### **Enhanced Nutritional Fitness**

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## The Nutrition Landscape

American Medical Association defines nutrition as including all facets of food: the nutrients and other substances in food; the action, interaction and balance of these food components as they relate to health and disease; and what happens when a person eats, digests and absorbs food, causing nutrients to be moved to cells and used and the by-products excreted. Nutrition concerns the social, economic, cultural and psychological factors related to food and eating

#### Nutrition is...

VAST EVOLVING MULTIDIMENSIONAL POLITICAL
EMOTIONAL REACTIVE CAUSAL
RELIGIOUS GENETIC
TRADITIONAL SPIRITUAL
DEFINING TRENDY ECONOMIC



### The Grocery Store



- \* There are nearly 40,000 traditional grocery stores throughout the United States, each one housing nearly 60,000 different items.
- \* Each month hundreds of new items make their way to the shelves of your local market, keeping consumers on their toes.
- \* Most consumers are relatively clueless when it comes to which foods are actually good for them, how to read a food label and what claims on food labels actually mean.

#### There's No Place Like Home



- \* The number of calories, grams of fat, and mg of sodium are significantly higher in a restaurant meal than a home cooked meal.
- \* The typical American age 8 and older consumes an average of 4.2 commercially prepared meals per week, according to *Meal Consumption Behavior* 2000, a recent report by the National Restaurant Association. That figure translates to more than 1 billion commercially prepared meals consumed per week and 53.5 billion per year.
- \* Average annual consumption of commercially prepared meals has increased by roughly 15 billion meals since 1981, when an average of 3.7 meals per person, per week were consumed an annual total of 38.4 billion meals. Between 1981 and 2000, average weekly consumption of privately prepared meals per person declined, while the average number of skipped meals per week increased.
- \* Trends: local foods, healthful kids meals, sustainability



#### The Diet Dilemma



- \* The Dilemma: Diets don't work! A 2007 study out of UCLA found that being on a diet actually increases your risk for future weight gain.
  - \* People on diets typically lose 5 to 10 percent of their starting weight in the first six months, the researchers found. However, at least one-third to two-thirds of people on diets regain more weight than they lost within four or five years, and the true number may well be significantly higher, they said.
  - \* Exercise may well be the key factor leading to sustained weight loss. Studies consistently find that people who reported the most exercise also had the most weight loss.

University of California - Los Angeles (2007, April 5). Dieting Does Not Work, Researchers Report. *ScienceDaily*. Retrieved October 23,

#### **Diet Statistics**



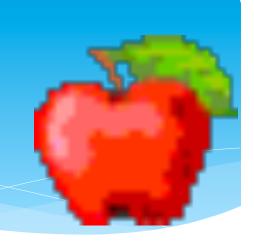
- \* With 62% of American adults and overweight or obese, a solution must be identified quickly.
- \* 50% of women, 90% of teens and 50% of younger kids are on a diet at any given time.
- \* This equates to nearly \$47 billion dollars spent on diets, diet products and weight loss surgery each year.
- \* The average age of a dieter is down to 8 years old for girls from 14 in 1970.
- \* US Dietary factors are associated with four of the leading causes of death and these health conditions are estimated to cost society over \$200 billion each year in medical costs and lost productivity.

