Nutrition Tips for Maximum Health and Brain Performance

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UTMB Food for Thought
24 Hour Food Recall

- Write down everything you ate in the past 24 hours from yesterday morning until this morning
- Try to remember the size of the servings you consumed
Building your Plate and Palate
“Nutrition is core to your health.”
“Can you tell me about how and what you usually eat?”
“How many servings of fruits and vegetables do you eat daily?”
“Tell me about your activity level. What do you do?”

Starting the Conversation questionnaire
Some Motivational Interviewing Tips on Nutritional Counseling

- How do you feel your diet fits with your idea of a healthy life on a scale of 0-10?
- Why your number and not a zero?
- What would it take to make it a higher number?
- Do you want to CHANGE anything in your current diet?
- How confident are you that you can do that change? (scale 1-10)
- What would make you more confident?
- How might you go about your change in order to succeed?
Real Food vs. Artificial Food

Your #1 goal should be to eat real food as often as possible.
Tips to a Healthy Lifestyle

• Drink a glass of water before every meal since hunger and thirst are easily confused.
• Avoid packaged foods with more than 5 ingredients. There are no limitations on cooking with unsalted spices and herbs.
• Be mindful of portion control and eat more fruits and vegetables.
Portion Distribution

- Vegetables 50%
- Protein 30%
- Starch 20%
Examples of good plates
Maximizing nutrient density

• Goal is to have a good balance of macronutrients (Proteins, Fats, and Carbohydrates) while maximizing your consumption of micronutrients (vitamins and minerals)
• A good meal template: for all meals is a palm size-serving of protein, a healthy fat, and the rest of your plate surrounded by vegetables (source of carbohydrate and micronutrients)
Maximizing nutrient density Continued

- Vegetables and fruits are the most micronutrient dense foods on, so the more room you make for these the more nourished you will be.
- Variety is key for getting all of your micronutrients—which your body absorbs better from real food rather than multivitamins.
- Eat the rainbow.
Portion Control

Daily servings:

- Vegetables 7-9
- Fruits 2-3
- Meats/Protein 3-4
- Complex carbohydrates: 2-3
  (vegetable sources are best)

Source: It Starts with Food by Dallas & Melissa Hartwig
Which plate is better? What is each plate missing?
Carbohydrates

- **Simple**: made of simple sugars, Fruit sugars, stuff in candy and deserts
- **Complex**: starches and dietary fibers: digestion process is longer and more spread out for complex carbs
- **Simple sugars**: too much energy used too quickly
Foods that are Carbohydrates

- Vegetables (main macronutrient is carbohydrate)
- Grains: Rice, Oats, Wheat, Rye, Barley, Quinoa
- Legumes: Beans, Lentils, Peanuts
- Nuts (Fats and Carbs)
- Fruit
- Always better to eat more vegetable carbs over grain or legumes carbs
Fats

Types of fats:

Healthy fats:
- Monounsaturated
- Certain polyunsaturated fats
- Certain Saturated Fats

Unhealthy fats:
- Trans Fats

Omega 3: Omega 6 ratio - need excess of 3's to promote an anti-inflammatory state. Typical American diet gets too many 6's which promote inflammation.
Omega 6 Fatty Acid
(Linoleic Acid)

Δ6-Desaturase

Gamma-linolenic acid
(GLA)
Evening Primrose Oil
Borage Oil
Black Current Oil

Δ5-Desaturase

Arachidonic Acid

Cyclo-oxygenase
(COX)

Prostaglandins (PGE2)
(Inflammatory)

Lipoxygenase

Leukotrienes

Prostaglandins
PGE1, PGE3
(Favorable)

Eicosapentaenoic Acid
(EPA)

Lipoxygenase

Docosahexaenoic acid
(DHA)

Less Inflammatory
Leukotrienes

Omega 3 Fatty Acids
(alpha-linolenic acid)
Free AA (in cell membrane) 

- Phospholipase A-2 

Steroids 

- Aspirin 
- NSAIDs 
- COX II Inhibitors: Celebrex 

- Cyclo-oxygenase Pathway 
- Lipoxygenase Pathway 

Prostaglandins & Thromboxanates 

- Colchicine 
- Sulfasalazine 

Leukotriene Inhibitors: Accolate, Singulair, Zyflo 

Leukotrienes
Arachidonic Acid (in cell membrane)

Free AA

Phospholipase A-2

Cyclo-oxygenase Pathway

Lipoxygenase Pathway

Prostaglandins & Thromboxanases

Leukotrienes

Onions/Apples
Quercetin

Turmeric
Curcumin

Rosemary
Ursolic acid

Red Pepper
Capsaicin

Ginger

Turmeric
Curcumin,

Feverfew
Perthenolides

Onions/Apples
Quercitin

Boswellia
Bosellic Acid

Rosemary
Carnosol
Healthy Fats

● One study reported that consumption of both polyunsaturated fatty acids (found in nuts, seeds, fish, and leafy green vegetables) and monounsaturated fatty acids (found in olive oil, avocados, and nuts) decreases the risk for depression.

