

Diabetes 101




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September 2010 (revised for 2013)

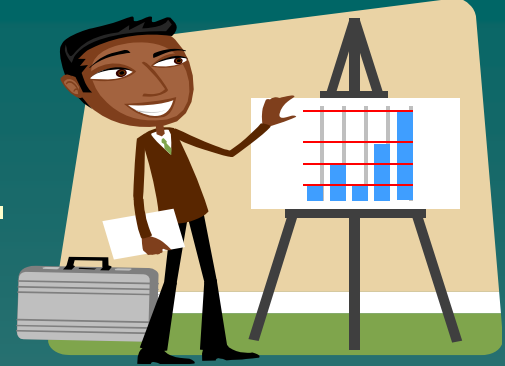
Diabetes History

- ◆ Diabetes mellitus - identified as early as 1500 B.C. by Egyptian and Indian physicians. This disease's hallmarks were associated with excessive thirst and the passage of large amounts of sweet tasting urine.
- ◆ Diabetes in those days was a death sentence till approximately the early 1900's

Diabetes


- ◆ Diabetes is the inability for the body to have adequate glucose metabolism. Which is a cluster of disorders of blood glucose.
 - ◆ The hallmark is the absence or lack of insulin or the inability to affectively use insulin, because the insulin receptors are defective or blunted.
 - ◆ The blood glucose levels are therefore elevated and the cell has no glucose for cellular functions.
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Diabetes is.....



- ◆ Diabetes is a disease which the blood sugar, or blood glucose is higher than what is normal. This can cause damage to various parts of the ***whole you*** over time.
- ◆ Glucose is needed for our fuel for living and energy.
- ◆ Type 1 either no insulin or very little is made to sustain the body without eventually needing it replaced artificially.
- ◆ Type 2 you make enough insulin but become resistant to your insulin in time and then the pancreas slows the production and needs help to either make more or the body needs it replaced artificially.

Type1 Diabetes

- ◆ AKA- Juvenile Diabetes/ Insulin Dependent Diabetes
 - ◆ The Body Does Not Produce insulin
 - ◆ The Type 1 Diabetes **MUST** take insulin to stay alive
 - ◆ This is usually seen in children and young adults
 - ◆ Only accounts for 10% of all diabetics
 - ◆ Is an Auto Immune Disease
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Type 2 Diabetes

- ◆ AKA- Non insulin dependent diabetes
- ◆ The body may produce insulin, but does not use insulin properly or it may not make enough insulin for the meal taken.
- ◆ This is the most common form of diabetes and is now at epidemic proportions.

Ten things to know about diabetes.

- ◆ Diabetes is not the leading cause of blindness in those who control it.
- ◆ Complications can be avoided.
- ◆ Diabetes it is not your fault.
- ◆ Exercise is like a drug to diabetes.
- ◆ Learning about food may help you lose weight and control your blood sugar.
- ◆ Variety is the spice of life. All about food.
- ◆ Medications and more meds does not mean all is worse.
- ◆ Insulin is thought to be a more natural treatment choice.
- ◆ You can be a diabetic patient who lives a normal long life.
- ◆ You are in control of your diabetes

Diabetes

- ◆ >230 Million World Wide
- ◆ 25.8 Million Americans
- ◆ Epidemic
- ◆ Expanding
- ◆ Lack of knowledge
- ◆ Doing the wrong things
- ◆ Costly
- ◆ Worrisome
- ◆ Confusing



25.8 million and Growing

- ◆ This is believed to be just the start there maybe as many as 25.8 million more people either undiagnosed or pre-diabetics this makes about 50 million that is just in the U.S alone.
- ◆ This is over 8.3% of the population



165% increase in diabetes is projected by the year 2050

- ◆ This is one stairway you must avoid.



Signs and Symptoms of Diabetes (Hyperglycemia)

- ◆ Polyuria (frequent urination)
- ◆ Polydipsia (frequent extreme thirst)
- ◆ Polyphagia (frequent extreme hunger)
- ◆ Fatigue
- ◆ Weakness
- ◆ Weight loss
- ◆ Dry skin
- ◆ Blurry vision
- ◆ Inability to heal or increased healing time
- ◆ Dehydration
- ◆ Possible Ketonuria



Diabetes is not...

- ◆ As bad as you think. At least it does not have to be.
- ◆ Something to be dreaded.
- ◆ Overwhelming. Well it seems at first....
- ◆ A sentence to all that is bad.....(death)...



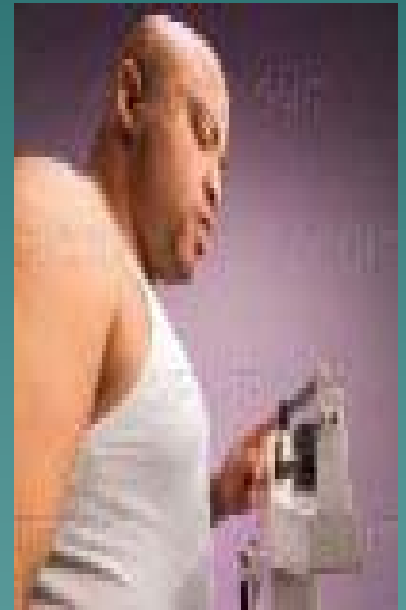
Who's at risk for Diabetes

- ◆ Obesity problems
- ◆ Hypertension
- ◆ Cholesterol problems
- ◆ Unexplained sexual dysfunction
- ◆ Familial history (1st degree relative)
- ◆ High risk ethnic background
- ◆ Previous gestational diabetes



“Diabesity” “Metabolic Syndrome”


- ◆ The epidemic of type 2 diabetes
- ◆ Environmental causes
- ◆ Overly rich nutrition
- ◆ Supersized physiques
- ◆ Couch Potato TV/Internet sedentary lifestyles



Syndrome X “Diabetes”

- ◆ Obese central obesity i.e.: apple shaped
- ◆ Hypertensive
- ◆ Dyslipidemia
- ◆ Vascular disease
- ◆ Erectile dysfunction
- ◆ Insulin resistance
- ◆ Possible OSA (Apnea) evidence based.

Insulin Resistance

- ◆ Impaired glucose tolerance
 - ◆ Dyslipidemia
 - ◆ Hypertension
 - ◆ Atherosclerosis
 - ◆ Decreased fibrolytic activity
 - ◆ Central obesity
 - ◆ Polycystic ovarian disease
 - ◆ Acanthosis nigricans
 - ◆ Progression to "Type 2 diabetes"
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Acanthosis Nigricans



FOOT AND FORK DYSORDER!

