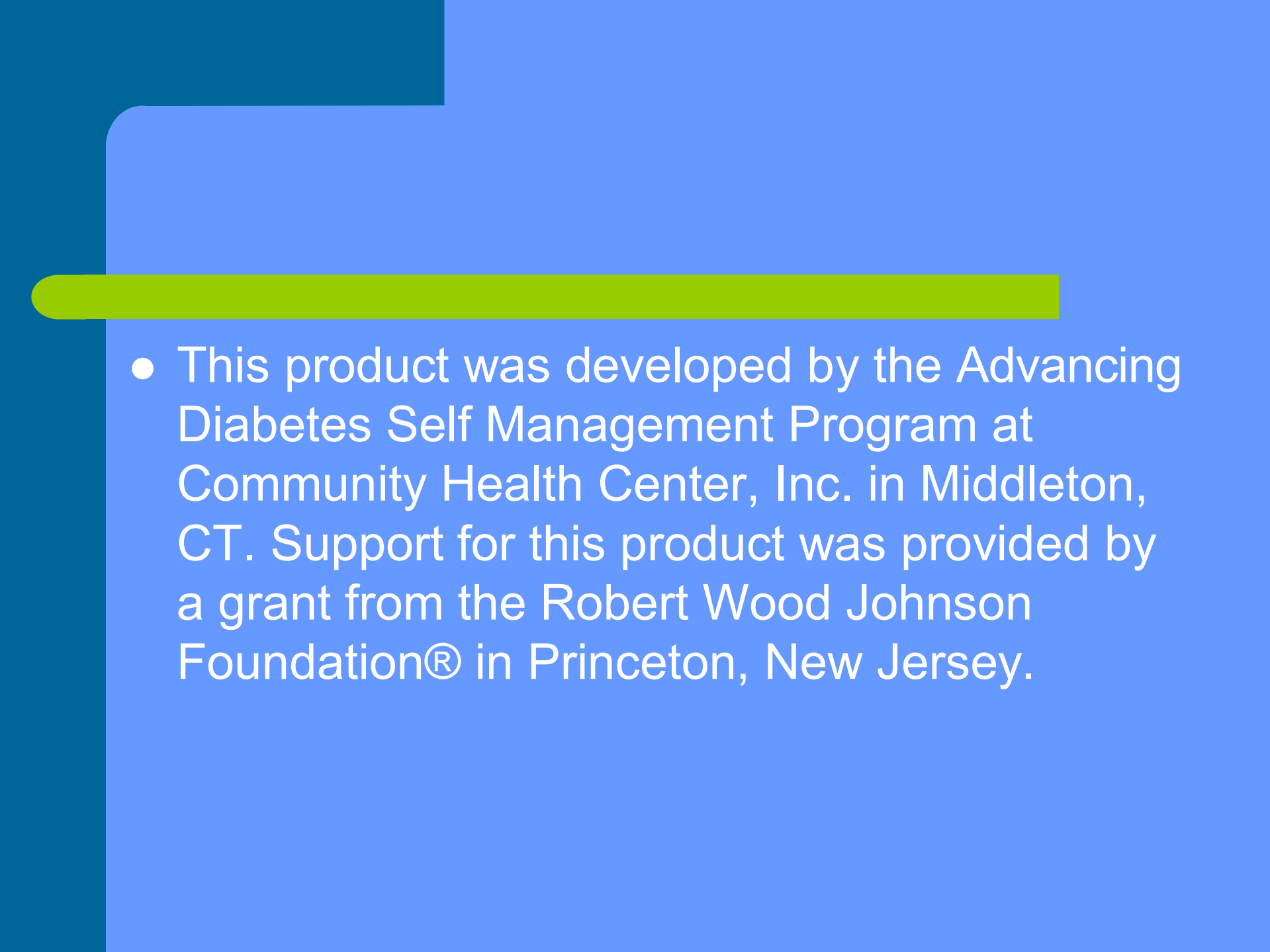


- 
- This product was developed by the Advancing Diabetes Self Management Program at Community Health Center, Inc. in Middletown, CT. Support for this product was provided by a grant from the Robert Wood Johnson Foundation® in Princeton, New Jersey.

Session 2

Introduction to Nutrition

Hypo/Hyperglycemia
The Role of Nutrition in
the Therapy of Diabetes

Portion Control
Self Management

Hypoglycemia (Low blood sugar/glucose)



Causes: too little food, too much insulin or diabetes medicine or extra activity

Symptoms: shaking, fast heartbeat, sweating, dizziness, hunger, weakness, headache

What to do? (choose 1)

- Drink 1/2 cup juice
- Drink a glass of skim milk
- Have 3-5 pieces of hard candy
- Have 3 teaspoons of honey or sugar
- Have 2-3 glucose tablets



Hypoglycemia *(Low blood sugar)*

Shaking

Fast heartbeat

Sweating

Dizziness

Hunger

Weakness

Headache

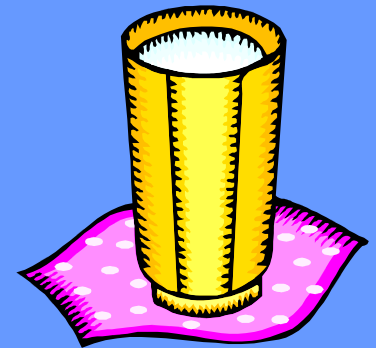


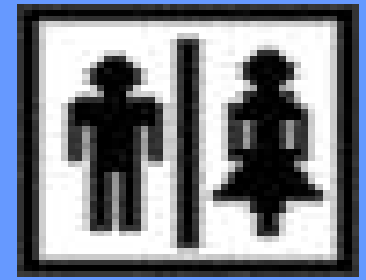
Hypoglycemia (Low blood sugar)



What to do? (choose 1)

- *Drink 1/2 cup juice*
- *Drink a glass of skim milk*
- *Have 3-5 pieces of hard candy*
- *Have 3 teaspoons of honey or sugar*
- *Have 2-3 glucose tablets*



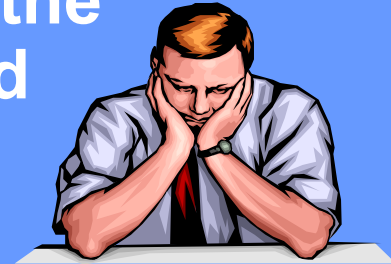


Hyperglycemia: High Blood Sugar/Glucose

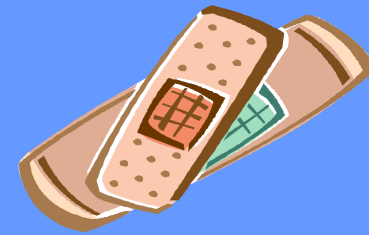
❖ **Causes:** too much food, too little insulin or diabetes medicine, illness or stress



❖ **Symptoms:** extreme thirst, have to go to the bathroom a lot, dry skin, hunger, blurred vision, drowsiness, cuts don't heal well



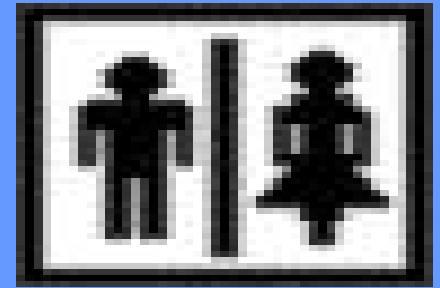
❖ **What to do?** If your blood sugar is over 200 mg.dL for several days, call your doctor.



