


Medical Assistant Education and Training Presentations

**Jan Wolfram, RN,
CDE**

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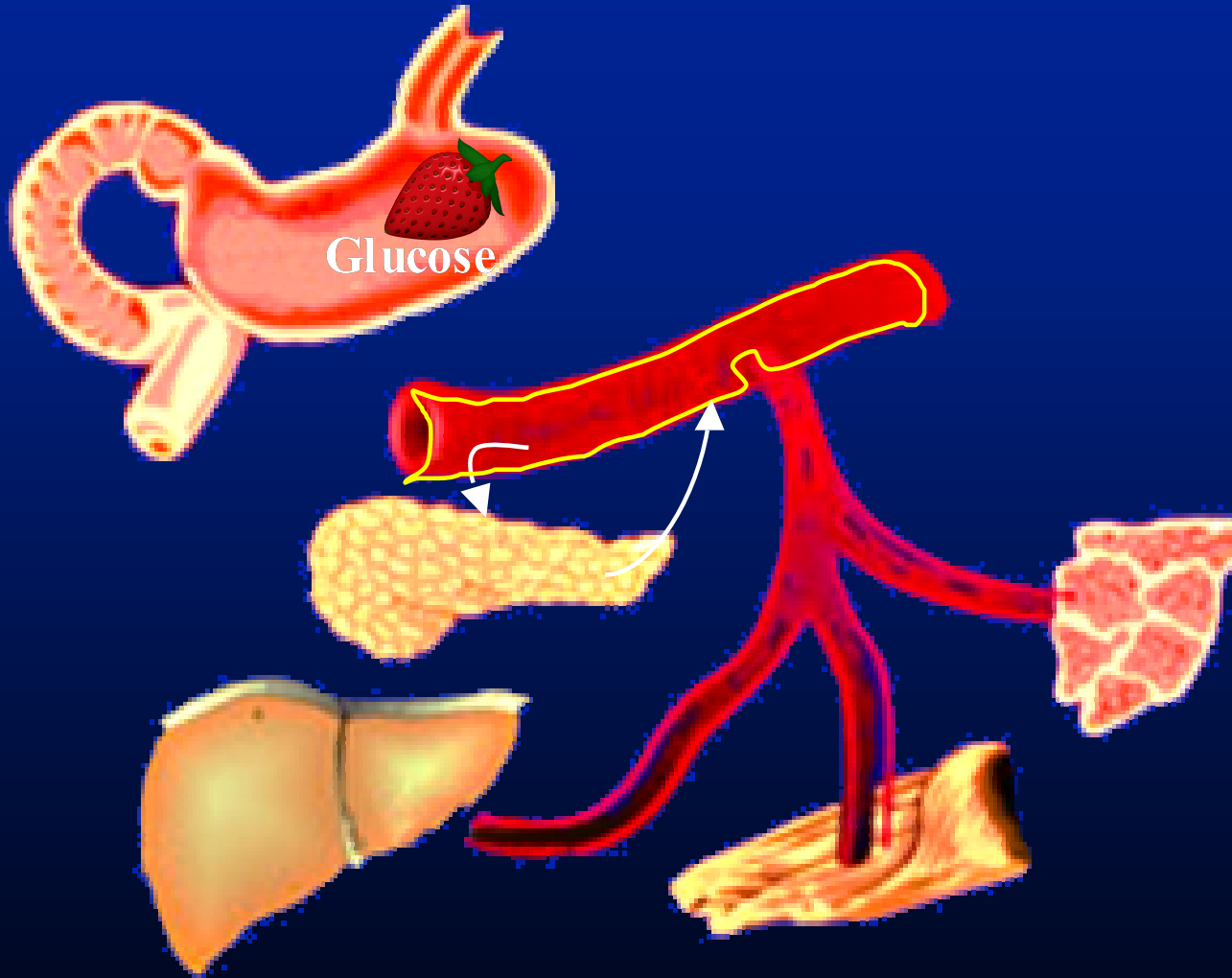


Digestion and Diabetes



Jan Wolfram RN, CDE
Boldt Diabetes Center

Carbohydrate DIGESTIVE ENZYMES

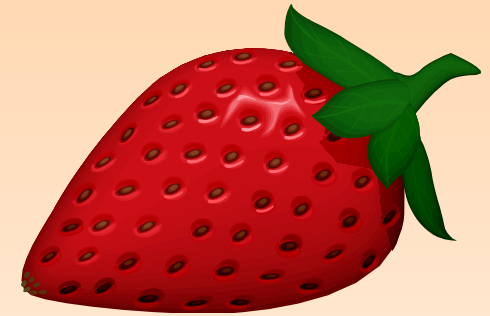


Carbohydrates Reduced to Glucose

- **Starches**



- **Fruits**



- **Milks**



- **Sweets**

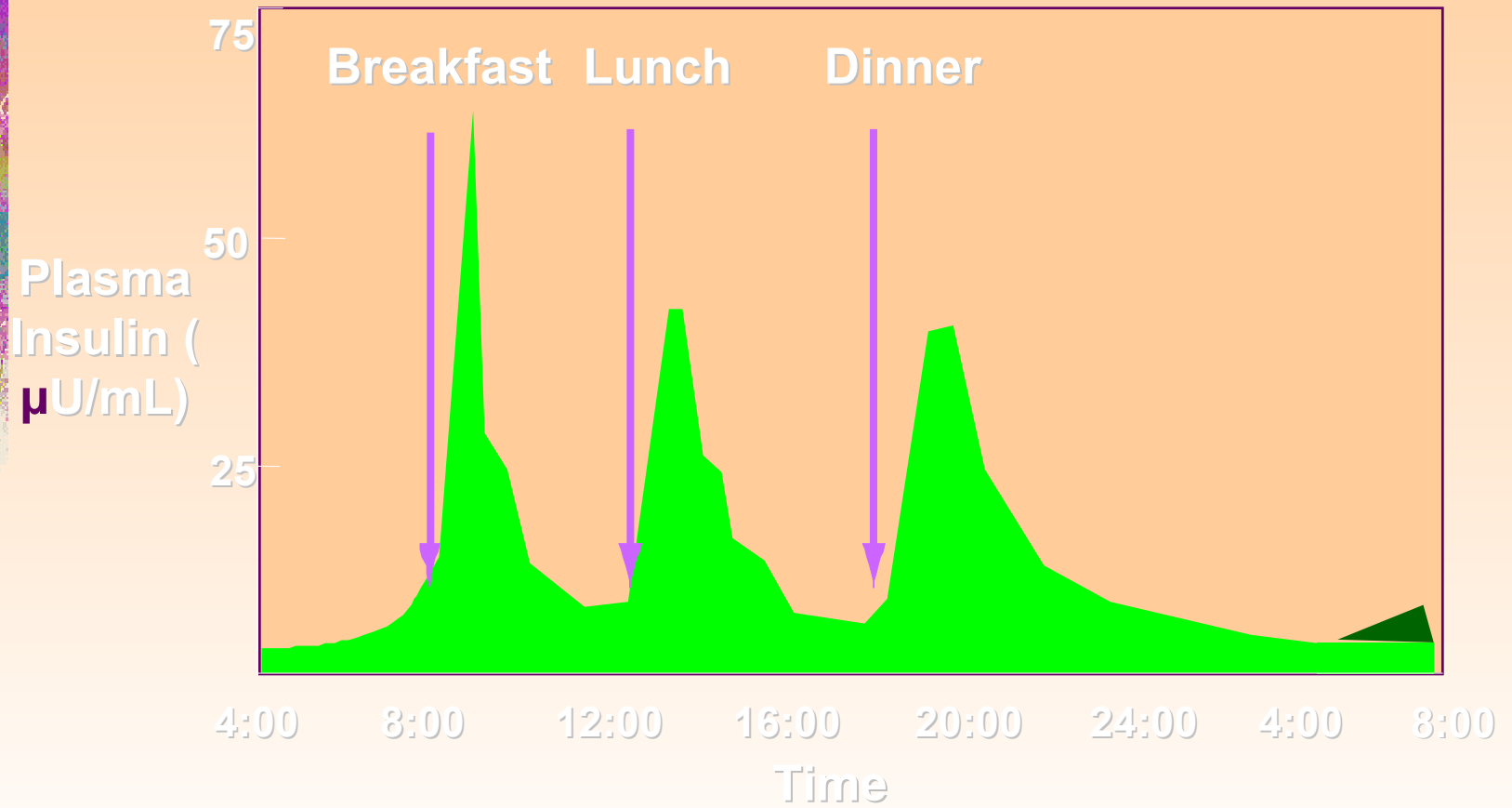




INSULIN'S JOB DESCRIPTION

- **AFFECTS METABOLISM**
- **STIMULATES THE TRANSPORT OF GLUCOSE INTO CELLS**
- **ACTIVATES GLYCOGEN PRODUCTION**
- **CONTROLS GLUCONEOGENESIS**
- **INHIBITS LIPOLYSIS**
- **VASODILATES**

Physiologic Serum Insulin Secretion Profile



DIABETES

- **The body does have enough insulin, or does not use insulin very well**

EPIDEMIC PROPORTIONS

- **Nearly 16 million Americans**
- **Almost 6% of the population**
- **6 million unaware they have it**

TWO TYPES OF DIABETES

- **TYPE 1 DIABETES**

1 CAUSE

1 TREATMENT

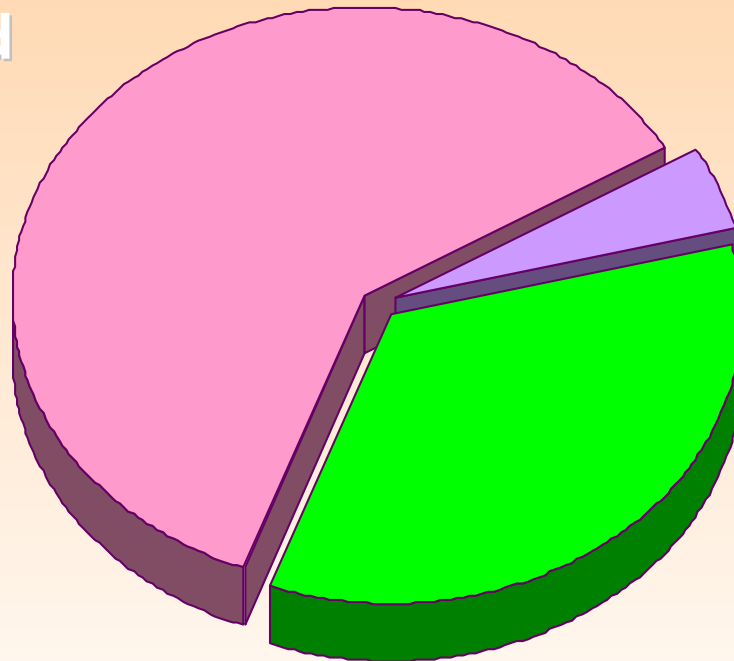
- **TYPE 2 DIABETES**

2 CAUSES

MANY TREATMENTS

Prevalence of Diabetes in the US

Diagnosed
Type 2
Diabetes



Diagnosed
Type 1
Diabetes

Undiagnose
d Diabetes

American Diabetes Association, Facts and Figures. Available at:
<http://www.diabetes.org/ada/facts.asp>. Accessed January 18, 2000.