Dr. Claude Lardinois

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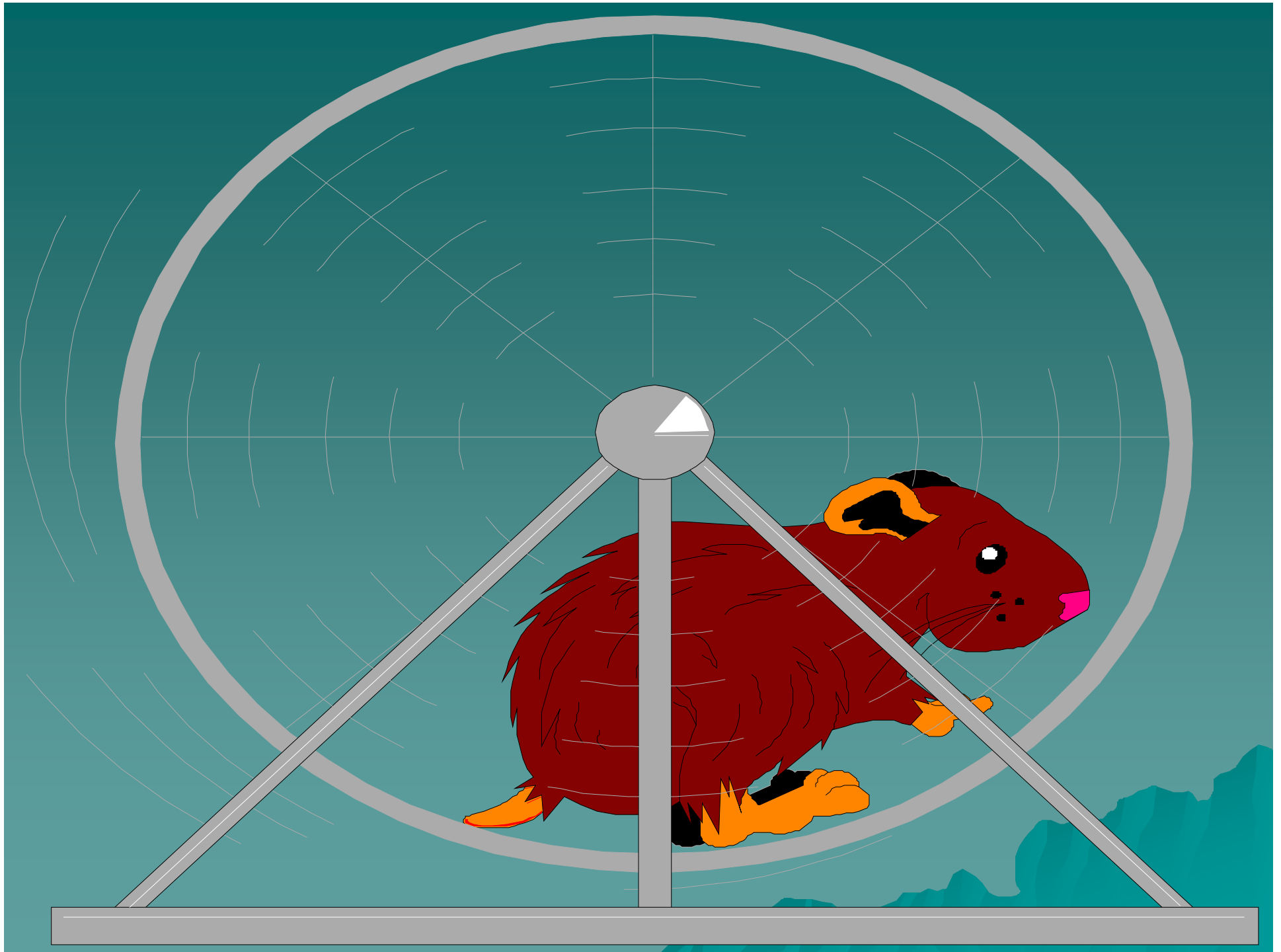
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Dr. Claude Lardinois



“DEADLY DUET”


HYPERACTIVE FORK

HYPOACTIVE FOOT

Dr. Claude Lardinois

A stylized, dark teal silhouette of a mountain range is positioned in the bottom right corner of the slide, partially overlapping the author's name.

Why is this all important?

- ◆ Diabetes is on the rise
 - ◆ Most common of all chronic diseases
 - ◆ Many co-morbidities
 - ◆ You can make the difference
 - ◆ Only through education and outreach can we limit complications
 - ◆ You and or your family may be affected
 - ◆ If left untreated serious issues can occur.
 - ◆ Tight glucose control proven to decrease morbidity and mortality rates.
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Health costs of Diabetes

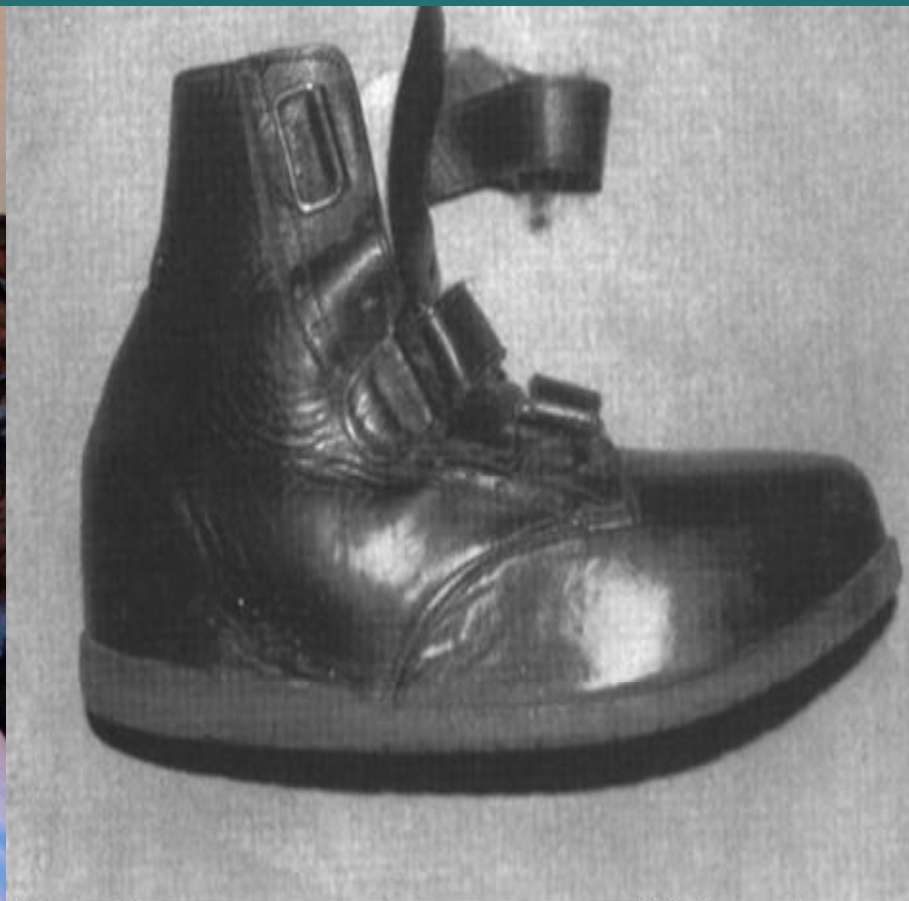
- ◆ Blindness
- ◆ Kidney disease
- ◆ Amputations
- ◆ Heart disease
- ◆ Nerve damage
- ◆ Stroke
- ◆ Sexual dysfunction
- ◆ And numerous other associated problems



