



# **PREVENTION AND MANAGEMENT OF DIABETES IN PRIMARY CARE**

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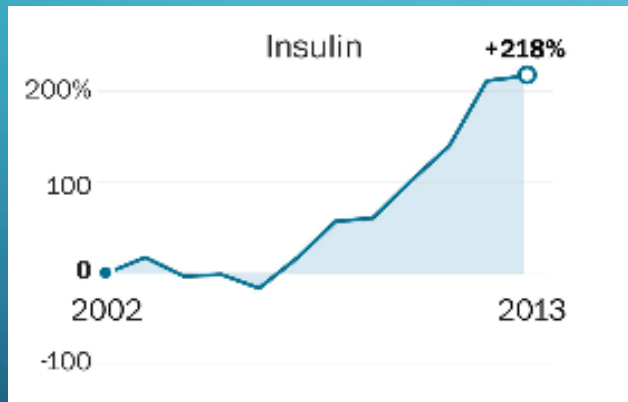
KAISER PERMANENTE NORTHWEST

# OVERVIEW

- **Diabetes and prevention of diabetes takes up a significant and growing part of our practice**
- **The epidemic is growing: cost of diabetes increased 26% from 2012 to 2017**
- **The medicines are getting more expensive**
- **Kaiser Permanente offers many resources to support this work**
- **PCPs are not always aware of/able to readily access these services**
- **PCPs are not always clear on what dietary approaches are being recommended**

# CASE STUDY: INSULIN

- We're using more:
  - Our insulin dispenses have roughly doubled since 2004
- It costs more:
  - Insulin list prices have nearly tripled between 2002 and 2013
  - Brand names like Lantus are six times as expensive



Why treating diabetes keeps getting more expensive, *Washington Post* oct 31 2016

Revisiting NPH Insulin for Type 2 Diabetes Is a Step Back the Path Forward? *JAMA*. 2018;320(1):38-39.

# LIFE OF THE PCP

- 20 minute office visits, 10-15 minute phone visits
- FPs address average of 5 problems per visit for patients with DM
- The “tyranny of the urgent” vs preventative tasks
  - To fully satisfy the USPSTF recommendations, for 2500 pt panel would generate 7.4 hours of work/day
  - PCP with 2000 pts would need 17.4 hr/d to provide all recommended acute, chronic and preventative care

*Primary Care: current problems and proposed solutions, Health Affairs, May 2010*

*Primary Care: Is There Enough Time for Prevention? Am J Public Health, April 2003*

# OUR MANY HELPERS AND RESOURCES

- **Helpers:**
  - **glycemic nurses**
  - **pharmacists**
  - **nutritionists**
  - **health coaches**
- **Resources: classes, webinars, booklets, self directed modules**

# PREDIABETES

- In order to prevent diabetes, the American Diabetes Association recommends:
  - Modest weight loss (5-10% of body weight)
  - Moderate intensity exercise (30 minutes 5 days per week)
  - Smoking cessation
- The Diabetes Prevention Program trial showed that when successfully implemented, these changes reduce the risk of incidence of diabetes by 58%.

*Diabetes: ADA Releases Revised Position Statement on Standards of Medical Care, Am Fam Physician. 2018 Aug 1;98(3):187-188.*

# **PREDIABETES: OUR LOCAL PROJECT**

## **The problem:**

- **approximately 800 EIN PC patients who have been identified as at risk for diabetes. (A1c>5.7)**
- **Currently no outreach other than provider education (variable)**

## **Our solution:**

- **Outreach by phone/email to those with A1c 6.1-6.4 in last year**
- **Offered health coaching, classes, or RN/BHC visit**



# PREDIABETES: OUR LOCAL PROJECT- RN VISITS

**Initial visit:** 60 minutes with RN to review history, give education, make plan

- What is DM: types, how dx, complications
  - A1c
  - Dietary recommendations
  - Exercise recommendations
- Set behavioral SMART goal (Specific, Measurable, Attainable, Relevant, Time based) around diet and/or exercise
  - Ex: I will walk 15 minutes three times per day for 2 weeks
- Decide on tracking program (app (lose it, my fitness app, spark people) diary)