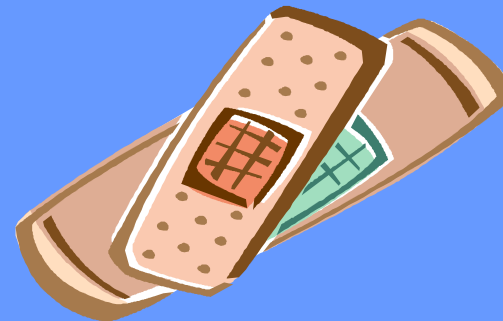
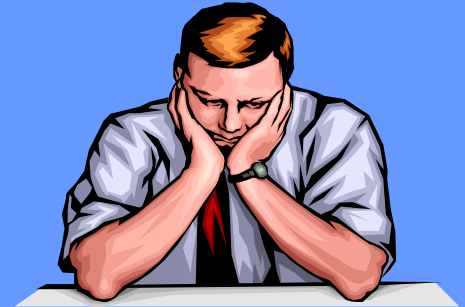
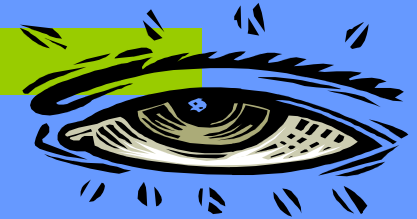


Hyperglycemia

High Blood Sugar



- ❖ Extreme thirst
- ❖ Have to go to the bathroom a lot
- ❖ Dry skin
- ❖ Hunger
- ❖ Blurred vision
- ❖ Drowsiness
- ❖ Cuts don't heal well

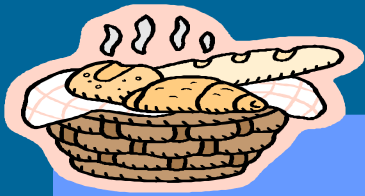


Hyperglycemia: High Blood Sugar/Glucose

What to do?

If your blood sugar is over 200 for several days, call your doctor.





Sources of Carbohydrates

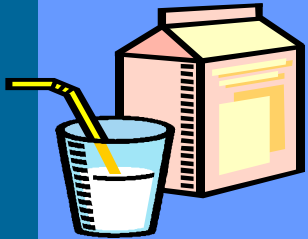


- ❖ Bread, cereal, rice, pasta

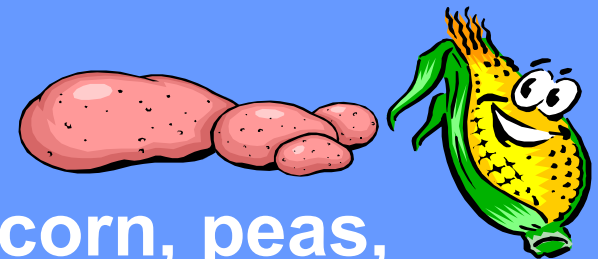
- ❖ Fruit & juice



- ❖ Milk & yogurt



- ❖ Starchy vegetables – corn, peas, potatoes, plantains, winter squash



- ❖ Sweets



Sources of Protein

- ❖ Meat, chicken, turkey,



- ❖ Fish, shrimp, lobster



- ❖ Eggs



- ❖ Cheese



- ❖ Peanut butter

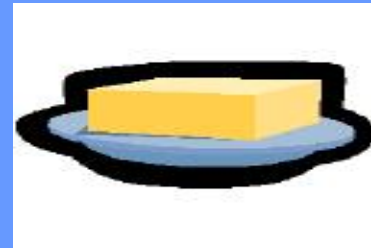


Sources of Fat

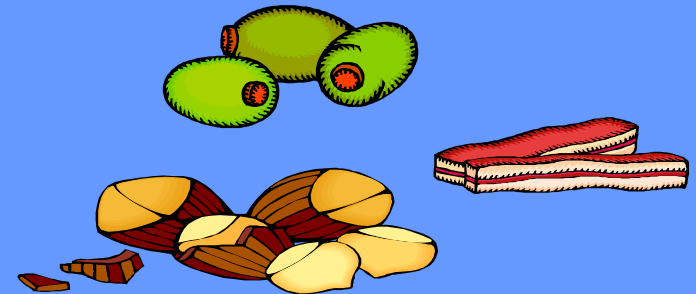
❖ Oils



❖ Margarine and butter



❖ Nuts, olives, bacon

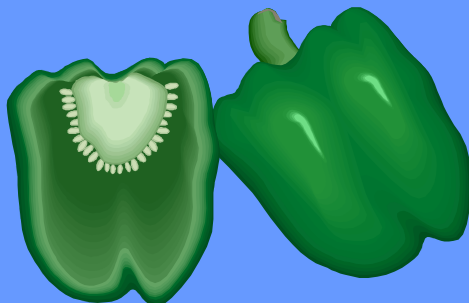
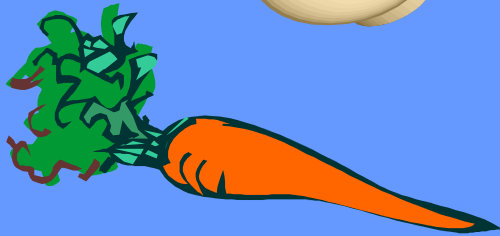
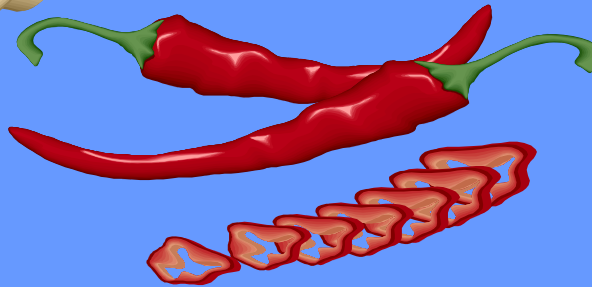
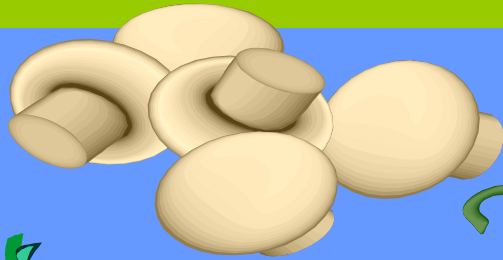


❖ Cream





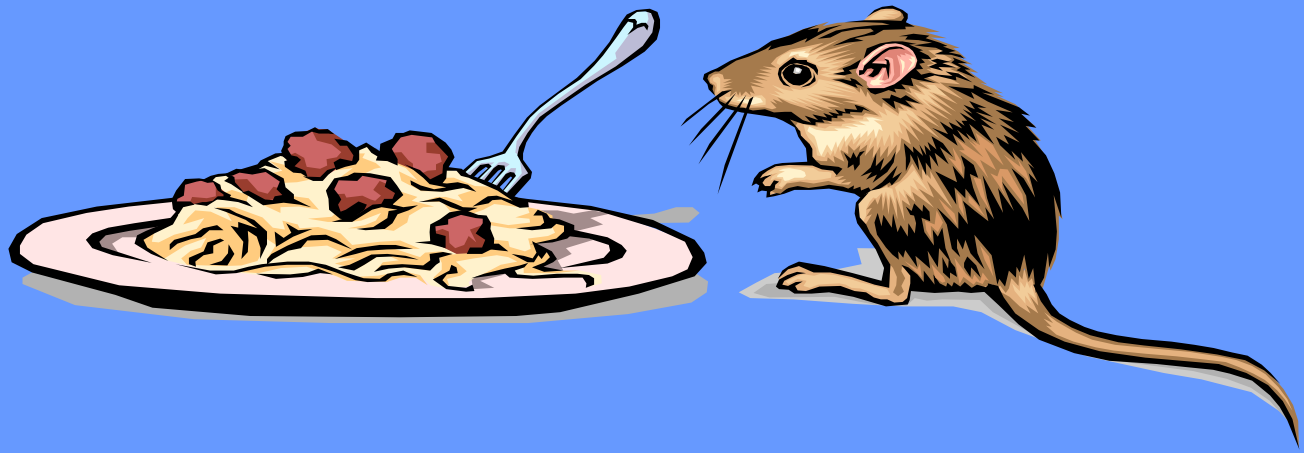
Your mother was right! Eat Your Vegetables



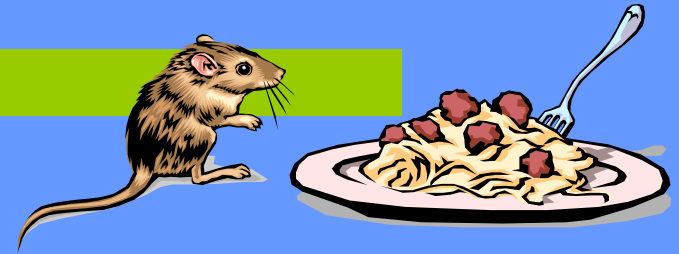
*Would you like
some homemade
vegetable soup?*

Portion Control

Healthy blood glucose is helped by moderate portion sizes. **You may think the portions seem small.**



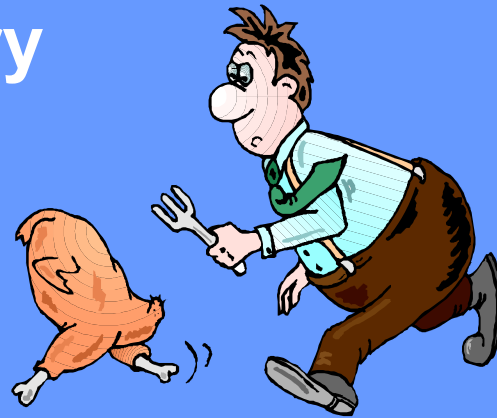
Cooking & Eating Tips



Smaller portions

Grill or bake, **don't** fry

White meats more
than red



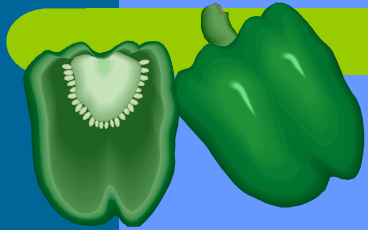
Olive or canola oil

Not butter, lard or Crisco

I'll Never Enjoy Eating Again!
Oh yes, you will!



