



Sidney Kimmel Cancer Center
Jefferson Health® | NCI – designated

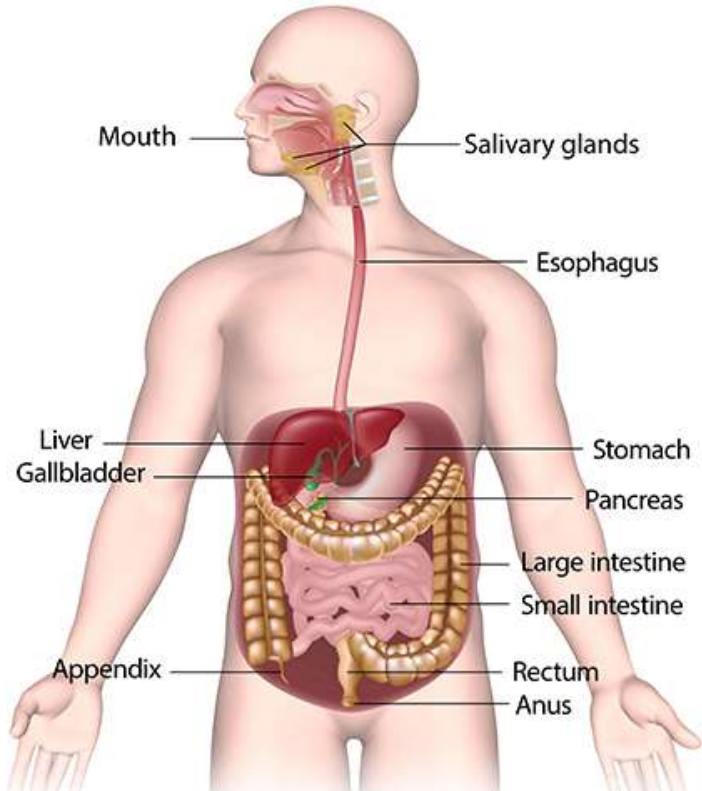
Until every cancer is cured

Food as Fuel: Eating for Optimal Energy

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**Why do we
Eat?**

The Digestive System



Glucose



Amino Acids



Fatty Acids



*Small
Frequent
Meals*

Eat enough, but not too much

- Avoid eating too much as it can cause fatigue
- Snacks with fiber and protein will help sustain you longer
- Limit high sugar foods for snacks to avoid crash



Focus on Protein!

Almandel
200
GRAM
25

Why Protein?

- Preserve lean body mass
- Repair damaged tissue
- Increased needs with treatment

How much do I need to eat?

80-120 gm protein/day

Food**Portion****Protein in Grams**Chicken, fish, beef, pork, lamb, shrimp
shellfish

3 ounces

21

Egg

1

6

Cheese

1 ounce

7

Cottage cheese

½ cup

13

Ricotta Cheese

½ cup

9

Greek yogurt

5 ounces

12-18

Regular yogurt

5 ounces

5-8

Milk

1 cup

8

Food	Portion	Protein in Grams
Nuts	1 ounce	4-6
Peanut butter	2 T	7
Beans, lentils, hummus, edamame	½ cup	7-9
Tofu	3 ounces	9
Quinoa	1 cup	9
Oral Nutrition Supplement	1	10-30
Whey Protein Supplement	1 ½ T	6

A vibrant display of various fruits in a market setting. The foreground is dominated by several crates of peaches, some showing a mix of yellow and red. To the left, there are dark purple plums. In the background, there are crates of bright red strawberries. A white rounded rectangle with orange cursive text is overlaid on the lower-left portion of the image. In the top right corner, a small green sign with a red sunburst logo and the text 'INDIA F...' is visible.

*Keep it
Colorful!*

Why Fruits and Vegetables?

- High in vitamins and minerals
- Lots of phytochemicals and antioxidants
- Help support the bodies immune system
- Considered to be cancer fighters in our food

Can I just take a supplement instead?

Phytochemicals

Naturally occurring plant chemicals.