Diagnosis Guidelines

Normal Fasting Glucose **<110**

Impaired Fasting Glucose* (IFG) **110 – 125**

Fasting Glucose for Diabetes **>126**

Random Glucose Level **>200**

*Expert Committee on the Diagnosis and Classification of Diabetes Mellitus

DIAGNOSIS OF DIABETES

- **Fasting: \geq 126**
- **Random: $>$ 200**



DIABETES

TYPE 1 INSULIN



AUTOIMMUNE ATTACK ON BETA CELLS

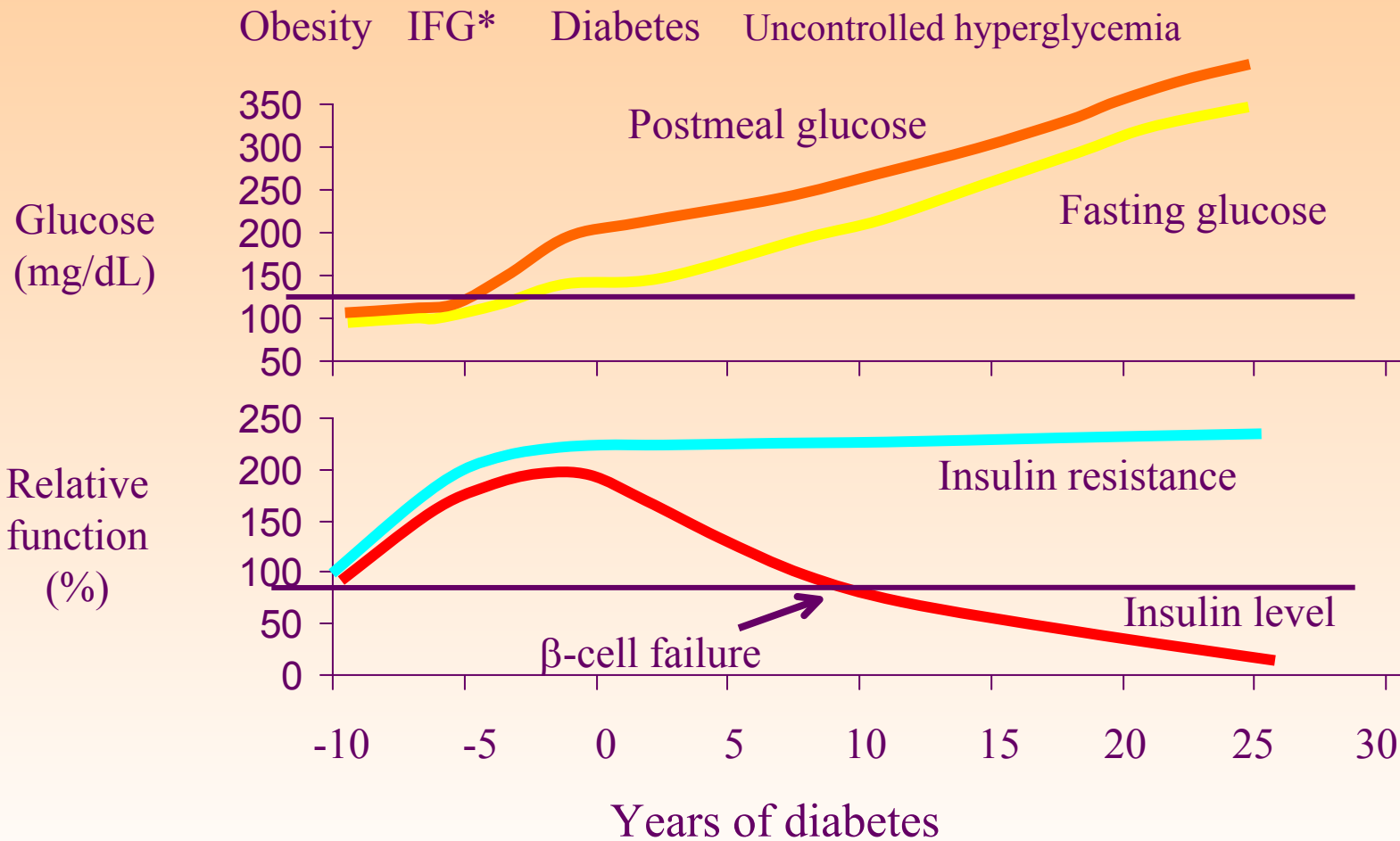
- **MACROPHAGE DETECTION**
- **HELPER T CELLS ATTACK**
- **B CELLS COMPLETE THE ATTACK (ANTIBODIES)**
- **SUPPRESSOR T CELLS**



RISK FACTORS FOR TYPE 2 DIABETES

- **GENETICS AND FAMILY HISTORY**
- **AGE**
- **GESTATIONAL DIABETES**
- **OBESITY**
- **SEDENTARY LIFESTYLE**
- **MEDICATIONS**
- **COEXISTING ILLNESSES**

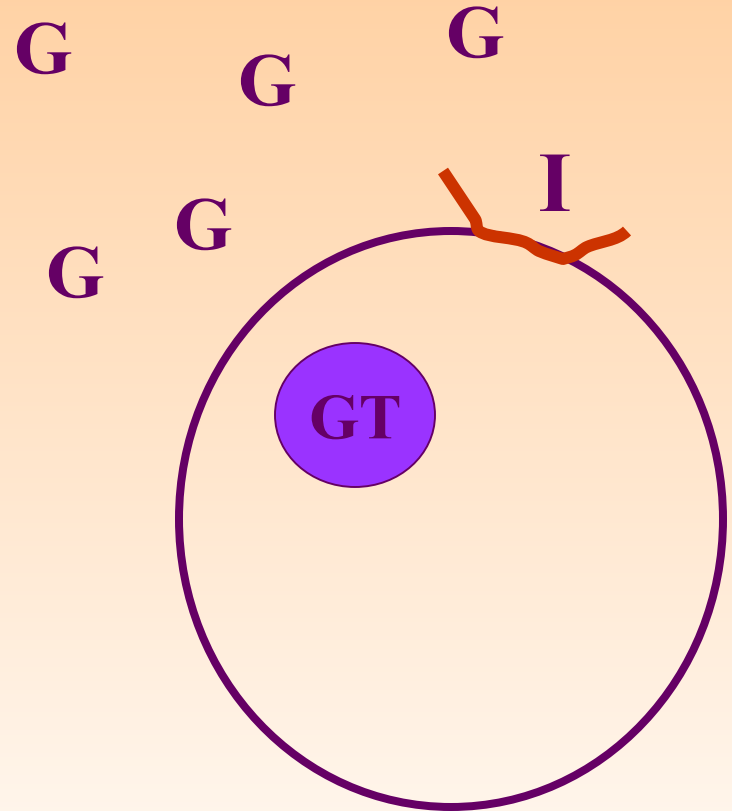
Natural History of Type 2 Diabetes



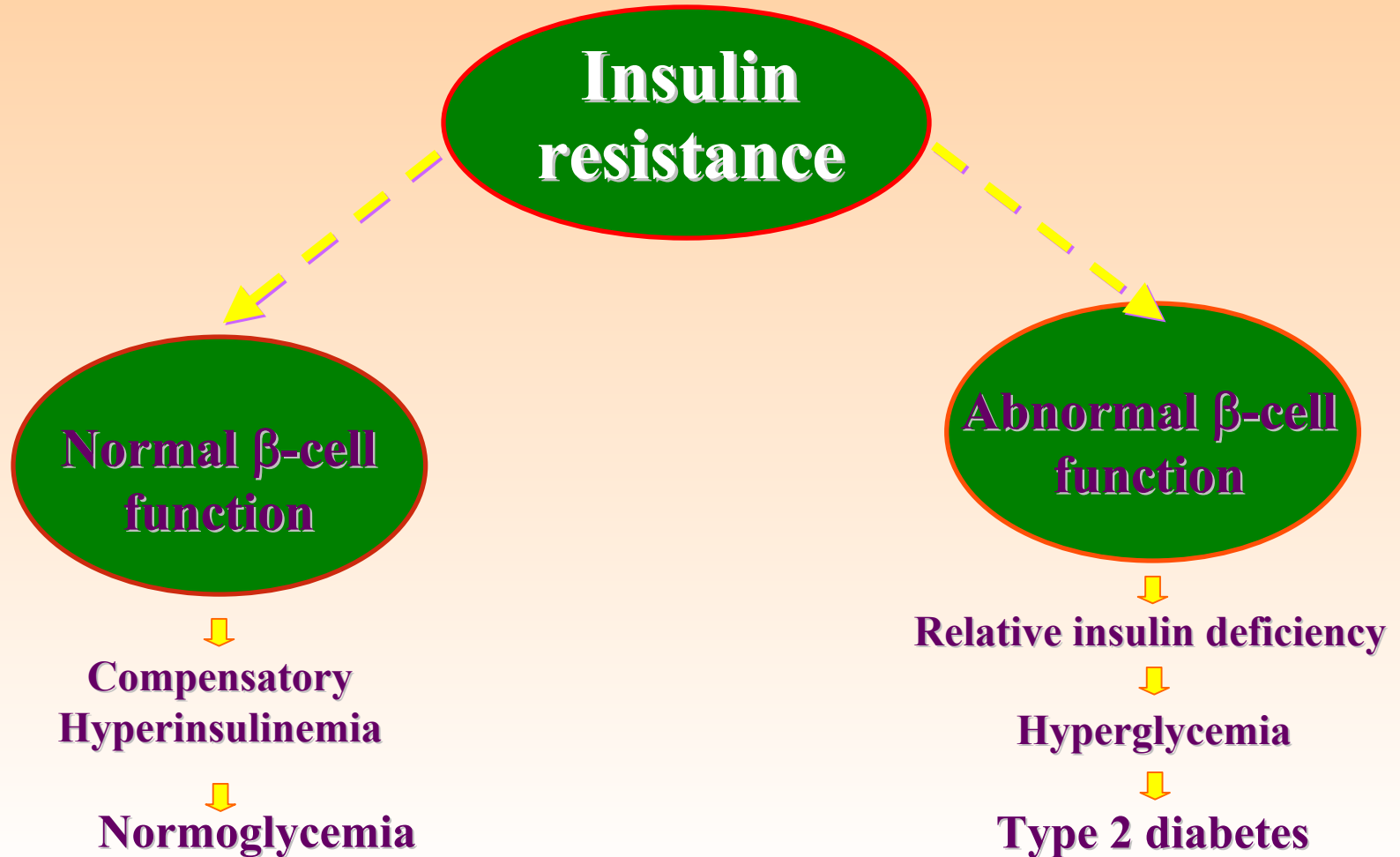
Adapted from International Diabetes Center (Minneapolis, Minn).

INSULIN RELAY

- **INSULIN**
- **RECEPTOR SITES**
- **GLUCOSE TRANSPORTER**
- **GLUCOSE**



Insulin Resistance & Impaired β -Cell Function



MA TRAINING IN DIABETES

• **Jan Wolfram RN, CDE**

• **Linda Gooding RD, CDE**

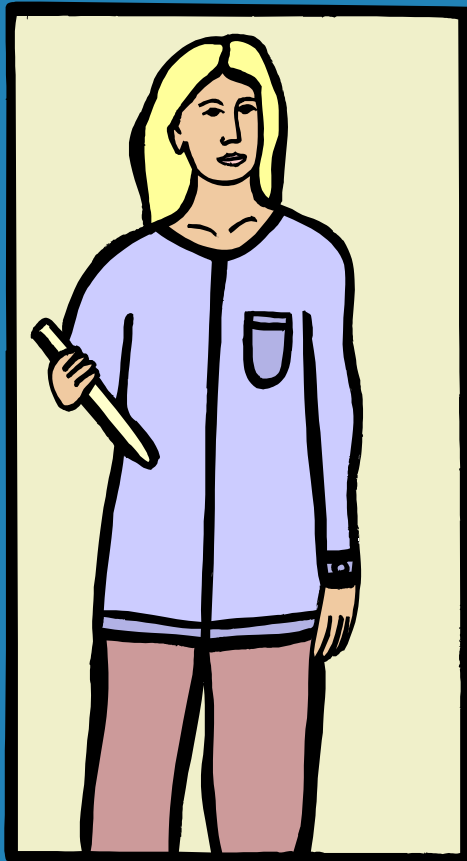
• **Contributions:**

- **Devin Sawyer MD**

- **Shari Giomo, MA**

- **Michelle Edmonston, MA**

Role of the Medical Assistant



- **Do Planned Visits**
- **Do Group Visits**
- **Help patients set goals**
- **Phone follow up**

We Want You

• **To participate in a
Medical Assistant
Training Program for
Diabetes**

- **Made for You**
- **By your Peers**





There's Excitement

- **Opportunity to help patients**
- **Learn about Diabetes**
- **Be proactive in the fight against diabetes**
- **Give preventative care**



Your Expressed Needs

- **Training on Diabetes Topics**
- **Information about Lab Work**
- **Diabetes Equipment**
- **Goal-setting skills**
- **Patient motivation skills**
- **Ongoing education**
- **Make it fun and low stress**



Today's MA Training Program:

- **Goal Tending**

- **Diabetes Basics**

- **Meal Planning**

- **Complications**

- **Stages to Change**

- **Medications**

- **Physical Activity**

- **Common Questions**

Goal Tending



Empowerment



- **“The discovery and development of one’s inborn capacity to be responsible for one’s life,” Anderson and Funnell**

People are empowered when:

- **The have enough knowledge to make decisions**
- **They have enough control**
- **They have enough resources**
- **They have enough experience to gauge the effectiveness of their actions**

Short-term Goal

- **I will walk with my friend on M,W, F mornings for 15”**
- **Then I'll increase the time by 5 minutes each day until I am up to 30 minutes 3 times a week.**
- **Then I'll add one day a week**



Longterm Goals

- **I need to lose 40 pounds in one year.**





GOAL CATEGORIES

• **MEAL PLANNING**

• **EXERCISE**

• **MEDICATIONS**

• **MONITORING**

• **WEIGHT LOSS**

• **SMOKING CESSATION**

• **FOOT CARE**

• **EYE CARE**

• **SHOTS**

• **DENTAL CARE**

• **STRESS REDUCTION**

• **BLOOD PRESSURE**

Setting a Goal

- ❁ **Patient must want to do it**
- ❁ **Be reasonable and realistic**
- ❁ **Behavior is Specific**
- ❁ **Answer: What/When
How Much
How Often**
- ❁ **What is the Likelihood of Success**
- ❁ **(Adapted from Lorig and Sawyer Notes)**

Considerations with Goal Setting

- **Background**
- **Barriers**
- **Successes**
- **Willingness to Change**
- **Action Plan**
- **Reinforcement and Rewards**
- **(Adapted from Sawyer Plan)**

