

YOUR BODY...

What does it need?




Commit to Memory

- Take Notes
- Ask Questions
- Participate in Collaborative Q&A's
- Record Answers to Q&A's
- Be ready to pass Exit Quiz

What is your Body Type?

- There are three basic human body types:
- Endomorph (Coach Musselman)- characterized by a preponderance of body fat
- Mesomorph (Coach Kigr)- marked by a well-developed musculature
- Ectomorph (Coach Whitacre)- distinguished by a lack of much fat or muscle tissue

What's in there? Is it a "done deal?"

KNOW YOUR BODY TYPE		
		
<u>ECTOMORPH</u>	<u>MESOMORPH</u>	<u>ENDOMORPH</u>
<ul style="list-style-type: none">• TYPICALLY SKINNY• SMALL FRAME• LEAN MUSCLE MASS• DOESN'T GAIN WEIGHT EASY• FAST METABOLISM• FLAT CHEST• SMALL SHOULDERS	<ul style="list-style-type: none">• ATHLETIC & RECTANGULAR SHAPE• HARD BODY, DEFINED MUSCLES• NATURALLY STRONG• GAINS MUSCLE EASILY• GAINS FAT EASIER THAN ECTOMORPHS• BROAD SHOULDERS	<ul style="list-style-type: none">• SOFT & ROUND BODY• TYPICALLY "SHORT & STOCKY"• GAINS MUSCLE EASILY• GAINS FAT VERY EASILY• FINDS IT HARD TO LOSE FAT• SLOW METABOLISM• LARGE SHOULDERS
WORKOUT TYPE	WORKOUT TYPE	WORKOUT TYPE
SHORT & INTENSE, FOCUS ON BIG MUSCLE GROUPS. EAT BEFORE BED TO PREVENT MUSCLE CATABOLISM	CARDIO & WEIGHT TRAINING RESPONDS BEST TO WEIGHT TRAINING WATCH CALORIE INTAKE	ALWAYS DO CARDIO TRAINING AND WEIGHT TRAINING WATCH CALORIE INTAKE

NO!

Though you are born with certain genetic advantages or limitations, your body will change and evolve.

Mostly, it will look like what you eat. It will also evolve to serve your lifestyle... sedentary, active, etc.



What is a Calorie?

- cal·o·rie
- 'kal(ə)rē/
- *noun*
- unit of heat energy.
- the energy needed to raise the temperature of 1 gram of water through 1 °C (now usually defined as 4.1868 joules).
- **Q&A**- How many Calories do you consume on a School Day? Weekend Day? Why are they different?

How many Calories do you “need” Daily?

- Variables: Gender, Age, Height, Weight, and Activity
- Other Variables:
 - Rate of calorie consumption (how often)
 - Sleep pattern
 - Body Type
 - Genes
- Q&A-
 - How many variables are “controllable?”
 - How many variables are “uncontrollable?”

ANSWERS...

Controllable- 4

Uncontrollable- 5



MyFitnessPal...IMPORTANT TOOL

- The link below will allow you to track your food intake- Calories, and Macronutrients.
- <http://www.myfitnesspal.com/food/calorie-chart-nutrition-facts>
- How many calories in a Peanut Butter and Jelly sandwich with wheat bread? Protein? Carbs? Fat?

Activity...

- Visit:
- <http://www.runningdeersoftware.com/products/dietgenie-calorie-req.htm>

Calculate Calories for each Body Type-

- Ectomorph
- Mesomorph
- Endomorph

Nutrients...