Influence helpful chemical processes:

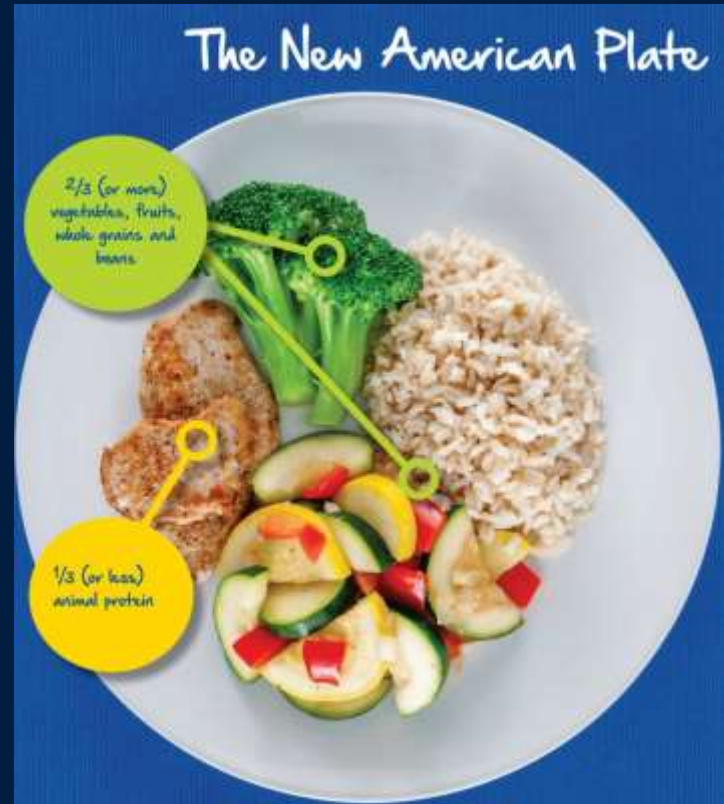
- Stimulate the immune system
- Block substances we eat, drink and breathe from becoming carcinogens
- Reduce inflammation that makes cancer growth more likely
- Prevent DNA damage and help with DNA repair
- Reduce the kind of oxidative damage to cells that can spark cancer
- Slow the growth rate of cancer cells

Cruciferous Vegetables

- Arugula
- Bok choy
- Broccoli
- Brussels sprouts
- Cabbage
- Cauliflower
- Collard greens
- Horseradish
- Kale
- Radishes
- Rutabaga
- Turnips
- Watercress

Make a Plan

- Add to breakfast
- Plan ahead
- Try something new
- Eat a side salad
- Frozen are good standby
- Find some good easy recipes



The image features two clear glass tumblers filled with bright orange carrot juice. They are set against a background of fresh, vibrant green carrot tops and several whole, unpeeled carrots. The lighting is warm and focused, highlighting the texture of the vegetables and the clarity of the juice. A white rounded rectangular box is overlaid on the bottom right, containing the text 'drink your nutrition' in a bold, green, sans-serif font.

**drink your
nutrition**

Smoothie Basics

Liquid base + Fruit/Veggies + Protein

- Add liquids first and ice last
- Start slow and increase speed
- Veggie options - leafy greens, avocado, juice
- Protein options- nut butters, yogurt, protein powder
- Additional options - flaxseed, cocoa powder, spices
- Keep in mind- Moderation
- Alternative options - ready-made products

Juicing

Pro: hard veggies, more variety

Con: time consuming, juicers are expensive, removes fiber

- Drink what you would eat and moderation
- Increase your variety with vegetables
- Add protein and some fat





Stay Hydrated!

How much and what counts?

- All fluids count!
- 6-8 cups of fluids per day - 1 cup = 8 ounces
- Don't like water?
 - Try flavored waters and seltzers
 - Add fruit/citrus, ginger for taste

Remove Energy Zappers

- Energy drinks, sodas, and coffee can leave you feeling even more fatigued
 - Limit total and late in the day caffeine

Diet Coke	76
Mountain Dew	91
Regular Coffee (12 oz)	60-100
Starbucks Coffee	235
5 hour energy	200
Green Tea (8 oz)	29

MANAGE NUTRITION SIDE EFFECTS



Poor Appetite

- Adjust meal times
 - When are you hungriest?
 - Set a timer
 - Mindless eating
- Make every bite count
 - Consider diet liberalization
 - High calorie/protein foods
- Stay active



Mouth Sores

- Soft moist foods
 - Tender meats, sauces, stews
 - Bland
 - Gravy
- Avoid painful foods
 - Tart, acidic, salty, spicy
 - Rough or crunchy foods
 - Carbonated or alcohol

Ideas: Oral nutrition supplements, fish with sauce, cooked cereals, cottage cheese, pureed vegetables, egg salad, macaroni and cheese, banana, applesauce

Taste Changes

- Does anything taste good?



- Metallic - try plastic utensils and avoid things that are in metal containers
- Cardboard - try seasonings and find foods that taste the way they should
- FASS fixes?

CONSERVE ENERGY!



Cooking Smarter

- Batch cooking
- Freeze leftovers
- Crockpot/pressure cooker
- Meatless meals
- Prepare when feeling your best
- Shopping apps
- Meal Delivery/Friend or family delivery





Eat with Joy, Not Fear