

UNC Wellness Centers

Talk to Me Tuesday

Mission Possible: Reversing Prediabetes



03/23/2021

Prediabetes: The Ugly Truths

- 88 million Americans (34.5% of population)
- 9 out of 10 people who have prediabetes don't know they have it
- CVD, HTN, dyslipidemia, kidney disease, obesity, cancer if progresses

Healthcare costs ~\$43.4 billion in 2017

I'm Here For You!

It is the position of the Academy of Nutrition and Dietetics that for adults with prediabetes or type 2 diabetes, medical nutrition therapy provided by a registered dietitian is effective in improving outcomes, quality of life and is cost effective.

Prediabetes Diagnosis

- Check fasting blood glucose
- HgA1c: measurement of 3 month average of blood glucose

- Test earlier if:
 - Excessive thirst
 - Frequent urination
 - Fatigue
 - Blurred vision

Prevention and Treatment

Diet

Studies indicate that diet is a critical component of prediabetes treatment and prevention.

Exercise

Critical component of an effective intervention for prediabetes.

Medications

Helpful when individuals have trouble maintaining lifestyle changes.

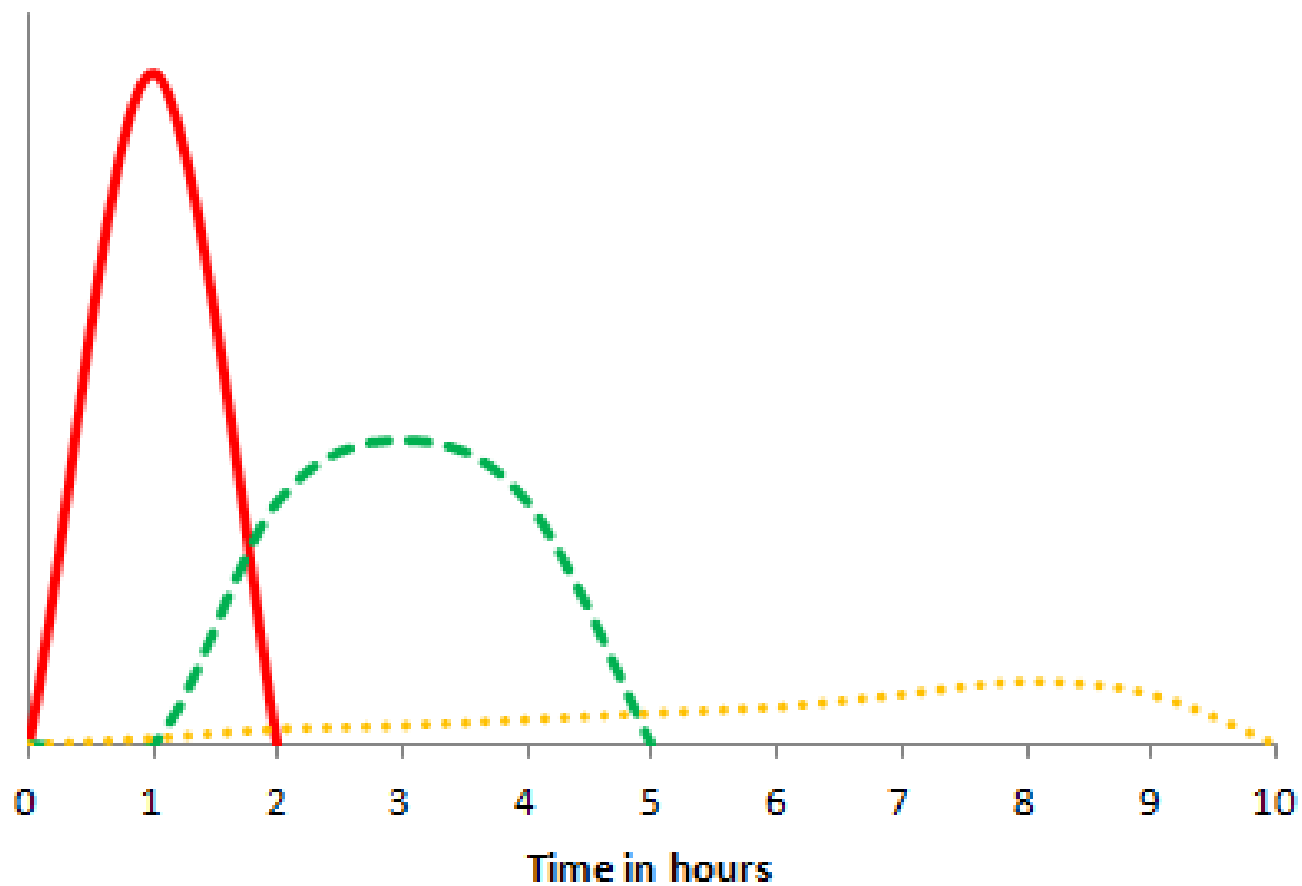
Goals of Medical Nutrition Therapy

- Prevent and/or delay progression to type 2 diabetes
- Improve anthropometric outcomes
- Improve cardiovascular risk

Food and Blood Glucose: Nutrients in Food Groups

Food Group	Nutrient(s)	Effect on Blood Glucose	Rate of Effect
Grain	Carbohydrate	Large	Fast
Fruit	Carbohydrate	Large	Fast
Milk	Carbohydrate/Protein	Small	Slow
Vegetable	Carbohydrate	Small	Slow
Meat	Protein/Fat	Small	Slow
Fat	Fat	Small	Very Slow

Food conversion to blood glucose



- carbohydrates: 90-100% turns to glucose, peaks in bloodstream in 1-2 hours
- - - proteins: 50% turns to glucose, peaks in bloodstream in 2-4 hours
- fats: 10% turns to glucose, peaks in the bloodstream in 8-10 hours

Carbohydrate Recommendations

- Overall should be reduced regardless of type
- Include at least recommended amount of fiber (25-35 grams/day)
- **130 grams/day** recommended for adequate brain function