● Other data support an association between trans fats and ischemic stroke risk. Trans fats are found extensively in processed foods, including many commercial chocolates (hence, check that label when considering the chocolate slide below).

● A deficiency in polyunsaturated fatty acids has been linked to attention deficit/hyperactivity disorder in children.
Ways to Enjoy Healthy Fats

- Slice avocado on your sandwiches and salads
- Drizzle olive oil on your bagels
- Cook with olive oil or canola oil
- Add nuts to your snacks
- Add flaxseed oil to your salads, smoothies and on sandwiches
Foods with Healthy Fats

- Fish
- Avocado
- Olives
- Coconut
- Eggs
- Fish Oil
- Nuts
Fat does not make you fat

- We’ve learned now that most people gain fat due to excess carbohydrates, calories, and lack of exercise.
- Good healthy fats at each meal keep you full between each meal and help you avoid snacking on junk foods.
Fats: Cooking Oils

The best cooking oils:

- Olive oil
- Coconut oil (regular)
- Avocado oil
- Grass-fed butter or ghee
- Avoid: Vegetable oil, soybean oils, seed oils, sunflower oil, safflower oil, grapeseed oil, canola oils and hydrogenated or partially hydrogenated oils
Proteins

.8g/kg
70kg person* .8g/kg = 56grams

What Is Protein?

- Protein Is Used By Your Body To Produce, Maintain & Repair Its Cells
- Protein Is Constructed From Long Chains Of Amino Acids
- Complete Proteins Contain All 8 Essential Amino Acids
- Incomplete Proteins Do Not Contain All 8 Essential Amino Acids
PROTEIN Sources

PLANTS: Leafy greens, whole grains, legumes

ANIMALS: fish, shellfish, poultry, turkey, chicken, lean beef, pork, lamb, wild game
Proteins

- **Complete**
  A protein that contains all of the essential amino acids. These are necessary for survival. You will be malnourished if you lack these nutrients.
  Examples: Meat, poultry, fish, eggs, milk and cheese

- **Incomplete**
  Protein that is low in one or more essential amino acids. *Complementary* proteins are two or more incomplete protein sources that together provide adequate amounts of all the essential amino acids.
  Examples: Rice and beans together
Sugar consumption has increased immensely over the years.

- Americans eat too much sugar
- Sugar is linked to obesity and diabetes

Glycemic index and Glycemic Load
Sugar

- If you want to try to cut it out, you can try a SUGAR DETOX - "killing the sugar craving"
- Sugars are hidden under different names:
  - High fructose corn syrup
  - Corn syrup
  - Natural cane sugar - it's still sugar
  - Honey
  - Molasses
  - Agave
  - Maple Syrup

### Common Manufacturing Names for Added Sugar

<table>
<thead>
<tr>
<th>Dextrose</th>
<th>Sucrose</th>
<th>Maltose</th>
<th>Date sugar</th>
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<tbody>
<tr>
<td>Treacle</td>
<td>Fruit puree</td>
<td>Brown rice syrup</td>
<td>Diastatic malt</td>
</tr>
<tr>
<td>Brown sugar</td>
<td>Honey</td>
<td>Fructose</td>
<td>Sorghum</td>
</tr>
<tr>
<td>Trehalose</td>
<td>Fruit juice concentrate</td>
<td>Glucose solids</td>
<td>Panocha</td>
</tr>
<tr>
<td>Fruit sugar</td>
<td>Beet sugar</td>
<td>Molasses</td>
<td>Turbinado sugar</td>
</tr>
<tr>
<td>Evaporated cane juice</td>
<td>Galactose</td>
<td>Raw sugar</td>
<td>Natural sweetener</td>
</tr>
<tr>
<td>High-fructose corn syrup</td>
<td>Corn syrup</td>
<td>Demerara sugar</td>
<td>Nutritive sweetener</td>
</tr>
<tr>
<td>Invert sugar</td>
<td>Maltodextrin</td>
<td>Malt syrup</td>
<td>Agave nectar</td>
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Try to avoid ALL added sugars

- Name a few foods that contain sugar
- Sugar is hidden in: Chicken broth, salad dressings, ketchup, bacon, deli meats, processed meats
Micronutrients are Important Too!

