NUTRITION GUIDELINES FOR WEIGHT MANAGEMENT – HOW TO IMPLEMENT IN YOUR PRACTICE

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OBESITY TREATMENT IN PRIMARY CARE E-LEARNING MODULE

- How to access:
- https://cuelearning.org
- Click on Register link in upper right-hand corner
- Pop-Up box will appear
  - Enter your email address
  - For Registration Code: PATHWEIGH
- 2 AAFP CME credits for completing the module

USPSTF:
SCREENING FOR AND MANAGEMENT OF OBESITY IN ADULTS

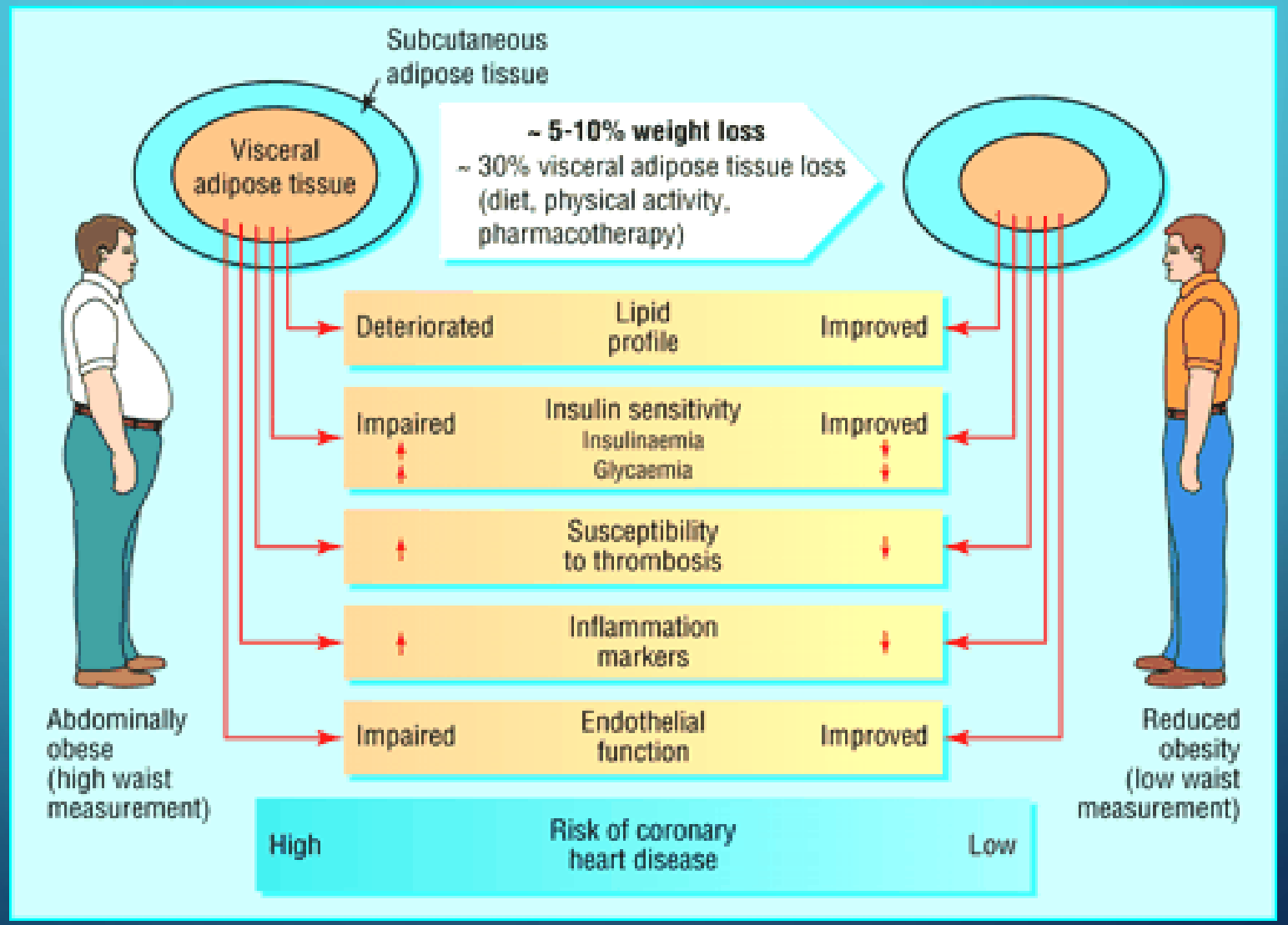
Current Recommendation

Release Date: June 2012

- **The USPSTF recommends screening all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m^2 or higher to intensive, multicomponent behavioral interventions.**