THERE ARE 6 ESSENTIAL NUTRIENTS:



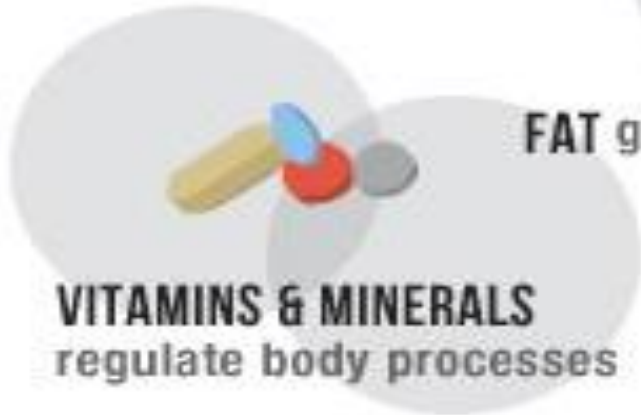
PROTEIN builds muscles & a strong immune system



CARBS (including starches & sugars) give you energy



FAT gives you extra energy



VITAMINS & MINERALS regulate body processes



WATER gives cells shape & acts as a medium in which body processes occur

Micronutrients:

dietary components, often referred to as **vitamins and minerals**, which although only required by the body in small amounts, are vital to development, disease prevention, and well-being.

Micronutrients are not produced in the body and must be derived from the diet

Q&A: How many Essential Vitamins? Minerals?

19 ESSENTIAL MICRONUTRIENTS AND THEIR FUNCTION

Iron

Function: Immune function, major role in regulating energy production and delivering oxygen to the tissues
Sources in food:



Zinc

Function: Involved in the synthesis of DNA
Sources in food:



Iodine

Function: Required for the formation of thyroid hormone
Sources in food:



Vitamin A

Function: Required for vision
Sources in food:



Vitamin C

Function: An antioxidant, supports synthesis of collagen
Sources in food:



Vitamin D

Function: Bone health
Sources in food:



Folic Acid

Function: Required to prevent neural tube defects in infants
Sources in food:



Vitamin B1- Thiamin

Function: Role in nerve cells, required to maintain carbohydrate metabolism
Sources in food:



Riboflavin

Function: Central as a co-factor for energy yielding metabolism
Sources in food:



Niacin

Function: Part of the energy yielding metabolism
Sources in food:



Pantothenic Acid

Function: Central for energy yielding metabolism
Sources in food:



Vitamin B6

Function: Part of the energy yielding metabolism and has a role in the modulation of steroid hormones
Sources in food:



Vitamin B12

Function: Key role in brain and nervous system functioning
Sources in food:



Vitamin E

Function: Antioxidant
Sources in food:



Calcium

Function: Bone mineralisation, blood clotting
Sources in food:



Phosphorous

Function: Bone mineralisation, blood clotting
Sources in food:



Biotin

Function: Important in the synthesis of fats and energy yielding metabolism
Sources in food:



Vitamin K

Function: Needed for blood clotting
Sources in food:



Selenium

Function: Antioxidant
Sources in food:



ANSWERS...

Vitamins- 8

Minerals- 11



Lots of Vitamins and Minerals...

- Essential
- and Non-Essential

- Vitamins and Minerals for Development
- Vitamins and Minerals for Wellness

- Q&A-
- Does everyone need Vitamins and Minerals?
- How do I get these Essential Vitamins and Minerals?

ANSWERS...

Yes

From food I eat, or some other
form of supplementation



Eat your vitamins and minerals!