Many good things in life are free!
Friends, family, nature



And lots of good food!



Most vegetables: Artichokes, asparagus, green or wax beans, bean sprouts, beets, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, eggplant, greens, mushrooms, okra, onions, peppers, spinach, lettuce, summer squash, tomatoes, zucchini, garlic



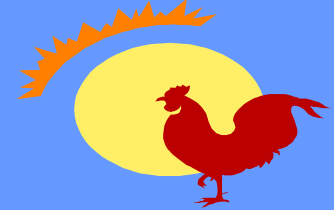
Drinks: coffee, tea, diet soda, club soda or seltzer water, ½ cup tomato or V-8 juice

Spices & herbs: mustard, 1 tbsp. ketchup, broth, butter buds, Pam, sugar substitutes

Sugar-free jello



Make a Breakfast



Carbohydrates

Women pick 3

Men pick 4

from the list below

1/2 grapefruit
1 small banana
1 1/4 cup strawberries
1/3 small cantaloupe
3 prunes
2 tablespoons raisins
1 small orange
1 medium peach
1/2 canned fruit, no sugar
1/2 cup juice
1 slice whole wheat bread
1/2 English muffin or bagel
1/2 cup oatmeal or grits
3/4 cup no sugar cereal
1 slice French toast
1/2 cup potatoes
1 cup skim milk
6 oz. lowfat sugarfree yogurt

Fats and Proteins

Woman pick 1

Men pick 1-2

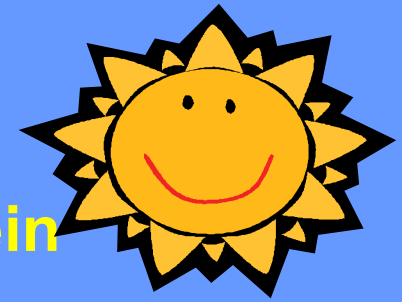
from the list below

1/4 cup Egg Beaters
1/4 cup low fat cottage cheese
1 tablespoon peanut butter
1 slice lean ham
1 slice lean turkey
1 slice Canadian bacon
1 egg (twice a week)

FREE FOODS

Coffee, tea, sugar substitute, Pam spray, sugar free jelly or jam, sugar free pancake syrup
Use margarine in small amounts as needed

Make a Lunch



Carbohydrates

Women pick 3

Men pick 4

From the list below

- 1 slice whole wheat bread
- 1/2 English muffin
- 1/2 small bagel
- 1/2 small hard roll
- 1 small square cornbread
- 6 unsalted saltines
- 1/2 cup bean, pea or lentil soup
- 1 cup broth soup and 6 crackers
- 1/3 cup cooked pasta
- 1/2 cup potatoes
- 1 small apple, orange, pear or peach
- 17 grapes
- 2 small plums or tangerines
- 1 1/4 cup watermelon cubes
- 4 oz. (1/2 cup) juice
- 6 oz. lowfat sugarfree yogurt
- 8 oz. skim milk
- 1/2 cup sugar-free pudding
- 1 cup sugar-free cocoa

Protein

Pick 1 item from the list below

- 2 slices turkey, chicken, ham, roast beef or low fat cheese
- 1 oz sliced meat and 1 oz. low fat cheese
- 1/2 cup tuna, egg or chicken salad made with mayonnaise, low fat sour cream or olive oil
- 1/2 cup cottage cheese
- 2 tablespoons peanut butter

FREE FOODS

- Most vegetables
- Coffee, tea, diet soda, club soda and sugar substitutes
- Sugar free jello
- Mustard, herbs, spices; 1 tbsp ketchup
- Clear broth

Make a Dinner



Carbohydrates

Women pick 3

Men pick 4

from the list below

- 1/2 cup mashed potato
- 1/2 cup corn, peas
- 1 cup winter squash
- 1/3 cup cooked stuffing, pasta or rice
- 1 small baked potato
- 1/3 cup baked beans
- 1 slice whole wheat bread
- 1 small apple, orange, pear, or peach
- 1 1/4 cup whole strawberries
- 1 small banana
- 17 grapes
- 1/2 cup canned fruit in own juice
- 4 oz. fruit juice
- 8 oz. skim milk
- 6 oz. sugar free yogurt
- 1/2 cup sugar free pudding
- 3 small gingersnaps or 5 vanilla wafers
- 1/2 cup frozen yogurt

Meats and Proteins

Women pick 1

Men pick 1-2

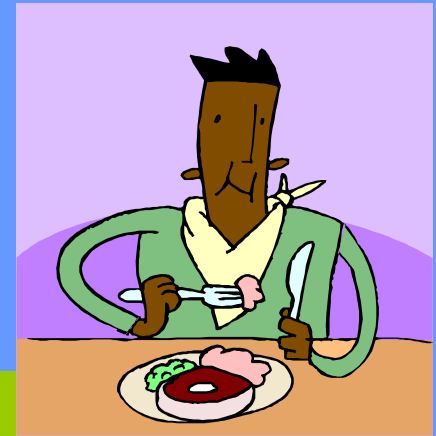
- 3 oz. chicken, no skin
- 3 oz. turkey, no skin
- 3 oz. fish
- 3 oz. seafood
- 3 oz. lean beef
- 3 oz. lean pork
- 3 oz. lean lamb
- 3 oz. veal
- 3 oz. lean hamburger
- 3/4 cup low fat cottage cheese

FREE FOODS

- Vegetables, spices,
- Coffee, tea, diet soda
- Clear broth, sugar free jello

Self Management

Help Yourself!



- ❖ Using your self management goal sheet, make a goal related to eating
- ❖ Bring the sheet to the next session
- ❖ If you forget one day (or give into temptation) don't give up!

Session 3

Nutrition Continued

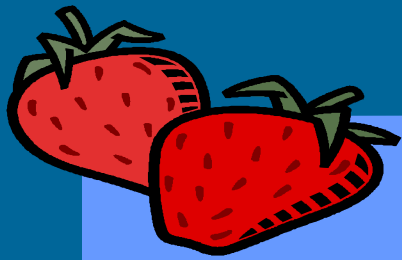
Effects of Foods on BG

Critique Meals

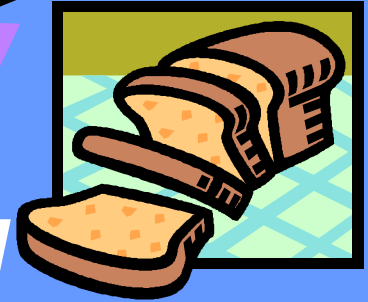
Healthy/Unhealthy Fats

Make a Meal

Fast Foods and Self Management Goals



“CARBS”



Special Attention Needed

Carbohydrates have the greatest effect on blood glucose. Remember: fruit, rice, bread, milk, desserts, sugary drinks & regular soda are carbs.