## Michigan Specifics

- \* Healthy Michigan 2010
  - \* 3<sup>rd</sup> worst among 50 states for Obesity
  - \* 77% of Michigan adults eat less than the recommended 5 servings of fruits and vegetables a day.
  - \* 13% of high school students are at risk for becoming overweight and 11% are overweight
- \* <a href="http://www.mihealthtools.org/mihc/">http://www.mihealthtools.org/mihc/</a>
- \* <a href="http://www.med.umich.edu/yourchild/topics/obesity.htm">http://www.med.umich.edu/yourchild/topics/obesity.htm</a>
- \* Adult Overweight and Obesity
- \* Among Michigan's adults age 18 and over 1
- \* 66.1% of adults were overweight, with a Body Mass Index of 25 or greater
- \* 30.9% of adults were obese, with a Body Mass Index of 30 or greater
- \* Adolescent Overweight and Obesity 2
- \* Among Michigan's adolescents in grades 9 through 12 2
- \* 14.2% were overweight ( $\geq$  85th and < 95th percentiles for BMI by age and sex)
- \* 11.9% were obese (> 95th percentile for BMI by age and sex)
- \* Child Overweight and Obesity
- \* Among Michigan's children aged 2 years to less than 5 years 3
- \* 16.3% were overweight (85th to <95th percentile BMI-for-Age)
- \* 13.3% were obese (≥95th percentile BMI-for-Age)

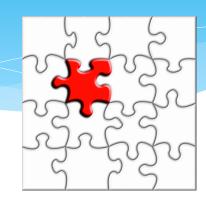


#### Trends



- Most American's are not meeting the "5-a-day" benchmark for fruit and vegetable consumption.
- \* Obesity rate plateaus (36%), incidence of diabetes and metabolic syndrome skyrocket.
  - Preventable and reversible
- \* Recent dietary guidelines are nearly impossible to comply with
  - \* Sodium, added sugars
  - \* Need more actionable, affirmative, realistic and individual recommendations.
- \* Less supplementation
- \* Consumers seeking more health information via the internet, smartphone apps-yet most consumers state they receive the majority of their nutrition education from their physicians.
- \* Increased recommendations for receiving protein in adequate amounts throughout the day.
- \* Physician prescription of probiotics have increased dramatically for everything from eczema, allergies, hypercholesterolemia, diabetes, diarrhea and lactose intolerance
- \* Alternative eating patterns-result in deficiencies when followed arbitrarily and without thought and planning.
- \* Shifting demographics, social media influencing products and marketing.

#### Deficiencies



- \* Dietary Fiber
- \* Omega-3's
- \* Iron, zinc, calcium, protein and vitamin B12 in vegetarian/vegan diets
- \* Water
- \* Fruits and vegetables
- \* Protein (in certain populations including teen athletes and elderly)

# Have Your Finger on the Diet Pulse of Your Patients

- \* Imperative that physicians understand the strengths and weaknesses of the most popular lifestyle approaches toward health
  - \* Improves communication and trust with patients
  - \* Allows for more focused questioning and symptom identification

#### Raw Foods Diet



- \* The Claim: raw food contains natural enzymes and nutrients that are essential to your body and can promote weight loss
- \* The Risks: likely inadequate in multiple nutrients including total calories and protein. Increased risk of foodborne illnesses. It is also extremely difficult to follow a raw food diet as most foods require a great deal of time to prepare (germinating nuts and sprouting seeds), and some costly appliances are also helpful including a food processor, dehydrator and a blender.
- \* The Pros: promotes weight loss, environmentally friendly, low exposure to artificial ingredients and preservatives

#### Gluten Free



- \* 1% (1.8 million)of all adults have diagnosed Celiac disease which is 4x higher than the rate in 1950
- \* An additional 1.6million consumers are following a gluten free diet without a Celiac diagnosis.
- \* The Risk: going gluten free can cause your body to become gluten intolerant even if you were not intolerant before. Removes a tremendous amount of available dietary fiber from your food supply.
- \* The Pros: often creates weight loss as it eliminates most common carbohydrate-based foods. Becoming easier and easier to follow as the # of gluten free individuals rises. Reduces GI symptoms for many consumers who have IBS like symptoms.

## Vegan Diet



- \* The complete elimination of animal protein and by-products including eggs and dairy.
- \* The Risk: easy to become deficient in several key nutrients including calcium, iron, zinc, vitamin B12 and protein. Consumers also require 15% increased protein which is difficult to obtain on a vegan diet. Labs often show elevated homocysteine levels and decreased HDL cholesterol. Requires extensive planning and forethought to follow successfully.
- \* The Pros: excellent for reducing risk of heart disease, hypertension and stroke because of the high fiber and o-cholesterol and saturated fat content of the diet.