- It’s important to get your vitamins & minerals
- If you’re not getting enough fruits and vegetables, consider nutrient fortified items (fortified whole grains) or supplements (multivitamins)
- "If your diet eliminates whole food groups or you don’t eat enough variety of foods -- you would benefit from a once-daily multivitamin," American Dietetic Association.
- Vit D, Calcium, Potassium, fiber may be inadequate in both adults and children
Water

- Water is always the best option
- When you are thirsty, you are already dehydrated
- Caffeine dehydrates you, so make sure to rehydrate with water
BREAKFAST: the most important meal

- Think of Meal 1, Meal 2, and Meal 3. Try to maximize nutrient density at all meals.
- Breakfast is not an excuse to skimp out on nutrients
- Even if you’re not hungry in the morning eat this meal in order to regulate your hormones and kick start your metabolism in the morning so you have energy for the first half of the day. BRAIN FOOD!!
- Meals should be spaced out 4-5hrs
- Avoid sugary, high carb foods
TIME TO COOK AND EAT!

Breakfast is served
Meal Prepping

- In order to make sure you eat real food as often as possible
- In case you don’t have time to cook every day, cook for the entire week in one day and refrigerate or freeze your meals
- Only have to clean up once vs cleaning after cooking every day
- Degrees of prepping, chop up all veggies and use them to cook throughout the week
- Or completely cook all meals ahead of time
- Always have an emergency meal in the freezer
- This is how busy people stay healthy
How to shop?

- Make cooking/meal plans and choose recipes prior to shopping. That way you don’t waste anything you buy.
- Make a list ahead of time and stick to the list. It’s easy to get sidetracked.
- “Health food” snacks are not usually healthy. Only use these foods as emergency food.
- OUTSIDE AISLES of grocery store are where fresh and non-processed foods are primarily located. START THERE!
Preservatives!

- Read the ingredients label
- If it doesn’t expire for a long time, it’s probably not that great for you
- The fresher the better 😊

The longer the shelf life, the shorter yours....
Reading Labels

Ingredient label is more important than nutrition fact label
Salad Dressing Label

- Tip: Look for foods with less than 5 ingredients
- Make your own salad dressing and store it in a bottle or little plastic to-go cups (with a lid)

Read the ingredients!

Free Honey Dijon fat free dressing

Nutrition Facts

Serv Size 2 Tbsp (34g)
Servings 16
Calories 50
Fat Cal 0

% DV* Amount/serving % DV* Amount/serving % DV*
Total Fat 0g 0% Sodium 330mg 14%
Sat Fat 0g 0% Total Carb 12g 4%
Trans Fat 0g Fiber 0g 0%
Polyunsat Fat 0g Sugars 5g
Monounsat Fat 0g Protein 0g
Cholest 0mg 0%

Vitamin A 0% Vitamin C 0%
Calcium 0% Iron 0% Vitamin E 6%

Ingredients: WATER, CORN SYRUP, VINEGAR, SUGAR, DIJION MUSTARD (DISTILLED VINEGAR, MUSTARD SEED, SALT, WATER, WHITE WINE, SPICE), WHEY*, HONEY, SALT CONTAINS LESS THAN 2% OF MODIFIED FOOD STARCH, DRIED SOUR CREAM*, CULTURED CREAM, SWEET MILK, GARLIC JUICE, XANTHAN GUM, ONION JUICE, PREPARED MUSTARD (WATER, VINEGAR, MUSTARD SEED, SALT, DRIED ONION, SPICE), POTATO MALTOXYTRIN, PHOSPHORIC ACID, ARTIFICIAL COLOR, MUSTARD FLOUR, POTASSIUM SORBATE AND CALCIUM DISODIUM EDTA AS PRESERVATIVES.
Artificial Sweeteners

- Many other sweeteners can be really bad for you (even worse than sugar)
  - Real sugars are preferable to artificial ones, but try to cut down anyway
Which of the following does NOT include artificial sweeteners?
Snacks

- Only snack if you are truly hungry.
- Often people snack when they are actually having a food craving. Craving something sweet or salty
- Ask yourself: Can I eat steamed salmon and broccoli right now?
- If you pass that test, choose a snack with a balance of good proteins and fats to keep you full. Carbohydrate snacks don’t keep you full long.
SNACKS: Good Choices

- A handful of nuts: almonds, cashews, pecans, brazil nuts, hazelnuts, macadamia nuts
- Boiled eggs
- Avocados
- Can of wild caught tuna
- Full-fat yogurt
Clean out your pantry
Tips to save time and money

• Big tub of organic washed greens (spinach, kale chard) is great for salad. Can last a week for large salads
• Save on fish when buying frozen bulk but still individually sealed filets
  • Wild-Caught fish $12.99 for 2.5 lbs of Salmon at Kroger
  • Wild-Caught cod $8.99 for a 2.5lb bag at Kroger
• Blueberries when in season are often $1-$2 a pint. Usually only a few weeks throughout the year. Buy them then, wash, and freeze them for the rest of the year. They are like popsicles frozen. Great to eat them regularly
Resources

Websites:

- [http://www.cdc.gov/nutrition/everyone/basics/](http://www.cdc.gov/nutrition/everyone/basics/)
- [http://www.choosemyplate.gov/](http://www.choosemyplate.gov/)
  - This has downloads for great grocery shopping lists and meal planning charts
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