  Grade: B Recommendation

Source: http://www.uspreventiveservicestaskforce.org/uspstf/uspsobes.htm



Despres J-P et al. BMJ 2001;322:716

Table 1. Benefits of Weight Loss and Physical Activity Among Overweight/Obese Individuals or Those With Insufficient Daily Activity

Disease/Risk Factor	Weight Loss	Physical Activity
Hypertension	↓↓↓[34]	↓↓↓[51]
Type 2 diabetes mellitus	↓↓↓[53-55]	↓↓[53-55]
Lipid profile	Definite improvement[34]	Definite improvement[62]
Coronary heart disease	↓↓[52]	↓↓↓[52]
Stroke	↓[56]	↓↓[63]
Colorectal cancer	↓[57]	↓↓[57]
Breast cancer	↓[58]	↓[58]
Osteoarthritis	↓↓[59]	↓[64]
Osteoporosis	↔	↓↓↓[65,66]
Gallbladder disease	↓[60]	↓[67]
Sleep apnea	↓↓[61]	Unknown
Mental health	Probable improvement[60]	Probable improvement[1]

Abbreviations: ↓↓↓, strong decrease in risk; ↓↓, moderate decrease in risk; ↓, slight decrease in risk; ↔, no benefit.

Manson JE et al. Arch Intern Med 2004;164:249-58

WEIGHT MANAGEMENT RECOMMENDATIONS

- Realistic weight loss goals: 5-10% of body weight; 1-2 lbs./week
- Dietary Intervention:
  - Individualized reduced calorie diet with caloric deficit of 500-1000 kcals/day
  - Portion control (including use of pre-portioned meals)
  - Meal Replacements
  - Self-Monitoring (food & activity records and daily or weekly weighing)

ACADEMY OF NUTRITION AND DIETETICS ADULT WEIGHT MANAGEMENT GUIDELINE

DOES DIET COMPOSITION MATTER?

- 2-yr RCT of 811 Ow adults: reduced kcal diets result in clinically meaningful weight loss regardless of macronutrient distribution
- All 4 diets emphasized:
  - ≤ 8% or less SFA
  - ≥ 20 g fiber/d
  - ≤ 150 mg Chol/
  - Complex CHO

	%Fat	%Pro	%CHO
Diet I	20	15	65
Diet II	20	25	55
Diet III	40	15	45
Diet IV	40	25	35