Stages for Change and Riding a Horse

● Precontemplation

- The horse is not even in your realm of awareness



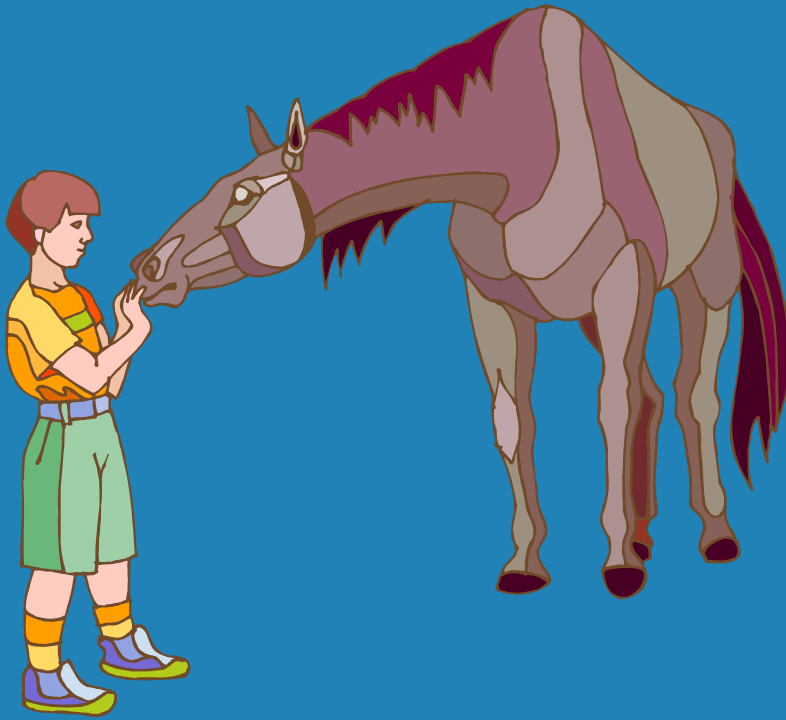
Stages for Change and Riding a Horse



• **Contemplation**

• **You are thinking about riding a horse**

Stages for Change and Riding a Horse



• **Preparation**

• **You are introducing yourself to a horse**

Stages for Change and Riding a Horse



• **Action**

• **You are on the horse and beginning to ride**

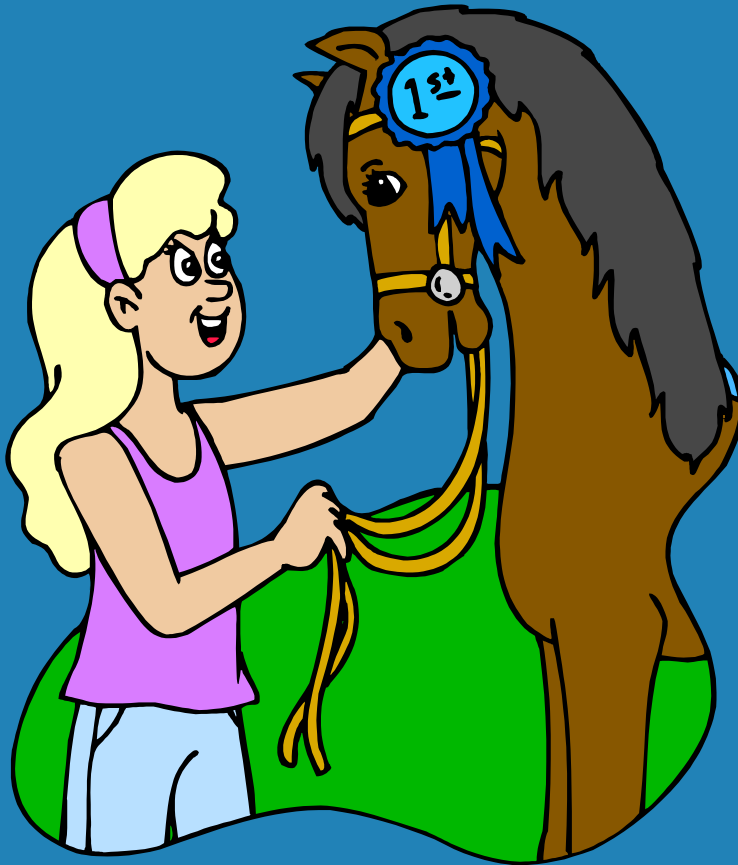
Stages for Change and Riding a Horse



• **Action**

• **You are beginning to maneuver**

Stages of Change and Riding a Horse



- You've won the race and achieved your goal!

Stages of Change and Riding a Horse



- **Relapse**
- **Falling off track**
- **Everyone does it**



Other Considerations

• **Age**

• **Environment**

• **Physical Limitations**

• **Money**

• **Social Support**

• **Ethnic Background**

• **Depression**

Lifestyle Change Process

- **Goal Setting**
- **Self-Monitoring**
- **Frequent Contact**
- **Problem Solving**
- **Managing High Risk Situations**
- **(DPP NIH Study)**

Setting a Goal

- **Patient must want to do it**
- **Be reasonable and realistic**
- **Behavior is Specific**
- **Answer: What/When
How Much
How Often**
- **What is the Likelihood of Success**
- **(Adapted from Lorig and Sawyer Notes)**

Scoring Self-Management Goals

- **1 Point** **What are they going to do?**
- **1 Point** **How much are they going to do it?**
- **1 Point** **When are they going to do it?**
- **1 Point** **How often are they going to do it?**
- **1 Point** **How likely are they going to do it?**
» 1-10



Self- Monitoring

- **Food Diary**
- **Exercise Diary**
- **Blood Glucose Diary**
- **Pedometer**

Frequent Contact

- **Phone Calls Made to Patients**
- **Newsletters**
- **Group Visits**
- **Planned Visits**



Problem- Solving

- **Describe the Problem**
- **Brainstorm the Options**
- **Pick an Option to try**
- **Make a positive action plan**
- **Anticipate and put into action a plan**
- **Plan for success**
- **Visualize**



Manage High Risk Situations

- **Eating Out**
- **Stress**
- **Slips**
- **Negative Self-talk**
- **Problem food cues**

ORIENTATION TO GOOD CARE

MENTAL ADJUSTMENT

 **DENIAL**

 **ANGER**

 **BARGAINING**

 **DEPRESSION/DESPAIR**

 **ACCEPTANCE**

8/28/2003

EFFECTS OF STRESS

- **HORMONAL RESPONSE**

- **BEHAVIORAL RESPONSE**



The Devil Made Me Do It

- **Old Habits will win over new behaviors**
- **Old (But not so nice) Friends**
- **Say Hello and move on**



How to get back on track



- **Monitor**
- **Keep diary**
- **Find Support**

The Role of the MA

- **Be positive and nonjudgmental**
- **Praise all efforts**
- **Uncover barriers**
- **Problem solve**
- **Schedule follow-up**





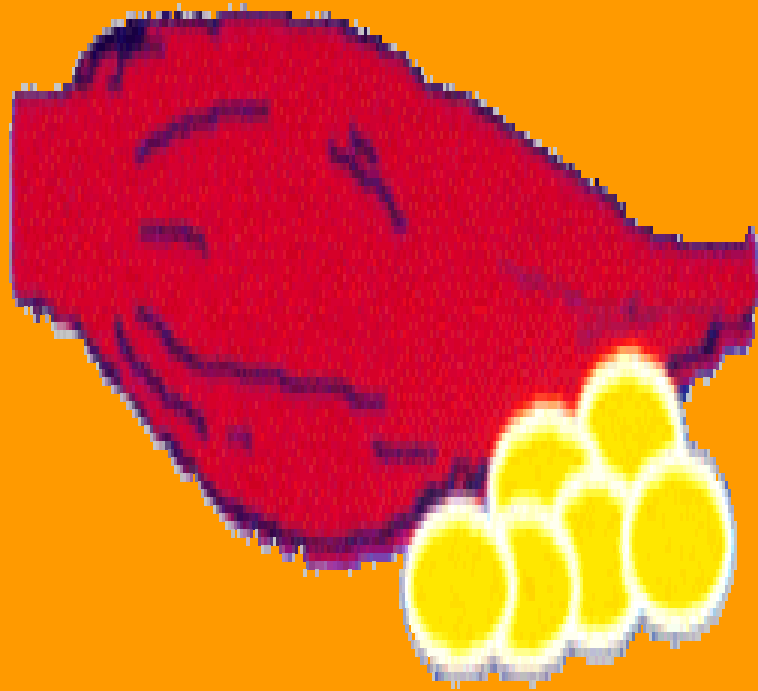
Practice

Set a Goal for your Character

Be specific and realistic

Include long-term and short-term

PHYSICAL ACTIVITY



- **The Muscles Use the Most Amount of Glucose**
- **Think of Activity Like a Medication and Take it Everyday**

Considerations

MR. MUSCLE



- **Make it Fun**
- **Safety**
- **Start Small**
- **Set Goals**
- **Schedule**
- **Alternatives**
- **Record**
- **Rewards**

The Farmer Routine

- **You Eat a Meal and Do a Chore**
- **Wait 30-60 minutes after a meal**
- **Do 10 minutes of activity at one time**



Diabetes Prevention Program



- **150 minutes of activity per week**
- **Walking is best**

Safe Activity

- **Check BS before**
- **Bring Glucose**
- **Wear ID**
- **Develop a Routine**
- **Refrain if <100**
- **Refrain if >250**
- **Stop with trouble**
- **Warm Up and Cool Down**

Setting Goals for Activity

- **Make it fun**
- **Be realistic**
- **Break long term goal into short term goal**
- **Monitor**
- **Alternate Plan**
- **Reward**

Practice with Activity Goal Setting

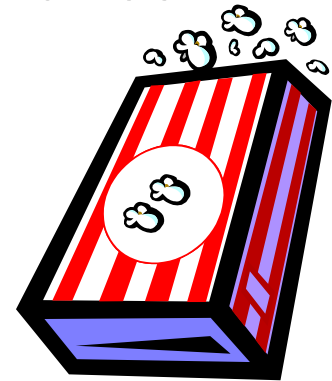


Carbohydrate Counting

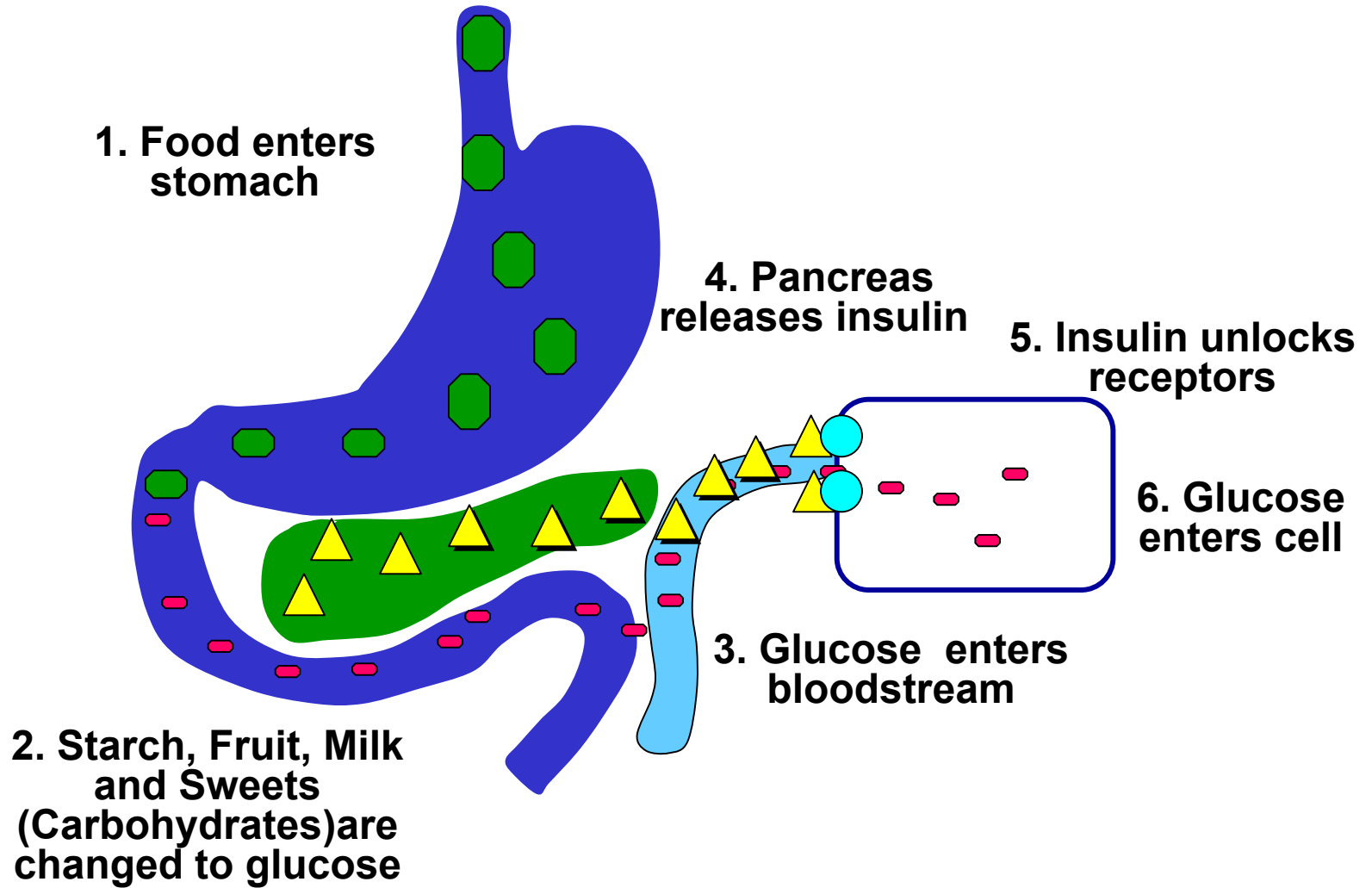


Why Count Carbs?

- Carbohydrates are sugars and starches
- Starches break down into sugars
- Both sugars and starches raises blood sugar levels.