# PREDIABETES: OUR LOCAL PROJECT- RN VISITS

## Follow up visits:

- **Set up follow up plan (TAV vs OFV) with RN or BHC or health coach**
  - **1- 3 months: OFV/video q2 weeks with phone check in on off weeks**
  - **> 3 months: monthly OFV or TAV**
- **Set up lab frequency: A1c q3 or 6 month**
- **Review PST to identify and close care gaps: Immunizations, labs (A1c, kidney function), LOPS, diabetic retinopathy eye screening, etc.**
- **Consider other departments or disciplines that may be working with diabetic patients to avoid duplication or overlap (DM Case Manager, Pharmacy)**
- **Review pt education resources**

# DIETARY ADVICE TO PREVENT CVD

- **It works**
- **We don't do it**
  - **Only 1 in 5 high risk patients (CVD, DM, hyperlipidemia) receive nutrition counseling in their visits**
- **We haven't been trained to do it**
  - **Only 25% of medical schools offer a dedicated nutrition course**
- **It's a teachable skill**
- **Patients want it**
- **It can avoid disease and unnecessary medication use**
- **ADA and USPTF say: Do It!**

*Nutrition counseling in clinical practice: how clinician can do better JAMA sept 26 2017 vol 318, no 12*

# BUT WHAT IS GOOD NUTRITION?

## ADA consensus recommendations:

- Promote **healthy eating patterns**, emphasize variety of foods in **appropriate portion sizes**
  - Healthy eating patterns = DASH, Mediterranean, plant based
- Address individual nutrition needs
- Maintain pleasure of eating
- Give practical tools to develop healthy eating patterns rather than focusing on individual macronutrients, micronutrients, or single foods.

*ADA Standards of medical care in diabetes- 2018 Diabetes Care, Jan 2018*

*Management of Hyperglycemia in Type 2 Diabetes, 2018. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)*

# BUT WHAT IS GOOD NUTRITION?

## ADA Standard of medical care...some mixed messages

This is true....	...but so is this
<b>“Monitoring carbohydrate intake is key for improving postprandial glucose control”</b>	<b>“There is not an ideal percentage of calories from carbohydrate, protein, and fat for all people with diabetes”</b>
<b>Eat nutrient dense foods:</b> <ul style="list-style-type: none"><li>● whole grains, vegetables, fruits, legumes, nuts, seeds</li><li>● low fat dairy, lean meats</li></ul>	<b>Restrict calories:</b> <ul style="list-style-type: none"><li>● Women: 1200-1500 kcal/d</li><li>● Men: 1500-1800 kcal/d</li></ul>
<b>“Limit saturated fat”</b>	<b>“Ideal amount of fat for DM is controversial”</b>

# BUT WHAT IS GOOD NUTRITION?

## What's good for you

- Exercise - cardiovascular
- Relationships
- Sleep

## What's probably not good for you

- Sugar
- Refined carbohydrates
- Alcohol > 1-2/d
- Trans fats

## Debate over:

- Fats – Saturated: effect on weight gain/DM/CVD disease
- Salt: Ideal intake
- Carbs: amount for diabetic
- Calorie restriction: as a long term weight management strategy
- Safety and sustainability of ketogenic diet

*Dietary and Policy Priorities for Cardiovascular Disease, Diabetes, and Obesity: A Comprehensive Review.* [Mozaffarian D.](#)  
[Circulation.](#) 2016 Jan

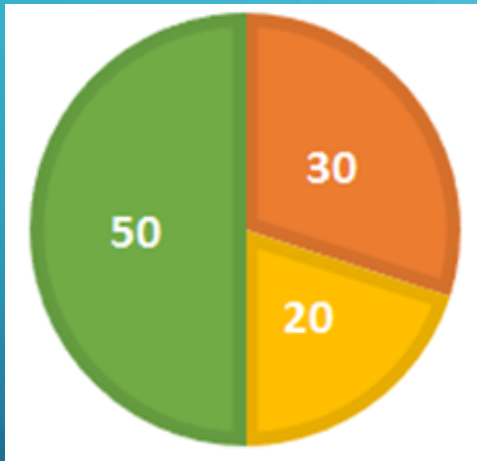
# DIFFERENT DIETARY APPROACHES

<b>Eating pattern</b>	<b>Calorie restriction?</b>	<b>Fat restriction?</b>
<b>ADA/Plant based/DASH</b>	Yes	Yes - saturated
<b>Mediterranean</b>	Yes	Yes – saturated (More monounsaturated)
<b>Low Glycemic Index</b>	No	Maybe - saturated
<b>Low carbohydrate/high fat (Ketogenic)</b>	No	No