Report and Encourage Health Care Intervention



Prevent and Report



Medscape®

<http://www.medscape.com>

Prevent Amputations



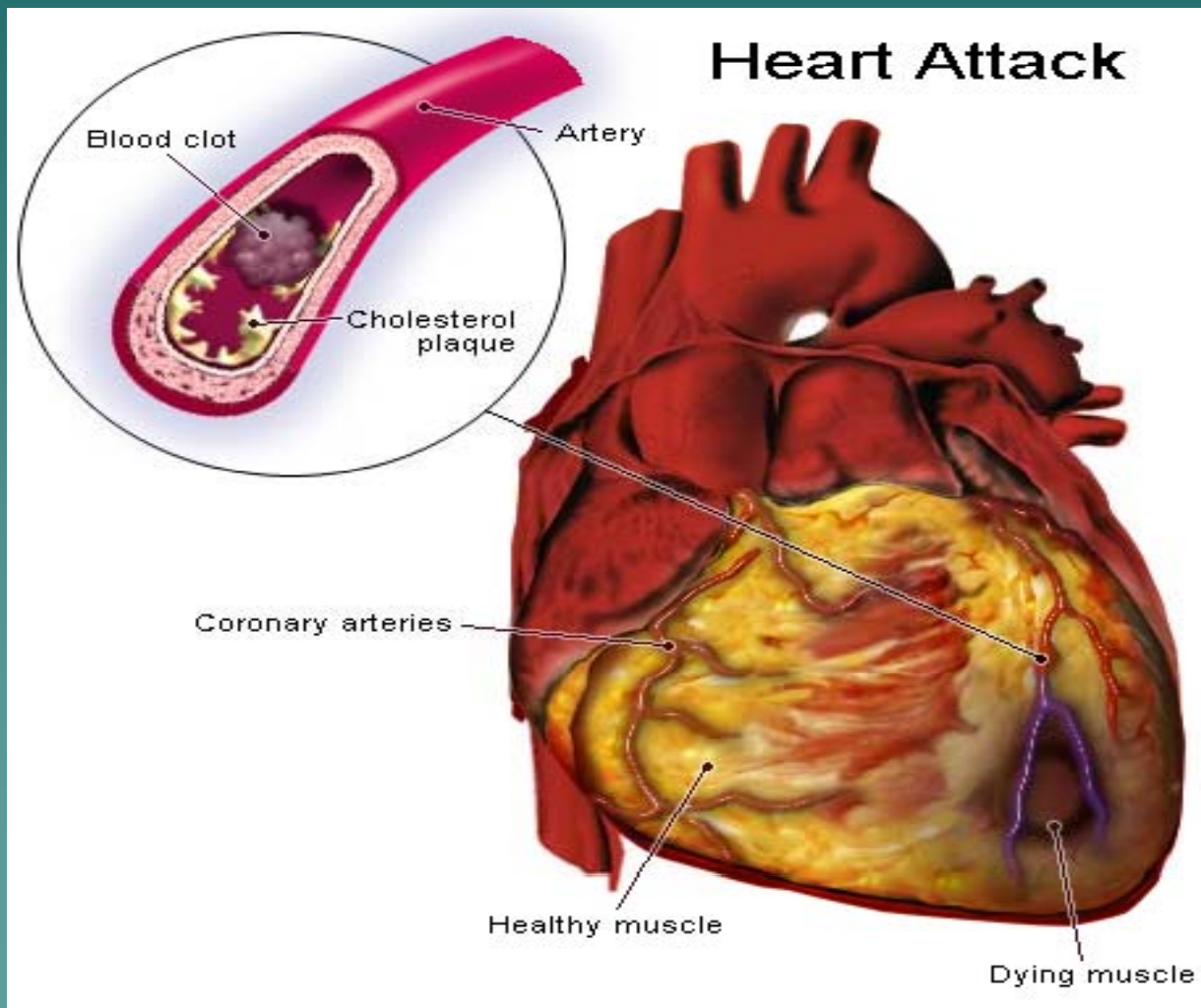
Daily Foot Care
Is important for a Diabetic,
check for blisters, cuts, red spots
or swelling.
If you have any of these problems
see your foot Doctor immediately




Heart Disease

- ◆ Heart Disease and its complications are related to 40% of all deaths in the U.S.
- ◆ Heart disease is the leading cause of death in the U.S.
- ◆ Diabetes is the 4th-6th leading cause of death
- ◆ Diabetics have 2-4 times more risk than the non diabetic population for heart disease.


Heart Attack



Diabetes and Heart Attacks

- ◆ Diabetes lowers one's ability to perceive chest pain (neuropathy)
 - ◆ High sugars damage blood vessels
 - ◆ Blood vessel walls thicker and less elastic
 - ◆ Higher fats in blood
 - ◆ Some first signs of heart disease in diabetics is sudden death
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Why Heart and Vascular Complications

- ◆ Pre-diabetes and insulin resistance this is thought to be 10-12 years prior to the diagnosis of diabetes
 - ◆ Increased obesity
 - ◆ Physical Inactivity
 - ◆ Genetics
 - ◆ Increasing Age
 - ◆ High Blood Pressure
 - ◆ Cholesterol Issues
 - ◆ Non controlled blood sugars
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The Sludge Effect




- ◆ High blood sugars = thick blood
- ◆ High cholesterol and blood fats = thick blood
- ◆ Less elastic blood vessels = tired overworked heart
- ◆ Thick blood pushed with pressure is bound to be like sludge

Cholesterol/ Blood Fats

- ◆ HDL or (good cholesterol) should be at least 45
- ◆ LDL or (bad cholesterol) should be under 100
- ◆ Total cholesterol <200
- ◆ Triglycerides blood fats <150
- ◆ Weight loss, high fiber low fat diet, exercise, statin type medications can lower cholesterol

Stroke Warnings

- ◆ Sudden numbness weakness in the face, arm, leg especially on one side
 - ◆ Sudden confusion
 - ◆ Trouble with speech
 - ◆ Trouble seeing
 - ◆ Trouble with dizziness, walking, balance or coordination
 - ◆ Sudden headache severe with no known cause
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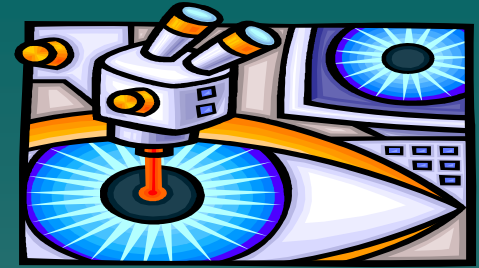
If you see these signs call 911.



