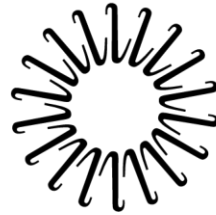


Diabetes Complications



Lifespan Cardiovascular Institute

**Rhode Island Hospital • The Miriam Hospital
Newport Hospital**

Delivering health with care.®

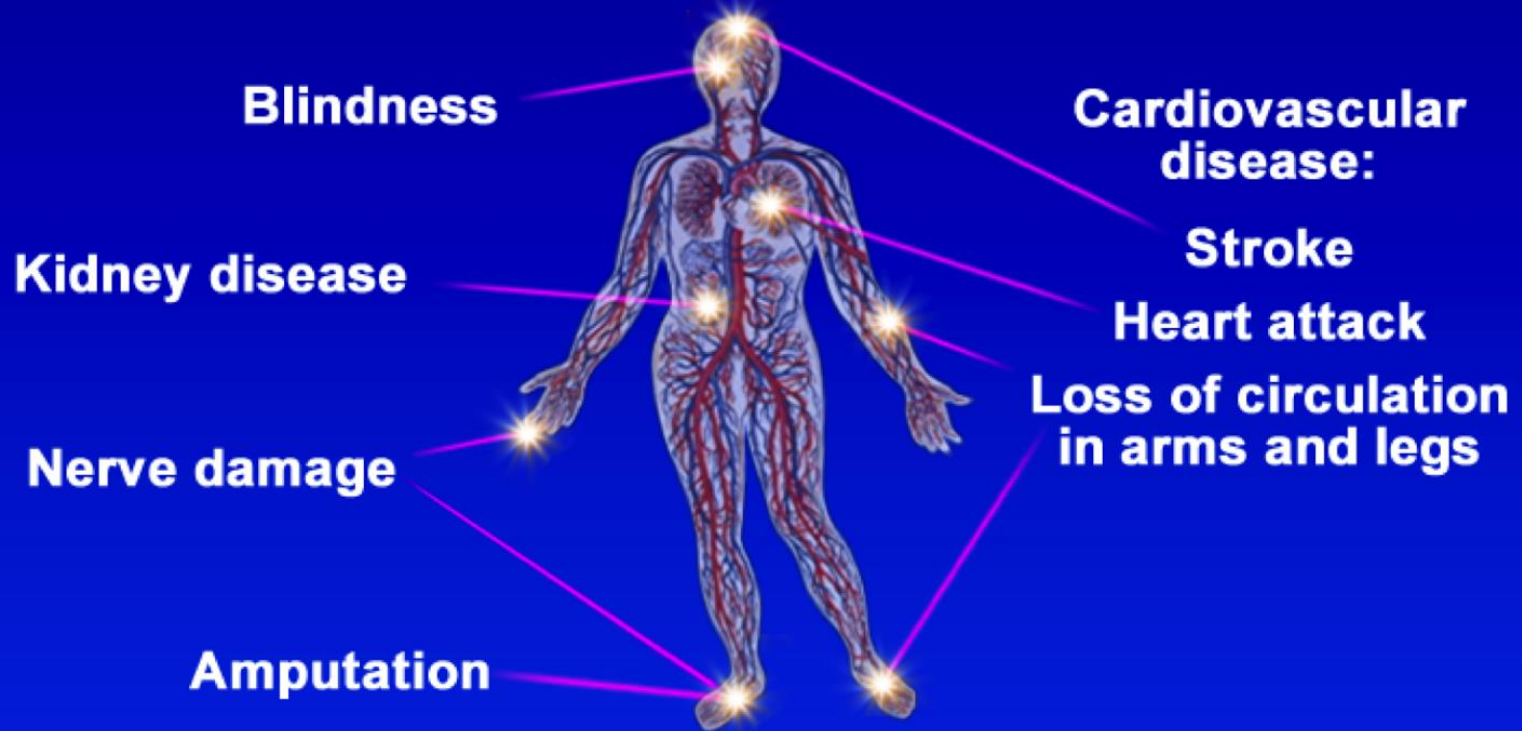
Center For Cardiac Fitness

Cardiac Rehab Program

The Miriam Hospital

Macrovascular and Microvascular complications

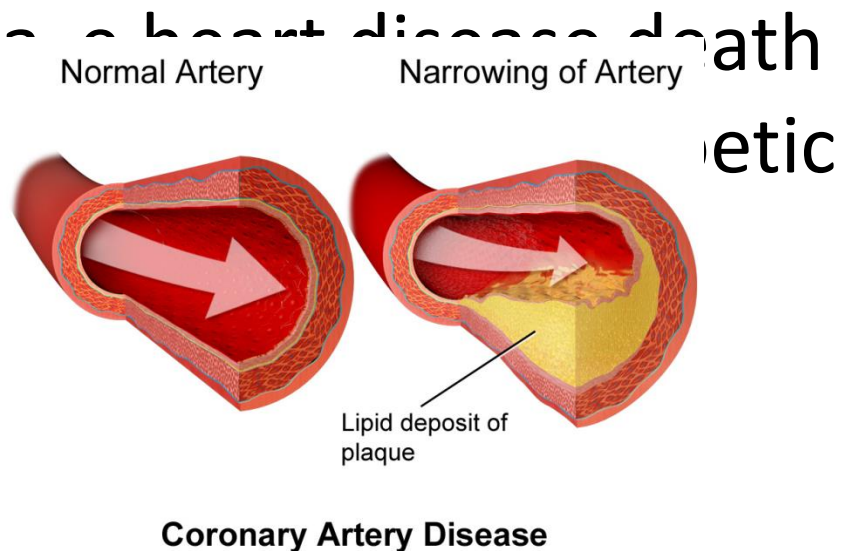
Chronic complications of diabetes



Macrovascular



- **Heart**
- 80% of all patient with diabetes die of cardiovascular disease (CVD)
- MI, Angina
- Adults with diabetes have heart disease death rates are 2-4 higher than adults



Brain

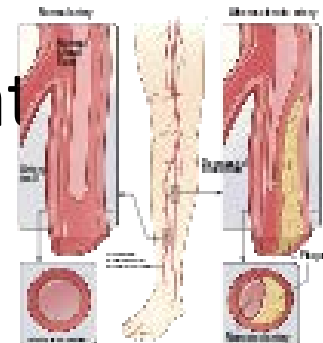
- Stroke is another result of cardiovascular disease that is increased in patients with diabetes
- Stroke accounts for 16 % of CVD-related deaths
- The risk for stroke is **2x** in adults with diabetes

Stroke – there's treatment if you act FAST.



Lower Extremities

- Impaired circulation to the extremities make wounds hard to heal and is the leading cause of non-traumatic amputation.
- The risk of leg amputation is more than 60% in patients with diabetes.
- There are over 65,000 non-traumatic amputations performed in 2006.

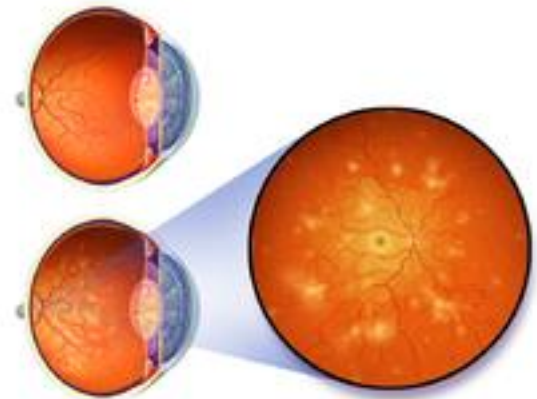


Microvascular Complications

- Eyes (retinopathy)
