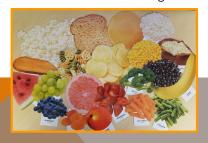


# **CARBOHYDRATES**

- · Biggest impact on blood glucose
- Simple vs complex
- Fiber (gut health, boost satiety, cardiovascular benefits)
- Added vs natural sugar
- Non-nutritive sweeteners and sugar alcohols



# **GLYCEMIC INDEX (LOAD)**

- How quickly glucose absorbed, alters blood sugar and then returns to normal
- Not provided on food labels/not always intuitive
- Glycemic Index vs Load



# **LOW CARB DIETS**

- Enhanced weight loss/maintenance benefits
- · Decreased insulin needs
- · Improvement in glycemic control
- · Potential cardiovascular benefits
- Include some fruits, vegetables, whole grains, legumes for essential nutrients
- · Account for protein and fat





### **IMPACT OF PROTEIN AND FAT**

- Affect blood glucose to a lesser extent
- · Take longer to digest
- Enhance satiety
- Type of fat matters (unsaturated > saturated)
- Emphasize lean protein sources





## **TOOLS AND APPS FOR CARB COUNTING**

MyFitnessPal (free: Apple, Android)

CalorieKing (free: Apple)

GoMeals (free: Apple, Android)

Carb Counting with Lenny (free: Apple, Android)

MyNetDiary (free and paid versions, Apple, Android)









### **SPECIAL CONSIDERATIONS**

## **Food Composition**

• High carb/high fat meals may require different strategies

### Eating out

Hidden fat and sugar, larger portions

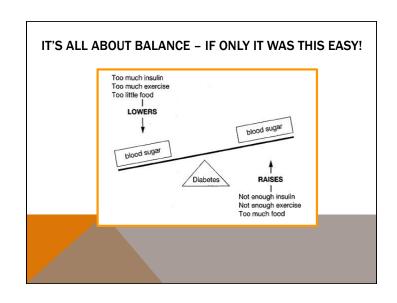
### Alcohol

Hypoglycemia risk, hidden carbs and calories



## "EXERCISE IS MEDICINE" - BOB

- Better glucose control
- · Improve blood pressure
- Decrease cardiovascular risk
- · Enhance insulin sensitivity
- More energy
- Assist with weight maintenance or weight loss



	Activity Within 2 Hours After Meal	Activity Before or Between Meals
Short Duration (<90 Minutes)		Snack Prior to Activity
Long Duration (>90 Minutes)	<ul> <li>✓ Mealtime Bolus</li> <li>✓ Basal Rate</li> <li>Snack at regular intervals</li> <li>Watch for delayedonset hypoglycemia</li> </ul>	Snack Prior to Activity   ◆ Basal Rate (if using pump)  Snack at regular intervals  Watch for delayedonset hypoglycemia

# OTHER EXERCISE FACTORS

- Duration
- Intensity
- Hydration
- Starting blood glucose
- Active Insulin
- Glycogen stores



# **SOURCES**

Sherman, Thomas. "Manipulating Glycemic Index." Georgetown Food Studies. N.p., 12 Jan. 2016. Web.

"Low-Carbohydrate Diets." *The Nutrition Source*. Harvard School of Public Health, 2017. Web.

<u>Diabetes Care</u>, vol. 24, no. 4, 4/2001, 625-630.