Carbs. Raises Blood Glucose Levels



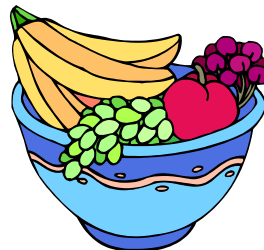
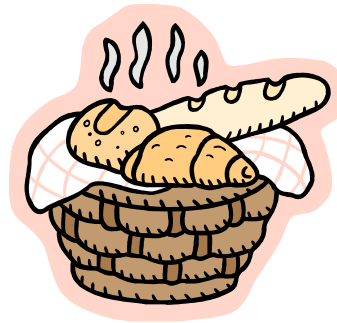
Blood Sugar Control

For People with Diabetes

- Carbohydrate Controlled Diet – helps control blood glucose levels

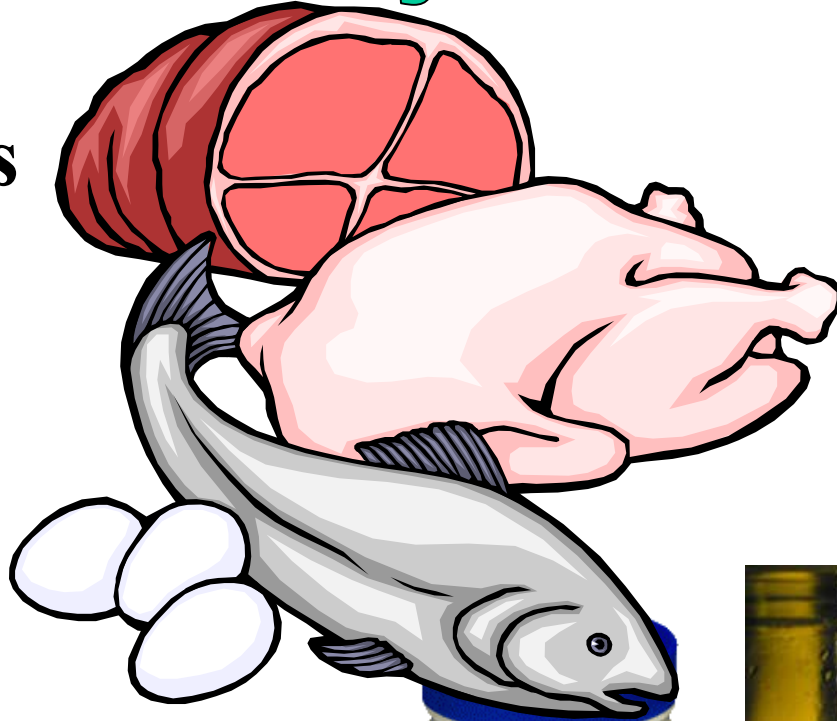
Carbohydrate Foods

- Foods that contain sugar or/and starch.



Carbohydrate Free


- **Meats**



- **Fats**



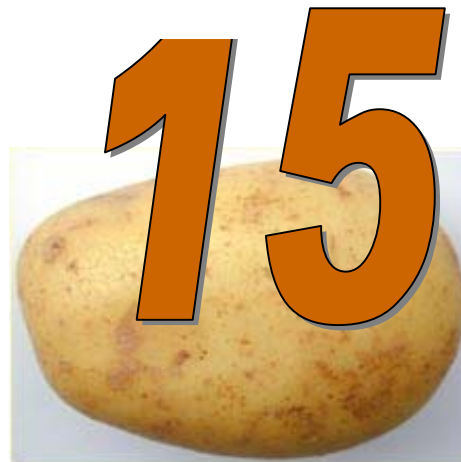
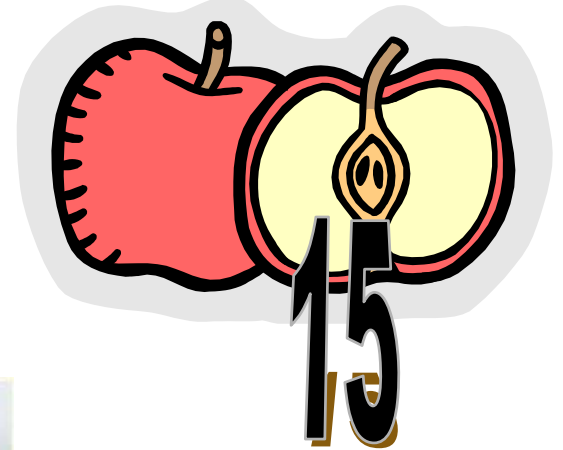
Each Serving has 15 grams carbs.

<u>STARCH</u>	<u>FRUITS</u>	<u>MILK</u>	<u>SWEETS</u>
Bread – 1 slice	½ Apple ½ Banana	1 cup milk	½ cup ice-cream
Potatoes – ½ cup	1 cup melon	1/3 cup regular yogurt	1”sq.cake-frosted
Pasta – 1/3 cup	12 to 15 grapes	1 cup “lite” yogurt	1 medium cookie
Rice – 1/3 cup	1 cup berries		1 Fun-Size Candy Bar

Hand Me 15 grams



It's the Amount that Matters Not the Food



How Many Carbs. Can I Have????



Varies Per Person



What most people need per day? **200 to 300 grams carbs**



However, if you had been consuming more than 400 grams, then start with a higher amount.

We want the meal plan to work for you

How Many *Carbs* Do You Need?

Calorie Level	Carb Choices	Carb Grams
1200	10	150
1500	13	185
1800	15	220
2000	17	250
2200	19	275
2400	20	300



Spread the Carbs Evenly



- Each meal should have about the same number of carbohydrate choices.
- Otherwise the blood glucose levels may be highest after dinner.

What's On The Menu?

Breakfast:

1 cup Frosted Mini-Wheats

½ cup Milk

1 Whole Banana

Lunch

1 Sandwich

1 Apple

1 3" Cookie

250 Grams Carbs.

Dinner

1 Cup Spaghetti with Sauce

Snack

1 Cup Vanilla Ice Cream

Size Does Make a Difference



Carb. Amounts



- One Cinnabon – 100 g
- Super Size French Fries – 75 g
- Double Gulp Coke – 165 g
- Mucha Grande Nachos – 115 g



- One Bag of Microwave Popcorn – 60g
- One Bagel – 60 g

Carbohydrate Rich Diet

Regular Soda Pop



Eating on the Go



Comfort Foods



Snack Foods



Finding Carbs. on the Label



Looking at Labels

Check the
serving size

Check total
grams
carbohydrates

Nutrition Facts

Serving Size 1/2 cup (114g)
Servings Per Container about 4

Amount Per Serving

Calories 90 Calories from Fat 30

% Daily Value

Total Fat 3g 5%

Saturated Fat 0g 0%

Cholesterol 0mg 0%

Sodium 300mg 13%

Total Carbohydrate 13g 4%

Dietary Fiber 3g 12%

Sugars 3g

Protein 3g

Nutrition Facts

Serving Size 1/2 cup (114g)
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Calories 90 Calories from Fat 30

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Total Fat 3g 5%

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Sodium 300mg 13%

Total Carbohydrate 13g 4%

Dietary Fiber 3g 12%

Sugars 3g

Protein 3g

Vitamin A 80% • Vitamin C 60%

Calcium 4% • Iron 10%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Subtracting Fiber Carbs.

Nutrition Facts	
Serving Size ½ cup (114g) Servings Per Container 4	
Amount Per Serving	
Calories 90	Calories from Fat 30
% Daily Value*	
Total Fat 3g	5%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 300mg	13%
Total Carbohydrate 13g	4%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 3g	
Vitamin A 80%	Vitamin C 60%
Calcium 4%	Iron 4%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

- Can subtract fiber grams from the total grams of carbohydrates.
- This food item has 10 grams carbs. for ½ cup serving size.

Sugar Alcohols- Sorbitol, Maltitol, Glycerol

- Can be found in sugar free foods
- Little effect on blood glucose levels
- Can subtract $\frac{1}{2}$ of the sugar alcohols from the total grams carbohydrates
- Can cause gastric problems



Nutrition Bar Claims

NUTRITION FACTS	
Serving Size 1 bar (70g)	
Servings per Container: 1	
Calories 250	
Calories from Fat 50	
Amount/Serving	% Daily Value †
Total Fat	6g 9%
Saturated Fat	4.5g 23%
Cholesterol	<5mg 1%
Sodium	210mg 9%
Potassium	80mg 2%
Total Carbohydrate	22g 7%
Dietary Fiber	3g 12%
Sugars	1g
Sugar Alcohol	18g
Protein	30g 60%
Calcium	8%
Iron	8%

† Based on a 2,000 calorie per day diet

Total Carbohydrate	22g
Dietary Fiber	- 3g
Sugar Alcohol	- 18g
Net Carbs*	1g

- Nutrition Bars have become very popular
- Many of these bars claim that you can deduct the full amount of sugar alcohols from total grams carbs.

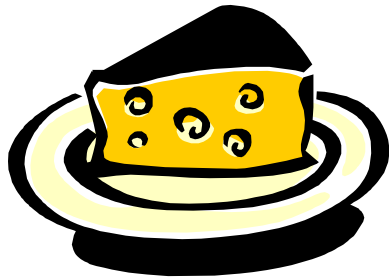
Subtracting sugar alcohols from Carbs

- Total Grams Carbohydrates = 24
 - Fiber = 0g
 - Sugar = 5g
 - Sorbitol = 10g
- Total Carbs. affecting blood glucose level = 19 g

Do We Just Count Carbs?

- **Fats**

Saturated Fats vs Monounsaturated Fats



Glycemic Foods

- The Glycemic Index (GI) is a ranking of foods based on their potential to raise blood sugar levels.
- The higher the GI of a food, the faster the rise in blood sugar after eating it.

Choosing Higher Fiber Foods



Lee Marriner / AP file



What is the Diabetes Meal Plan?

- It is not a diet
- Carbohydrate Controlled
- Low Fat
- Choosing Monounsaturated Fats over Saturated Fats
- Choosing Higher Fiber Foods





*PREVENTION OF
COMPLICATIONS*

Jan Wolfram RN, CDE

Boldt Diabetes Center

Providence St. Peter Hospital



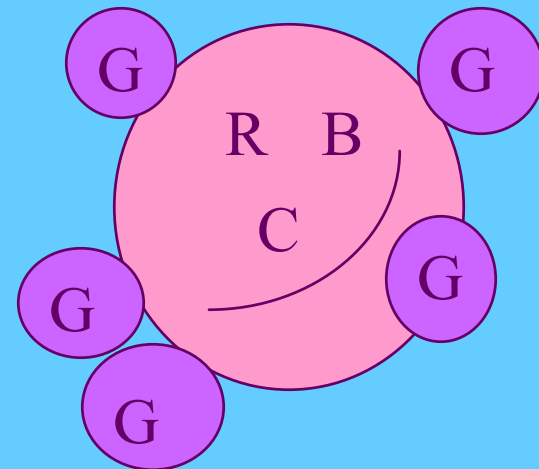
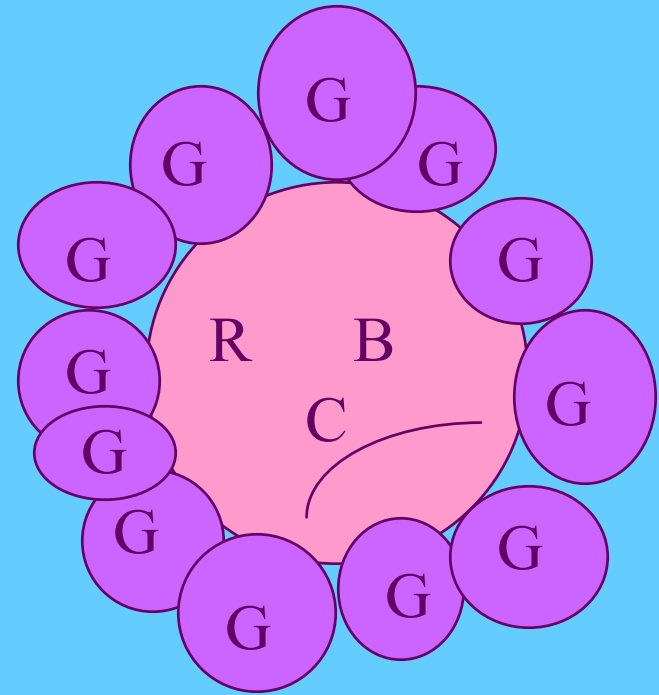
Proof is in the Pudding

- ▶ Diabetes Control and Complication Trial
- ▶ United Kingdom Prospective Diabetes Study
- ▶ Glycohemoglobin, A1C



GLYCOHEMOGLOBIN

AVERAGE BLOOD SUGARS	GLYCOHEMOGLOBIN IN Hb A1C % 3 Month Test
330	13
300	12
270	11
240	10
210	9
180	8
150	7
120	6
90	5
60	4





MANAGING YOUR DIABETES

▶ LARGE BLOOD VESSELS

▶ SMALL BLOOD VESSELS

▶ NERVES

▶ IMMUNE SYSTEM

LARGE BLOOD VESSELS

- HEART (Heart Attack)
- BRAIN (Stroke)
- LEGS (Claudicating)





Symptom of Heart Attack

• Chest Pain

• Vomiting

• Shortness of Breath

• Pain in Jaw

• Weakness

• Pain in Arms

• Sweating

• Pain in Shoulders

• Nausea

• DENIAL



Symptoms of Stroke

- Sudden weakness or numbness
- Slurred speech
- Headache
- Dizziness
- Loss of vision especially in one eye
- Facial paralysis
- Headache
- Confusion or Coma