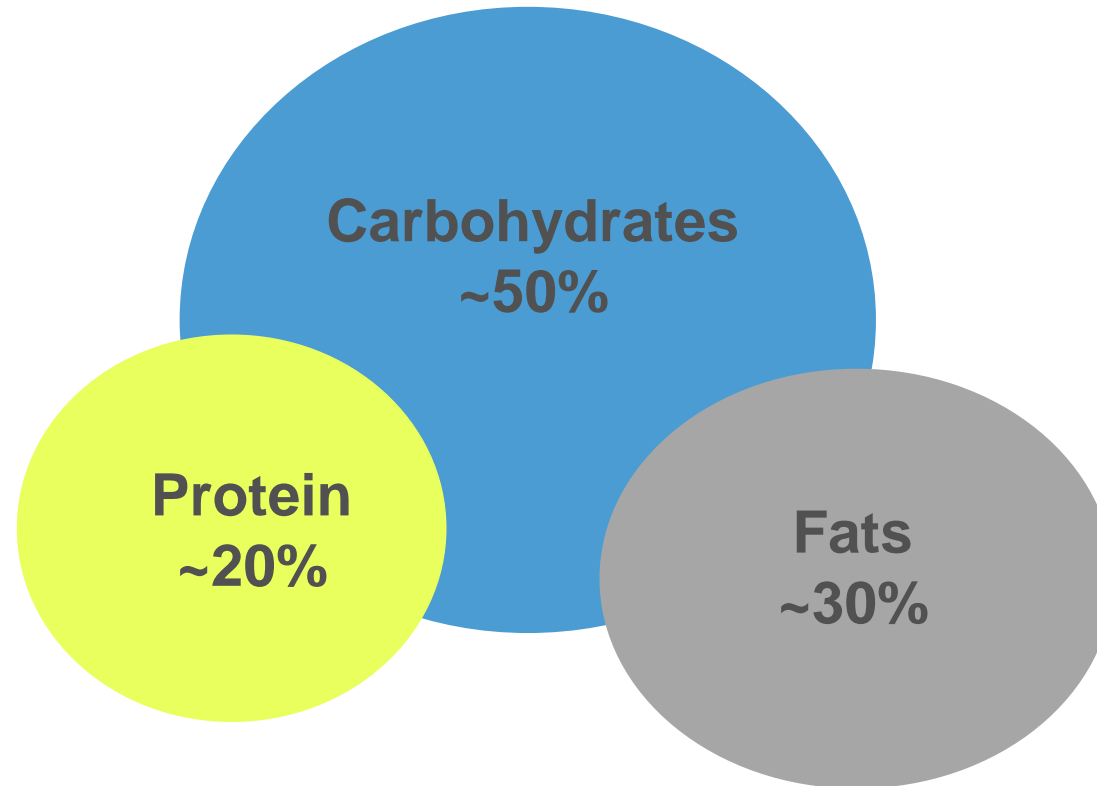
Protein Recommendations

- Percentage in terms of calories should be individualized
- Most people eat ~16-18% of total calories from protein

Fat Recommendations

- Most people eat ~36-40% of total calories from fat
- 2020-2025 Dietary Guidelines recommend <10% of total calories from saturated fat

Put It All Together



Mediterranean Diet

- Encourages increase in plant-based foods, healthy fats, lean meats (fish), and whole grain carbohydrates
- Frequently shown to reduce CVD risk and improve glycemic control

DASH Diet

- Dietary Approaches to Stop Hypertension (high blood pressure)
- Similar food recommended as Mediterranean Diet
- Emphasizing potassium and reducing sodium
- Supports blood glucose improvement and diabetes prevention

Vegan/Vegetarian Diet

- Recommended to speak to a dietitian before starting
- Increase antioxidant-rich plant sources and higher fiber
- Decreases risk of prediabetes and progression to type 2 diabetes

Low-Carbohydrate Diet

- Limit carbohydrates to reduce contributors to elevate blood glucose and achieve glycemic control
- No standard definition
- Weight loss occurs
- Sustainable?

