

# PERSONALIZED PREVENTION TOOLS IN OBESITY AND DIABETES

no. 2SOFT / 4.1 / 56

The Joint Operational Programme Romania-Ukraine 2014-2020 is financed by the European Union through the European Neighbourhood Instrument and co-financed by the participating countries in the Programme.

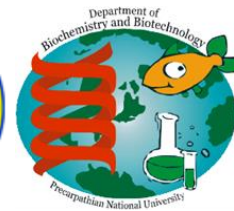
## INFORMATION FOR HEALTH PROVIDERS HEALTHY EATING



This project is funded by the European Union



Romania - Ukraine  
ENI-CROSS BORDER COOPERATION



This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of Volodymyr Lushchak and can in no way be taken to reflect the views of the European Union or of the Joint Operational Programme Romania-Ukraine 2014-2020 management structures.

The European Union is made up of 27 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms.

The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

[www.prepod.org.ua](http://www.prepod.org.ua)



[www.ro-ua.net/ua](http://www.ro-ua.net/ua)



Contact person: Prof., D.Sc. Volodymyr Lushchak  
Functional responsibilities: Project manager  
Address: Vasyl Stefanyk Precarpathian National University, Shevchenko Str. 57, Ivano-Frankivsk, Ukraine, 76018

(Administrative campus); Halytska Str., 201, Ivano-Frankivsk, Ukraine (campus of Faculty of Natural Sciences, 6th floor)

Phone/Fax: +80342596171

E-mail: [prepod.pnu@gmail.com](mailto:prepod.pnu@gmail.com)

# Obesity

Sensible eating, in combination with realistic physical activity goals can play an important part in helping obese patients achieve a healthy weight. Physicians should be aware that overly restrictive approaches towards eating or extreme dieting can sometimes be detrimental to a healthy eating plan and may lead patients to weight cycle. Ideally dietary therapy should be provided by a registered dietitian, as part of a comprehensive weight management plan. A proper dietary assessment should be conducted prior to making recommendations.

## Patient Goal Setting

There are three key weight management stages that should be considered when determining an approach and discussing realistic patient goals:

1. Prevention of further weight gain.
2. A reduction in body weight.
3. Maintaining long term weight loss.

Patients should be encouraged to set realistic weight loss and behavior changing goals to promote healthy lifestyles including the following:

- My goal will be to limit my sweetened beverage intake to 1 a day.
- My goal is to drink water instead of sugary drinks.
- My goal is to switch to fat free or 1% milk.
- My goal is to make half my plate fruits and vegetables.
- My goal is to make at least half my grains whole.
- My goal is to limit screen time to 2 hours a day.
- My physical activity goal is \_\_\_\_ minutes \_\_\_\_ days of the week for the next \_\_\_\_ weeks. I plan to do the following physical activities \_\_\_\_\_  
(ex. Walking, bike riding, etc.)

## Recommended Strategies

- Tell patients to eat more healthy foods including fruits and vegetables, whole grains, and lean meats
- Emphasize the importance of regular meals
- Recommend dietary substitutions
- Discuss portion control
- Encourage eating trigger awareness
- Review and discuss weekly food and activity diaries (when available)
- Provide patient with dietary information and handouts (as appropriate)

## Commercial Options

- Meal Replacements are pre-packaged food items that provide calorie and portion controlled meals
- Internet based programs and resources
- Counseling by registered dietitians or nutritionists

## General Dietary Recommendations

- Low Calorie Diet Recommendations - Appropriate caloric intake will vary by gender, age, and daily levels of physical activity.  
Women: 1000 – 1200 kcal/day for most women – Men: 1200 – 1600 kcal/day – Patients experiencing hunger can vary kcal/day by 100 to 200 per day
- Low carbohydrate, high protein diets – Weight loss results from this type of diet may not be sustained over time.
- Very Low-Calorie Diets (VLCD) are a medically-supervised diet that typically use commercially prepared formulas and foods to promote rapid weight loss in obese patients. Such diets typically involve the consumption of liquid shakes or bars to replace all food intake for several weeks or months. Other VLCD methods involve diets composed almost entirely of lean protein foods, such as fish and chicken. People on VLCD consume about 800 calories per day or less and require supplemental vitamins and micronutrients to ensure daily nutritional requirements are met.

