Practical Nutrition for Weight Management

Everything you need to know in practical, non-scientific terms in order to lose body fat predictably and consistently.

Presented by
John Wojciechowski, MS, CSCS
Owner of Metabolic Functional Fitness
Background

• Former Division I Athlete
• National Level Competitor
• Certified Strength and Conditioning Specialist
• Certified Personal Trainer
• Author of *Better Body Basics*
• Owner of Metabolic Functional Fitness in Hamilton, NJ
Disclaimer

• I am not a Registered Dietitian Nutritionist

• Even if I was, you should always do your own research to investigate the claims of others

• Trust, but always verify!
Magic Bullet Manifesto

• Daytime talk shows and articles from magazines at supermarket check-out counters promoting celebrity diets and miracle foods are not reliable sources of information
• There are no magic diets, no magic foods and no special secrets to losing weight
• You must put in the effort and be consistent
• There are no magic bullets!
Overview

- Energy Balance
- Food Composition
- Macronutrients
- How to put it all together
Energy Balance

• The way we look, feel and perform is a reflection of our genetics, our activities and everything we put in our bodies (FOOD, water, alcohol, drugs, the air we breathe, etc.)

• Our bodyweight is determined primarily by the QUANTITY and secondarily the Quality of the energy (food) that we consume
Energy Balance

• The unit of measurement that we use when we talk about the energy we consume and the energy we burn is the “calorie”

• Our bodyweight is a direct reflection of our energy balance between calories burned and calories consumed.

• Excess carbs do not make you fat...excess fat intake does not make you fat...excess energy/calories (from any source) makes you fat!
Energy Balance

• If you want to lose fat, you must create an caloric deficit through a combination of eating less and moving more!

• The quantity of food that you eat must be measured, tracked and adjusted over time and you must do this consistently enough and for a long enough period of time to see results!
Energy Balance

• We have three primary ways of utilizing the calories we consume
  1. Basal Metabolic Rate
     • “Base” level metabolism...energy required to perform all of your basic life-sustaining functions while at rest...the energy required to “keep the lights on”
  2. Thermogenic effect of food
     • Energy we use to digest and assimilate the food we eat
  3. Total Activity
     • Exercise – Focused Activity
     • NEAT (Non-Exercise Activity Thermogenesis)
Questions??
Food

Yeah, I'm into fitness.

Fitness whole pizza in my mouth.
Food - Overview

• All foods contain various combinations of protein, carbohydrates and fats otherwise known as macronutrients, vitamins and minerals otherwise known as micronutrients and other non-essential compounds like anti-oxidants known as phytonutrients

• It is the macronutrients (protein, carbohydrates and fats) that provide energy (calories)

• Vitamins, minerals and phytonutrients do not provide caloric energy
Protein

ONE DOES NOT SIMPLY

GAIN MUSCLE
WITHOUT PROTEIN
Macronutrients - Protein

- Contains 4 calories per gram
- Primary purpose is to build and repair tissues
- Protein has the highest thermogenic effect of all the macronutrients
- Amino acids are the organic compounds known as the building blocks of protein
- There are 22 amino acids, 9 of which are essential
Macronutrients - Protein

Complete proteins vs. Incomplete proteins

• Complete proteins contain all 9 essential amino acids in sufficient quantities
  ➢ Examples include red meat, poultry, fish, eggs, milk, cheese and yogurt

• Incomplete proteins are missing one or more of these 9 essential amino acids
  ➢ Examples include mostly all plant foods
Macronutrients - Protein

• When protein is digested, the resulting amino acids are released into your bloodstream to be utilized by cells
• There is no particular storage area for excess amino acids, so if not converted to glucose under certain conditions, they will be stored as fat
• This is why frequent protein feedings are recommended, so there is a constant supply of amino acids in the bloodstream available for cellular repair and growth
Macronutrients - Protein

– The Dietary Reference Intake (DRI) from the National Academies of Sciences, Engineering and Medicine’s Food and Nutrition Board is .36 grams per lb of BW per day for the average sedentary person. (54g for a 150lb person)

– The American College of Sports Medicine recommends up to .64 grams for recreational athletes (96g/150lb) and up to .9 grams for serious athletes (135g/150lb), which supports the long standing “broscience” bodybuilding recommendation of 1 gram of protein per lb of BW per day.
Fats

YOU’RE FAT, BUT YOU’RE GOOD FAT.

