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# Tips for Successfully Managing Your Type 2 Diabetes

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# TIPS FOR SUCCESSFULLY MANAGING YOUR TYPE 2 DIABETES

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Family Medicine Clerkship –  
September 2018  
Private Practice of Theodore Blum  
MD  
Project Mentor: Dr. Theodore Blum

# PROBLEM IDENTIFICATION

- In working with Dr. Blum for the last 5 weeks, many of the patients I was seeing each day were suffering from type II diabetes. Together, we decided that this would be an appropriate topic for my community health project.
- Several of the patients we saw were completely uncontrolled in their diabetes. Patients came in every 3 months for medication checks but it seemed that there was a need in the practice for patient education on non-medical management of type II diabetes. The focus of my project was diet and exercise.

# PUBLIC HEALTH COST

A study published by the American Diabetes Association in March 2018 discusses the important statistics of diabetes:

- More than 30 million Americans have diabetes currently
- Healthcare costs for Americans with diabetes are 2.3x greater than healthcare costs for those without diabetes
- The total cost of diabetes in our country has risen from \$245 billion in 2012 to \$327 billion in 2017. This represents a 26% increase over 5 years.
- 1 out of every 7 dollars spent on ALL healthcare in America goes to treating diabetes and it's associated complications

Type 2 diabetes was highly prevalent among the patient population I was seeing in Bethel CT

# COMMUNITY PERSPECTIVE ON ISSUE

## Interview #1: Keith Prazeres RN, Bethel VNA

- I spent a day shadowing and making house calls with an RN from the Bethel VNA. 2/3 of the patients I saw had diabetes on their problem list.
- “Type II diabetes is a disease that affects many of the patients we care for. Since the resources of the VNA are limited, we are only able to get out to patients once a week or once every few weeks. Management of diabetes is a daily struggle and we have developed materials to guide patients and families in effectively managing their diabetes.”
- These resources include information about diet, exercise, checking blood sugar, information about recognizing adverse events (hypo/ hyperglycemia). I used these resources to help guide my project.

# COMMUNITY PERSPECTIVE ON ISSUE CONT....

## Interview #2: Theodore Blum MD, Family Practitioner, Bethel CT

- Dr. Blum routinely screens patients for pre-diabetes by testing for hemoglobin A1C at yearly physicals. Patients who fall into the diabetic (A1C >6.5) and pre-diabetic ranges (A1C 5.7-6.4) are counseled about lifestyle changes and medications are started in appropriate.
- “I discuss the importance of lifestyle changes with all my diabetic and prediabetic patients. With many patients, as I think you have seen, it works! I am hoping for a resource that will summarize for patients what we talk about in the office and guide them to further resources they can use.”

# INTERVENTION AND METHODOLOGY

I created a one page handout for patients with diabetes with tips on making and following through on lifestyle changes. This handout discusses:

- Implications of uncontrolled type II diabetes
- Lifestyle modifications to help maintain control of diabetes
- Ideas for planning and sticking to a diet
- Ideas for increasing physical activity and starting an exercise program

# HANDOUT:

## Tips for Successfully Managing Your Type 2 Diabetes

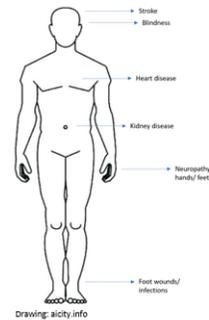
### What is type 2 diabetes?

Type 2 diabetes mellitus is a disease in which your body is unable to respond properly to a chemical called **insulin** that is responsible for breaking down the sugars you eat! As a result, dietary sugars build up in the blood and cause damage to blood vessels, nerves and organs.

### How can this affect my health?

**Uncontrolled** diabetes can have effects on almost all body systems:

- ✓ Brain
- ✓ Heart
- ✓ Kidneys
- ✓ Nerves
- ✓ Blood vessels



For more information about the complications and symptoms of diabetes, visit [www.familydoctor.org](http://www.familydoctor.org) and search for diabetes.

### Is there anything I can do to stay healthy?

**YES!** There are a variety of changes you can make in your everyday life, such as watching **diet** and **exercising**, that don't require medications and can have a **significant impact** on your diabetes!