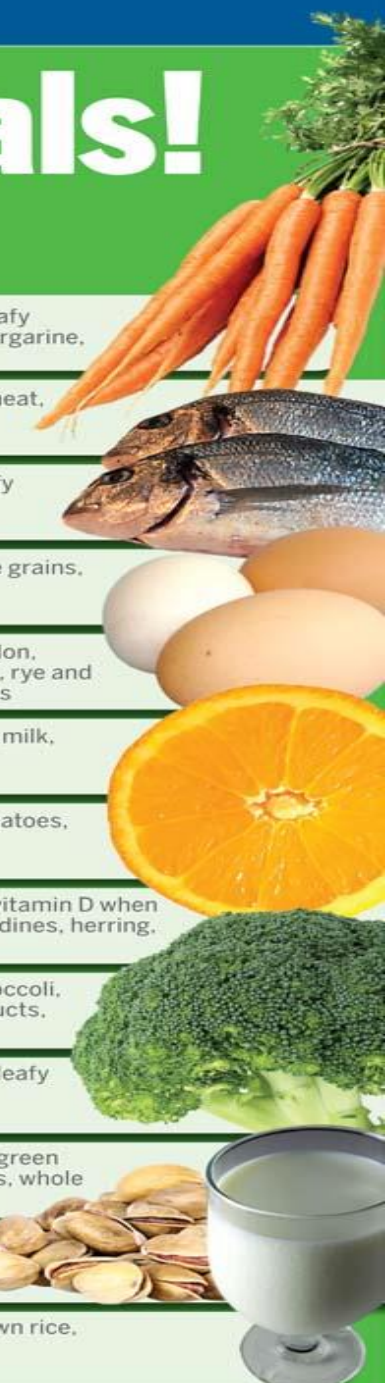
Vitamin/mineral	Other name	Good for	Deficiency causes	Daily intake	Get it from
A	Retinol	Eyesight, bone growth, reproduction, appetite and taste, regulating the immune system	Night-blindness	Men: 900 mcg (one millionth of a gram) Women: 700 mcg	Liver, cod liver oil, carrots, green leafy vegetables, egg yolks, enriched margarine, milk products, yellow fruits
B₁	Thiamine	Nervous system, digestion, muscles, heart, alcohol-damaged nerve tissues	Tingling in fingers and toes, confusion, difficulties in maintaining balance, loss of appetite, exhaustion and weakened powers of concentration	Men: 1.2 mg Women: 1.1 mg	Liver, yeast, egg yolk, cereal, red meat, nuts, wheat germ
B₂	Riboflavin	Growth, skin, nails, hair, eyesight, breakdown of protein, fat and carbohydrates	Itchy irritated eyes, itchy mucous membranes (nose, mouth, throat) and cracked corners of lips	Men: 1.3 mg Women: 1.1 mg	Milk, liver, yeast, cheese, green leafy vegetables, fish
B₆	Pyridoxine	Preventing skin conditions, nerve problems, helping the body absorb protein and carbohydrates	Skin inflammation	1.3 mg (seniors and pregnant women should aim higher)	Fish, bananas, chicken, pork, whole grains, dried beans
B₉	Folic Acid	Production of red blood cells, essential in first three months of pregnancy to prevent spina bifida, cleft palate or cleft lip	Tiredness due to anemia and red tongue	400 mcg (pregnant women should aim for 600 mcg)	Carrots, yeast, liver, egg, yolks, melon, apricots, pumpkin, avocado, beans, rye and whole wheat, green leafy vegetables
B₁₂	Cobalamin	Making red blood and the formation of the nerves	Tiredness and fatigue, tingling and numbness in hands/feet, memory problems and anemia	2.4 mcg	Eggs, shellfish, poultry, meat, liver, milk, cheese, fortified cereal
C	Ascorbic acid	Immune defence system, protection from viruses and bacteria, healing wounds, reducing cholesterol, cell lifespan and preventing scurvy	Tiredness, bleeding gums and slow-healing wounds	Men: 90 mg Women: 75 mg	Citrus fruits, kiwi fruit, berries, tomatoes, cauliflower, potatoes, green leafy vegetables, peppers
D	None	Strong bones and teeth	Unhealthy teeth, weakening of bones, rickets in children	600 IU (international units)	Sunlight (our bodies manufacture vitamin D when sun contacts skin), cod liver oil, sardines, herring, salmon, tuna, milk, milk products
E	Tocopherol	Fighting toxins, protecting cells from damage, supporting immune function, DNA repair and metabolic processes	Weak muscles and fertility problems	15 mg	Nuts, soya beans, vegetable oil, broccoli, sprouts, spinach, whole meal products, eggs
Ca	Calcium	Strong bones and teeth, nerve function, muscle contraction, blood clotting	Poor teeth and brittle bones	1,000 mg	Milk, cheese, butter, yogurt, green leafy vegetables
Fe	Iron	Red blood cells and muscle function, white blood cells and the immune system	Tiredness, irritability, difficulties concentrating	Men: 8 mg Women: 18 mg (Vegetarians need double)	Lean red meat, oily fish, egg yolks, green leafy vegetables, nuts, whole grains, whole wheat
Mg	Magnesium	Converting energy from food, cell repair, building strong bones, teeth and muscles and regulating body temperature	Muscle spasms, and has been associated with heart disease, diabetes, high blood pressure and weak bones	Men 19-30: 400 mg; 31+: 420 mg Women 19-30: 310 mg; 31+: 320	Green leafy vegetables, whole grains, nuts
Zn	Zinc	Immune system, the breakdown of protein, fat and carbohydrates	Lesions on skin, eyes and in throat, loss of taste and smell, hair loss, diarrhea, slow healing of wounds and growth problems in children	Men: 11 mg Women: 8 mg	Meat, shellfish, milk, brown rice, whole grains

