provider will be happy to answer your questions and work with you as a partner in your health care.

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Term	Meaning of the Term
Angina	When you have angina, you feel pain in your chest, arms, shoulders, or back. If you do not get treatment, chest pain may happen more often. If you have chest pain when you exercise, call your doctor.
Antihypertensives	Blood pressure medicine.
Arteries	Vessels that carry blood from the heart to the tissues.
Atherosclerosis	Hardening of the arteries.
Blood Pressure	Tells how hard the heart is working to pump blood through the body.
EKG (Electrocardiogram)	A test that measures how hard the heart is working (see brochure).
Hypertension	Also called high blood pressure. A condition when the blood is pressing too hard against the artery walls, wearing down the lining of the arteries letting fat (plaque) build up on them.
Plaque	Fat that builds up in the arteries.
Health Care Provider	A partner in your health care.
Heart Attack	A heart attack happens when a blood vessel in or near your heart becomes blocked. Then your heart muscle can't get enough blood. During a heart attack, you may have chest pain along with nausea, indigestion, extreme weakness, and sweating. Or you may have no symptoms at all. If you have chest pain, call 911. Waiting to get treatment may make a heart attack worse.
Peripheral arterial disease (PAD)	Peripheral arterial disease can happen when the openings in your blood vessels become narrow and your legs and feet don't get enough blood. You

	may feel pain in your legs when you walk or exercise. Some people also have numbness or tingling in their feet or legs or have sores that heal slowly. To prevent PAD, don't smoke, keep glucose and blood pressure under control, exercise, and ask your doctor if you should take aspirin.
Risk Factor	Anything that raises the chance that a person will get a disease. Some risk factors for diabetes are family history, overweight, little or no exercise.
Stroke	A stroke can happen when the blood supply to your brain is blocked.