



Basics of Nutrition and Exercise

The key to almost any success is setting a goal and following it. Start this health and fitness challenge by asking yourself what you aim to achieve. Then set smaller goals along the way to help you accomplish your ultimate target. Create SMART goals for success:

- **S = Specific** – be explicit about what you will do, when and where
- **M = Measurable** – have a way to measure your success, such as how often or how much physical activity you will do
- **A = Attainable** – make it something you really can achieve
- **R = Realistic** – make your goal practical based on your resources and willingness
- **T = Timely** – set start and finish times/dates to keep you on task and inspired.

Here is an example: Starting today, I will walk my dog after dinner for 30 minutes, and will do it 5 times in the next week. The following week I will increase my walking pace.

Along with setting goals, two other key components to improving health are nutrition and physical activity. New and different information on these topics can make it difficult and confusing, so relying on fundamentals is key.

NUTRITION

Nutrients are divided into two categories: macronutrients and micronutrients. Macronutrients are nutrients our body needs in large amounts and provide energy (calories). Micronutrients are needed in much smaller amounts, but are vital for growth and development, disease prevention and well-being.

MACRONUTRIENTS

Carbohydrates provide fuel for our brain and our bodies. This group includes starches and sugars. The primary food sources of carbohydrates are grains, dairy and fruit.

Protein provides tissue structure for organs, muscle, hair, skin, nails, bones, tendons, ligaments and blood plasma. It is part of cell membranes, it's involved in our metabolism, key to transport and hormone systems; makes up enzymes; and helps maintain our body's acid base balance. Main sources come from various types of meat, eggs, nuts and legumes.

Fat gets a bad rap; but it is necessary for transporting fat soluble vitamins, protecting vital organs, insulating the body and is an energy reserve. The majority of fat in food is found in oils, nuts, seeds, meat, fish and dairy.

Water is used in all cells, organs and tissues to regulate temperature and maintain functions of our body. It moistens tissues, carries nutrients and oxygen to cells, lubricates joints, protects organs and tissues, helps the kidneys and liver flush out waste, and helps dissolve minerals and nutrients so our body can access them.

MICRONUTRIENTS

Vitamin A, C, D, E, K, the B vitamins, and folic acid along with minerals **calcium, potassium, sodium, iron, and zinc**. are categorized as micronutrients. These critical nutrients have a wide range

of duties such as building and maintaining our tissues, nervous system, bones and teeth -- to being involved in the production of blood, enzymes, hormones, and helping our cells release energy from food.



Eat for Health: Fruits and vegetables (especially bright colored ones), whole grains, lean sources of protein and low-fat dairy products are the five food groups that are the building blocks of a healthy diet. Each group provides unique nutrients needed for optimal health. So, it is important to include each one in our daily diet.

Get the most for your calories: Choose nutrient dense foods. Vegetables, fruits, whole grains, low-fat dairy, and lean protein foods all provide a lot of “bang for your buck” in terms of nutrients compared to calories. For example, 1 cup of skim milk instead of 1 cup of pop provides over 150 times the amount of potassium, almost 44 times the amount of calcium, 8 times the protein, half the carbohydrates, and saves about 20 calories.

Focus on fruits and vegetables: Fruits and vegetables have an abundance of nutrients important for our health – fiber, vitamins A & C, potassium, and folate just to name a few. They are packed with nutrients, low in calories, linked to decreasing risk of cancer, heart disease and stroke, and lower blood pressure. Plus, they are convenient to eat and come in a variety of forms – raw, cooked, and dried – so you can choose what you like best.

PHYSICAL ACTIVITY

Physical activity is almost magical. It helps us maintain and lose weight; reduces risk of heart disease, diabetes and osteoporosis; strengthens bones and muscles; improves balance and sleep; boosts self-esteem and mood, just to name a few. Incorporating the different components of flexibility, aerobic & strength training along with a variety of intensity levels has big benefits.