Losing weight or maintaining a healthy weight is important for control of your diabetes. Extra fat cells in the body can interfere with the action of insulin, leading to elevated blood sugar. A healthy diet and regular exercise are a great way to achieve this goal!

### Planning your Diet:

1. Making a **meal plan** with your diabetes care team that outlines *when, what and how much* to eat. This is essential for staying on track with healthy choices!

- [www.familydoctor.org](http://www.familydoctor.org) recommends that a healthy diet for a person with diabetes contains a calorie breakdown of:
  - 40-60% carbohydrates (fruit, veggies, starch, bread)
  - 20% protein (meat, beans, reduced-fat dairy)
  - 30% or less of fats (butter, oil, margarine – avoid trans fats)
- **Foods to avoid:** added sugar, salt and cholesterol

2. Resources for meal planning:

- The book **Choose Your Foods: Exchange Lists for Diabetes** (designed by members of the American Diabetes Association) can be found online and outlines ideal daily serving amounts for each of the different food groups
- [www.choosemyplate.gov](http://www.choosemyplate.gov) makes recommendations for healthy choices and portions based on the different food groups
- The ADA website, [www.diabetes.org](http://www.diabetes.org), gives tips for eating out at restaurants and provides recipe ideas for meals and snacks

3. Record and keep on track with meal charting! Here's a sample adapted from the Bethel VNA handbook "Living your life with diabetes":

# of servings	Breakfast	Lunch	Dinner	Snacks	Total
Bread/ Starch					
Fruit					
Vegetables					
Dairy					
Fat					
Meat/ Protein					

### Putting together an exercise program:

The idea of exercising can be daunting, but you don't have to run a marathon to benefit!

You should start off slow and build up in intensity over time as your body gets more used to exercising. The American Diabetes Association recommends that people with diabetes engage in **aerobic exercise** (swimming, walking, jogging, biking), **strength training**, **balance exercise** and **stretching**.

Adding more activity into your day to day routine can be an easy way to get started. Examples include:

- Taking the stairs instead of the elevator
- Parking farther away
- Walking during your breaks
- Doing chair exercises at your desk

For ideas on how to start your fitness journey, you can visit their website: [www.diabetes.org](http://www.diabetes.org).

### \*Important considerations before starting an exercise program\* ([www.familydoctor.org](http://www.familydoctor.org))

- See your doctor for a physical and discuss any limitations before starting an exercise program.
- **Stay hydrated!** Drink water before, during and after exercise as dehydration can affect blood sugar.
- Check blood sugar before and after exercise and do not exercise if too low! Exercise will lower blood sugar further.
- Know the **warning signs** for low blood sugar: change in heartbeat, feeling shaky/ anxious and increased sweating. Have a snack on hand incase this happens!

# RESULTS/RESPONSE

The informational handout was printed and kept at the front desk to distribute to patients with type II diabetes when they come in for appointments

It was reviewed and well received by Dr. Blum who is interested in using it with the patients in his practice

# EVALUATION OF EFFECTIVENESS AND LIMITATIONS

## Evaluation of Effectiveness:

- Patients could be given a brief follow up questionnaire to determine if they found the handout helpful and if they implemented any of the suggestions
- We could look at data on weight loss and blood glucose control in patients who received the handout

## Limitations:

- Unfortunately as this was a 5 week clerkship, there was not enough time to collect data on the effectiveness of the handout as an intervention for better control of type 2 diabetes
- The handout is a broad summary of lifestyle changes and choices that are not specific to individual cases
- The handout was distributed only to a single provider practice and will not be used beyond the small community of Bethel CT

# RECOMMENDATIONS FOR FUTURE INTERVENTIONS/ PROJECTS

A project to looking at the barriers to making changes in to diet and exercise would be helpful in determining why conversations in the office and resources like the handout I created often fail to help certain populations of patients.

- For example, a barrier that many patients face is knee pain that stops them from being consistent with walking and exercise

Future interventions could focus on targeting these specific barriers to compliance with diet and exercise changes in patients with diabetes.

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# INTERVIEW CONSENT FORM

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes  / No  If not consenting as above: please add the interviewee names here for the department of Family Medicine information only. Name: \_\_\_\_\_ Keith Prazeres, RN \_\_\_\_\_

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