

# Hot Topics in Nutrition!

Healthy Columbus Nutrition  
Seminar – December, 2013  
Ashley Harris, MS, RD, CSO



# Nutrition Hot Topics

- Diets – Fads & Myths

- Organics

- Gluten



# Fad Diets



**She went through that new 14-day diet,  
but all she lost was two weeks.**

# What is a fad?

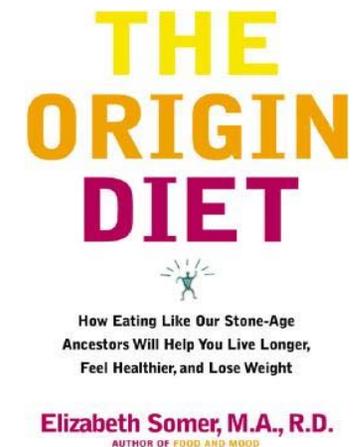
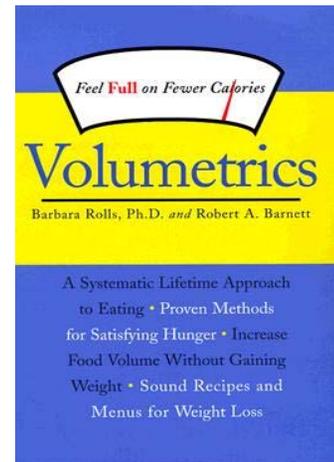
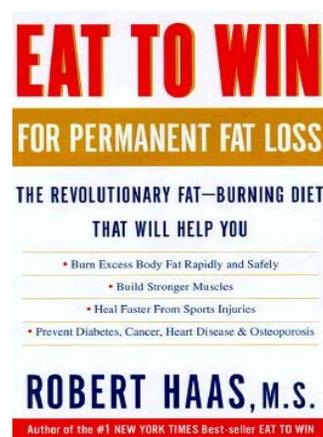
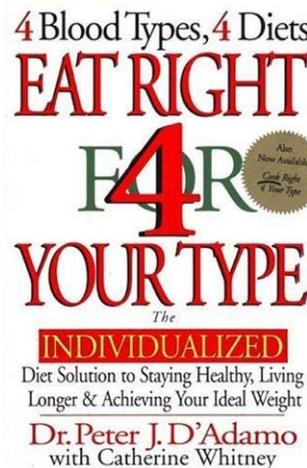
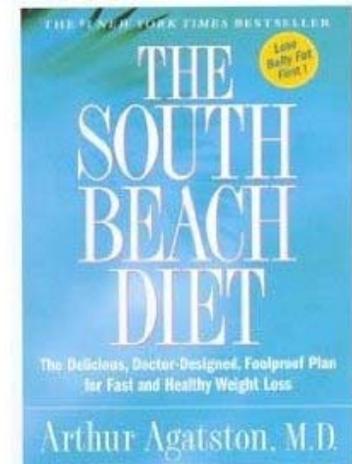
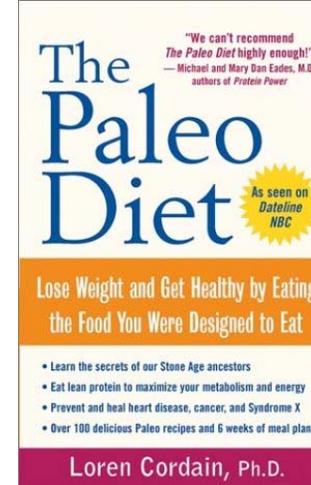
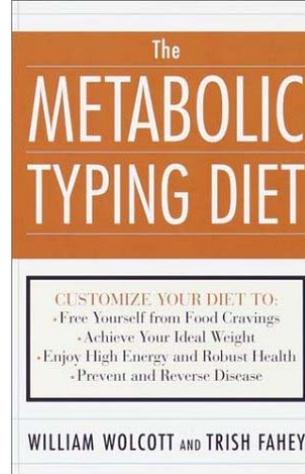
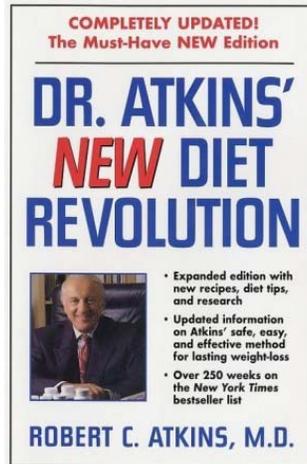