Vitamin A is fat-soluble, meaning it sticks in your body much longer than water soluble vitamins such as C

Fortifying flour with folic acid in Canada has resulted in a dramatic decrease in neuroblastoma, an early and very dangerous cancer in young children

Sunscreen absorbs ultraviolet light and therefore decreases the skin's ability to produce Vitamin D

High doses of zinc (over 100mg) can lead to stomach cramps, nausea and vomiting



What if I can't eat enough of the foods that are rich in essential Vitamins and Minerals?



Macronutrients...

The 3 Macronutrients Explained: Carbohydrates, Fats & Protein



Carbohydrates:

- Are Your Body's Preferred Source Of Energy
- Are A Brilliant Source Of Vitamins, Minerals & Dietary Fibre

Dietary Fats:

- Boost Your Blood
- Boost Your Skin
- Boost Your Vital Organs

Protein:

- Builds, Maintains & Repairs Your Body's Cells
- Regulates Important Bodily Processes

FreeFitnessTips.co.uk

Food samples...

Carbohydrates

Breads
Rice
Couscous
Cereals
Bran
Potatoes
Pasta
Oats
Cream of Wheat
Corn
English Muffins
Pancakes
Whole Wheat/
Whole Grains
Vegetables
Squash
Pumpkin
Berries
Fruits
Sugars

Beans

Sprouted

Grains

Quinoa

Most Yogurts

Skim Milk

Peas

Macro Cheat Sheet

Proteins

Chicken
Turkey
Egg Whites
Fish
Buffalo
Bison
Whey Protein
Turkey Bacon
Lean Beef
Low/Non-fat
cottage
cheese
Low/Non-fat
greek yogurt

Eggs

Salmon

Bacon

Chia Seeds

Cottage
Cheese

Whole Fat
Milk

Duck

Whole-Fat
Yogurt

Acocado

Nut Butters

Egg Yolks

Nuts

Oils

Olives

Flaxseed

Percentage of food consumption...