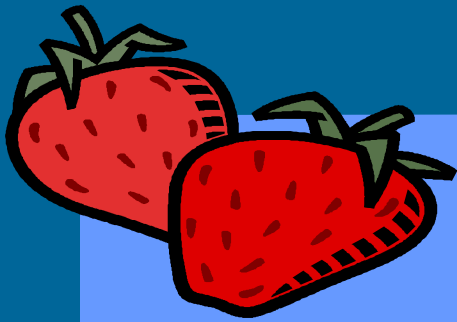
- ❖ *Portion control*

 - 2-3 small servings per meal for women or 1 larger serving*

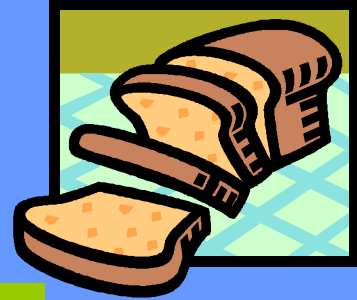
 - 3-4 small servings per meal for men or 2 larger servings*

- ❖ *Can't skip carbs at one meal and add to the next*



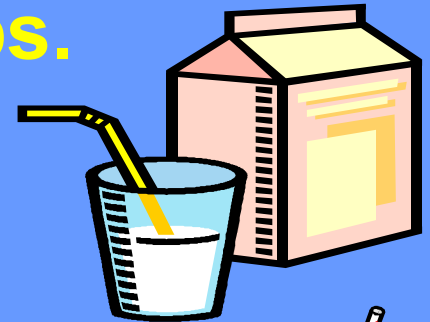


“CARBS”

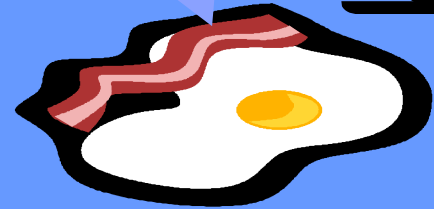
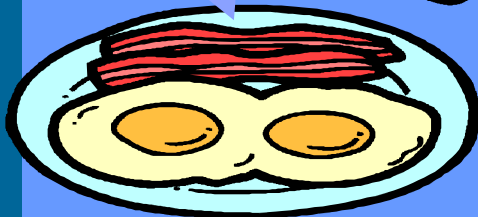


Carbohydrates affect blood sugar the most. Fruit, rice, bread, milk, desserts, sugary drinks & regular soda are carbs.

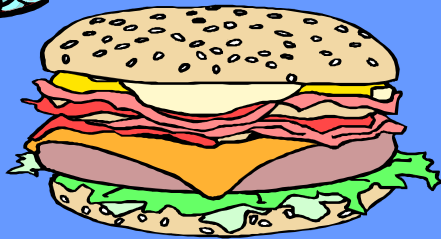
- ❖ *Remember portion control*
- ❖ *Can't skip carbs at one meal and add to the next*



Breakfast: OK or how can it be better? *(Find the carbs!)*

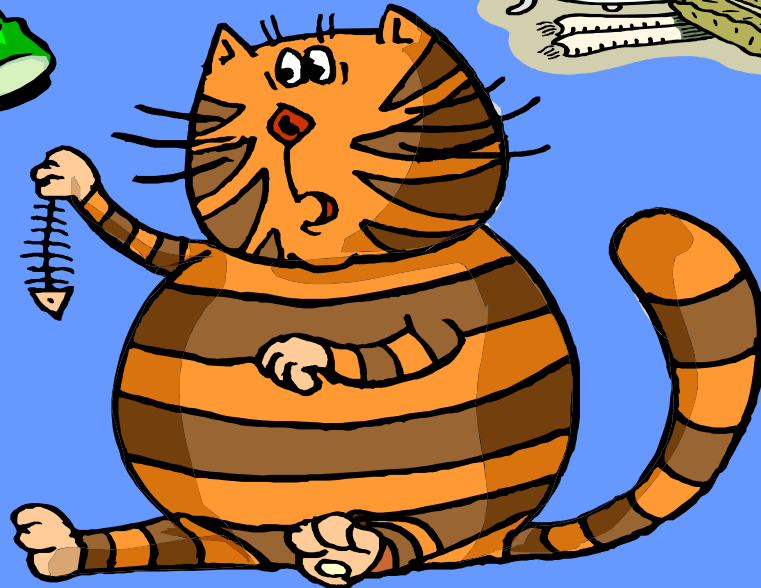
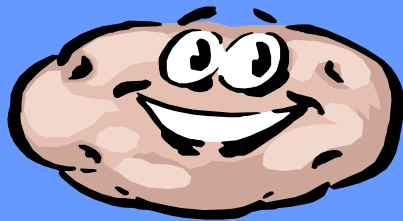
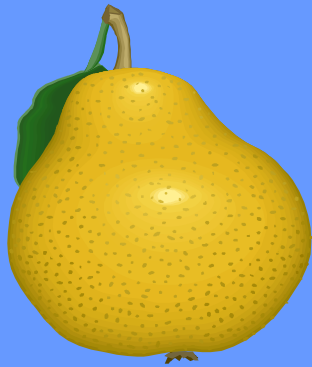


Lunch – OK or How Can It Be Better? *(Find the carbs!)*



Dinner - One Smart Cat!

(Find the Carbs!)



Some fats are actually Heart Healthy Fats

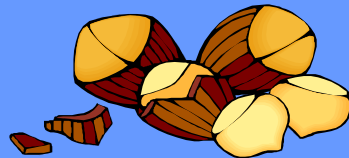
- ❖ Canola and olive oil



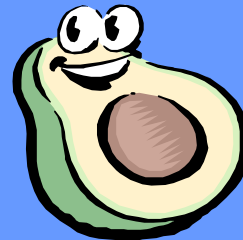
- ❖ Peanut Butter



- ❖ Nuts



- ❖ Avocados

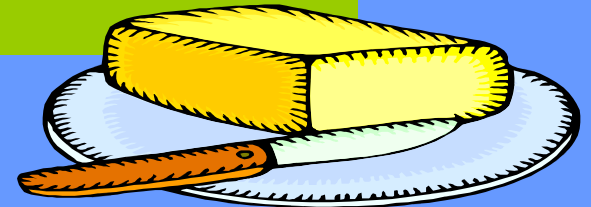


- ❖ Fats in some fish – albacore tuna, salmon

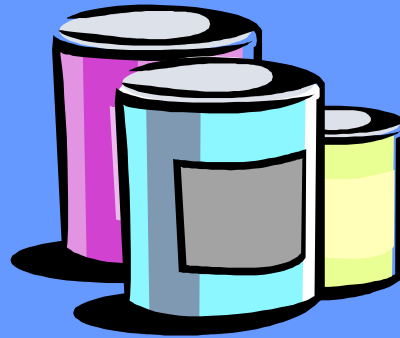
But be careful. Fats make us fatter!

Unhealthy Fats

- ❖ Butter or stick margarine



- ❖ Lard or Crisco

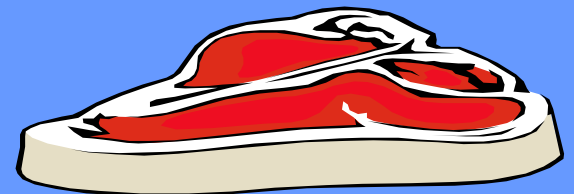


- ❖ Whole Milk



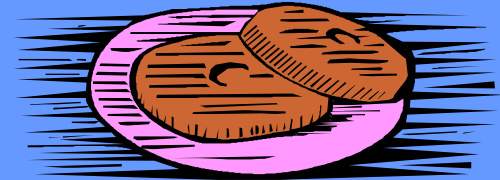
- ❖ Cream

- ❖ Fatty meat or chicken skin





Snack Choices

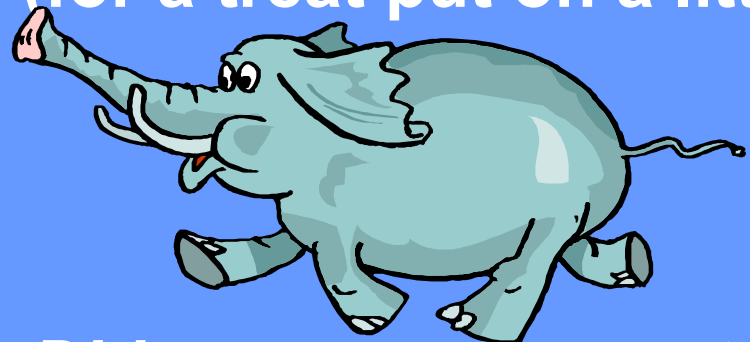


Count Carbs! They aren't free.