- Webster's defines a fad as "a short-lived fashion or craze"
- So fad diets are short-lived, crazy diets!
- These diets do not work for many reasons – one reason being they are SHORT-LIVED

# How to spot a fad diet

- ❑ Sounds too good to be true, it probably is, “Lose 15 lbs in 7 days”
- ❑ Recommends using a single food on a very consistent basis
- ❑ Promises quick and easy weight loss with no effort
- ❑ Eliminates an entire food group (i.e. carbohydrates, dairy)
- ❑ Guarantees and outcome in a specified time period
- ❑ Bases evidence for effectiveness only on the quotes of other dieters

# DIETS GALORE!!



# Fad Diet History

- 1820 – Vinegar & Water Diet
- 1825 – Low Carbohydrate Diet – “The Physiology of Taste” Jean Brillat-Savarin
- 1830 – Graham’s Diet
- 1863 – Banting’s Low Carbohydrate Diet (“banting” becomes popular term for dieting)
- 1903 – Horace Fletcher promotes “Fletcherizin” (chew 32 times)
- 1917 – Lulu Hunt Peters introduces calorie counting (in book Diet and Health, With Key to the Calories)
- 1925 – Cigarette diet – “Reach for a Lucky instead of a sweet”
- 1928 – Inuit Meat-and-Fat Diet (Caribou, raw fish and whale blubber)
- 1930 – Hay Diet – Carbohydrates and proteins not allowed at same meal
- 1930 – Dr. Stoll’s Diet Aid (First of the liquid diet drinks)
- 1934 – Bananas & Skim Milk Diet (backed by the United Fruit Company)

# Fad Diet History

- ❑ 1950 – Cabbage Soup Diet (flatulence is listed as main side effect)
- ❑ 1950 – Grapefruit Diet (Also known as “Hollywood Diet”)
- ❑ 1960 – Zen Macrobiotic Diet (Created by Japanese philosopher George Ohsawa)
- ❑ 1961 – Calories Don’t Count Diet – FDA filed charges regarding diet’s claim
- ❑ 1964 – Drinking Man’s Diet – Harvard School of Public Health declared diet unhealthy
- ❑ 1970 – Liquid Protein Diet (Liquid protein drinks were low in vitamins and minerals)
- ❑ 1976 – Sleeping Beauty Diet (Individual was heavily sedated for several days)
- ❑ 1981 – Beverly Hills Diet – only fruit for first 10 days, but in unlimited amounts
- ❑ 1985 – Fit for Life – Avoid combining protein and carbohydrate foods
- ❑ 1985 – Caveman Diet – Foods from the Paleolithic Era
- ❑ 1986 – Rotation Diet – Rotating number of calories taken in from week to week
- ❑ 1987 – Scarsdale Diet – Low-carbohydrate, low-calorie diet plan

# Fad Diet History

- 1990 – Cabbage Soup Diet – Diet from 1950's resurfaces on the web
- 1994 – High Protein, Low Carb Diet (Dr. Atkins' version)
- 1995 – Sugar Busters – Cut Sugar to Trim Fat (eliminates refined carbohydrates)
- 1996 – Eat Right for Your Type – Diet based on blood type
- 1999 – Juice, Fasting and Detoxification
- 2000 – Raw Foods Diet (focuses on uncooked, unprocessed organic foods)
- 2001 – High Protein, Low Carb Diet (1994 diet updated)
- 2004 – Coconut Diet (replaces fat with coconut oil)
- 2005 – Cheater's Diet (cheating on the weekends is required)
- 2006 – Maple Syrup Diet – Features a special syrup-lemon drink
- 2008 – Banana Diet – Bananas for breakfast, plus room-temperature water
- 2010 – Baby Food Diet – Basic plan: 14 jars of baby food a day, optional adult dinner
- 2012 – Wheat-free diet – Another version of a high-protein, low-carb diet