- Kidneys (Nephropathy)
- Nervous system (Neuropathy)

Blindness and eye problems

- Diabetes is the leading cause of new cases of blindness among adults aged 20-74
- 4.2 million people with diabetes have retinopathy
- Each year 12,000-24,000 people lose sight because of diabetes

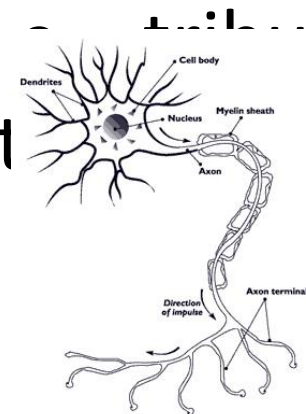


Nephropathy

- Diabetes is the leading cause of end-stage renal disease and accounts for 44% of new cases
- Over 200,000 people are living on chronic dialysis or with a kidney transplant
- Risk factors you can change:
 - High blood sugar
 - High blood pressure
- Monitor Microalbumin, Kidney function tests

Nervous system (Neuropathy)

- About 60-70% of people with diabetes have mild to severe forms of damage. The results of such damage include impaired sensation or pain in hands, or feet. Slowed digestion in stomach, erectile dysfunction or other nerve problems.
- Diabetic Nerve disease is a major contributing cause of lower extremity neuropathy



Prevention

- Glucose control (HbA1c =>7%)
- DCCT showed 50-70% reduction in eye disease, kidney and nerve disease
- Home blood glucose monitoring
- Blood pressure control
- Lipid management- improved control of LDL cholesterol can reduce cardiovascular complications by 20-50%
- Medication management
- Dietary management