Other snacks are free and unlimited



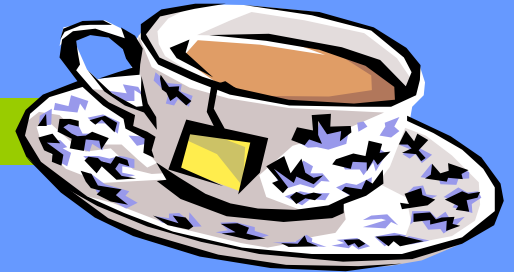
- ❖ a small piece of fruit
- ❖ 3 gingersnaps or 5 vanilla wafers with **tea/coffee**
- ❖ 6 unsalted saltines with thin slices of hard cheese or peanut butter
- ❖ 6 oz. low fat, sugar-free yogurt
- ❖ **Celery or carrot sticks** (for a treat put on a little peanut butter)
- ❖ **Sugar-free jello**
- ❖ **Diet soda**
- ❖ Some nuts



Did someone say nuts?

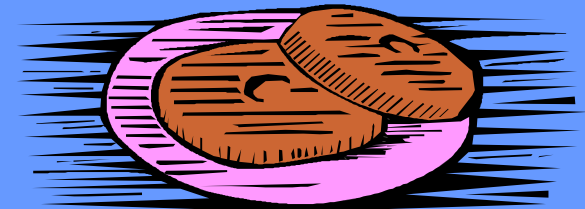


Snack Choices



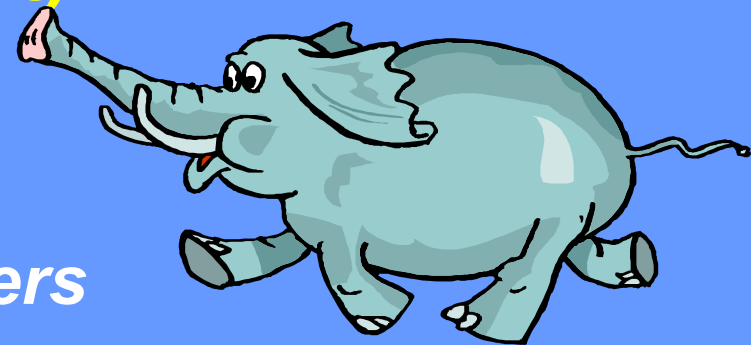
Free snacks

- ❖ Sugar free jello
- ❖ Tea, coffee, sugar free soda
- ❖ Celery and carrot sticks



Carb snacks (must count)

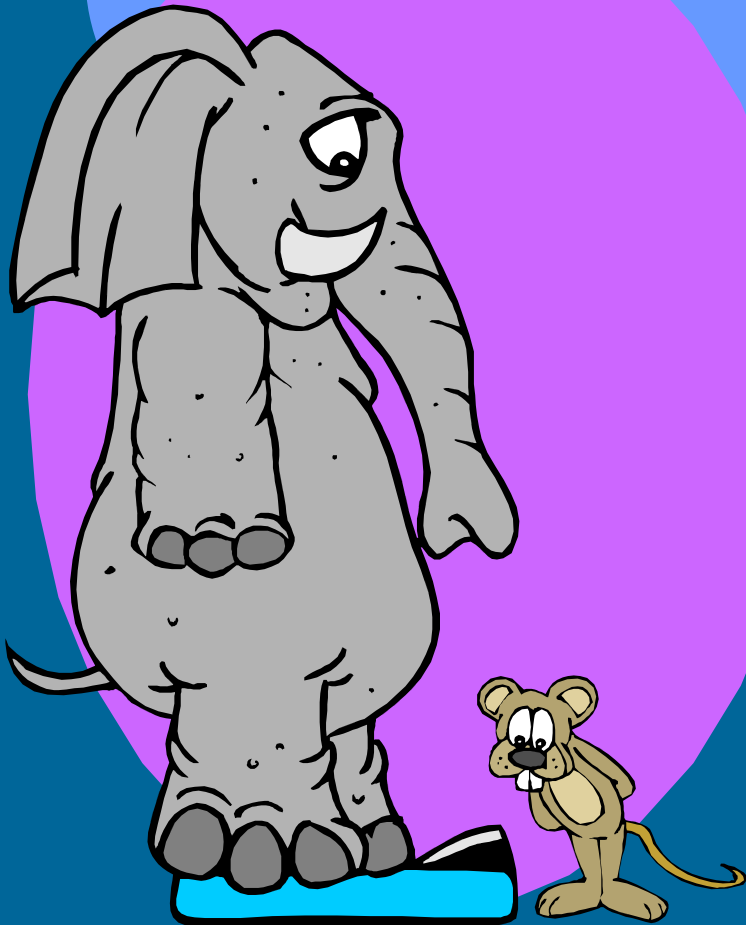
- ❖ Small piece of fruit
- ❖ Sugar free, low fat yogurt
- ❖ Gingersnaps or vanilla wafers
- ❖ Nuts



Did somebody say nuts?

Fast Foods Buyers Beware

*Super sizing
produces super sizes
and other problems*



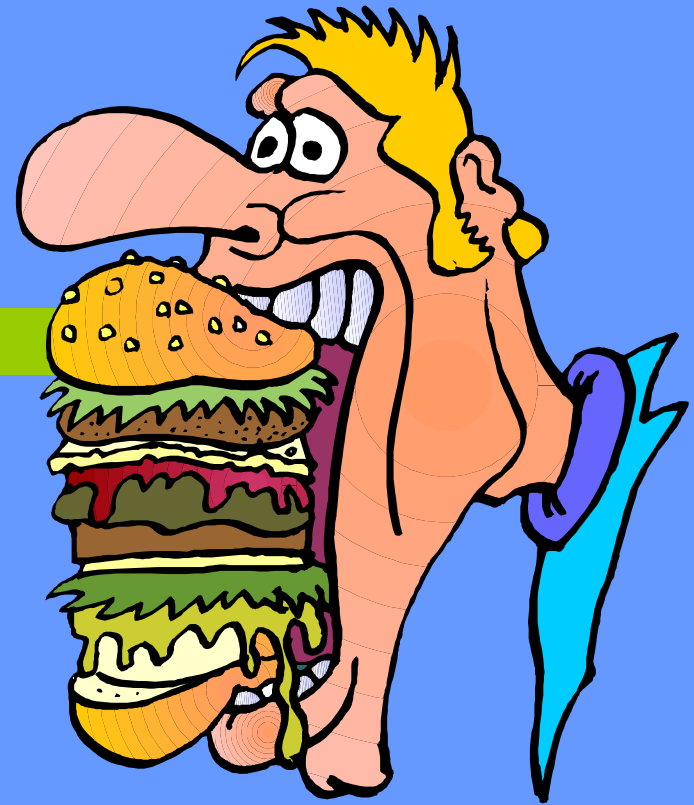
Fast Food Restaurants

- ❖ They are easy
- ❖ They are fast
- ❖ They are cheap
- ❖ Kids love them

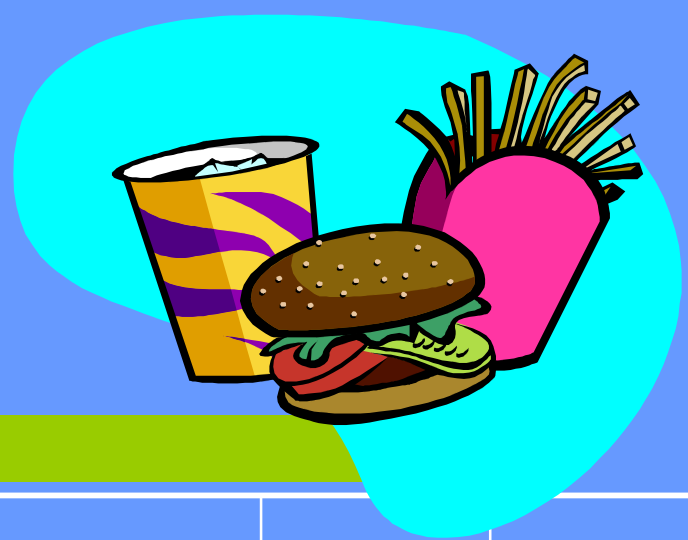
BUT

- ❖ They help set kids up for diabetes
- ❖ They may increase the risk of heart attack, stroke and diabetes complications.