Include regular stretching: Stretching keeps muscles flexible, strong and healthy which increases the range of motion in our joints and muscles. Stretching the major muscle groups also helps increase blood flow which can help prevent soreness after exercise, and improves balance and mobility.

Do moderate and/or vigorous aerobic exercise: At least 150 minutes of moderate or 75 minutes of vigorous aerobic activity per week is recommended for healthy adults. Even 10 minute increments of moderate to vigorous activity at a time can be effective for reducing health risks and keeping the pounds off.

Strength Training: Muscular strength is needed to do daily activities like lifting groceries out of your car, carrying children, picking yourself up when you fall, mowing the lawn, taking a walk or a bike ride. The list goes on and on. Being strong helps us feel better and can also help us look better. Increasing muscle helps burn more calories and aids in weight loss or maintenance. Strength training should be done at least twice a week. It can include the use of weights, resistance bands or your own body weight (ex - push-ups, lunges).

Aerobic “Cardio” Activity - This is **activity which increases breathing and heart rate.**



- **Low intensity** activities do not increase heart rate and don't count as aerobic activity. But, they do add to steps per day and a healthy lifestyle.
- **Moderate intensity** is working hard enough to raise heart rate and break a sweat. A person should be able to talk, but not sing a song.
- **Vigorous intensity** means breathing hard and fast, and heart rate has increased quite a bit. A person can say a few words without pausing for a breath.



The table below offers some examples:

Low Intensity Activity	Moderate Intensity Activity	Vigorous Activity
Easy walking	Moderate/fast walking	Jogging or running
Shopping	Walking stairs	Running up stairs
Simple housework – laundry, cooking	Water aerobics	Riding a bike fast or on hills
Painting	Lawn and garden work	Digging with a shovel
Golfing using a cart	Bike riding on level ground	Swimming laps
	Walking golf course	Basketball
	Dancing	Step aerobics

To continue to improve fitness, the body needs to be “pushed”. Increase intensity, speed or duration of the activity or exercise.

Be sure to take time to include some thought and planning for incorporating both nutrition and physical activity components along the way. They are key!

Additional Resources:

<http://www.liveeatplay.colostate.edu>

www.fruitsandveggiesmorematters.org

www.choosemyplate.gov

<http://mynutrition.wsu.edu/nutrition-basics>

www.nhlbi.nih.gov/health/educational/wecan/eat-right/portion-distortion.htm

www.heart.org/HEARTORG/GettingHealthy/GettingHealthy_UCM_001078_SubHomePage.jsp

<http://www.mayoclinic.org/healthy-living/fitness/basics/fitness-basics/hlv-20049447>

<http://www.acefitness.org/acefit/fitness-facts/>





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Applying the Lesson

Choose one of the following activities to apply what you learned about your health and your healthy goal setting. Write a short paragraph (3 to 5 sentences) to describe what you did and learned from the activity selected. Report your Applying the Lesson results by Online form, email, fax or hard copy to your county Extension Office.

Option 1: Use the S.M.A.R.T criteria to create an effective goal for a nutrition/food category and one for an exercise/fitness category. Have these be short-term goals you aim to achieve within the next couple weeks.

Option 2: Track your food and beverage intake for 5 days. What did you discover about foods you eat and beverages you drink? What, if any, improvements related to the areas of advice in the lesson (Eat for health, Get the most for your calories, etc.) would you like to work on?

Option 3: Physical Fitness – Assess where you are right now and what might be the impacts to your current and long-term health using one or more of these resources:

<https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/fitness/art-20046433>

<https://www.acefitness.org/education-and-resources/professional/expert-articles/6551/assessing-functional-fitness-in-mature-adults>

[https://health.gov/paguidelines/second-edition/pdf/Physical Activity Guidelines 2nd edition.pdf](https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines_2nd_edition.pdf)

What is your current state of physical fitness and how might it impact your long-term health?