## Easy Ways to Ensure Adequacy

#### \* Calcium

- \* 1,000 mg for most adults
  - Dark leafy green vegetables (1 cup = 90 mg of calcium)
  - Soybeans (1 cup = 180 mg)
  - Tofu processed with calcium (1/2 cup = 260 mg)
  - Orange juice and other fortified foods (1 cup = 300 mg)

#### \* Iron

- Younger children require about 10mg of iron each day, while older children and adolescents need about 12-15 mg a day.
  - \* Fortified cereals, nuts, seeds and grains

#### \* Vitamin B<sub>12</sub>

- \* Good sources of vitamin B<sub>12</sub> for vegetarians are:
- \* dairy products or free-range eggs.
- \* ½ pint of milk (full fat or semi skimmed) contains 1.2 μg.
- \* A slice of vegetarian cheddar cheese (40g) contains 0.5 µg.
- \* A boiled egg contains 0.7 μg.
- \* For VEGANS:
  - \* B12 fortified foods are available. These include yeast extracts, Vegan vegetable stock, veggie burger mixes, textured vegetable protein, soy milks, vegetable and sunflower margarines, and breakfast cereals.

#### \* Zinc

- \* Only about 20% of dietary zinc is absorbed in a vegetarian diet by the body.
  - \* Good vegetarian sources of zinc include:
    - \* Dairy products, eggs, lentils, beans, nuts, seeds (pumpkin), brewer's yeast, green vegetables, wheatgerm and whole grain cereals.



- \* Paleo diets are based on a simple premise—if the cavemen didn't eat it, you shouldn't either. No dairy, sugar, grains or legumes.
- \* The Risk: the guidelines exceed the recommended intake for dietary fat and protein. Could lead to increased cardiovascular risk. Could also be deficient in minerals like calcium and dietary fiber with the exclusion of legumes, dairy and whole grains.
- \* The Pros: low sugar, low carbohydrate plan could decrease risk or severity of type 2 diabetes.



### Atkins/Zone

- \* Both diets provide strict guidelines w regard to three major macronutrient groups: protein, carbohydrate and fat.
- \* The Risk: excess animal protein consumption leading to increased fat and cholesterol intake. They are also difficult to follow long-term making them ineffective. Often creates unsustainable weight loss.
- \* The Pros: Atkins diet offers a black and white approach which some consumers need.



## Weight Watchers

- \* Supportive weight loss program that operates on the premise of keeping total caloric intake within certain parameters.
  - \* Group sessions and online options
  - \* Customized point structure for different populations
- \* The Risk: only risk is that you do not necessarily learn which foods may cause you to overeat.
- \* The Pros: easy to follow, supportive environment, can include all foods in moderation.



## Medical Weight Loss Special Food Based Diets

- \* Offer meal and snack options to replace real food on a very low calorie diet (800-1000 cal/day).
- \* The Risk: yo-yo dieting resulting in eventually higher BMI. Must ask patients to make simultaneous lifestyle changes in hopes of sustaining weight loss.
- \* The Pros: only short term results if that is what is needed.

### How Can You Impact Your Patients

- \* Knowledge is Power!
  - \* Hi Julie,
    Thank you again for talking with us last night! We all have a new awareness of the choice we make, fiber intake, family exercise, and choosing treats. Ava came home and asked how much fiber is in the whole wheat bagel thins, if there's fiber in the sauce, and what veggie she could try tonight.:)

Thank you, thank you, Julie!