WHAT CAN YOU DO?

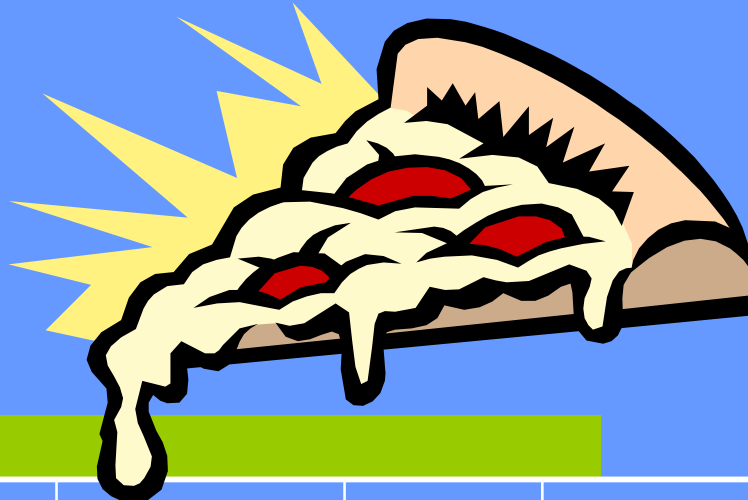


McDonald's



Food	Carbs (grams)		Calories	Fat	Sodium
	Men: 45-60/meal	Women: 30-45			
Hamburger	34 sm	45 BigMac	270/570	10/31	580/1070
French fries	26 sm.	57 lg.	210/450	10/22	135/290
Coca-cola	29 sm	40 lg	110/150	0/0	10 & 15
Total	89 gms	142 gms			
Grilled chic. sandwich		38	440	20	1040

Pizza Hut



Food	Carbs (grams) Men: 45-60/meal Woman: 30-45	Calories	Fat	Sodium
1 slice cheese	21	210	9	530
1 pepperoni	22	220	9	610
1 stuffed crust-cheese	49	380	11	1160
2 thin cheese	42	420	18	1060
Personal pan pizza-cheese	76	630	24	1160

Wendy's



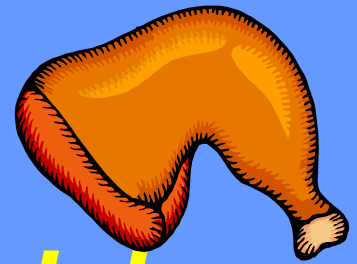
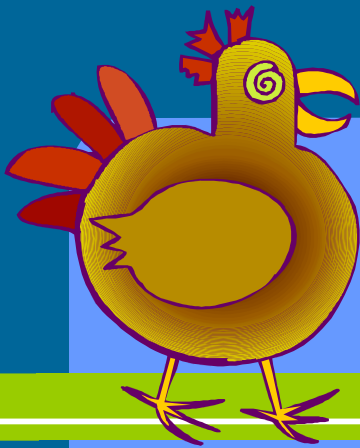
Food	Carbs (grams)	Calories	Fat	Sodium
	Men: 45-60/meal Women: 30-45			
Big bacon classic	46	580	30	1460
Grilled chicken sandwich	35	310	8	790
Baked potato	71 (plain)	310	0	25
	78 (cheese)	570	23	640
Chili	21 (small)	210	7	800
	32 (large)	310	10	1190



Taco Bell



Food	Carbs (grams) Men: 45-60/meal Women: 30-45	Calories	Fat	Sodium
1 taco	12	180	10	330
1 soft taco	21	220	10	580
1 bean burrito	55	380	12	1100
Taco salad with salsa	65	850	52	1780
Quesadilla	32 plain 34 chick	350/410	50/90	860/1170
Fajitas	52-55	420/520	22/25	980/1300



Kentucky Fried Chicken

Food	Carbs (grams) Men: 45-60/meal Women: 30-45	Calories	Fat	Sodium
Breast	16 (original recipe) 25 (extra crispy)	400 470	24 28	1116 930
Original thigh	6	250	18	747
Roast breast	2	251	11	830
Mean greens	11	70	3	650
Biscuit	20	180	10	560



magic carb numbers

45-60 or 30-45

Fast Food Places: *be smart*

Drink water, diet soda, or coffee

Small sizes, never supersize



Place	Food	How to adjust	Carbs
Taco Bell	2 Tacos	Avoid soft taco, burrito, fajita	24
McDonald's	small	No cheese	
Wendy's	hamburger	Pull off top of bun	27
Burger King	& sm. fries	Mustard/ ketchup,,no sauce	
McDonald's	6 chicken nuggets		15
Kentucky Fried Chick	Chicken	Get tender roast chicken or pull skin off fried chicken	5-10
Pizza Hut	Pizza	2 pieces thin crust	42

Fast Food Restaurants *How to be Smart!*

- ❖ Diet soda or water
- ❖ No special sauces
- ❖ Hold the cheese
- ❖ No super-sizing
- ❖ Be really good, pull off the top bun
- ❖ Let's discuss your favorites



Self Management

Help Yourself!

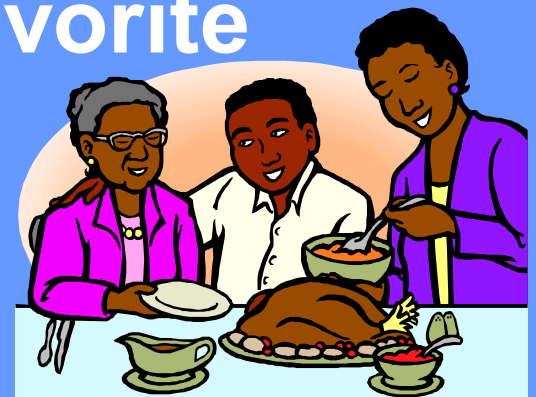


- ❖ Using your self management goal sheet, make a goal related to eating in fast food restaurants
- ❖ Bring the goal sheet to the next session
- ❖ If you make a bad choice one day, make a good choice the next time

Make a Meal



Using the “make a meal” or “snack” sheets from last session, make a menu for your favorite meal of the day **OR** make a good snack



Session 4

Medications and Complications

Disease Progression

Types of Medications

Side Effects

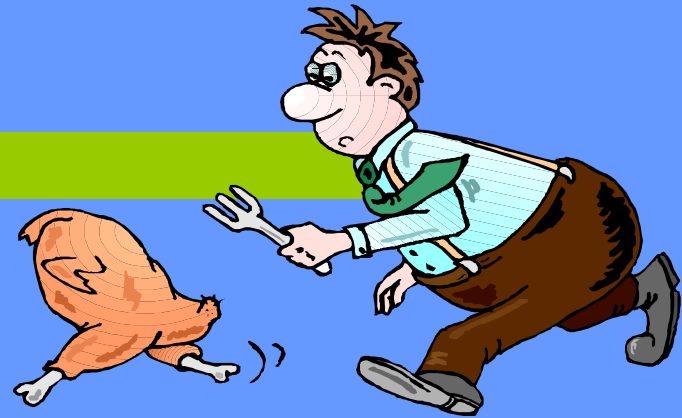
Complications

Self Management

Your Diabetes Will Probably Change Over Time

Ways to treat diabetes:

- 1) Food and exercise
- 2) Food, exercise and pills
- 3) Food, exercise, pills and insulin
- 4) Food, exercise and insulin

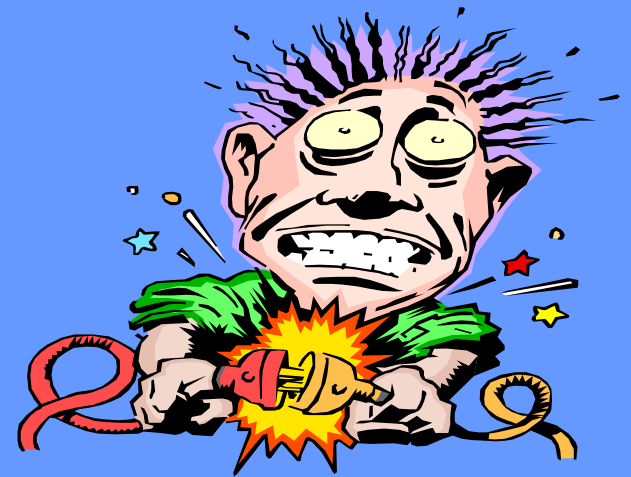


Sulfonylureas

Sulfonylureas are like electricians. They stimulate. They stimulate the pancreas to make more insulin.