# High Protein/Low Carb



- Low in calories and exclude grains and other important high-carbohydrate foods
  - Important nutrients and fiber are being limited in the diet
  - Higher in protein than recommended = stress and injury to the kidneys
  - Some are also high in fat which can raise the risk of developing heart disease
  
- Majority of weight loss is muscle and water loss, so weight will be regained as soon as normal eating resumes

# Single Food Diets



- Only eat one food for several days
  - Examples: the grapefruit diet, the rice diet, the cabbage soup diet
- Usually low in calories or get food fatigue and start consuming less
- Variety of foods not being eaten so nutrients are missing from the diet

# Blood Type Diets

- Eat foods based on your blood type
  - Thinking is that by eating certain foods, the body will process them more efficiently because they are for your blood type
- Processing food more or less efficiently does not result in weight loss
- Eliminates foods and perhaps important nutrients



# Liquid Diets



- Only consume liquids
  - Some may replace one or two meals with liquids (i.e. Slim Fast, Optifast, juicing)
  
- Most provide few calories per day
  - Claim to provide everything in a drink but they are missing nutrients, fiber and phytochemicals that can only be found in food
  
- It is possible to consume just as many calories through liquid as through food
  - May be easier to consume more because food contains more fiber that can help you feel full

# Skipping Meals

- Premise is fewer meals result in fewer calories
- Going several hours without eating will more than likely cause one to overeat when they have their next meal & slows metabolism
- It is healthier for the body and appetite to eat regular meals when hunger strikes instead of skipping

EAT THIS



NOT THIS



# Fasting (or close to it)

- ❑ Aka “crash dieting”
- ❑ Lacking in nutrients required for normal functioning of the body
- ❑ Weight loss is a result of water
- ❑ Slows Metabolism
- ❑ Side effects include: extreme fatigue, constipation, nausea, diarrhea, and even gallstone formation



# Detox Diets



- Several diets claim the body is full of toxins which are stored in body fat and need to be cleansed regularly to avoid illness
- Plans include fasting, liquid dieting and/or use of herbal teas
- No scientific basis that supports this type of plan
  - Substances store in mobilized body fat would reenter the bloodstream and be re-circulated through the liver and throughout the body and would not necessarily be excreted or “flushed out”
  - Need nutrients to support liver detoxification

# Laxative Diets

- Belief that laxative use promotes weight loss
- Laxative-induced diarrhea does not significantly reduce the number of calories absorbed from food
  - Laxatives do not work on the small intestine – where calories are absorbed, but on the colon
- Use can promote cramping, nausea, diarrhea, vomiting, constipation, dehydration, fainting, irregular heartbeat and electrolyte imbalances



# Weight Loss Teas



- Several teas on the market: dieter's tea, slim teas, fat-burning teas
  - Likely contain a form of a laxative but it may not be listed on the label
  
- If the tea contains: senna, aloe, rhubarb root, buckthorn, cascara, or castor oil – it contains a laxative
  
- Use can promote cramping, nausea, diarrhea, vomiting, constipation, dehydration, fainting, irregular heartbeat and electrolyte imbalances

# Other Weight Loss Products

## □ Herbs, Hormones, Minerals

- Ma Huang, DHEA (dehydroepian-drosterone), and individual minerals like chromium are all marketed as weight loss aids
- None have been proven to promote weight loss, build muscle, or anything beneficial
- Ma Huang and DHEA have been found dangerous and deaths have been linked to Ma Huang!



# More Skinny on the Fads....

## □ Avoid diets that claim the following:

- **Rapid Weight Loss** – Slow, steady weight loss is more likely to last than dramatic weight loss. If you lose more than 1/2 to 2 pounds per week you are likely losing muscle, bone and water.
- **Quantities & Limitations** – These usually work by either having you eat a food in excess until you are sick of it or limiting certain foods. Both put you at risk for missing critical nutrients.
- **Specific Food Combinations** – Zero evidence that certain food combinations or eating certain foods at certain times during the day helps lose weight or, as some claims say, turn to fat immediately or produce toxins in your intestines.
- **No Need to Exercise** – Regular physical activity is essential for good health and healthy weight management. The key is to find activities you enjoy and aim for 30 to 60 minutes of activity on most days of the week.