LIPIDS

- ▶ TOTAL CHOLESTEROL <200
- ▶ HIGH DENSITY LIPIDS >45
- ▶ LOW DENSITY LIPIDS <100
- ▶ TRIGLYCERIDES <150

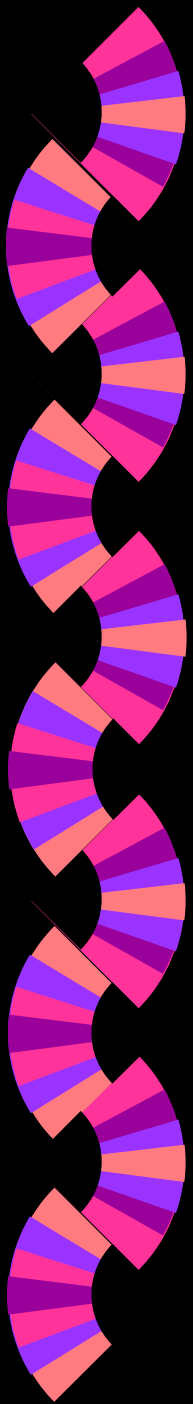
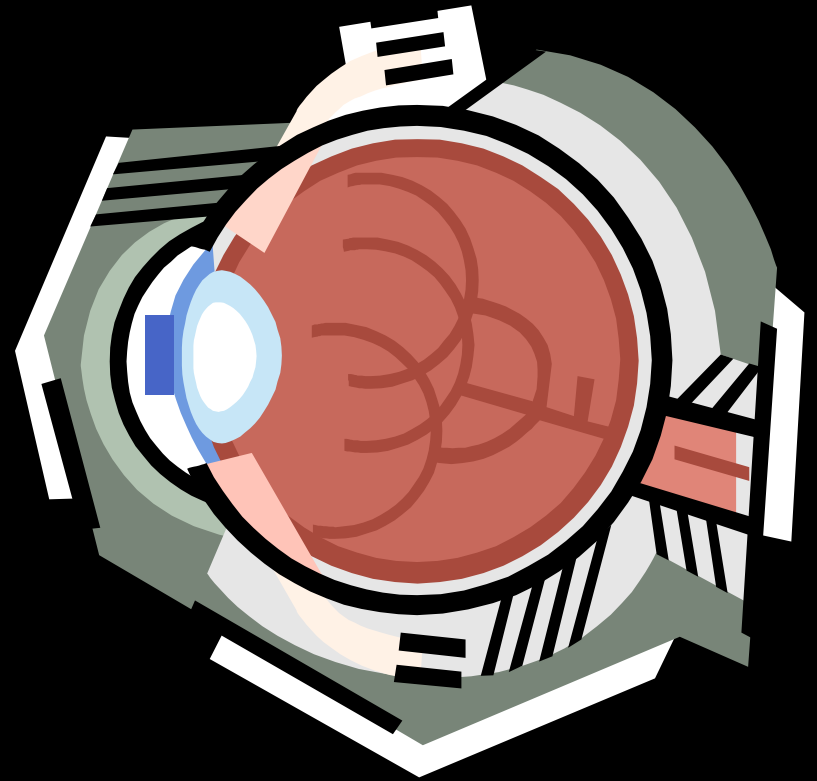


RISK REDUCTION

- ▶ STOP SMOKING
- ▶ ASPIRIN 81 mg/day
- ▶ BLOOD PRESSURE CONTROL 120/80
- ▶ WEIGHT LOSS

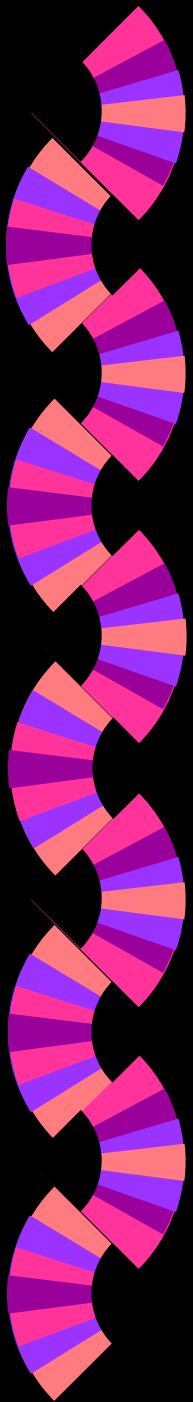
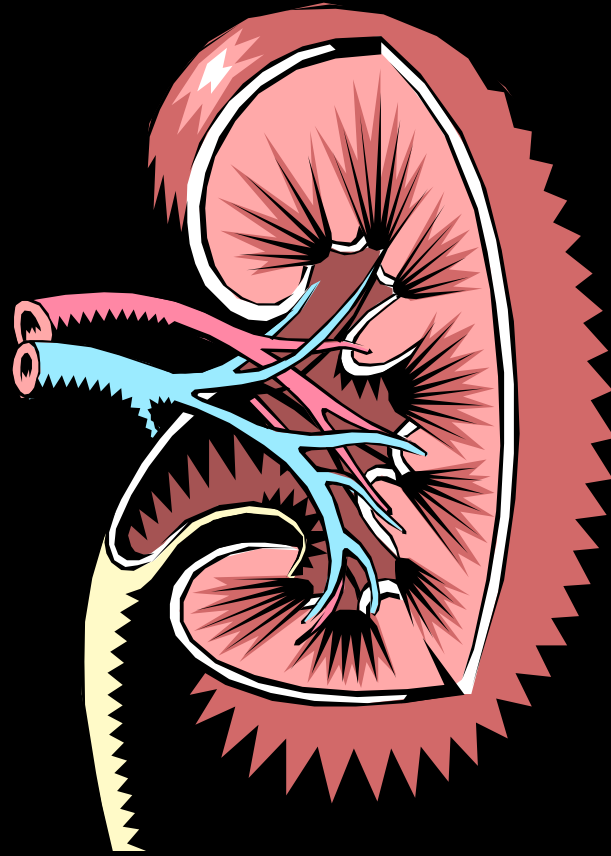
RETINOPATHY

• EYES DISEASE



NEPHROPATHY

• KIDNEY DISEASE

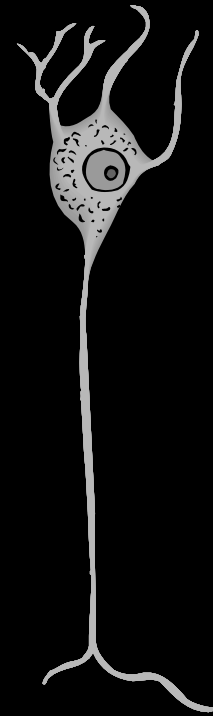


NERVES



● FEET

● HEART





SEXUAL FUNCTION

▶ MEN IMPOTENCE

▶ WOMEN IMPOTENCE AND
INFECTION



IMMUNE SYSTEM

- ▶ GREATER NUMBER OF INFECTIONS
- ▶ GREATER NUMBER OF SURGICAL COMPLICATIONS
- ▶ GREATER NUMBER OF AMPUTATIONS



FOOT CARE

- ▶ NEVER GO BAREFOOT
- ▶ LOOK AT YOUR FEET EVERY DAY
- ▶ CALL FOR URGENT APPOINTMENT



Sick Day Management

- ▶ Physical Stressors Increase Blood Glucose
- ▶ Increased Blood Glucose Makes Infections Worse
- ▶ Monitoring Blood Glucose Helps to Prevent Diabetes from Getting Out of Control



Sick Day Basic Rules

- ▶ Check BS more often
- ▶ Take medication or insulin as usual
- ▶ Check temperature
- ▶ Drink more fluids
- ▶ Eat easy to digest foods



1 Carb Serving = 15 Grams

- 6 Saltines
- 1/2 cup Ice Cream
- 1/4 cup Sherbert
- 1/4 cup Regular Pudding
- 4 oz Regular Pop
- 1/2 cup Sugar-free Pudding
- 1/2 cup Jello



When to Call the Doctor

- Fever >100
- Nausea for more than 24 hours
- Vomiting x 2/day
- Diarrhea for more than 24 hours
- Symptoms of Dehydration
- Worsening blood glucose levels >200
- Unable to keep oral agents down
- Ketones



Ketones

- Seen with people who use insulin
- Detects using fat for fuel because little insulin is present
- Urine testing can check this



Information for Doctor

- ▶ Blood glucose results
- ▶ Temperature
- ▶ Amounts of food and fluids consumed
- ▶ Ketone results



Sick Day Supply Kit

• Thermometer

• Tylenol

• Extra Test Strips

• Pamphlet on Sick Day Management

• Regular Soda

• Ketone Test Strips

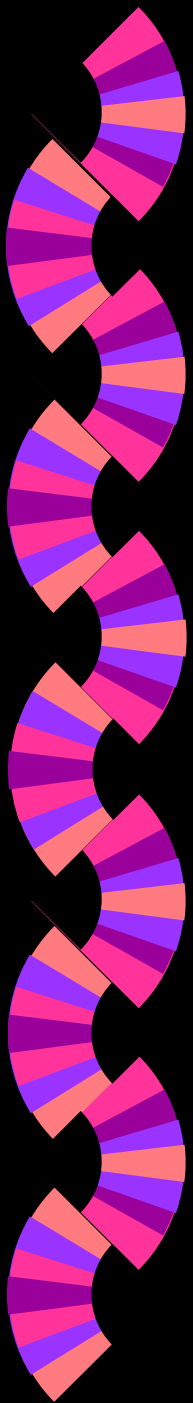
• Broth

• MD phone number

ACUTE COMPLICATIONS

▶ HHNKS

▶ DKA



Insulin Preparations

Rapid-acting

- Insulin Lispro (Analogue)
- Insulin Aspart (Analogue)*

Short-acting

- Regular (Soluble)

Intermediate-acting

- NPH (Isophane)
- Lente (Insulin Zinc Suspension)

Long-acting

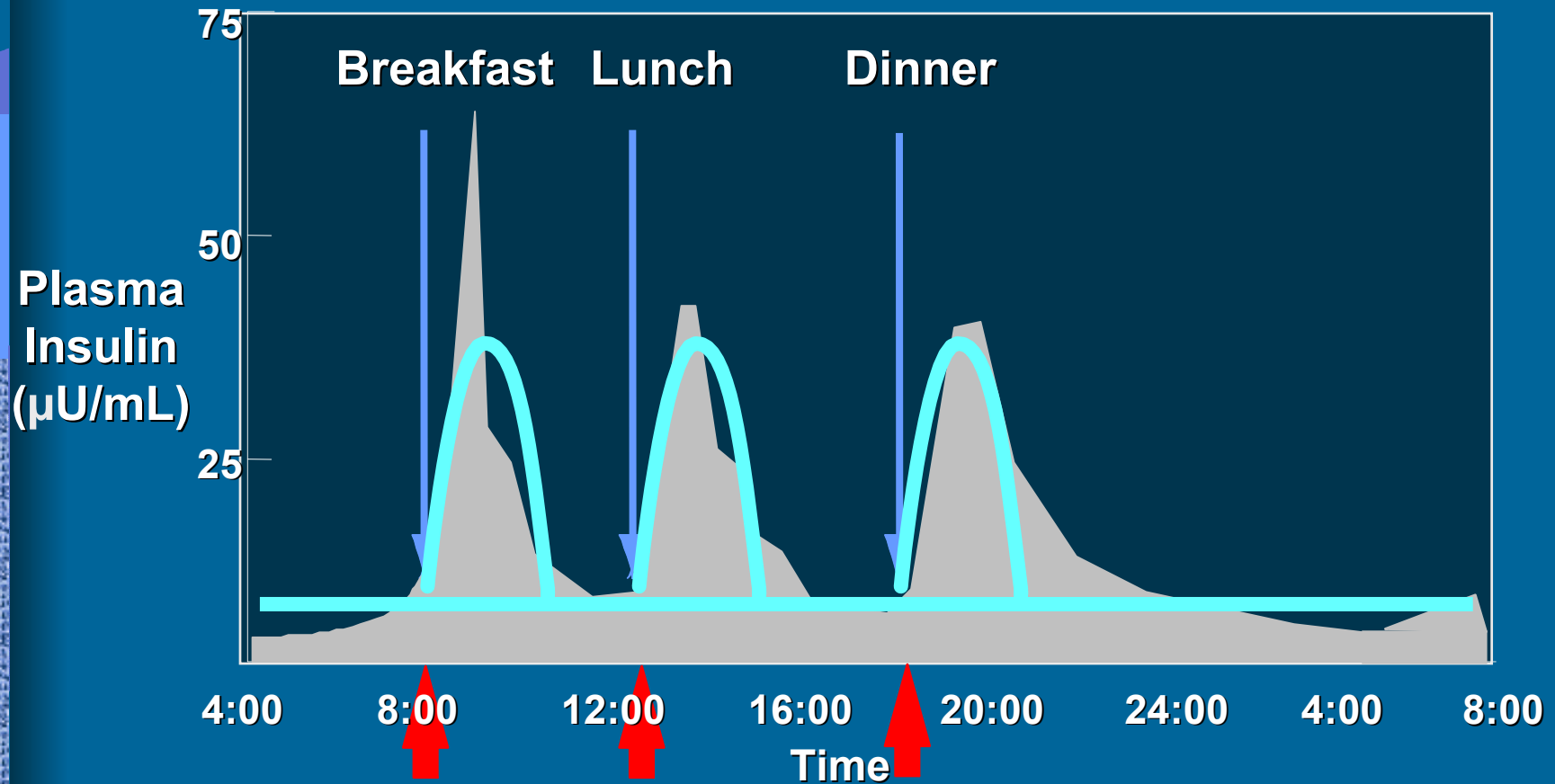
- Ultralente (Extended Insulin Zinc Suspension)
- Insulin Glargine (Analogue)*