## Diet Education Efforts

Patients should be educated to pay particular attention to the following:

- Calorie value of different foods
- How to read food nutrition labels and food composition (fats, carbohydrates, and proteins)
- Developing new purchasing habits in favor of low-calorie foods
- Using healthier food preparation methods (i.e. broiling, baking, steaming)
- Avoiding consumption of high calorie foods
- The importance of drinking water
- Reducing portion sizes
- Limiting alcohol consumption

## Food Proportion Tips

- Serve meals on smaller plates
- Share a meal when eating out
- Avoid second helpings
- Gradually cut back on portion sizes
- Avoid filling extra plate space with additional helpings

## Better Eating Habit Tips

- Eat 3 balanced meals daily with planned snacks
- Plan family meals together at a table.
  - Do not eat in front of the TV.
  - Keep healthy food within easy reach and junk foods out of the house.
- Eat slowly and stop when full or satisfied.
- Eat fruits and vegetables for snacks
- Choose lower fat, lower calorie foods
- Prepare food by broiling, baking, and barbeque instead of frying
- Eat lean meats without skin including beef, fish and poultry.
  - Limit fast food consumption – especially “super-sized” meals.
- Drink six to eight glasses of water each day
- Limit drinks high in calories, sugar and fructose corn syrup such as soda and juices.
- Limit alcoholic beverages

# Type 2 Diabetes Mellitus

## Who is responsible?

Every healthcare professional has the responsibility to ensure that a T2DM test has been ordered, administered, and reviewed with the patient

## Who to test?

The American Diabetes Association recommends testing in asymptomatic adults that are overweight or obese and have one of the following risk factors:

- First degree relative with diabetes
- High-risk race/ethnicity
- History of gestational diabetes mellitus, or a baby weighing more than 4 kg
- History of cardiovascular disease hypertension, hyperlipidemia, polycystic ovary syndrome or acanthosis nigricans
- Physical inactivity

## When to test?

Initial Results	Recommended Testing Frequency
Prediabetes	Annually
At risk for T2DM	Minimum every 3 years, with more frequent considerations based on results and risk status

## Help your patients understand their diagnosis of T2DM

Be sure to give your patients clear and simple directions on how to use their glucometer

- Review blood glucose recommendations, including target, before meals and 1-2 hours after eating
- Education on high and low blood glucose symptoms
  - Include tips on how to quickly deal with low blood glucose
- Encourage a healthy diet and exercise
- Make sure your patients demonstrate understanding

Before meals	80-130 mg/dL
1-2 hours after eating	Less than 180 mg/dL

ADA Recommendations for blood glucose value

**Review with your patients the symptoms they may experience when they have:**

**High Blood Sugar:** thirst, headaches, frequent urination, difficulty paying attention, blurred vision, weakness or lethargy, yeast infection

**Low Blood Sugar:** hunger, headaches, dizziness, confusion, paleness, increased heart beat, sweating, weakness, anxiety.

## Wellness: Strategies for Success

Share the importance of being physically active in lowering chances of having T2DM and its complications in the future.

Encourage working up to 2 ½ hours of regular, moderate intensity exercise per week

- Start slow
- Consider 10 minute activities, 3 times per day.
- Aim for 30 minutes per day, 5 days a week

## Make decisions with your patients!

It's often easy to give your patients the same health recommendations. But not all patients will comply with prescriptive recommendations. To manage their health more successfully, patients must be able to make self-management decisions that fit their priorities, goals, resources, culture, and lifestyle.

**Energy balance:** Modest weight loss achievable by the combination of reduction of calorie intake and lifestyle modification benefits overweight or obese adults with type 2 diabetes and also those with prediabetes. Intervention programs to facilitate this process are recommended.

**Eating patterns and macronutrient distribution:** As there is no single ideal dietary distribution of calories among carbohydrates, fats, and proteins for people with diabetes, macronutrient distribution should be individualized while keeping total calorie and metabolic goals in mind. A variety of eating patterns are acceptable for the management of type 2 diabetes and prediabetes including Mediterranean, DASH, and plant-based diets.

**Carbohydrate:** Carbohydrate intake from whole grains, vegetables, fruits, legumes, and dairy products, with an emphasis on foods higher in fiber and lower in glycemic load, should be advised over other sources, especially those containing sugars. People with diabetes and those at risk should avoid sugar-sweetened beverages in order to control weight and reduce their risk for CVD and fatty liver and should minimize the consumption of foods with added sugar that have the capacity to displace healthier, more nutrient-dense food choices.

**Protein:** In individuals with type 2 diabetes, ingested protein appears to increase insulin response without increasing plasma glucose concentrations. Therefore, carbohydrate sources high in protein should not be used to treat or prevent hypoglycemia.

**Dietary fat:** Whereas data on the ideal total dietary fat content for people with diabetes are inconclusive, an eating plan emphasizing elements of a Mediterranean-style diet rich in monounsaturated fats may improve glucose metabolism and lower CVD risk and can be an effective alternative to a diet low in total fat but relatively high in carbohydrates.

**Alcohol:** Adults with diabetes who drink alcohol should do so in moderation (no more than one drink per day for adult women and no more than two drinks per day for adult men). Alcohol consumption may place people with diabetes at increased risk for hypoglycemia, especially if taking insulin or insulin secretagogues. Education and awareness regarding the recognition and management of delayed hypoglycemia are warranted.

**Nonnutritive sweeteners:** The use of nonnutritive sweeteners has the potential to reduce overall calorie and carbohydrate intake if substituted for caloric sweeteners and without compensation by intake of additional calories from other food sources. Nonnutritive sweeteners are generally safe to use within the defined acceptable daily intake levels.