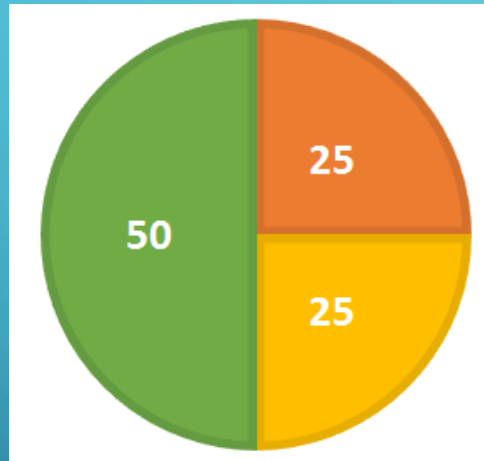


# DIFFERENT DIETARY APPROACHES: MACRONUTRIENT BALANCE

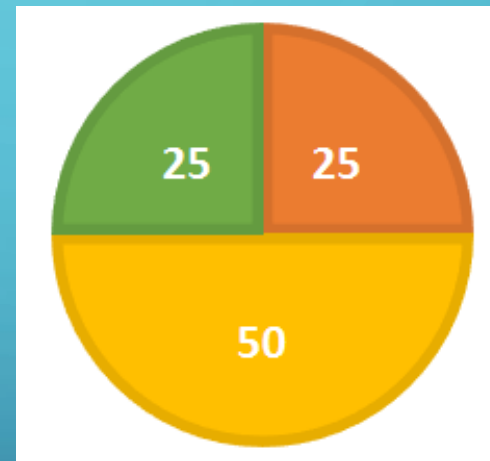
ADA/DASH/  
Plant based



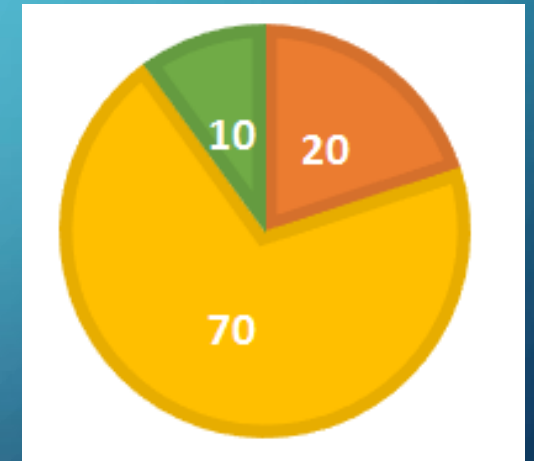
Mediterranean



Low Glycemic index



Low carb/High Fat  
(Ketogenic)



■ Protein ■ Fat ■ Carb



# DIFFERENT DIETARY APPROACHES: A TYPICAL PLATE

**ADA  
/Mediterranean**



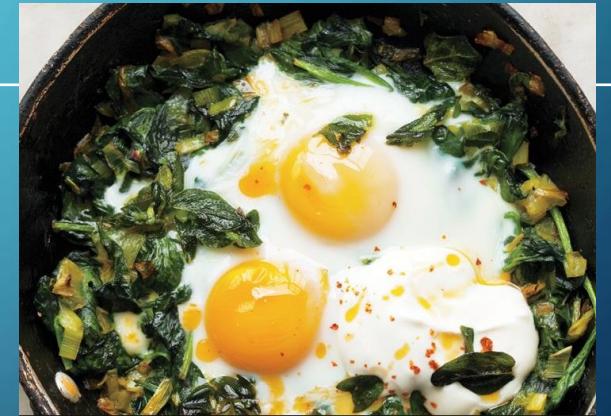
**Plant based**



**Low Glycemic  
index**



**Low carb/High Fat  
(Ketogenic)**



# # GRATITUDE

- **Patients=Why we are here + need to be better**
- **Teachers=Aspiration**
  - Jeff Stanley, MD
  - Stephanie Fitzpatrick, PhD
  - David Ludwig, MD
- **Colleagues=Inspiration**
  - Keith Bachman, MD
  - Andrea Payne-Osterlund, MD
  - Emily Doss, MD
  - Neil Blair, MD
  - Marie Johnson, RD
  - Paula Winch, Health coach
  - Heidi Rolfs, RN