Macro
Nutrients =



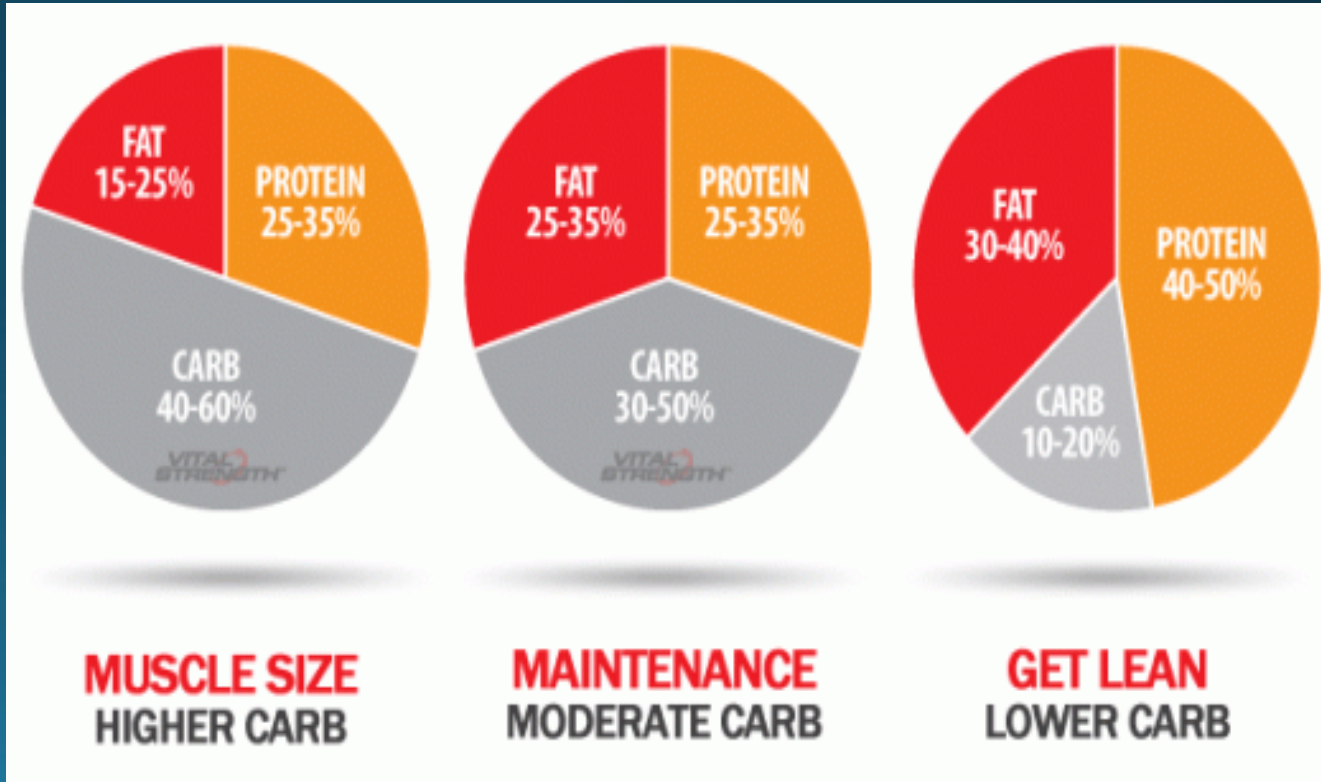
Carbs



Protein



Fat



Activity...

Visit:

<http://www.runningdeersoftware.com/products/dietgenie-calorie-req.htm>

Calculate Macro's for each purpose-

- Muscle gain / Size
- Maintenance
- Get Lean (lose weight)
- **Q&A**- What is your purpose for consuming food?
- Do you eat every meal with a purpose?

How to be an Athlete...

- Learn how to Train for (in no specific order):
 - 1. Speed
 - 2. Agility
 - 3. Strength (including core)
 - 4. Explosiveness
 - 5. Skill development
 - 6. Mental toughness
 - 7. Nutrition and Recovery
 - 8. Flexibility and Injury prevention
 - 9. Consistent and Disciplined approach to planning, and executing the plan.
- Q&A- What else should I learn how to do?

Answer...

Learn how to prepare the food you need!



Parent support and involvement...

- “Meet” with your parents
- Discuss your body weight goals, daily calorie consumption goal, micronutrient needs / plan, macronutrients needs / plan
- Ask to assist in making the grocery list
- Supplement list- Protein, and / or weight-gainer, multi-vitamin packs
- Propose a level of support that might help you “earn” these extra grocery or supplement items. **KEEP YOUR PROMISES!!!**
- Ask to go shopping with parents...assist in acquiring items
- Money is NOT made on tree’s. These thing may NOT be possible. If necessary, do your best to plan with what you have in the house.
- This is YOUR plan for YOU. Take responsibility for making it happen!
- In order for you to gain your parents support they need to understand your plans and individual goals. Most importantly, you have to **EARN** their support!

Exit Ticket...provide answers for the following questions:

1. How much do you weigh now?
2. How much do you want to weigh 10 weeks from now?
3. How many calories do you need to consume daily to meet your body weight goals over that time?
4. Do you take a multi-vitamin daily?
5. What is your purpose for consuming macronutrients?
6. How many grams of protein do you need to consume daily to meet your body weight and "purpose" goals for yourself?
7. What can you do to assist your parents, and possibly "earn" their support?
8. Who is responsible for planning your meals?
9. Who is responsible for preparing your meals?