* Anticipated Availability in 2000

RAPID ACTING INSULINS

- **HUMALOG**
– **HURRY UP INSULIN**
- **NOVOLOG**
– **NOW INSULIN**

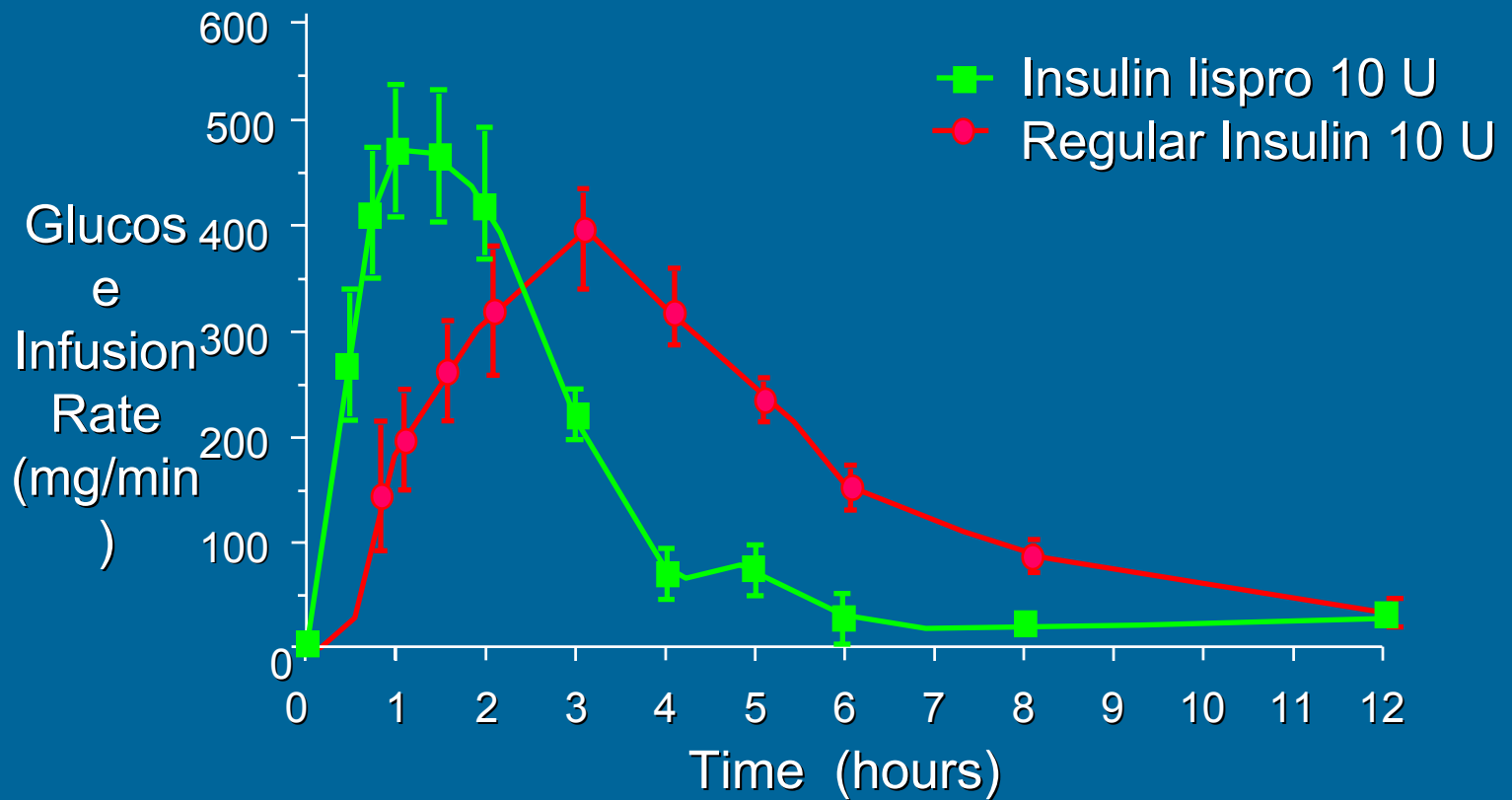
Basal/Bolus Insulin



INTENSIVE INSULIN THERAPY

- MATCH INSULIN TO AMOUNT OF CARBOHYDRATE
- COUNT CARBOHYDRATES
- COVER WITH RAPID-ACTING INSULIN

Lispro vs Regular

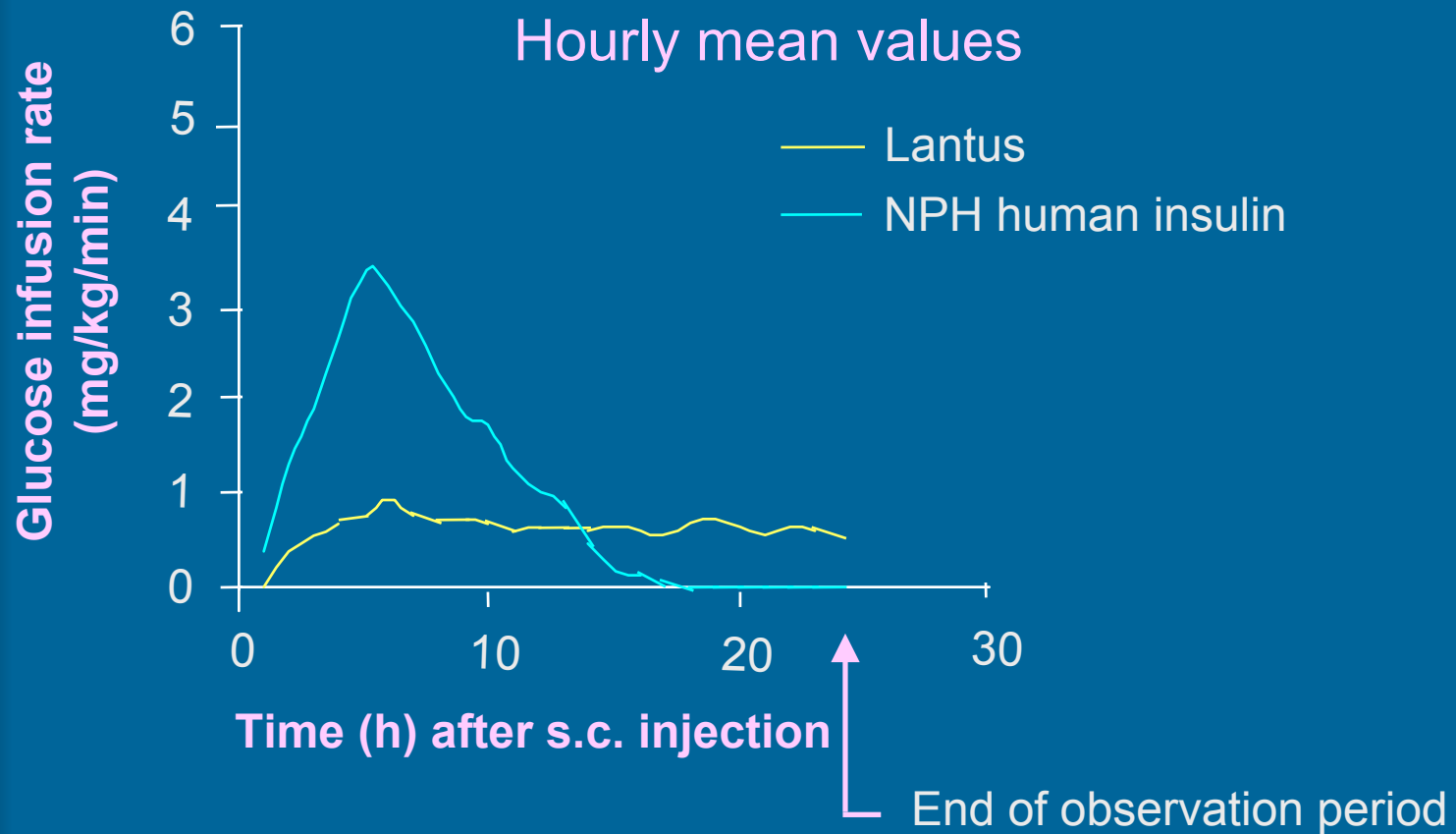


Data from Howey DC, et al.
Diabetes. 1994;43:396-402.

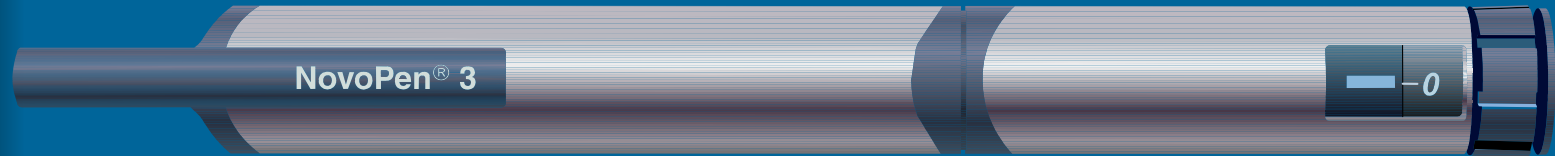
Advantages of Rapid-Acting Insulin Analogs

- **Reduce postprandial hyperglycemia**
- **Minimize postprandial hypoglycemia**
- **Reduce need for between-meal snacks**

Lantus



Insulin Pen Delivery



Continuous Subcutaneous Insulin Infusion



CAUSES OF LOW BS

- Meals or Snacks that are late
- More exercise than usual
- Too much insulin
- Giving shot in the muscle
- Administration error

Symptoms of low blood sugar

- HUNGER
- SHAKINESS
- SWEATINESS
- COLOR CHANGE
- WEAK AND ANXIOUS
- HEADACHE
- CONFUSION
- DROWSINESS
- BEHAVIOR CHANGES
- LOC AND SEIZURE

PREVENTING LOW BLOOD SUGAR

- WRITE DOWN INSULIN WAS GIVEN
- CHECK BLOOD SUGAR OFTEN
- DON'T SKIP A MEAL
- GET A ROUTINE
- NOTIFY OTHERS AND WEAR ID

GLUCAGON

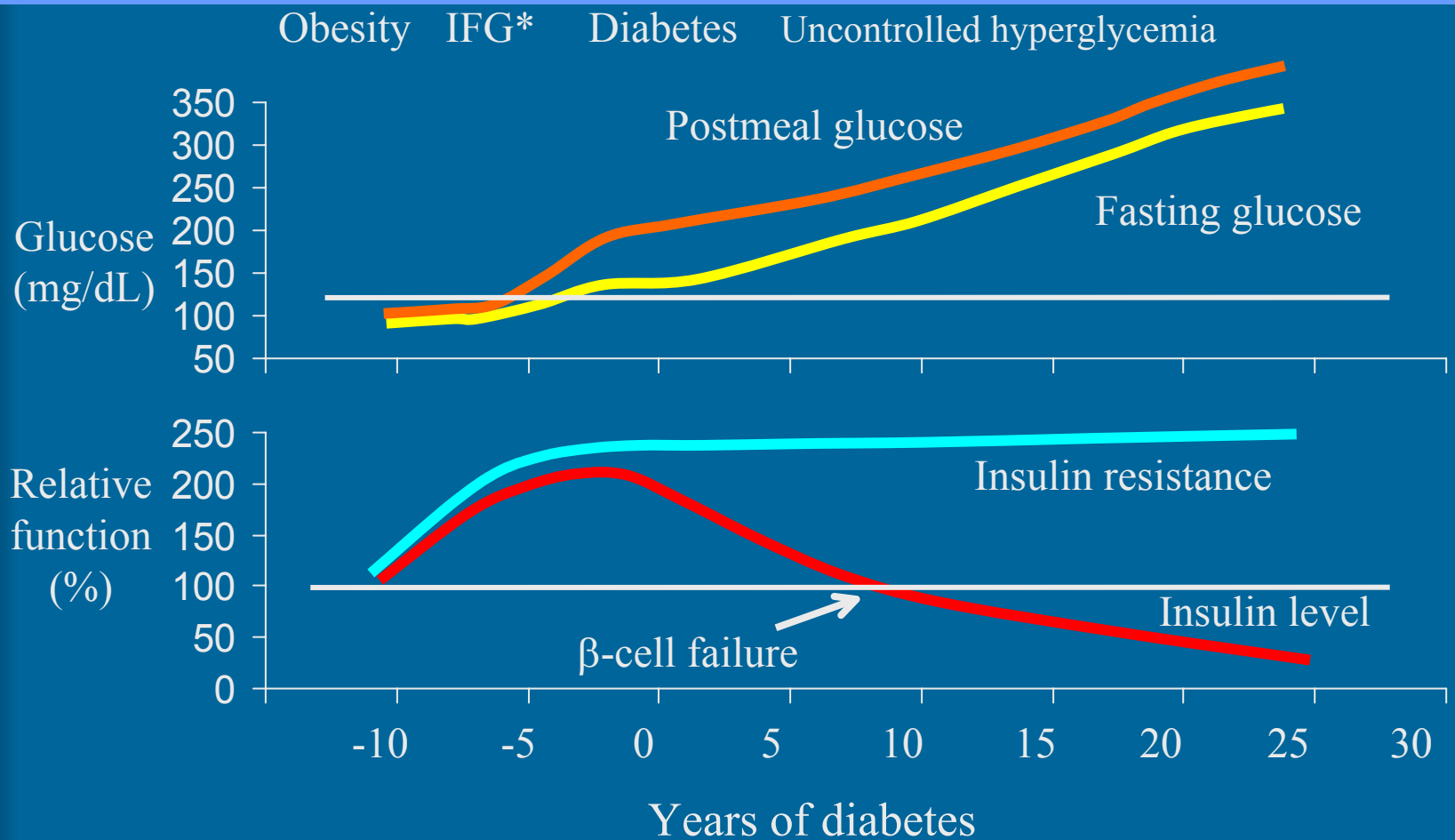
- RELEASES
GLUCOSE FROM
THE LIVER
- ADULT DOSE
1.0cc



