

Native American Cancer Research Corporation (NACR)

Energy Balance / Weight Control



- 🍽️ Improve Your Diet & Reduce Your Risk for Cancer. According to research, as many as 1/3 of all cancer deaths are linked to diet and physical activity.
- 🍽️ This means you have the power to do something about it. Small steps like adding a few servings of fruits and vegetables to your diet each day can reduce your risk.
- 🍽️ Now you know. Now you can.



- 🍽️ Increase Your Activity & Reduce Your Risk for Cancer. Research shows that physical activity reduces the risk of most cancers by up to 30% and plays a role in lowering your risk of other cancers (breast, colon, prostate).
- 🍽️ This means you have the power to do something about it. Small steps like parking farther from your destination and walking for 15 minutes each day can reduce your risk.
- 🍽️ Now you know. Now you can.

Weight Control Law #1:
calories in = calories out

The Most Consistent Weight Loss Program:

- 🍽️ Consuming low calorie foods and increasing daily physical activity

Factors affecting weight control:

- 🍽️ Lack of physical activity and eating too many calories are the #1 reason
- 🍽️ Eating portions of food that are too large
- 🍽️ Consuming foods with high fructose corn syrup = *may* slow body metabolism
- 🍽️ Hereditary causes for obesity / weight problems are very rare

How do you calculate metabolism?

- 🍽️ You can figure out your metabolism by multiplying "10" times your body weight
 - 🍽️ **Example:** John weighs 285 pounds
 - 🍽️ $285 \times 10 = 2850$ calories per day
 - 🍽️ To figure out how much for a week = 2850×7 (days) = 19,950 calories burned each week just to stay alive
 - 🍽️ If John consumes 19,950 calories each week, he will maintain his weight
 - 🍽️ If he consumes fewer calories and/or increases activity, he will lose weight

Calories = units of energy

- 🍽️ 3500 calories = 1 pound
- 🍽️ Calories come from the food and beverages we consume
- 🍽️ If you eat 148 calories every day without increasing your physical activity, how many pounds are you likely to gain in ONE year?

148 X 365 days = _____

Divided by 3500 (calories) = _____

What is body metabolism?

- 🍽️ Your body burns calories just by being alive. This amount of calories to keep your heart pumping, lungs breathing and so on, is "basal metabolism rate"
- 🍽️ "Metabolism is the rate at which your body burns or uses the calories."

Your Metabolism

Your weight = _____
Multiply by "10" = calories per day to keep body functioning _____
Multiply by "7" = calories per week to keep body functioning _____

What are basic guidelines for losing weight?

- 🍷 Set reasonable goals (Lose 10% of your current body weight over 6 months)
- 🕒 **Example:** Sara weighs 220 pounds.
 - 🍷 10% of her current weight is 22 pounds.
 - 🍷 Her goal is to lose 22 pounds over the next 6 months
 - 🍷 $22 \text{ pounds} \div 6 \text{ months} = 3.8 \text{ pounds weight loss per month}$

What is your 6 month weight loss goal?

- 🍷 What is 10% of your weight? _____
- 🍷 Lose weight slowly, 1 to 2 pounds a week
- 🍷 During meals, stop eating *before* you feel full
- 🍷 Eat slowly so your body has time to feel full
- 🍷 Eat a variety of healthy foods from all the food groups (rather than the same meals day after day)
 - 🕒 Eat at least 5 servings of fruits and vegetables (helps to fill you up, can have larger portions for fewer calories, includes vitamins and minerals)
 - 🕒 Eat lean protein-rich foods (fish, lean meats without skin or fat trim, dry beans)
 - 🕒 Eat whole grain, high fiber foods rather than highly process white breads, pasta, rice foods
 - 🕒 Reduce high sodium / high salt foods
 - 🕒 Drink at least 8 glasses of water or low / no calorie drinks daily
- 🍷 Eat breakfast
- 🍷 Drink a glass of water before beginning your meal
- 🍷 Place your eating utensils on the table in between bites of food
- 🍷 Look at food portions; eat single portions.
- 🍷 Wait 20 minutes before having another portion of food (gives your brain time to realize you're comfortable and may not want more food)
- 🍷 Drink a calorie-free beverage at the end of your meal (herbal tea, water)
- 🍷 Avoid starving yourself (eating less than 1000 calories per day puts your body into starvation mode and you will actually conserve calories rather than burn them)
- 🍷 Avoid eating before going to bed

How to measure "portion sizes"?

- 🍷 "Portion size" and "serving size" are NOT the same thing.
- 🍷 "Serving sizes" is the amount of food we should eat (1/2 cup is a recommended serving for pasta).
- 🍷 "Portion size" is the amount of food you choose to eat at one time (1-2 cups of pasta is 2-4 serving sizes).
- 🍷 Portion sizes increased (e.g., "Super-sized meals") resulting in large distorted servings when eating out and at home.
- 🍷 Count out your "portion" size before you start to eat (rather than trying to keep track while you are eating).
- 🍷 **Examples** of ways to estimate portions
 - 🕒 Fist = 1 cup or 1 medium whole fruit
 - 🕒 Thumb (tip to base) = 1 ounce meat or cheese
 - 🕒 Thumb tip (tip to 1st joint) = 1 tablespoon
 - 🕒 Fingertip (tip to 1st joint) = 1 teaspoon
 - 🕒 Index finger (1st to 2nd joint)= 1 inch
 - 🕒 Cupped hand (1-2 ounces of nuts or pretzels)
 - 🕒 Palm (minus finger) or the size of a deck of playing cards = 3 ounces of meat, fish, or poultry

What are your "health" numbers?