Prevent Blindness



Eye exams



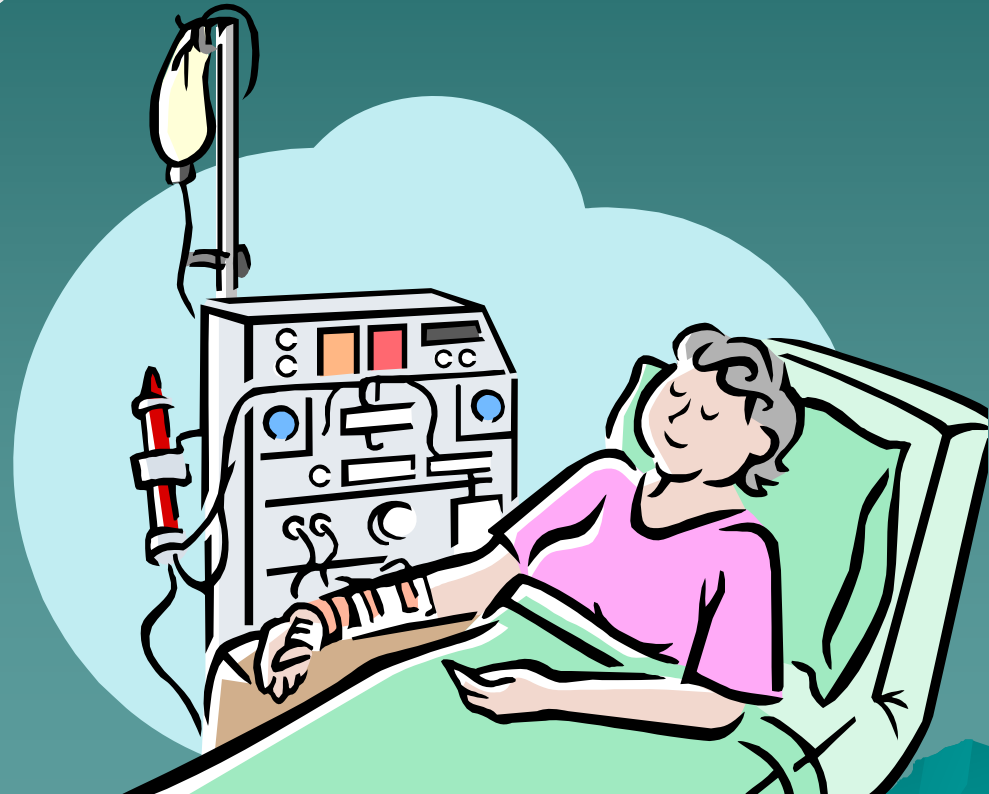
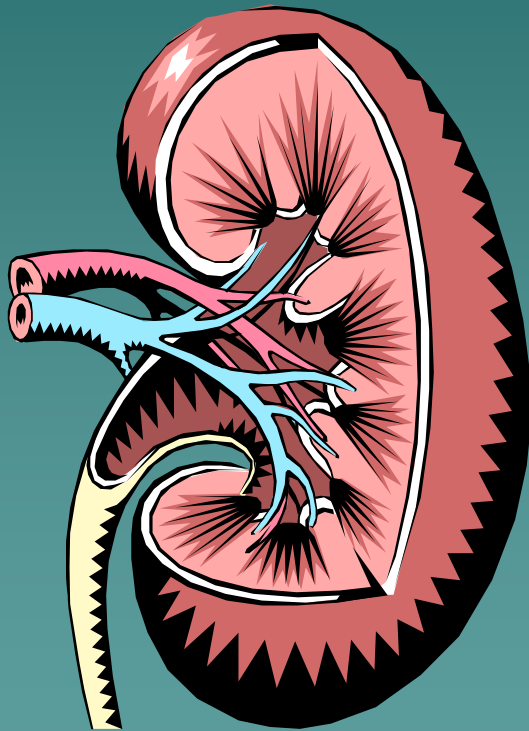
- ◆ Done at least one time a year.
- ◆ Done as a dilated retinal exam.
- ◆ Poorly treated and poorly controlled diabetes is the leading cause of blindness.
- ◆ May cause retinopathy. Diabetes eye disease.
- ◆ Treatment includes tight blood sugar control.
- ◆ Laser therapy.
- ◆ Some think the ACE and ARBs may help the vessels in the eyes to prevent retinopathy.

The "eyes", have it!



Prevent Kidney Disease

◆ Yours is always best.....



Micro Albumin



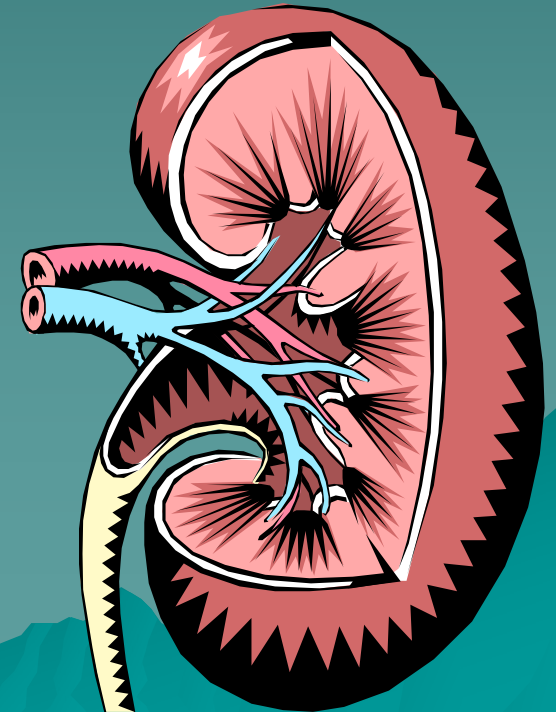
- ◆ A small amount of protein which leaks into the urine when the kidneys become damaged from diabetes or high blood pressure.
- ◆ It is the earliest indicator of kidney disease or damage.
- ◆ Treatments are tight blood sugar control, use of blood pressure medications such as ACE or ARBs.
- ◆ Results desired are less than 30
- ◆ This is done with urine and not blood testing.
- ◆ Sometimes still done as 24 hour urine collection but single urine sample is just as accurate.

Micro Albumin and Eyes

- ◆ Lower blood pressure.
- ◆ ACEs or ARBs.
- ◆ Blood sugar control.
- ◆ Lower A1c.
- ◆ Diet and exercise.