RISK FACTORS FOR TYPE 2 DIABETES

- GENETICS AND FAMILY HISTORY
- AGE
- GESTATIONAL DIABETES
- OBESITY
- SEDENTARY LIFESTYLE
- MEDICATIONS
- COEXISTING ILLNESSES

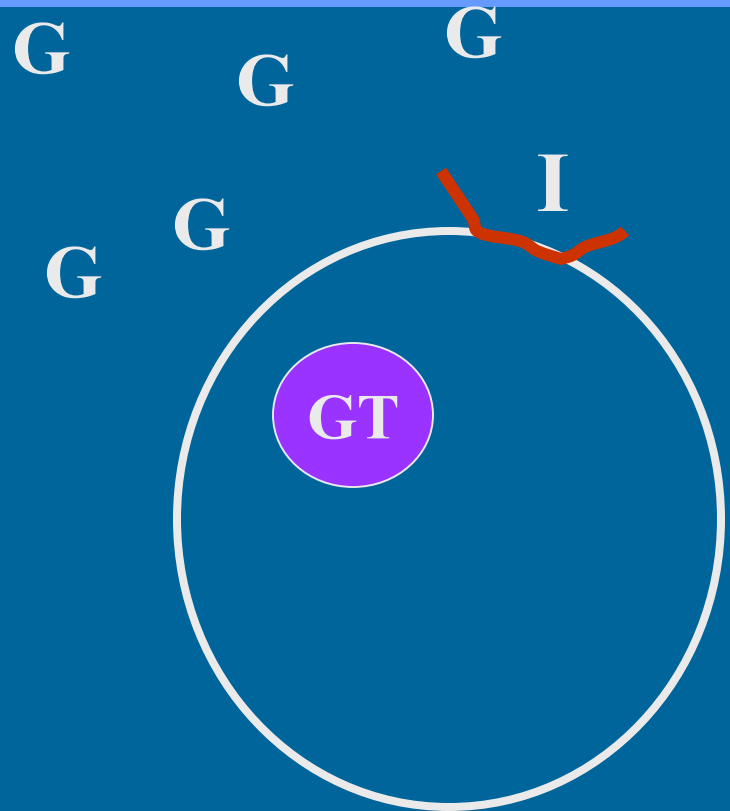
Natural History of Type 2 Diabetes



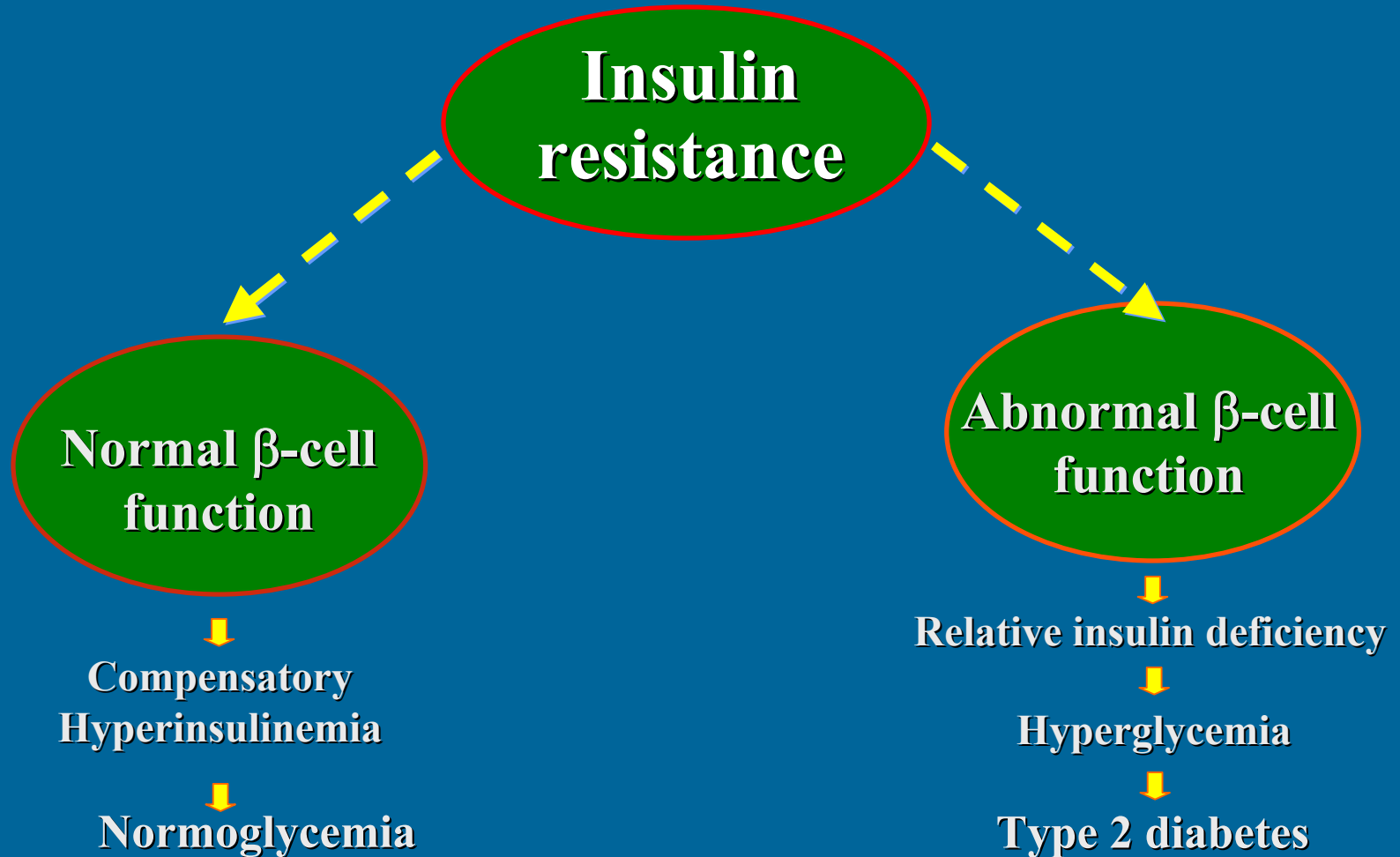
Adapted from International Diabetes Center (Minneapolis, Minn).