# Potential Health Problems

- **Loss of energy** – almost all fad diets call for less calories to promote quick weight loss
  - When this happens, body tries to conserve energy by burning fewer calories, making you feel tired
  
- **Dehydration-** electrolytes sodium and potassium are dissolved in body water
  - When one is dehydrated, an imbalance of electrolytes occurs causing constipation, slowness of thought, labored breathing, dim vision, and can result in death
  - Electrolytes conduct nerve transmissions and muscle contractions, including heart rhythm – an imbalance can cause cardiac arrest

# Potential Health Problems

- **Loss of muscle** – when the body does not have adequate energy it breaks down muscle for glucose
  - Source of this glucose is mostly protein, or muscle tissue
  - More muscle you have – the higher your metabolic rate
  - By losing muscle- metabolic rate is slowed
  - Muscle holds water so weight loss will actually be occurring
  - However, person is not losing fat and weight gain will occur when old habits return
- **Vitamin & Mineral Deficiencies – MANY!!!!**

# Other Problems with Fad Diets

- ❑ **False Hope** – fad diets make promises they can't keep by offering “magic bullets”
- ❑ **Feeling of failure** – when the diet doesn't work or the dieter eats a forbidden food, he/she may feel failure or guilt
- ❑ **Loss of Money**- many products are expensive
- ❑ **Avoiding Real Change** – by trying fad diets, person who really wants or needs to lose weight is avoiding making the changes that will promote real weight loss for good

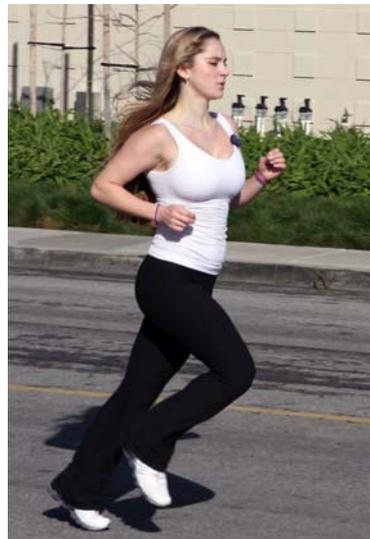
# More Food Myths....



## Other Myths.....

### You should not eat after you workout

Theory: If you don't eat after working out your body will continue to burn extra body fat



## Other Myths.....

### You should not eat after you workout

- Problem: Muscle and metabolism loss
  - Exercise causes Glucose loss & muscle damage
  - Not eating after working out may impair muscle development



# Eating after you workout

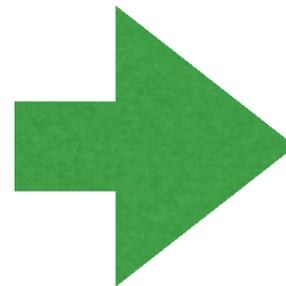
- Bottom Line:
  - Eating carbohydrate/protein combination within 3 hours after you workout
    - Improves muscle recovery
    - Improves muscle performance
    - May improve long term fat loss



## Other Myths.....

If you don't eat fat, you can't get fat.

- Theory:
  - Carbohydrates are for energy
  - Protein is for muscle
  - Fat is for fat
  - Therefore if you don't eat fat, you can't get fat



## Other Myths.....

If you don't eat fat, you can't get fat

### ■ Problem: Fat is essential

- Dietary fat is necessary for biological functions
- Essential fatty acids can't be made within the body
- Some fats have shown health and body fat benefits
  - Olive oil
  - Fish oil
  - Nuts and seeds



# Eating Fat

- Bottom line
  - Fat is a necessary health nutrient with health benefits
    - Any Nutrient which contains calories can be converted onto body fat
    - Try to stick to health fats



# Organics



# Organics

- Refers to the way farmers grow and process agricultural products
- Designed to encourage soil and water conservation and reduce pollution
- Organic farmers:
  - Don't use conventional methods to fertilize, control weeds or prevent livestock disease