Examples are:

- Glyburide
- Glimepiride (Amaryl)
- Glucotrol



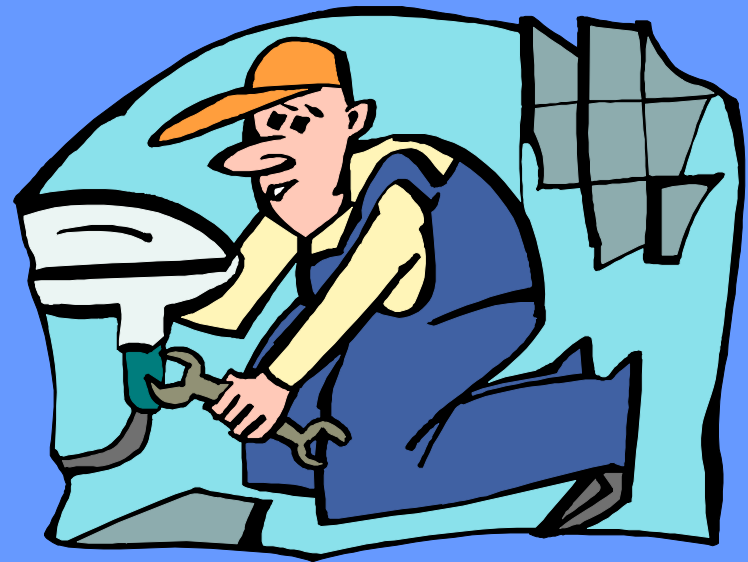
Sulfonylureas stimulate

Biguanides

Biguanides are like plumbers. They help leaky livers.

Examples

- Metformin
(Glucophage)



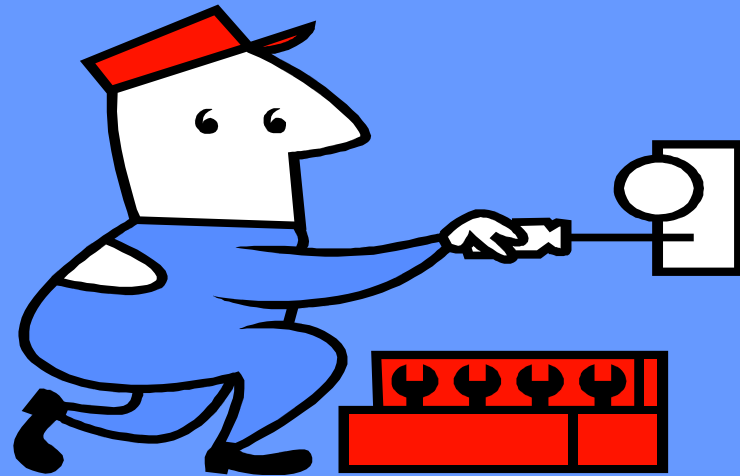
Biguanides help stop leaks

Glitazones (TZDs)

Glitazones are locksmiths. They open the cell so glucose can get in.

Examples:

- Actos
- Avandia



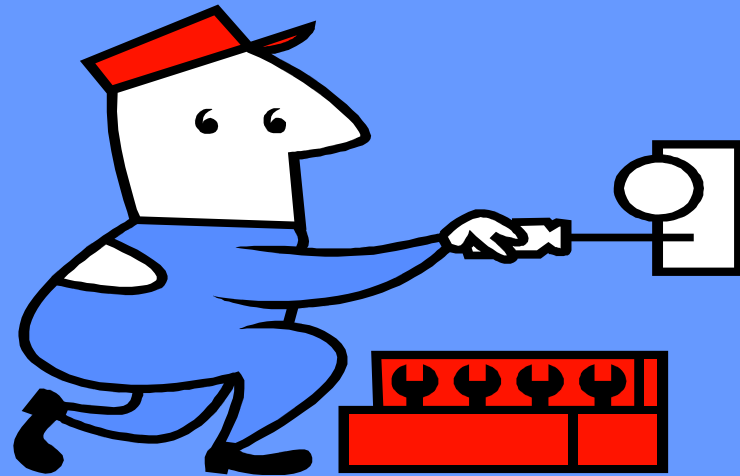
Glitazones open cells

Glitazones (TZDs)

Glitazones are locksmiths. They open the cell so glucose can get in.

Examples:

- Actos
- Avandia



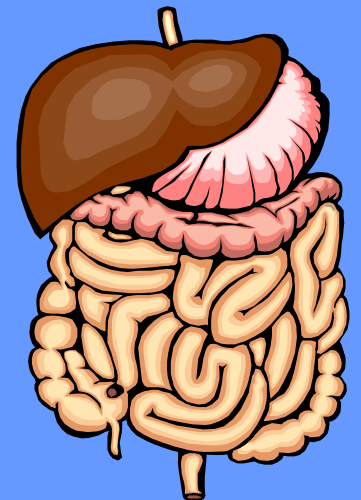
Glitazones open cells

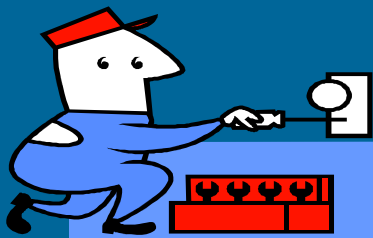
Other Medications



Starlix and Prandin are like **fast acting** electricians. They stimulate the pancreas to produce insulin

Precose and Glyset slow down digestion. Sugar isn't released as quickly.





Combination Medications

- ❖ Avandamet (avandia and metformin). This is a combination of a locksmith and a plumber. It opens the cell so glucose can enter and controls the leaky liver.
- ❖ Glucovance (glyburide and metformin). This is a combination of a plumber and an electrician. It helps the liver from leaking glucose and stimulates the pancreas to produce insulin.



Each Medication Has Its Own Job



- ❖ Do you call an electrician for a leaky toilet?
- ❖ Do you call a plumber to fix a lock?
- ❖ Do you call a locksmith for a broken light?

Like people, medicines do different jobs.

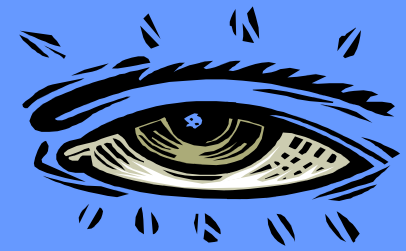
*If your doctor gives you different
medications, take them all!*

Diabetes: A Progressive Disease

Over time, most patients will need insulin to reach their targets. **This is NOT a failure.**

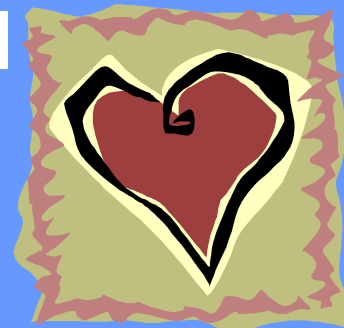
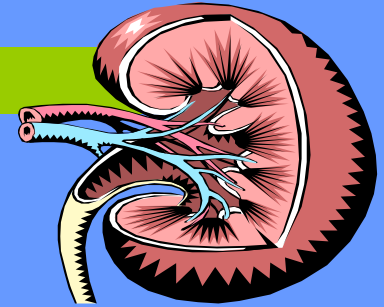
Many new devices greatly reduce the discomfort.