- 🍷 **Weight:** _____
- 🍷 **Desired weight:** _____
- 🍷 **Waist:** _____
(recommended is less than 35 inches)
- 🍷 **Blood pressure:** _____
(recommended is less than 120/80 mmHg)
- 🍷 **Total Cholesterol:** _____
(recommended Total less than 200 mg/dl)
- 🍷 **LDL Cholesterol** _____
(recommended is less than 100 mg /dl)
- 🍷 **HDL Cholesterol:** _____
(recommended is higher than 50 mg/dl)
- 🍷 **Triglycerides:** _____
(recommended is lower than 150 mg/dl)
- 🍷 **Fasting Blood Sugar (glucose):** _____
(recommended is lower than 100 mg/dl)

How many Calories are Burned Per Minute for different activities?

- 🗑️ When you take part in physical activities, you burn or use calories (energy).
- 🗑️ Your body weight affects the number of calories burned for any activity (the more you weigh, the more you burn).
- 🗑️ For some activities (e.g., drumming) you will need to estimate the calories burned from an activity that is similar.
- 🗑️ The table below is an estimate of calories burned per minute for specific body weights.

🗑️ **Example:** Jolene weighs 185 pounds

- 🗑️ She will use the column for 190 pounds because it is the closest to her weight.
- 🗑️ She and her daughter, Rosa, walk slowly so they can visit and talk while they walk. This is probably about 2 miles an hour.
- 🗑️ According to the chart, Jolene is burning 3.6 calories per minute.
- 🗑️ If they walk for 30 minutes, 3.6 times 30 minutes = 108 calories.

Figure it out for yourself:

- 🗑️ How much do you weigh? _____ If you practiced fancy or grass dancing for 30 minutes, how many calories did you burn? _____

Estimates of Calories burned per minute of activity

	Weight in pounds					
	133	165	190	230	250	300
Aerobic Dancing (Fancy, jingle)	6.6	7.8	8.6	10.0	11.0	13.0
Bicycling - 10 mph	6.3	7.8	14.5	19.0	21.0	25.0
Chopping/Splitting wood	6.0	8.0	9.0	11.0	12.0	14.0
Gardening	5.0	6.0	7.0	8.0	9.0	11.0
Golf (using cart)	3.8	4.4	4.9	6.0	7.0	8.0
Horseback riding (moderate)	4.0	5.0	6.0	7.0	8.0	10.0
Housecleaning	4.0	5.0	5.0	6.0	7.0	8.0
Jog (10 min mile)	9.0	10.0	12.5	14.0	15.0	25.0
Mowing lawn (hand push mower)	6.0	7.0	8.0	10.0	11.0	13.0
Racketball (moderate)	7.0	9.0	11.0	13.0	14.0	17.0
Raking lawn / leaves by hand	4.0	5.0	6.0	7.0	8.0	10.0
Rowing (moderate)	7.0	9.0	11.0	13.0	14.0	17.0
Shoveling snow by hand	6.0	8.0	9.0	11.0	12.0	14.0
Skating (ice)	7.0	9.0	11.0	13.0	14.0	17.0
Snow skiing (cross country)	9.0	11.0	12.0	15.0	16.0	19.0
Snow skiing (downhill)	6.0	8.0	9.0	11.0	12.0	14.0
Softball (moderate)	5.0	7.0	8.0	9.0	10.0	12.0
Stair Climbing	6.7	7.9	8.8	11.0	12.0	14.0
Swimming (moderate)	6.0	8.0	9.0	11.0	12.0	14.0
Tennis	7.0	9.0	11.0	13.0	14.0	17.0
Volleyball (moderate)	3.0	4.0	5.0	6.0	6.0	7.0
Walking, 2 mph	2.8	3.3	3.6	5.0	6.0	7.0
Walking, 4 mph	5.2	6.1	6.8	9.0	10.0	12.0
Waterskiing	6.0	8.0	9.0	11.0	12.0	14.0

How do we “burn” calories (energy)?

- Physical activity
- If we have a fever when we are ill

What types of activities need to be included in daily physical activity?

- Endurance (makes you breathe harder)
- Strength
- Balance (standing on one leg)
- Flexibility (limber muscles)
- You need to:
 - Check with your provider to make sure you are well enough to increase your physical activity
 - Stretch your muscles before you begin (more important as we age) and after you are done exercising
 - Drink more water than normal
 - Include a variety of activities so that different muscles are worked, strengthened and stretched

For you to lose 1 pound in a week

- Weekly basal metabolism = your weight times 10 times 7 = _____
- Subtract 3500 calories (1 pound) from your weekly basal metabolism

- Example:** John weighs 285 pounds and his weekly basal metabolism is 19,950 (see page 1)
- For John to lose 1 pound in a week = 19,950 minus 3500 calories = 16,450
- His daily calories is 16,450 divided by 7 days a week = 2,350 daily calories to lose 1 pound in a week

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Why is Physical Activity Important?

- Improves the efficiency of how your body works (hormones, rid of wastes)
- Protects and builds lean bodies
- Improves your mind, emotions, spirit / health
- Reduces risks of chronic / long-term diseases and causes of death
- Prevents obesity
- Lowers your chance for diabetes, stroke, and problems with blood pressures and blood cholesterol
- Lack of exercise and poor dietary habits are the second largest underlying cause of death (smoking was the largest)
- More than two-thirds of older adults don't do regular physical activity
- Regular physical activity helps reduce the risks of falling and other accidents

How much muscle tissue do most elders (50-70+ year olds) lose as they grow older?

- 20-40%

What is the “best” type of physical activity for you?

- Select at least 1 or 2 activities that you enjoy doing and that you can fit within your daily schedule – make it a habit!
- Eating less without increasing activity is not usually realistic. To lose 1 pound you need to decrease the calories you take in (diet) and increase the calories you burn (activity)



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