# Organic Farming

- Apply natural fertilizers (i.e. manure, compost) to feed soil and plants
- Spray pesticides from natural sources
- Use beneficial insects and birds, mating disruption or traps to reduce pests and disease
- Use environmentally-generated plant-killing compounds
- Rotate crops, till, hand weed or mulch to manage weeds
- Give animals organic feed and allow them access to the outdoors
- Use preventive measures (i.e. rotational grazing, balanced diet, clean housing) to help minimize disease

# Organic Definitions



**100 percent organic** Exclusively produced using organic methods

**Organic** At least 95% of the ingredients (by weight, excluding water and salt) in a processed product have been organically produced. The remaining contents can only be natural or synthetic ingredients allowed on the national list.

**Made with organic ingredients** Produced with 70-95% organic ingredients, with up to three specific organic ingredients or food groups listed on the front panel.

**Less than 70% organic ingredients** Organic items can only be listed in the ingredient panel, no mention of organic on the main panel.

# Organic ≠ Healthy



# Things to Consider

- Environmental Impact
- Animal Ethics
- Pesticide Residues
- Nutrition
- Cost
- Taste



# Organics Better?

- **Environmental Impact** –YES (organic farming is more environmentally sound)
- **Animal Ethics** – MOSTLY (organically farmed animals given more outdoor access, usually treated more humanely)
- **Pesticide Residue** – MOSTLY (organic foods still contain pesticide residue, conventionally farmed foods to not exceed government safety thresholds)

# Organics Better?

- **Nutrition** - MAYBE (conflicting evidence that organics have more nutrients, more dependent on other factors such as soil, growing season, etc)
- **Cost**— NO (organic food typically more expensive than conventional foods)
- **Taste**— MAYBE (depends on consumers taste & perceptions)

# Things to Consider....

- **Local foods are often organic and less expensive**
  - Farmers' Markets
  - Community Supported Agriculture (CSA) programs
  - Local stands in grocery
  - May not be certified organic, but still good
  
- **Environmental Working Group lists**
  - “Dirty Dozen”
  - “Clean 15”



# Dirty Dozen - Clean 15

EWG'S SHOPPERS GUIDE TO PESTICIDES IN PRODUCE™

## DIRTY DOZEN™

2013 2013

APPLES	NECTARINES IMPORTED
CELERY	PEACHES
CHERRY	POTATOES
TOMATOES	SPINACH
CUCUMBERS	STRAWBERRIES
GRAPES	SWEET BELL PEPPERS
HOT PEPPERS	

**PLUS**

- COLLARDS & KALE\*
- SUMMER SQUASH & ZUCCHINI\*

\*PESTICIDES OF SPECIAL CONCERN



EWG'S SHOPPERS GUIDE TO PESTICIDES IN PRODUCE™

## CLEAN FIFTEEN™

2013 2013

ASPARAGUS	ONIONS
AVOCADO	PAPAYAS
CABBAGE	PINEAPPLES
CANTALOUPE	SWEET PEAS FROZEN
CORN	SWEET POTATOES
EGGPLANT	
GRAPEFRUIT	
KIWI	
MANGOS	
MUSHROOMS	



QUESTIONS ABOUT PESTICIDES IN PRODUCE? VISIT US AT [FOODNEWS.ORG](http://FOODNEWS.ORG)

Gluten Free



Gluten free

# Gluten Free Diets

- Necessary for people with Celiac Disease, gluten allergy
- Some other conditions *MAY* be helped with gluten free diet (i.e. Rheumatoid Arthritis)
- Evidence showing harm in diet not solid for general population
  - Based off animal studies feeding rats high amounts of gluten
  - Follow premise today's wheat higher in gluten than in past

# Gluten Free Diets

## □ Considerations

- Gluten-free products usually more processed, higher in calories
- Gluten found in *MANY* foods (i.e. beer, soy sauce, etc)
- Reduction in overall gluten intake may be beneficial but not necessary to eliminate entirely
- Include more gluten-free grains in diet!
  - Oats, Rice, Quinoa, Amaranth, Buckwheat, Millet, Teff, Corn, etc.



# Questions??



# THANK YOU!!