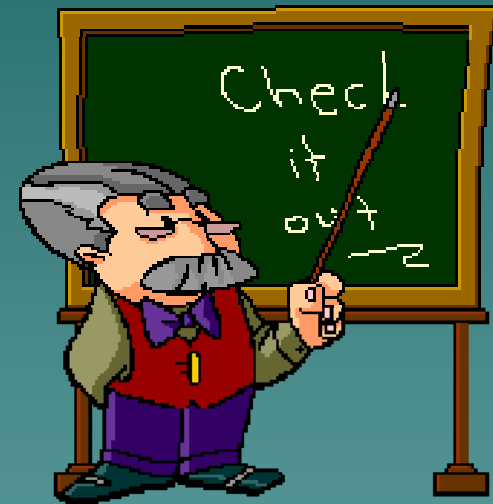


HERE'S LOOKING AT
YOU

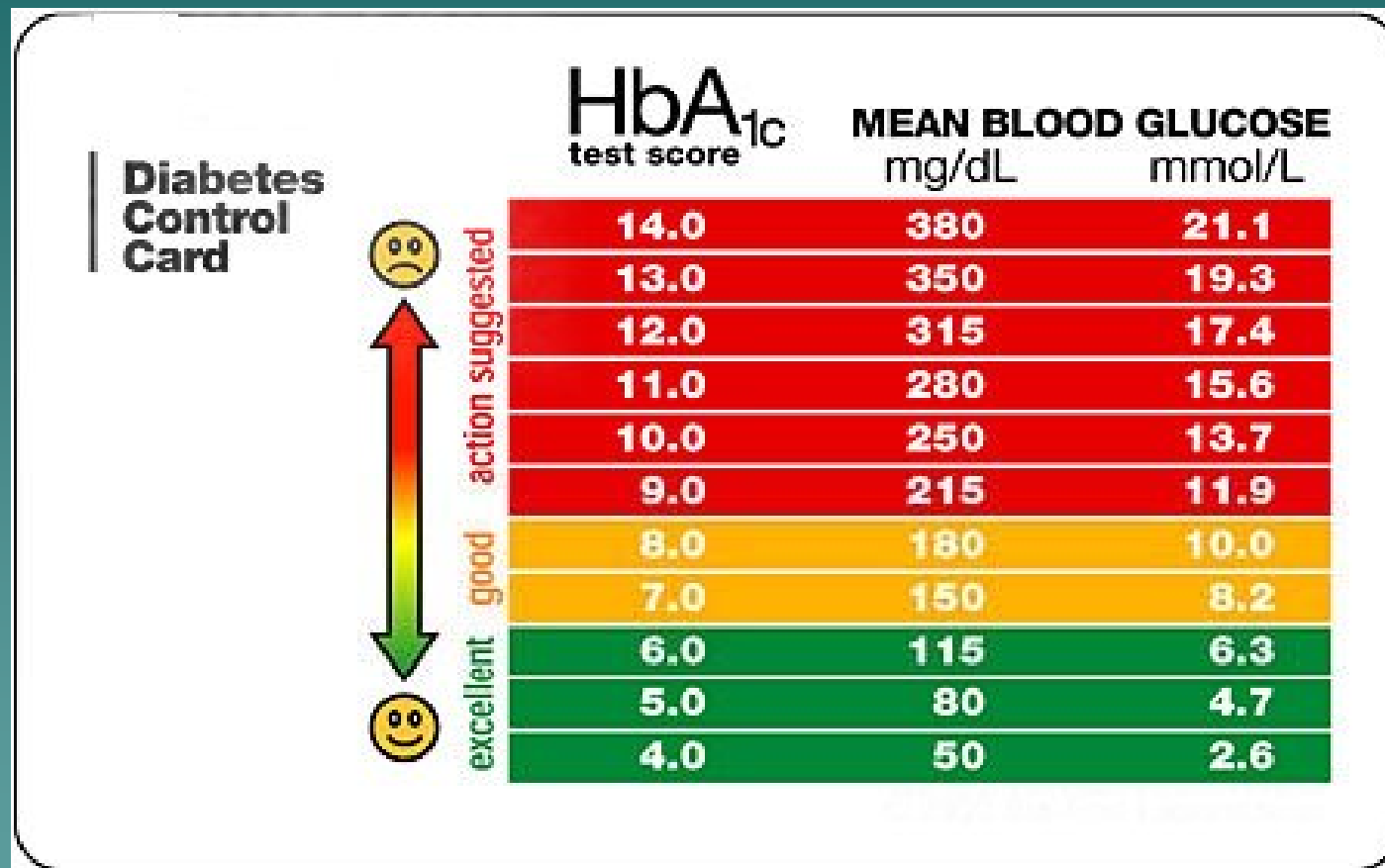


ABCDEs of Diabetes

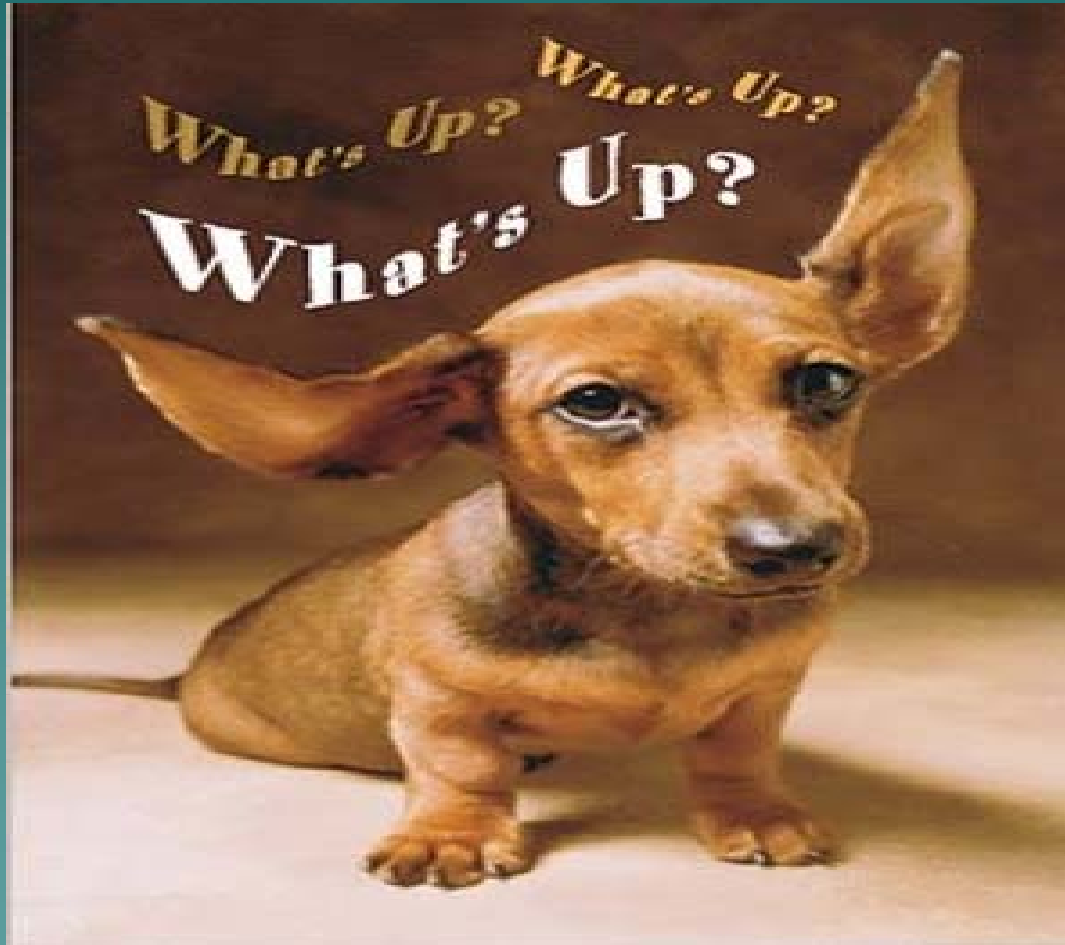
- ◆ A= A1C
- ◆ B=Blood Pressure
- ◆ C= Cholesterol
- ◆ D= Diet
- ◆ E= Exercise and Enteric Aspirin