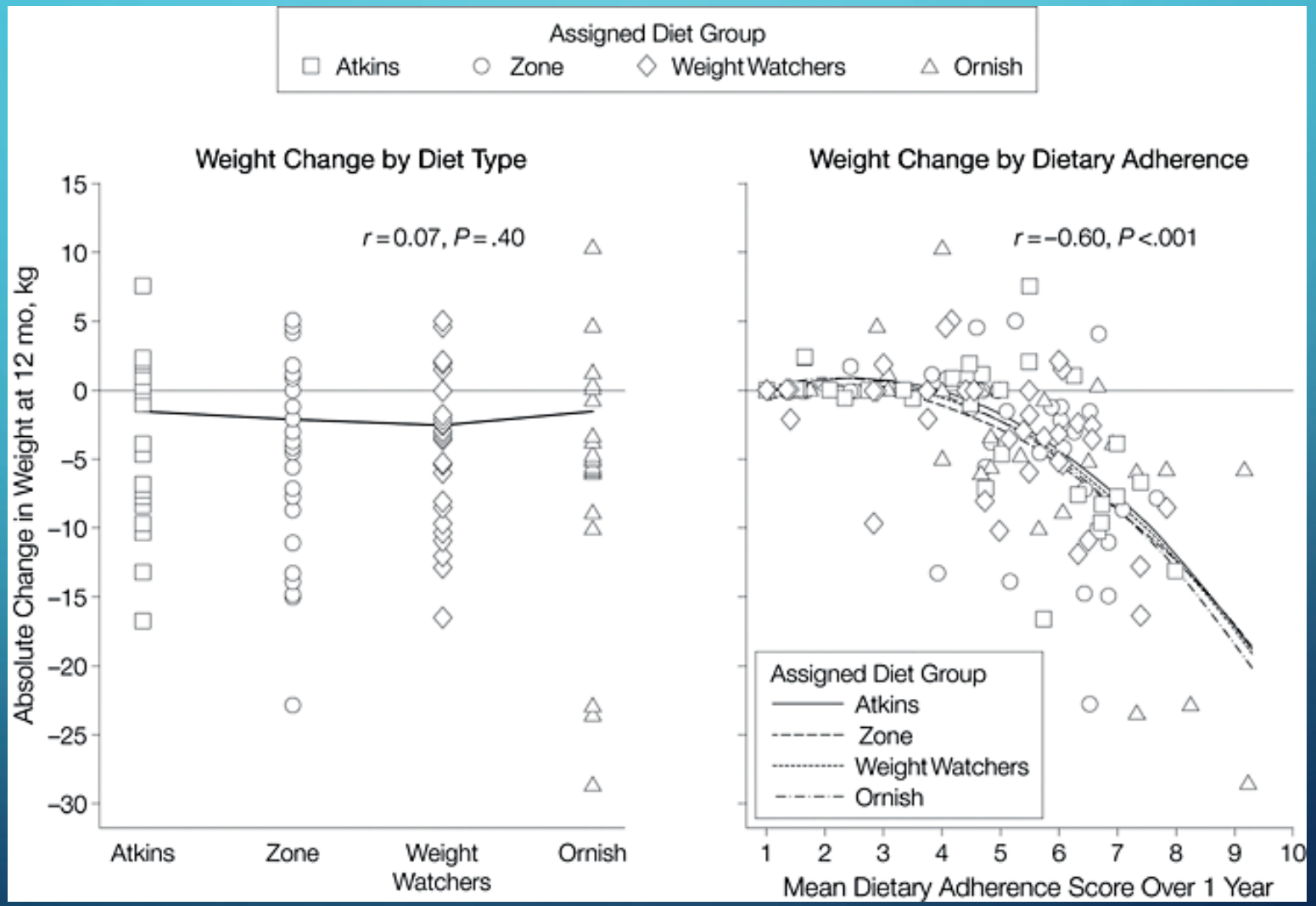
- In addition to weight loss effects - overall beneficial effects for CHD & T2DM, but ↑CHO diet raised TG and lowered HDL-c…

Source: Sacks et al., N Engl J Med 2009;360:859-73

WHICH DIET IS BEST FOR WEIGHT LOSS?