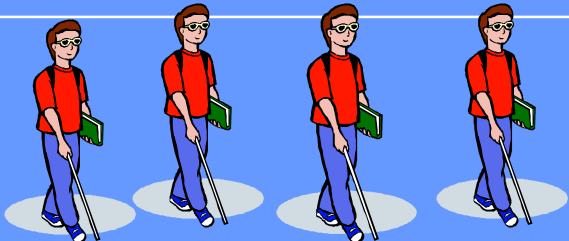



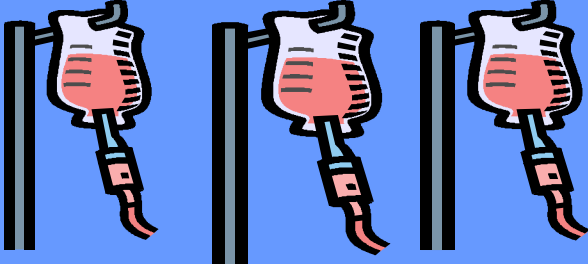



Complications of Diabetes

- ❖ Eye Problems
- ❖ Kidney Problems
- ❖ Erectile Dysfunction
- ❖ Nerve Damage & Foot Problems
- ❖ Heart and Blood Vessel Problems



Lifetime Risks of 20 people with different A1C levels

Problem	A1C of 10.0	A1C of 7.2
Blindness		
Amputation		
Kidney Failure		

Self Management

Help Yourself!

- ❖ Review goals of the past 3 sessions
- ❖ Look at the goal from Session 1. It might be about medication or monitoring
- ❖ Establish new goal or re-commit to existing goal
- ❖ Bring goal sheet to next session



Session 5

Everyday Tips for Staying Healthy

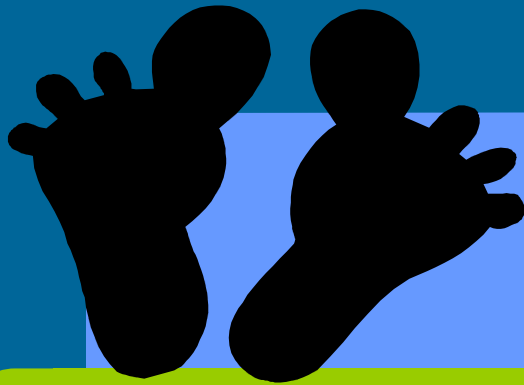
Foot Care

Dental Care

Vitamins

Exercise

Self Management



Foot Care



- ❖ Wash and check your feet everyday. Be sure to dry between toes. Look for cracks, blisters and cuts.
- ❖ Trim nails along the toe's natural curve. Don't cut corns. For trouble with your nails or corns, see a foot doctor.
- ❖ Rub lotion on tops and bottoms but **not between toes.**
- ❖ Don't go barefoot. **Always** wear socks, shoes or slippers.
- ❖ Ask your health provider to check your feet. Take off your socks as a reminder.



Foot Care

Check your feet everyday



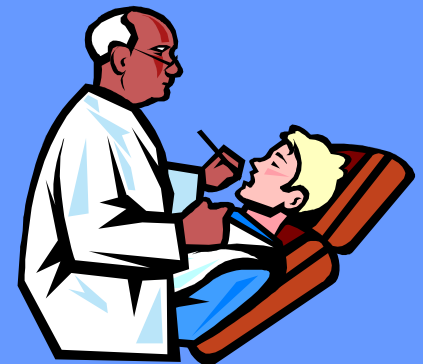
Always wear shoes and socks



Dental Care



- ❖ Brush your teeth 2 or more times a day.
- ❖ Use a soft toothbrush.
- ❖ Floss your teeth everyday.
- ❖ Get a new toothbrush every 3 months.
- ❖ See a dentist 2 times a year.
- ❖ Call your doctor or dentist if your dentures don't fit properly or you have:
 - loose or sore teeth
 - red, swollen or bleeding gums
 - problems chewing
 - a bad taste in your mouth.





Dental Care



- ❖ Brush
- ❖ Floss
- ❖ See a dentist every year
- ❖ Call if you have:
 - loose/sore teeth or dentures
 - red, swollen or bleeding gums
 - problems chewing
 - a bad taste in your mouth.

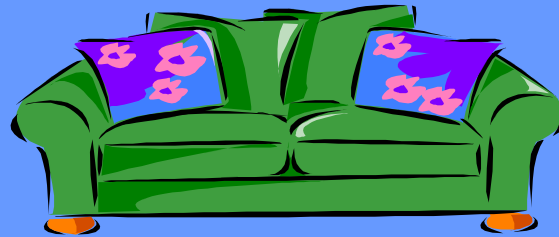


Vitamins

Take a
multi-vitamin
everyday



Exercise: don't be a



- ❖ Take your kids or grandkids to a park

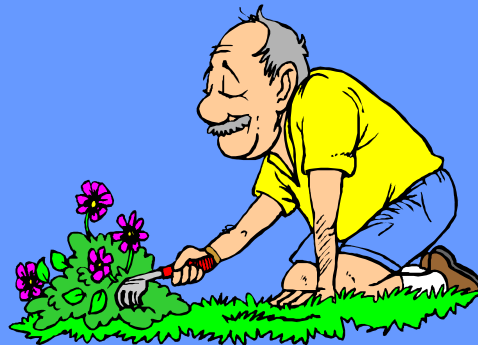
- ❖ Walk



- ❖ Garden



- ❖ Dance



- ❖ Other ideas?

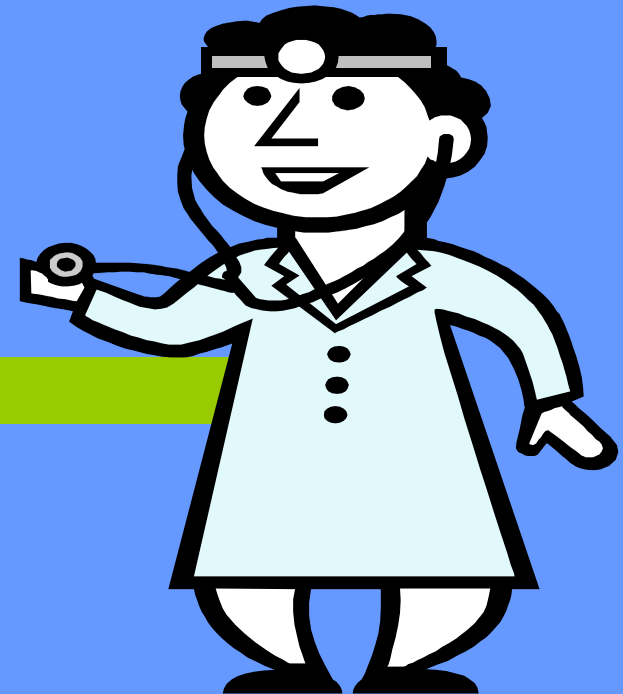
Exercise: why to start

Exercise will

- ❖ give you energy
- ❖ lower cholesterol
- ❖ help control weight
- ❖ decrease stress
- ❖ help prevent heart disease and high blood pressure



Exercise: how to start



Ask your doctor:

- ❖ is it ok?
- ❖ do any of my medications hide the symptoms of low blood sugar? ***This is important because exercise lowers blood sugar.***
- ❖ what time is best?
- ❖ do I need to adjust any medication?

Exercise and Blood Sugar

- ❖ Exercise lowers blood sugar.
- ❖ Check blood sugar **before and after** exercise. **If below 70 or you feel sick**, take 15 grams of fast acting carbohydrate. Examples:
 - 2-3 glucose tablets or 3-5 hard candies
 - 4 oz. of orange juice or regular soda
 - a small box of raisins
- ❖ Rest 15 minutes. Test again. If still below 70, take another 15 gram snack



Exercise Tips

Don't give up if you miss a day

- ❖ Start slowly, maybe 5-10 min/day
- ❖ Drink water before and after
- ❖ Exercise with a partner or your children
- ❖ Listen to music or television
- ❖ Build exercise into your day
 - Walk in the mall Use stairs*
 - Park far from the store door*



Exercise: *the ideals*



- ❖ 30 minutes a day is the ideal. You may never get to 30 minutes but, with your doctor's advice, do your best.
- ❖ Start slowly and then go faster.
- ❖ Your breathing will increase a little but you won't be gasping
- ❖ You will feel a little warm



Exercise

What's right for you?



❖ Check with your doctor



❖ Join our exercise or walking group

❖ Let's start



*In 6 months, who in this room
might be exercising like this?*

Self Management Goals

Help yourself!



- ❖ Using your self management goal sheet, make a goal related to something discussed today.
- ❖ It may be as simple as always wearing shoes, or flossing your teeth everyday, or parking further from the door of the store.

Session 6

Grocery Store Tour

Meat and seafood area

Margarine and oil areas

Dietetic Food Section

Dairy Section

Deli

*Fresh, frozen & canned fruit/vegetable
areas*