The Quality of Life Number.



Blood Pressure!!!



Blood Pressure


- ◆ A very important vital sign missed as a significant diabetes risk factor.
- ◆ Top number is the systolic number the pumping pressure.
- ◆ Bottom number is the diastolic number the resting pressure.
- ◆ Should be normal less than 120/80
- ◆ Diabetes normal should be less than 130/80
- ◆ Every 10 point drop in systolic blood pressure reduces stroke by 20% and 15% for heart attack.
- ◆ Do not be afraid of blood pressure medications to lower your blood pressure to reduce your potential complications from diabetes.

Homer on Cholesterol...



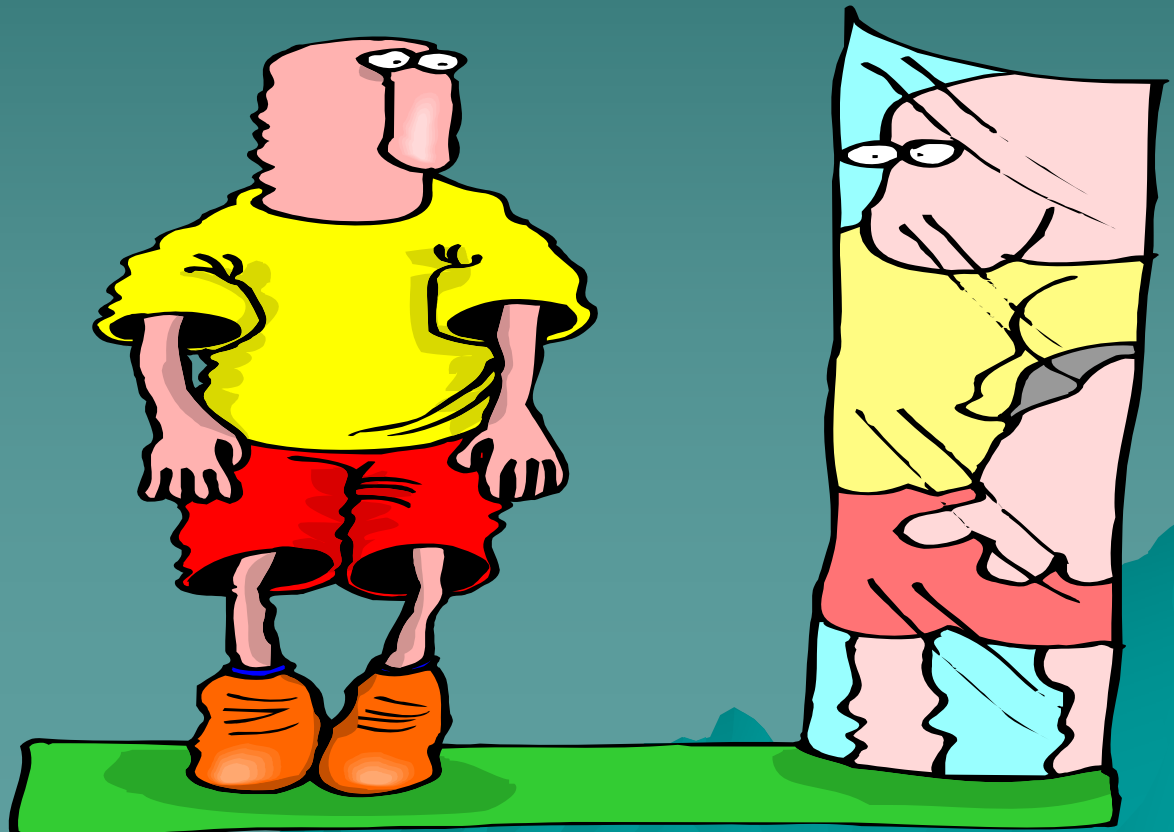
Lipids

“Cholesterol”

- ◆ All the following refer to different fats circulating in your blood vessels.
 - ◆ 1.LDL bad cholesterol
 - ◆ 2.HDL good cholesterol
 - ◆ 3.Triglycerides blood fats creamy type coming from food. Like the cream in ice-cream.
 - ◆ LDL less than 70mg/dl
 - ◆ HDL 45 or higher
 - ◆ Triglycerides under 150
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Oh, my Lipids. What now?

- ◆ Reduce fats in your diet.
- ◆ Again exercise to the rescue.
- ◆ Statin Drugs.
- ◆ Blood sugar control may reduce lipid levels.
- ◆ Weight loss.