AVOCADO AFFIRMATION
Macronutrients - Fats

- Contains 9 calories per gram
- The most caloric dense macronutrient
- Primary purposes include hormone production and to provide energy
- Fats can be classified into two basic types:
  - Saturated – Sources include beef, pork, butter, cheese
  - Unsaturated
    - Monounsaturated – Olives, peanuts, avocados, nuts and seeds
    - Polyunsaturated – Fish, nuts and seeds
      - Essential Omega-3 Alpha-Linolenic Acid
        - Mackerel, salmon, flax seeds, chia seeds, walnuts
      - Essential Omega-6 Linoleic Acid
        - Meat, poultry, fish, eggs, corn, soybeans
Macronutrients - Fats

• Avoid trans-fats like those found in hydrogenated vegetable oil products like margarine, fried foods and other processed packaged foods

• The Dietary Reference Intake (DRI) from the National Academies of Sciences, Engineering and Medicine’s Food and Nutrition Board is 20%-35% of total daily calories
Carbohydrates

CARBS

CARBS EVERYWHERE!
Macronutrients - Carbohydrates

- Contains 4 calories per gram
- Primary purpose is to provide energy
- Carbohydrates can be classified into three types
  - Monosaccharides > simple sugars like glucose, galactose and fructose
  - Disaccharides > lactose (milk sugar), maltose and sucrose (table sugar)
  - Polysaccharides > Starches or complex carbs
- Fiber (soluble and insoluble) is also considered a carbohydrate and the recommendation is >25g per day
Macronutrients - Carbohydrates

- When carbohydrates are digested, the resulting glucose is released into your bloodstream to be utilized by cells and/or to be stored in the liver and your muscle tissue as glycogen.
- When your liver and muscle tissue is already filled with glycogen, any excess glucose is converted to triglycerides in the liver and stored in your fat cells.
- The Dietary Reference Intake (DRI) from the National Academies of Sciences, Engineering and Medicine’s Food and Nutrition Board is 45% to 65% of daily calories.
- In reality, carbohydrates are not required for survival.
Alcohol

• Ethanol is the result of sugar fermentation
• Contains 7 calories per gram
• Known as “empty calories” because alcohol provides no nutritional value
• Impacts the absorption of certain vitamins
• Impacts the quality of your sleep
• The mixers added to mixed drinks provide even more calories
• Poor dietary choices are usually made when consuming alcohol
• Enjoy your alcohol responsibly, just don’t forget to account for those calories
Questions??
Calorie Requirements

- Your daily caloric requirement is a moving target that changes with time and different conditions.
- Our metabolisms are flexible and adaptable.
- Our metabolisms gradually slow down with age and they slow down over time when adjusting to prolonged calorie restriction.
- There are 3,500 calories in 1 pound.
- It is generally safe to aim for weight loss of up to 1% of your current bodyweight per week.
  
  \[ 150\text{lb} \times 1\% = 1.5 \text{ pounds per week} \]
Calorie Requirements

• The following equations provide an estimate with varying degrees of precision
  o Mifflin-St. Jeor
  o Katch-McArdle
  o Harris-Benedict
  o Muller
Calorie Requirements

• Use a simple multiplier to make an educated guess, be consistent and make adjustments over time as necessary
  o Weight Loss = BW x 10 – 12
  o Maintenance = BW x 14 – 16
  o Weight Gain = BW x 18 – 20

• Example: 150lb x 12 = 1,800 calories
Protein Requirements

• The American College of Sports Medicine recommends up to .9 grams for serious athletes

• Example: 150lb x .9 = 135g Protein
Fat Requirements

• The Dietary Reference Intake (DRI) from the National Academies of Sciences, Engineering and Medicine’s Food and Nutrition Board is 20%-35% of total daily calories

• Example: $1,800 \times 0.30 = 540\text{cal} / 9 = 60\text{g Fat}$
Carbohydrate Requirements

• The Dietary Reference Intake (DRI) from the National Academies of Sciences, Engineering and Medicine’s Food and Nutrition Board is 45% to 65% of daily calories
• Protein: 135g x 4 = 540 calories
• Fat: 60g x 9 = 540 calories
• Example: 1,800 – (540 + 540) = 720 calories
• 720 / 4 = 180g Carbs
• 720 / 1800 = 40% of daily calories
Alcohol Requirements

SHUT UP LIVER,

YOU'RE FINE.
Three Steps for Fat Loss

1) Create a calorie deficit
   - Start with a caloric intake of BW x 12

2) Aim for a macronutrient ratio of 40/30/30
   - Aim for 40% daily calories from Carbs
   - Aim for 30% daily calories from Protein
   - Aim for 30% daily calories from Fat

3) Start resistance training 3 times per week
   - Maintains/builds muscle tissue
   - Increases strength of muscles and connective tissue
   - Increases bone density
   - Makes you look better naked
Final Thoughts

• Plan for 3 to 6 evenly spaced meals per day
• Prep your meals in advance whenever possible
• There is no need to completely avoid any particular food so long as you are tracking your calories
• You must measure, track and adjust
• You cannot diet forever, you must have planned breaks
• Weight loss is not linear, you must be patient