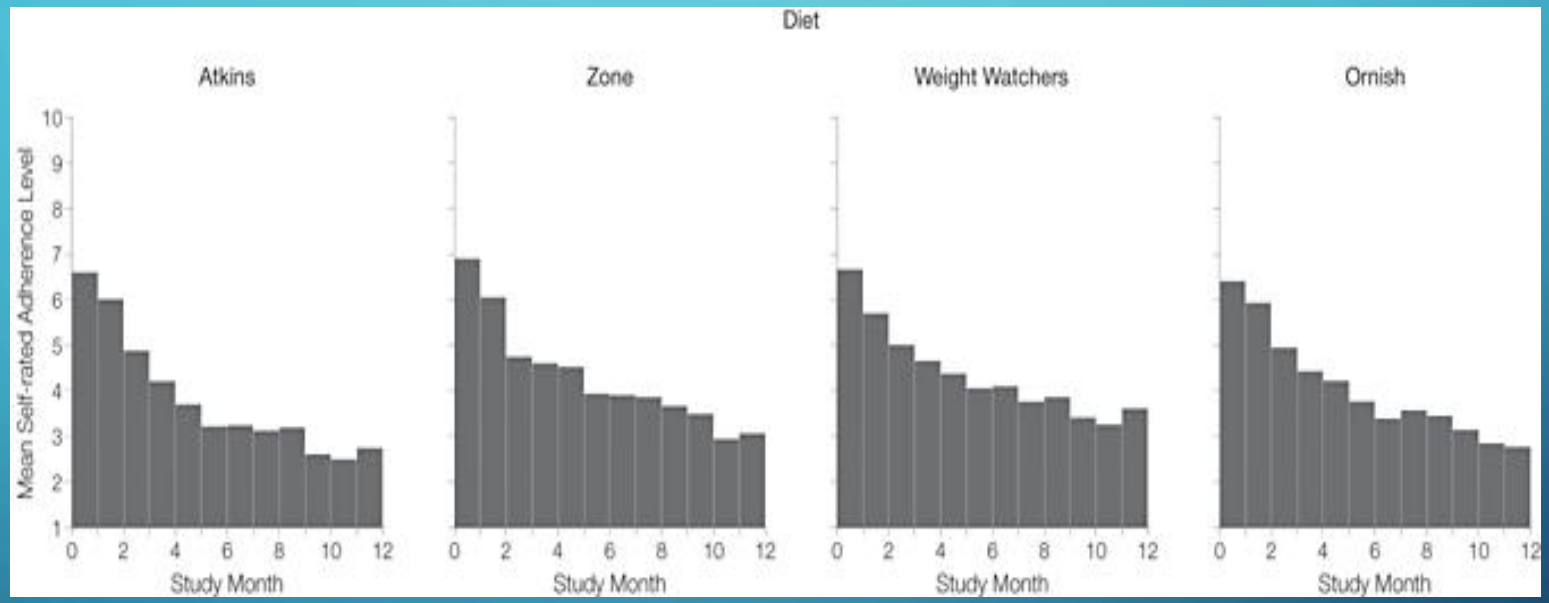
- They all work if calories are reduced!
- 2013 AHA/ACC/TOS Guidelines state, “all diets are associated with weight loss if reduction in dietary energy intake is achieved”; this includes:
  - High protein diets (Zone)
  - Low fat diets (Ornish)
  - Low carb diets (Keto, Atkins)

One-Year Changes in Body Weight as a Function of Diet Group and Dietary Adherence Level for All Study Participants



Dansinger, M. L. et al. JAMA 2005;293:43-53.

Mean Self-reported Dietary Adherence Scores of All 4 Diet Groups, According to Study Month



Dansinger, M. L. et al. JAMA 2005;293:43-53.

RESULTS/DISCUSSION

- At one year, "extreme" diets had greater attrition (48% Atkins; 50% Ornish) compared with 35% Zone and WW)
- Amount of weight loss predicted amount of improvement in cardiac risk factors (total/HDL ratio; C-reactive protein; insulin levels) regardless of diet type
- No diet significantly worsened any cardiac risk factor at 1 year
- No significant association between change in exercise and change in weight or any cardiac risk factor at 1 year

OTHER EB NUTRITION RECOMMENDATIONS FOR WEIGHT LOSS

- Portion-controlled meals
  - Frozen meals
  - Bars and shakes
- Self-Monitoring:
  - Food record or journal
  - Physical Activity (wearable devices)
  - Regular weighing

ACADEMY OF NUTRITION AND DIETETICS ADULT WEIGHT MANAGEMENT GUIDELINE

NEW RESEARCH IN WEIGHT MANAGEMENT

INTERMITTENT FASTING

WHY INTERMITTENT FASTING?

- Premise is that it will be easier to take in fewer calories by severely limiting calories on certain days or times of the day.

WHAT IS INTERMITTENT FASTING?

- Time-restricted fasting:
  - Only eat during certain time-frame, which induces a prolonged fasting period; i.e., only eat between noon and 8pm, followed by fasting until noon the next day. This pattern is known as the 16:8 fast (fast for 16 hrs. with 8 hr. eating window)
- Modified fasting:
  - 5:2 diet involves normal eating for 5 days, followed by fasting for 2 days. Allowed 500 kcals on fasting days.
- Alternate-day fasting:
  - Alternate days of eating and fasting

WHAT DOES THE RESEARCH SAY?