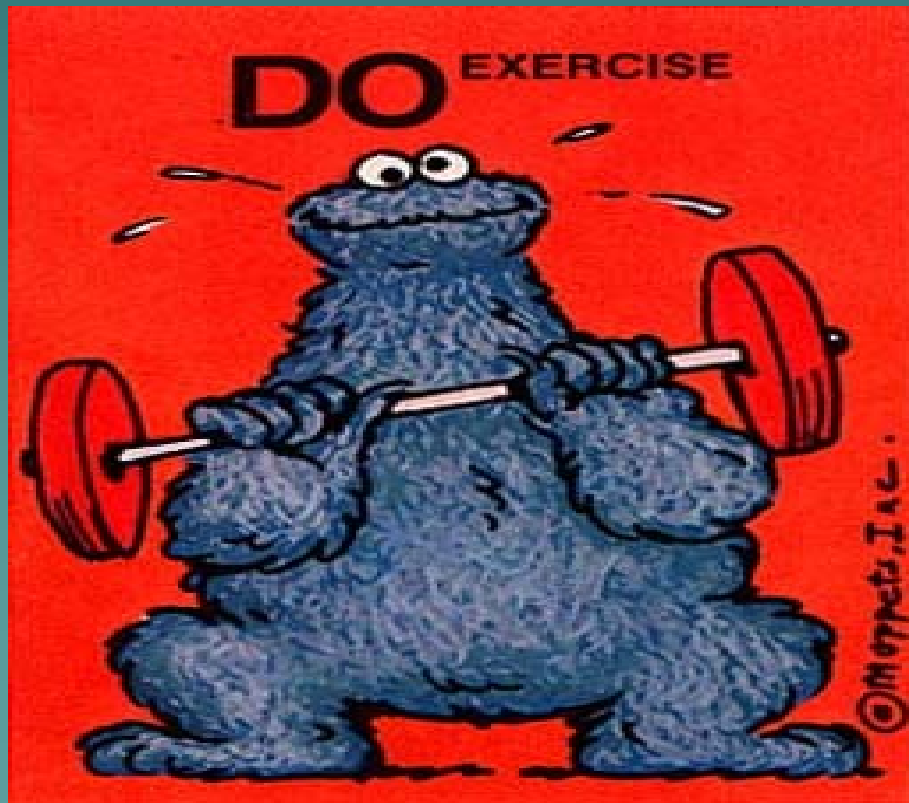
Diet

- ◆ We must encourage Carbohydrate counting with blood sugar control.

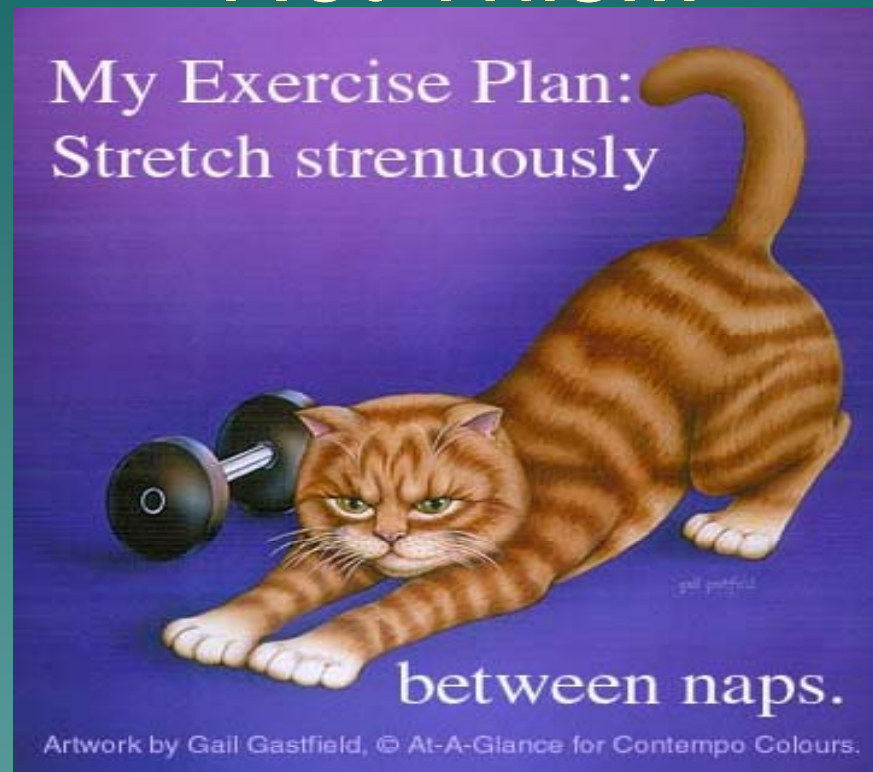


Exercise

- ◆ The single most important aspect to controlling diabetes and living well and longer.



Exercise is Not This!!!



- ◆ Exercise is anything in which one will become more FIT (frequency intensity or time).
- ◆ Highly encourage 150 minutes weekly or 30 minutes daily.

Develop a Tool Chest.

- ◆ Know your numbers.
- ◆ Health care team.
- ◆ Support team.
- ◆ Carbohydrate counting tools.
- ◆ Mental health coach or professional.
- ◆ Health club membership.
- ◆ Diabetes educator.
- ◆ Laboratory of choice nearest your home.
- ◆ And all else which you may find useful for your tool chest.



Added ABCs

CONTROL THE ABCs OF DIABETES

A1C – this test measures average blood glucose levels over the last 3 months

Blood Pressure – high blood pressure causes heart disease

Cholesterol – bad cholesterol, or LDL, builds up and clogs your arteries

A1C less than 7% • Blood Pressure less than 130/80 • Cholesterol (LDL) less than 100

TALK TO YOUR HEALTH CARE PROVIDERS ABOUT HOW TO CONTROL YOUR DIABETES



MEDICATION MANAGEMENT

Team Up With Your Pharmacist

- Make a list of all your medicines, including their strengths and the way you take them, to share with all your health care providers. Don't forget non-prescription vitamin supplements and herbal medicines.
- Update your list with every change, and review it at least once a year.
- Discuss how to use your medicines and supplies to get the best results at the lowest cost.



FOOT CARE

Team Up With Your Foot Care Provider

- Get a complete foot exam each year.
- Discuss how to check your feet every day. Discuss any problems you may have.
- Find the right footwear for you.



EYE CARE

Team Up With Your Eye Care Provider

- Have a complete dilated eye exam each year. (If the results are normal, an eye care specialist may advise getting an exam every 2-3 years.) Make sure your glasses are the best for your needs.
- Discuss how good control of your blood glucose levels can protect your vision.
- Talk about what can be done if you have vision loss.



DENTAL CARE

Team Up With Your Dental Care Provider

- Get a complete mouth exam twice a year (once a year if you have no teeth).
- Learn the best way to brush and floss, and learn the early warning signs of tooth, mouth and gum problems.
- Discuss the link between your blood glucose and gum disease.

OTHER THINGS YOU CAN DO

Get Physical...Be More Active • Walk • Play • Dance • Swim • Turn off the TV

Eat a Healthy Diet • Smaller portions • More vegetables • Less salt, fat, and sugar


Quit Smoking • Tobacco use increases your risk of diabetes complications

TALK TO YOUR PROVIDER TO LEARN MORE


FOR FREE INFORMATION AND MATERIALS, CALL 1-800-438-5383



What's next?