#### Social Media and Health

- \* U.S. Hospitals that use Social Networking tools (as of May
- **\*** 2011)
- \* 965 Hospitals total
- \* 486 YouTube Channels
- \* 777 Facebook pages
- \* 714 Twitter Accounts
- \* 469 LinkedIn Accounts
- \* 723 Four Square
- \* 120 Blogs
- \* 3,289 Hospital Social Networking Sites



#### The Internet

- \* Offers a plethora of health information, some good and some bad; some true and some false
- \* Virtual Communities
- \* Potential to support sustained positive nutrition efforts.
  - \* Social media
  - \* Online newsletters
  - \* E-mail

### Worksite Wellness

- \* Incentivize wellness
  - \* Participation
  - \* Results
- \* Create camaraderie and positive peer pressure
- \* Establish a new normal
- \* Increase productivity



## The Physician's Role

- \* Diet and diet supplement history
- \* Identify high risk patients
  - \* Lack of emphasis on good nutrition by the practicing physician diminishes the importance of diet in health care and thereby lessens its impact on patient care
    - \* Recommendation of 25 hours of nutrition education in medical school yet less than 40% of American medical schools comply.
    - \* Only 50% of residents in 2008 knew the answer to the question: "how many calories are in a gram of protein?"
  - \* Possess skills to intelligently discuss the importance and adequacy of current diet trends and lifestyle interventions.
  - \* Be able to provide support and education when necessary

## How to Discuss Nutrition During a Routine Office Visit

- \* Sensitivity
- \* Thoroughness
  - \* Weight, height, labs, questionnaire
- \* Directed questioning
  - \* Lifestyle
  - \* Micronutrient intake
    - \* Fruits/vegetables/supplements
  - \* Diet Adequacy
    - \* Whole grains/lean protein/dairy/healthy fats/food preparation
  - \* Overconsumption
    - \* SSB's, fast food, fried food, added fats, added sodium

# Screening Tools for Nutritional Fitness

- \* AIM HI
  - \* Familydoctor.org
  - \* AAFP and Nature Made
- \* Create your own nutritional fitness questionnaire
- \* EMR questionnaire



## Top 20 Pieces of Real Nutrition Advice That Can Change Someone's

- 1. Choose only whole grains
  - \* Look for at least 3 g/fiber per serving of a carbohydrate based food.
- 2. Aim for 5 servings of fruits and vegetables each day
- 3. Limit sugar to less than 10 g/serving in most foods
  - Dairy and dried fruit as exceptions
- 4. Limit sugar sweetened beverages
  - \* Pop, juice, sweetened teas and coffee
- 5. Switch to fat free milk and yogurt and low fat cheese
- 6. Choose plenty of beans and lentils
- Combine high fiber carbohydrates and lean protein to build satisfying meals and snacks
- 8. Eat sitting down
- 9. Drink 64 ounces of water each day, and do so continuously



### Top 20 Pieces of Real Nutrition Advice That Can Change Someone's Life

- 10. Only choose lean meats and white meat poultry
- 11. Choose fish 2 x week
- 12. Avoid adding salt in cooking and at the table
- 13. Limit added fats (avoid butter and margarine on a daily basis)
- 14. Choose monounsaturated oils in small amounts
- 15. Add other healthy fats including nuts and avocado in small servings throughout the week
- 16. Eat the rainbow, lots of different colored fruits and vegetables
- 17. Avoid fried foods
- 18. Eat home more often
- Exercise most days
- 20. Eat every 3-4 hours



# Integrating Nutrition Counseling into your Medical Practice

- \* Screen Patients beyond height and weight
- \* Discuss topic with sensitivity and compassion
- \* Create an office environment that prioritizes nutritional fitness
  - \* Worksite wellness and incentives
- \* Provide high quality nutrition education materials in waiting rooms
- \* Establish a resource guide for your patients