- Not much so far…
  - Most research has been done on male mice.
- Time-restricted fasting: little research so far
  - Recent study in NEJM found, "evidence is accumulating that eating in a 6-hour period and fasting for 18 hours can trigger a metabolic switch from glucose-based to ketone-based energy, with increased stress resistance, increased longevity, and a decrease incidence of diseases, including cancer and obesity." N Engl J Med 2019; 381:2541-2551
- Modified fasting: review of nine studies that lasted for 8-12 weeks, 7 studies reported significant weight loss; 3 found decreased insulin levels; 3 found reduction in inflammatory markers; overall conclusions is that this is not superior to other types of weight loss.

WHAT DOES THE RESEARCH SAY?

- Alternate day fasting: little human research. Three available studies were of low quality (small sample size, little reported information); subjects reported extreme hunger on fasting days.

LOW-CARB-HIGH FAT DIETS (LCHF)

- Defined as 20-50 grams of carbohydrate/day
- Several meta-analysis studies have shown, LCHF diets compared with LF diets, both resulted in a decrease in body weight and an improvement of metabolic risk factors. (23 studies with total of 2788 participants; study duration of 6-24 months).
  - Two groups showed no significant divergences in terms of decrease of body weight, waist circumference and metabolic risk factors.
- Another recent article also concluded: "there is no conclusive evidence that the degree of weight loss or duration of reduced weight maintenance are significantly affected by dietary macronutrient quantity beyond effects attributable to caloric intake."

EUROPEAN JOURNAL OF NUTRITION (2018) *57*:1301–1312; NUTRIENTS 2019, 11, 2749; DOI:10.3390/NU11112749

THE EVIDENCE FOR PLANT-BASED DIETS

- Mediterranean Diet; DASH Diet
- Research has shown many health benefits of eating a plant-based diet:
  - Lowers Body Mass Index
  - Lowers blood pressure
  - Lowers HbA1c levels
  - Lowers LDL and total cholesterol levels
  - Lowered ischemic heart disease mortality rates
  - Is cost effective
  - May also reduce the number of medications needed to treat chronic diseases (DM, CVD)

PERM J. 2013 SPRING; 17(2): 61-66.
CURR DIAB REP
. 2014;14(9):524.

WHAT IS A PLANT-BASED DIET?

- Emphasis on foods originating from plants and “whole foods”
- Diet high in:
  - Fruit and vegetables (>5 servings/day)
  - Fiber
  - Nuts and seeds
  - Whole grains
  - Legumes and beans
- Diet low in:
  - Animal products (meat, dairy)
  - Processed foods