- ◆ Test your blood sugars regularly.
 - ◆ Exercise 120-150 minutes each week.
 - ◆ Count carbohydrates and calories choose good foods to eat.
 - ◆ Portion size on your food choices.
 - ◆ Reduce stress.
 - ◆ May be time to increase or change medications to gain better glycemic control.
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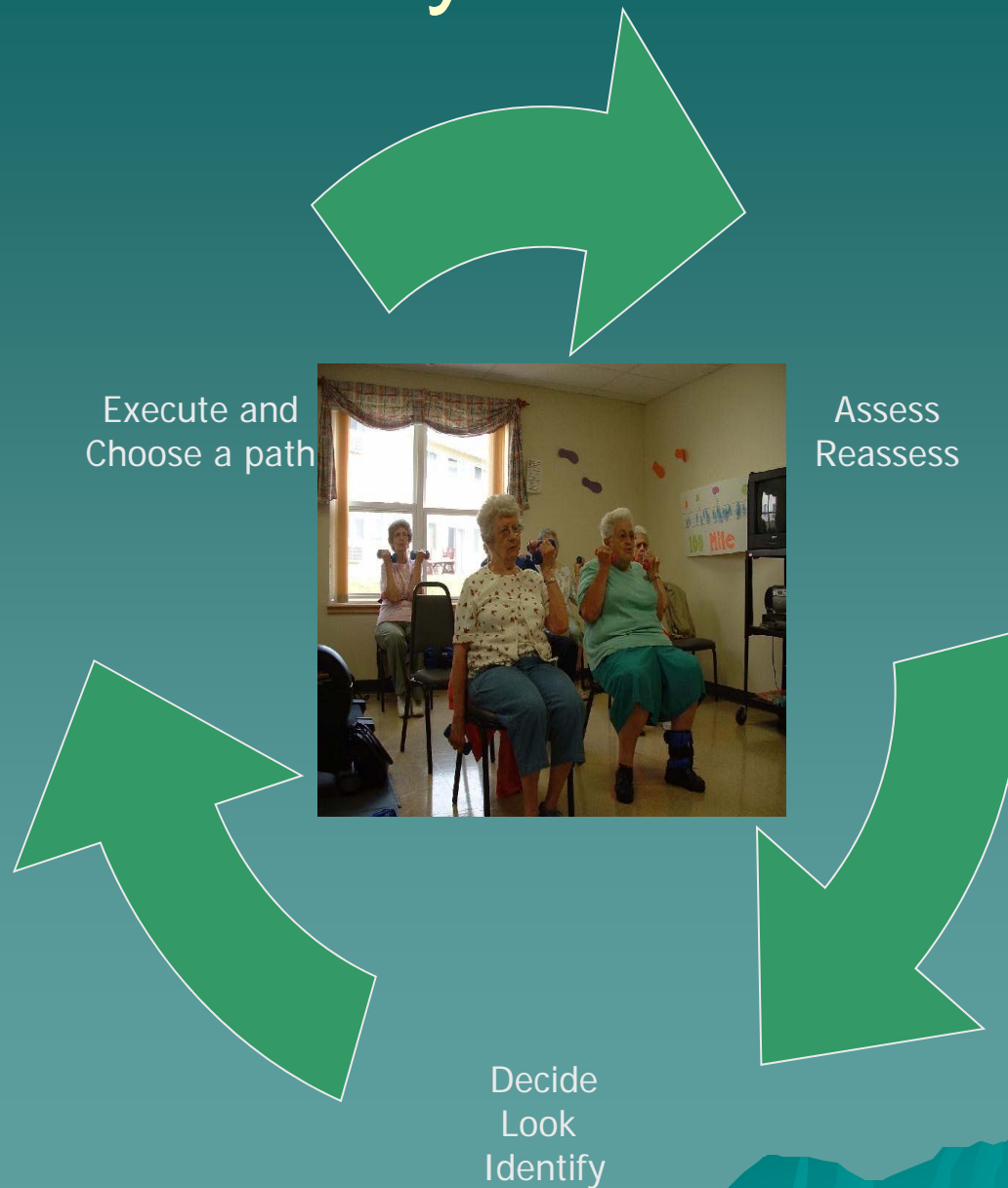
Things to do at Each Visit with Your Health Care Provider

- ◆ Bring your blood glucose record book and go over the readings with your provider
 - ◆ Get an A1c test every 3 mos. Write down the result and set a target goal for your next visit.
 - ◆ Get your blood pressure checked and write it down. Set a goal for next visit.
 - ◆ Get your feet checked at every visit as needed.
 - ◆ Bring a list of questions or other things you want to talk about.
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Things to Do at Least Once a Year

- ◆ Get a flu shot (October to mid-November).
- ◆ Get a pneumonia shot (if you've never had one) and every 5 years.
- ◆ Get a dilated eye exam.
- ◆ Get a foot exam (including check of circulation and nerves).
- ◆ Get a kidney test.
- ◆ Get your blood fats checked for
 - Total cholesterol
 - HDL
 - LDL
 - Triglycerides

Your care cycle for diabetes.



Special Considerations

- ◆ Financial
- ◆ Mobility
- ◆ Social
- ◆ Educational
- ◆ Health
- ◆ Rural
- ◆ Motivational



Diabetes is a PUBLIC HEALTH CRISIS!!!

- ◆ Health and Human Services
- ◆ Centers for Disease Control and Prevention
- ◆ National Institutes of Health
- ◆ State and Local Agencies
- ◆ World Health Organization
- ◆ All major organizations recognize the increase in diabetes and its complications as a crisis.

Refer Persons with Diabetes to Proper Resources

- ◆ Call 211 for Nevada Resources or visit <http://www.nevada211.org/>
- ◆ Visit Diabetes Local: <http://www.diabeteslocal.org/>
- ◆ Use the Diabetes Resource Directory available in English and Spanish:
<http://www.getthehealthyclarkcounty.org/pdf/nevada-diabetes-resource-directory.pdf> to refer to
 - ◆ Low cost clinics
 - ◆ Help with medications
 - ◆ Tobacco Quit Line 1-800-784-8669
 - ◆ Diabetes Support Groups (ADEMS 702-349-7370) and Muévete Bailando (Sp 702-759-1262)
 - ◆ Dental and vision resources and more!
 - ◆ [Diabetes Power Show](http://www.diabetespowershow.com), a free online podcast to learn about diabetes www.diabetespowershow.com
- ◆ Type 1 Diabetes: JDRF Nevada: www.jdrflv.org

Diabetes Prevention Resources

- ◆ YMCA of Southern Nevada

- Provides diabetes prevention classes. Call Breezy at 702-839-4900 or visit:

<http://www.lasvegasyymca.org/Durango-Hills/YMCA-Diabetes-Prevention-Program.aspx>

- ◆ Get Healthy Clark County

www.gethealthyclarkcounty.org

- ◆ ** Information and links to sites for resources including free online nutrition and physical activity programs, tobacco prevention, safety and much more.*

- ◆ *American Diabetes Association: Newly Diagnosed with Type 2 Diabetes:*

<http://www.diabetes.org/living-with-diabetes/recently-diagnosed/living-with-type-2-diabetes/?loc=leftrailpromo-link2>

Chris Moore's Mom Carolyn... In Memoriam



Contact Information

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