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

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?

\[ 148 \times 365 \text{ days} = \text{__________} \]
\[ \text{Divided by} \ 3500 \text{ (calories)} = \text{__________} \]

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 ____________

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

\[ 285 \times 10 = 2850 \text{ calories per day} \]
\[ \text{To figure out how much for a week} = 2850 \times 7 \text{ (days)} = 19,950 \text{ calories burned each week just to stay alive} \]
\[ \text{If John consumes} \ 19,950 \text{ calories each week, he will maintain his weight} \]
\[ \text{If he consumes fewer calories and/or increases activity, he will lose weight} \]
**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 pounds ÷ 6 months = 3.8 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.

### Estimates of Calories burned per minute of activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Weight in pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>133</td>
</tr>
<tr>
<td>Aerobic Dancing (Fancy, jingle)</td>
<td>6.6</td>
</tr>
<tr>
<td>Bicycling - 10 mph</td>
<td>6.3</td>
</tr>
<tr>
<td>Chopping/Splitting wood</td>
<td>6.0</td>
</tr>
<tr>
<td>Gardening</td>
<td>5.0</td>
</tr>
<tr>
<td>Golf (using cart)</td>
<td>3.8</td>
</tr>
<tr>
<td>Horseback riding (moderate)</td>
<td>4.0</td>
</tr>
<tr>
<td>Housecleaning</td>
<td>4.0</td>
</tr>
<tr>
<td>Jog (10 min mile)</td>
<td>9.0</td>
</tr>
<tr>
<td>Mowing lawn (hand push mower)</td>
<td>6.0</td>
</tr>
<tr>
<td>Racketball (moderate)</td>
<td>7.0</td>
</tr>
<tr>
<td>Raking lawn / leaves by hand</td>
<td>4.0</td>
</tr>
<tr>
<td>Rowing (moderate)</td>
<td>7.0</td>
</tr>
<tr>
<td>Shoveling snow by hand</td>
<td>6.0</td>
</tr>
<tr>
<td>Skating (ice)</td>
<td>7.0</td>
</tr>
<tr>
<td>Snow skiing (cross country)</td>
<td>9.0</td>
</tr>
<tr>
<td>Snow skiing (downhill)</td>
<td>6.0</td>
</tr>
<tr>
<td>Softball (moderate)</td>
<td>5.0</td>
</tr>
<tr>
<td>Stair Climbing</td>
<td>6.7</td>
</tr>
<tr>
<td>Swimming (moderate)</td>
<td>6.0</td>
</tr>
<tr>
<td>Tennis</td>
<td>7.0</td>
</tr>
<tr>
<td>Volleyball (moderate)</td>
<td>3.0</td>
</tr>
<tr>
<td>Walking, 2 mph</td>
<td>2.8</td>
</tr>
<tr>
<td>Walking, 4 mph</td>
<td>5.2</td>
</tr>
<tr>
<td>Waterskiing</td>
<td>6.0</td>
</tr>
</tbody>
</table>

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

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)

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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For more information, contact
Native American Cancer Research Corporation (NACR)
3022 South Nova Road
Pine, CO 80470-7830
Phone: 303-838-9359; Fax: 303-838-7629
Native American Cancer Survivors’ Network
1-800-537-8295

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