# Where to Look for Guidance and Support

- \* www.eatright.org
- \* www.familydoctor.org
- \* <a href="http://snap.nal.usda.gov/resource-library/eat-healthy-every-day/myplate-dietary-guidelines-and-general-nutrition">http://snap.nal.usda.gov/resource-library/eat-healthy-every-day/myplate-dietary-guidelines-and-general-nutrition</a>
- \* <a href="http://www.fda.gov/downloads/Food/">http://www.fda.gov/downloads/Food/</a> ResourcesForYou/Consumers/NFLPM/UCM210650.pdf

http://www

- \* www.mypyramid.gov
- \* www.eatingwell.com

## Follow-up and Motivation



#### Apps for Smartphones

- \* Mynetdiary
- \* Myfitnesspal
- \* Thin cam
- \* GAIN
- \* Fitbit
- \* Lose it
- Weight Watchers
- \* Restaurant Nutrition

#### **Nutrition Clinic**

- \* Offer monthly classes or newsletters written by a dietitian in your area as a service to your clientele
- \* Participate with a local gym or fitness center to offer incentives to patients to get active and involved
- \* Use social media to keep your patients engaged.

## **Grocery List**

#### Breads

- La Tortilla Factory high fiber wraps
- Wheat Thins Fiber Selects 5 grain
- Aunt Millie's potato and fiber
- Thomas Light Whole Grain English Muffins, Bagel Thins
- Arnold sandwich thins and pita thins
- Lite Flat Out tortillas
- > 2 g fiber per serving

#### Pasta/Rice/Beans

- Healthy Harvest Pasta
- Ronzoni Smart Taste Pasta
- Near East wheat pilaf or lentil pilaf
- Old El Paso vegetarian refried beans
- Vegetarian baked beans

#### Protein

- Breakstone 2% cottage cheese
- Morningstar Farms or Boca garden burgers or chick nuggets
- Lite Mini Belle Cheese
- Lite Laughing cow cheese
- Sargento Light Cheeses
- Dannon Light n Fit or Whipped vogurt, Activia light, greek vogurt
- Lean Deli Meats
- Egglands best enriched eggs with omega-3's (raw and hard boiled)
- White Wave baked tofu (in refrigerator)

#### Sweets

- Cozy Shack Sugar Free Rice Pudding
- Jell-O Sugar Free Pudding or 100 calorie pudding
- Blue bunny low calorie ice creams
- Skinny Cow ice creams

#### Fruits and Vegetables

- Plan for lunches and dinners
- Keep canned or frozen veggies on hand
- Consider shopping more than once a week

#### ·Cereals

- •Kashi Good Friends Cereal
- •Kashi Go Lean or Go Lean Crunch
- Quaker Crunchy Corn Bran Cereal
- Special K Protein Plus
- Quaker Lower Sugar Oatmeal
- •Kix
- ·Life: apple cinnamon and strawberry crunchers
- Cheerios
- •> 3 g fiber and <10 g sugar</p>

#### Condiments

- •Ken's lite dressings
- Kraft lite dressings
- Balsamic vinegar
- ·Olive oil/canola oil
- Truvia or Stevia extract
- Miracle Whip Lite or low fat Hellmans
- Philadelphia lite cream cheese
- •Salsa
- Mustard

#### •Bars

- •Luna Bars (1\$/bar @target, trader joes, whole foods)
- •Cliff Builder Bar (for meal replacement only)
- •Kashi Go Lean or Go Lean Crunch Bars

#### Trader Joes

- •Edamame (refrigerated and prepared)
- Prepared lentils (in a box in fridge)
- Potato and Lentil Curls
- •Egg white salad (prepared)
- •Flavored carbonated water
- Probiotics (\$5.99/bottle)
- Cut up vegetables for stir fry

### Conclusion

- \* Make nutrition a priority in your medical practice
  - \* In-depth knowledge of diet trends and nutritional risks
  - \* Screen and Educate patients on their risk factors and their lifestyle goals
  - \* Show compassion and understanding re: causes for nutritional risk
  - \* Offer follow-up and support that patients can access