INSULIN RELAY

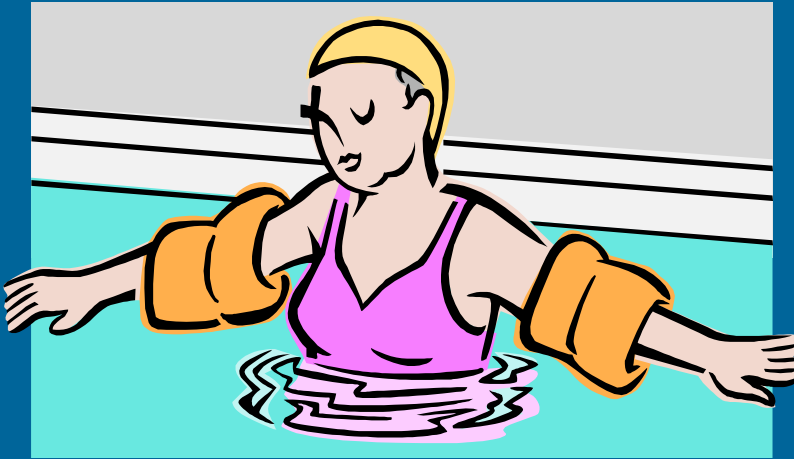
- INSULIN
- RECEPTOR SITES
- GLUCOSE TRANSPORTER
- GLUCOSE



Insulin Resistance & Impaired β -Cell Function

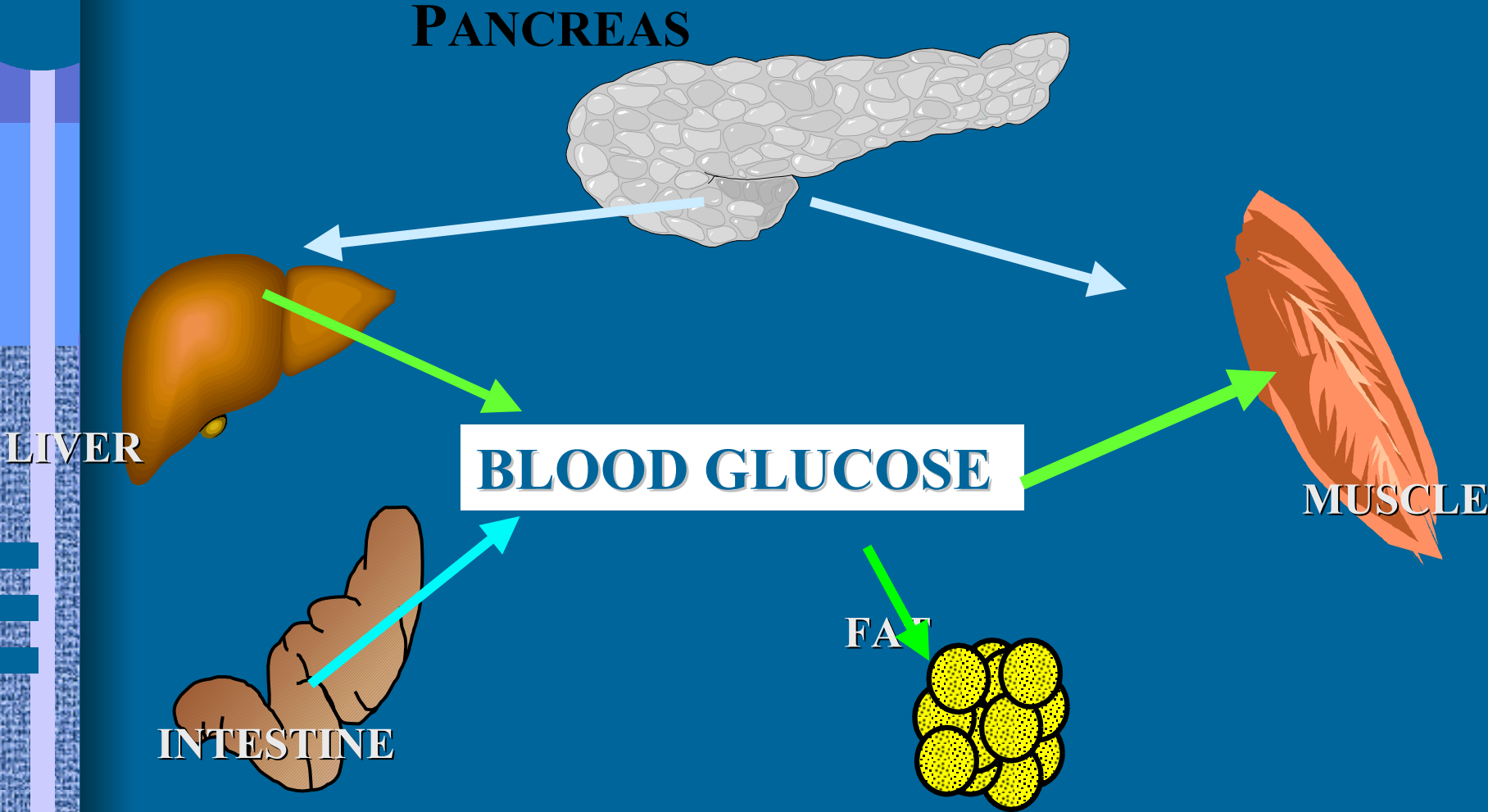


INITIAL TX FOR TYPE 2 DIABETES



- MEAL PLANNING
- EXERCISE
- WEIGHT LOSS

Oral Therapy for Type 2 Diabetes: Sites of Action



SULFONYLUREAS

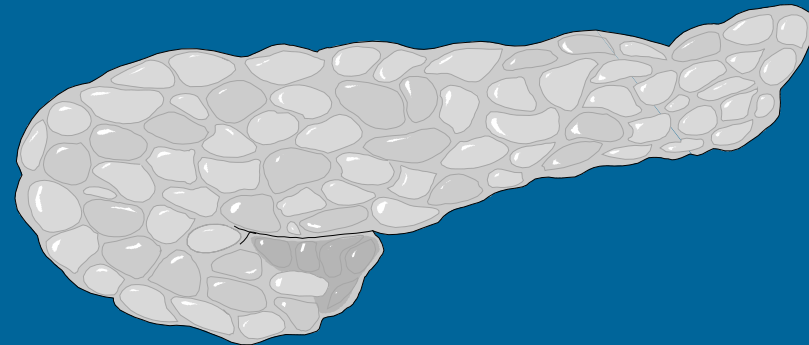
- 1ST GENERATION

- 2ND GENERATION

Glyburide

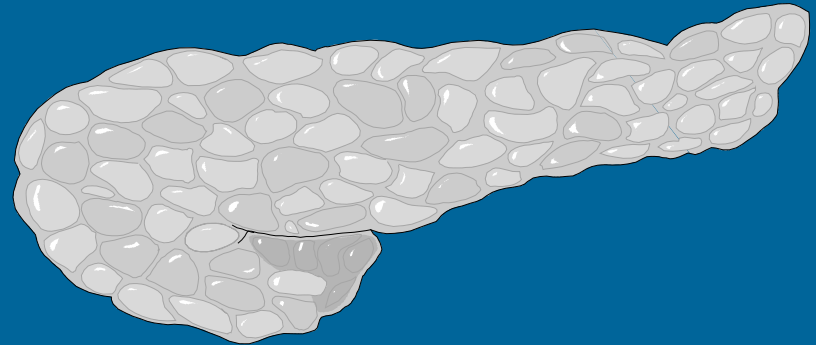
Amaryl

Glucotrol



MEGLITINIDES

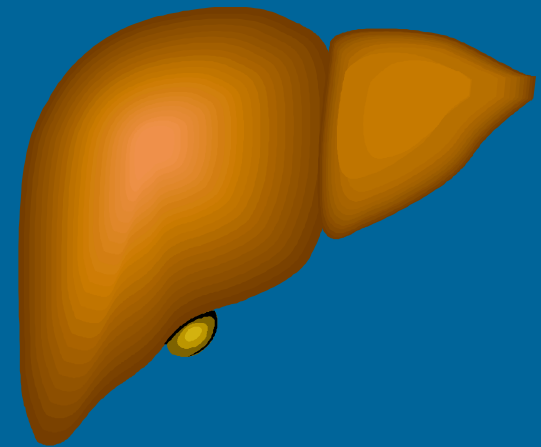
- PRANDIN



- STARLIX

BIQUANIDE

- Glucophage or Metformin
- Glucovance

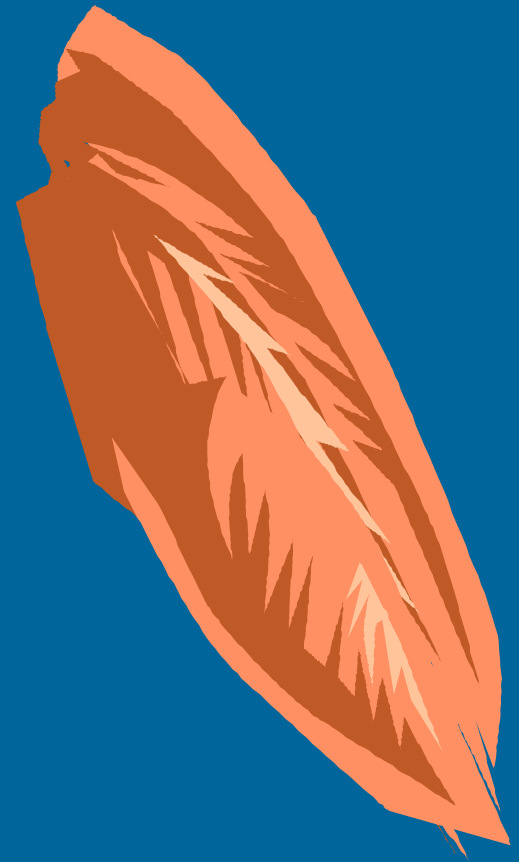


LIVER

THIAZOLIDINEDIONES

Avandia

Actos





SELF-BLOOD GLUCOSE MONITORING

- **DIRECT FEEDBACK TOOL**
- **PATTERN MANAGEMENT**
- **TREATMENT ADJUSTMENT**

SELF-BLOOD GLUCOSE MONITORING GOALS

- **BEFORE MEALS** **80-120**
- **AFTER MEALS 2HRS** **<140**
- **A1C** **< 6.5**

SELF-BLOOD GLUCOSE MONITORING FREQUENCY

- **ANY TIME YOU WANT**
- **FOUR TIMES A DAY**
- **TWICE A DAY**
- **BEFORE AND AFTER ONE MEAL/DAY**



SBGM INCREASED FREQUENCY

- **LOW BLOOD SUGAR**
- **ILLNESS/SICKNESS**
- **CHANGE IN TREATMENT**
- **CHANGE IN SCHEDULES**
- **INCREASED STRESS**
- **HOLIDAYS AND VACATIONS**
- **INCREASED OR DECREASED ACTIVITY**

SAFETY WITH SBGM

- **UNIVERSAL PRECAUTIONS**
- **DON'T SHARE**
- **LANCET DISPOSAL**



MA Training in Diabetes

Welcome!!

Dorothy

- 64 Y.O Female with Type 2 DM x 10years
- Will retire next year from a convenience store
- “I will die if she goes on insulin

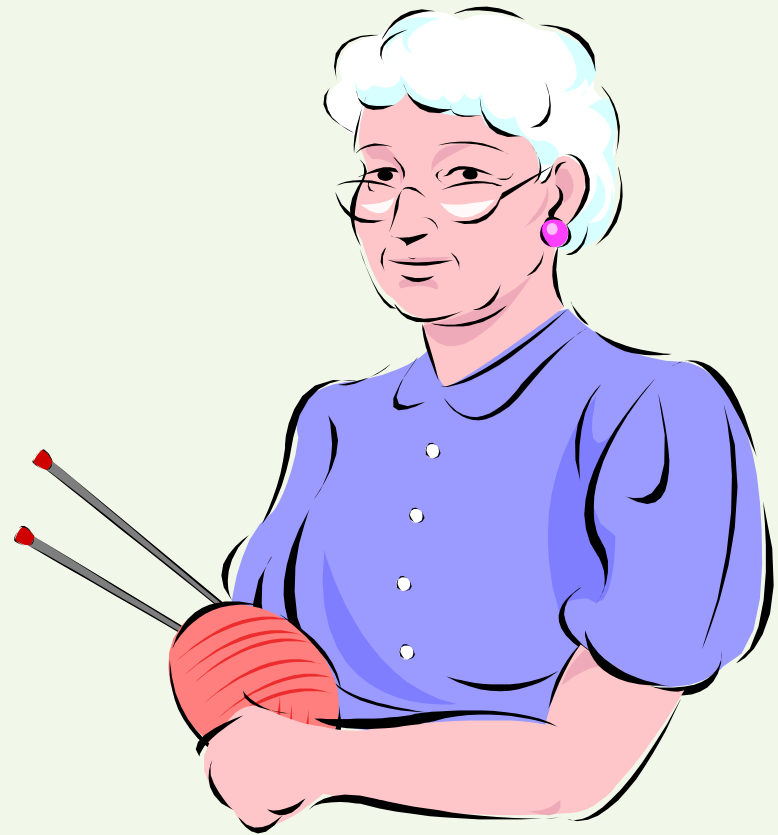


Dorothy

- A1c = 10.6
- Weight = 205 Height 5'4''
- Meal Plan: No breakfast, a small lunch, dinner starting at 6 PM snacks until 10 PM
- Meds: Glucotrol, Glucophage, Actos
- Meter: One Touch Basic
- Exercise: None
- Fear: Going Blind

Hazel

- 75 Y.O Female with Type 2 Diabetes for 1 year.
- Retired Administrative Assistant
- “I knit and I don’t want to get blood all over my sweaters.”



Hazel

- A1c = 6.4
- Weight = 173 Height = 5'5''
- Meal Plan: Irractic
- Meds: Glucotrol
- Meter: Elite
- Exercise: Housework with Walker
- Fear: Losing a Foot

Phil

- 62 Y.O. Male with Type 2 Diabetes for 20 years.
- Retired Truck Driver
- “Going on insulin took away my job, but at least I can get around”



Phil

- A1c = 7.2
- Weight = 164 Height = 5'7"
- Meal Plan: Wife is a really good cook and she takes care of the meals.
- Meds: Lantus and Lispro
- Meter: Compact
- Exercise: Gardening and Walking
- Fear: Low Blood Sugar

Randy

- 37 Y.O. Male with Newly diagnosed Type 2 Diabetes
- Computer Programmer
- “I just don’t have time to take care of myself.”



Randy

- A1c = 8.1
- Weight = 276 Height = 6'0"
- Meal Plan: Take Out and Delivered
- Meds: Glucophage
- Meter: Ultra One Touch
- Exercise: None
- Fear: My doctor will tell me to quit smoking

Kathy

- 29 Y.O Female with Type 1 Diabetes for 15 years
- Lobbyist
- “Diabetes takes so much time, I can’t keep up with everything.”



Kathy

- A1c = 9.4
- Weight = 134 Height = 5'4''
- Meal Plan: On the run
- Meds: 70/30 twice a day
- Meter: Precision with Ketone Strips
- Exercise: Aerobics 3 times a week
- Fear: Kidney Failure



JEOPARDY!

MAMA Jeopardy!



DIABETES JEOPARDY

Adjust	Meters	Meals	Meds	Exercise
--------	--------	-------	------	----------

100

100

100

100

100

200

200

200

200

200

300

300

300

300

300

400

400

400

400

400

500

500

500

500

500

FINAL

Adjust 100

**How do I know I have
diabetes?**



Adjust 200

Will I always have diabetes?



A small, partially visible grid of numbers in the bottom right corner, likely a continuation of a data table. The grid consists of approximately 5 rows and 5 columns of cells, each containing a numerical value. The numbers are small and difficult to read, but they appear to be arranged in a regular pattern.

Adjust 300

Will I give it to my kids?



Adjust 500

**If I lose weight will I get rid
of diabetes?**



Calculator				
Standard View				
7	8	9	+	=
4	5	6	-	CE
1	2	3	*	MC
0	.	/	÷	MS
±	1/x	1/y	ln	MR
log	e^x	e^y	log10	MS
sin	cos	tan	tan^-1	MC
sin^-1	cos^-1	tan^-1	tan^-1	MS
sin^-1	cos^-1	tan^-1	tan^-1	MS
sin^-1	cos^-1	tan^-1	tan^-1	MS

Meters 100

**Do we have the new meter
so I don't have to poke
myself?**



Meters 200

**What do I do if I can't get
enough blood?**



Meters 300

**I'm flying, what do I do
with my medications and
equipment?**



Meters 400

**It's okay to check my
entire family, isn't it?**



Meters 500

How often do I change the lancets?



Meals 100

**What can I eat ?
What can't I eat?**



Meals 200

Can I drink alcohol?



100	100	100	100	100
100	100	100	100	100
100	100	100	100	100
100	100	100	100	100
100	100	100	100	100

Meals 300

How much can I eat?



Meals 400

**Are there carbs in tictacs,
cough drops and gum?**



Meals 500

**What do carbohydrates do?
Are there carbohydrates in
beer?**



Meds 100

Can I lose weight and get off medication?



Meds 200

**My meds give me diarrhea,
what can I do?**



Meds 300

**I'm shaky and sweaty, is it
my diabetes?**



Meds 400

**I'm flying soon, what do I do
with my medications and
airport security?**



Meds 500

**I forgot my medication, do I
double up next time?**



Exercise

When is the best time to exercise?



Exercise

I always get low when I exercise, what can I do ?



Exercise 300

How long should I exercise?



Exercise 400

**I'm hiking, how do I store
my insulin?**



Exercise 500

**I have arthritis, knee pain,
and bad hips, what can I do?**



FINAL JEOPARDY!

Type 2 Diabetes is not as serious as Type 1 Diabetes, is it ?

CME JEOPARDY

Activity	Disclosure	Planning	Speaker	Supporter
----------	------------	----------	---------	-----------

T 100 F

T 100 F

T 100 F

T 100 F

T 100 F

T 200 F

T 200 F

T 200 F

T 200 F

T 200 F

T 300 F

T 300 F

T 300 F

T 300 F

T 300 F

T 400 F

T 400 F

T 400 F

T 400 F

T 400 F

T 500 F

T 500 F

T 500 F

T 500 F

T 500 F

FINAL

Worksheet #1

What is *Self-Management*?

Worksheet #2

PCP time spent with a typical patient during a 15-minute *traditional* visit:

How do you spend your time?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Example:

- Chart review, labs, referrals, meds, last note(s) etc...**
- Discussion with patient (history)**
- Physical exam**
- Make an assessment**
- Plan (med changes and additions, referrals, labs, immuniz., etc...)**
- Self-management**

Worksheet #3

PCP time spent with a typical patient during a 15-minute visit *following a planned visit*:

How do you spend your time?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Example:

- Chart review, labs, referrals, meds, last note(s) etc...**
- Discussion with patient (history)**
- Physical exam**
- Make an assessment**
- Plan (med changes and additions, referrals, labs, immuniz., etc...)**
- Self-management**

Worksheet #4

***Your* self-management goal:**

What is it you are willing to do? _____

How much are you willing to do? _____

When are you willing to do it? _____

How often are you willing to do it? _____

What is your *likelihood-of-success* score (1-10)? _____

Office use only: Quality Score _____