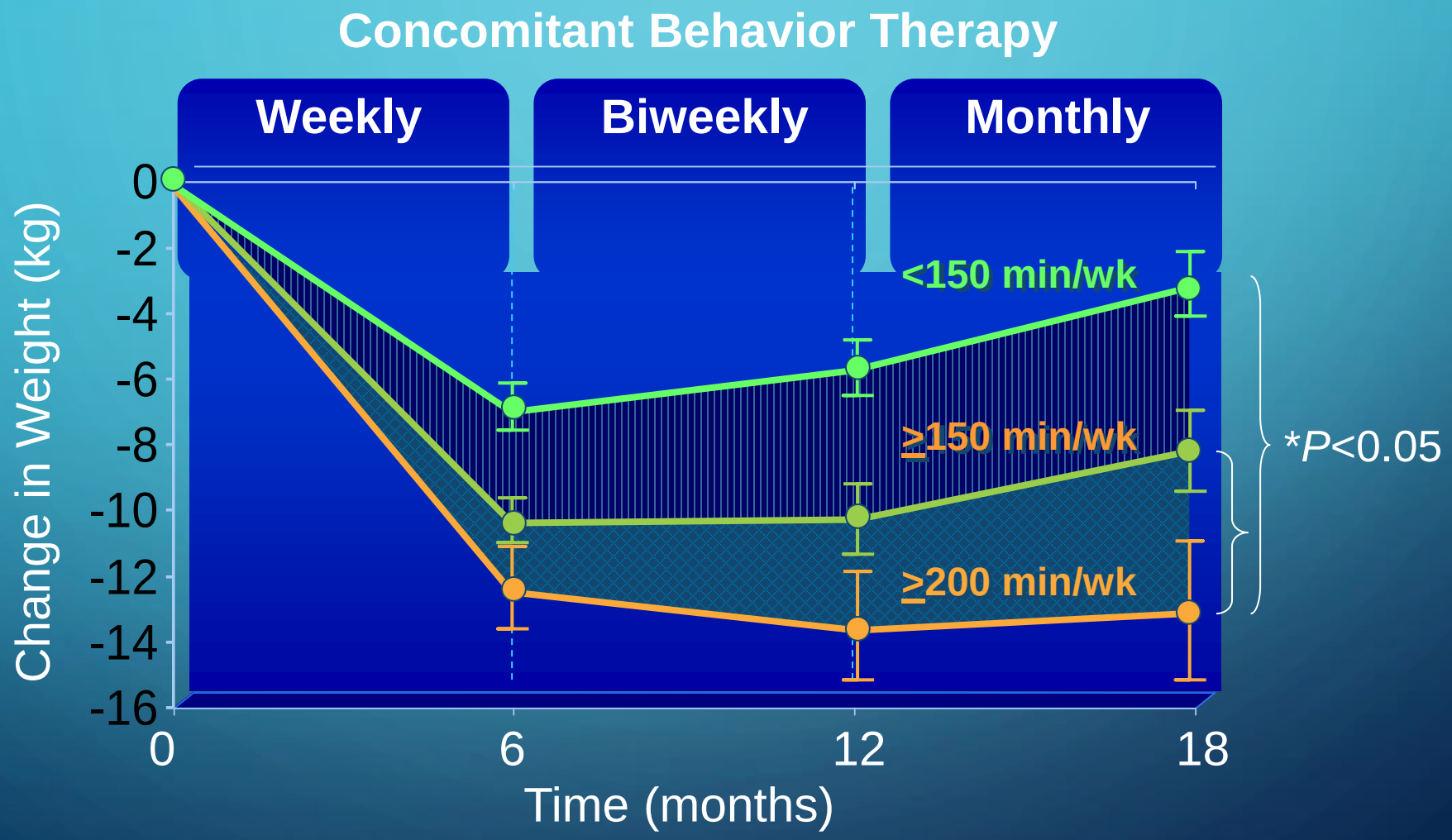
TIPS FOR GETTING STARTED WITH A PLANT-BASED DIET

- Eat lots of vegetables – fill ½ your plate with veggies.
- Change the way you think about meat – have smaller portions; use as a garnish instead of centerpiece of meal.
- Choose "good fats" – olive oil, olives, nuts, nut butter, seeds, avocados
- Cook vegetarian meal at least one night/week.
- Include whole grains for breakfast – oatmeal, quinoa, buckwheat, or barley.
- Build a meal around a salad.
- Eat fruit for dessert.

OBESITY TREATMENT
THE ROLE OF PHYSICAL ACTIVITY

RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND MAINTENANCE OF WEIGHT LOSS

CONSIDERABLE PHYSICAL ACTIVITY IS NECESSARY FOR WEIGHT LOSS MAINTENANCE



Jakicic et al. *JAMA* 1999;282:1554.

WEIGHT MAINTENANCE

- Energy expenditure declines with weight loss:
  - Smaller body size requires fewer calories
- NIH Body Weight Planner – allows user to make personalized calorie and physical activity plans

https://www.niddk.nih.gov/health-information/weight-management/body-weight-planner?dkrd=lgdmn0001

- Weight loss is accompanied by endocrine adaptations that increase appetite and decrease satiety

MED CLIN NORTH AM. 2018 JANUARY ; 102(1): 183–197

SUMMARY

- Many different dietary methods for losing weight – need to work with patients on their food preferences.
- Emphasize that patients will need to continue to have decreased dietary intake in order to maintain their weight (and engage in regular physical activity).
- Many, many research studies on weight loss…still looks like reducing total calories is what produces weight loss…
- Plant-Based diets have the best research for weight loss and overall health benefits.

Q & A

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