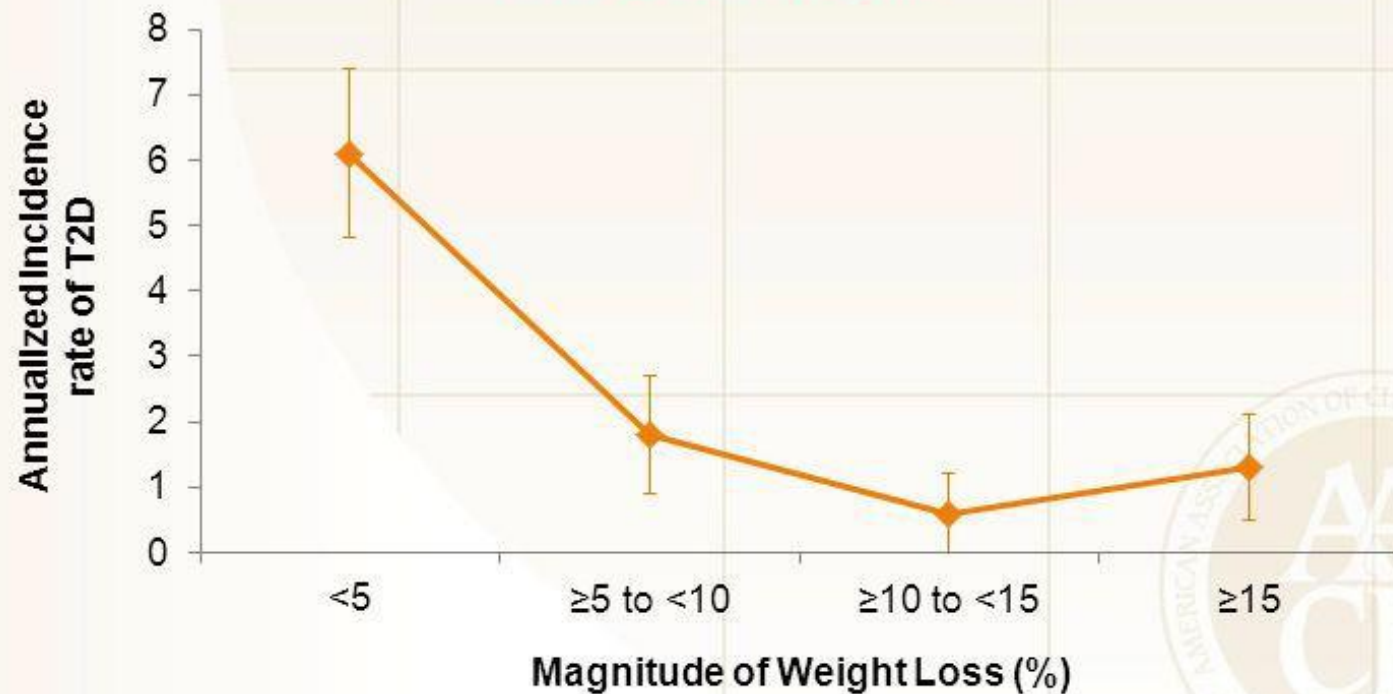
Weight Loss

- One of the most important factors in reversing prediabetes
- Main contributor to risk reduction
- 5% reduction in body weight decreases overall risk
- Bariatric surgery produced a 75% decreased risk of diabetes

Relationship Between Weight Loss and Prevention of Type 2 Diabetes

SEQUEL Prediabetes/Metabolic Syndrome Cohort
(N=475)

ITT-LOCF Analysis



ITT, intent to treat; LOCF, last observation carried forward.

Garvey WT, et al. *Diabetes Care*. 2014;37:912-921.

Exercise and Medications

- Exercise helps to reduce body weight and improve glycemic control
- Medications are helpful when individual has trouble maintaining lifestyle changes

Take Away

- Lifestyle change has greatest impact on reversing prediabetes
- Small improvements in weight and waist circumference can prevent the progression to type 2
- Meet with a dietitian to get started on your healthy eating plan

Resources

- *Pre-diabetes—Diagnostic Criteria and Health Risks Today's Dietitian 2019*
- *Prediabetes Management American Association of Clinical Endocrinologists*
- *Position of the Academy of Nutrition and Dietetics: Role of MNT and RDN in the Prevention and Treatment of Prediabetes and Type 2 Diabetes*
- *Nutrition Therapy for Adults with Diabetes or Prediabetes: A Consensus Report Diabetes Care May 2019*

Need additional support?

- **Virtual Nutrition Counseling is available.** New members receive a complimentary 30 minute session.
- **Resting Metabolic Rate Testing is available.** Find out how many calories you need in a day.
- **Web Wellness Program** – This 10-week program offers regular virtual support from the dietitian. The program starts with an initial virtual nutrition consultation and provides weekly support through email and electronic tracking methods.
- **Vitality: Lifestyle and Weight Management Program** – 8 week virtual weight management program. Starts April 20!
- Contact Liz at Elizabeth.watt@unchealth.unc.edu 984-974-2552

Coming Up Next!

Covid: Strategies for the Weary

April 27, 12:15 to 1 pm

Learn proven strategies to **reduce stress, sleep better and improve your life** during the pandemic and beyond.

Instructor: Janet Baradell is a Clinical Nurse Specialist with a Master's Degree in Mental Health Nursing and a PhD in Social Psychology. She works with UNC Hospitals Cardiac Rehab Program.

Visit the Talk to Me Tuesday section of www.uncwellness.com to register for the next session.