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Geriatric Nutrition

Nutritional needs for the geriatric population present unique complications due to the varied possibilities. All organs and physiological functions are altered by the aging process. This combined with the presence of co-existing medical problems and medication side-effects can lead to further alterations in taste, digestion, and/or uptake of nutrients. The risk of malnutrition may be multifaceted stemming from physical and emotional health. Depression and loneliness may lead to increased consumption of unhealthy foods or loss of appetite. Malnutrition may also result from food insecurity and lack of community resources. Post-Acute Care (PAC) and Long-Term Care (LTC) provide a wider scope of settings from the hospital to the resident’s home. While in PAC and LTC settings practitioners must abide by the resident’s goals and rights and the facility must maintain not only the health of the resident but also their quality of life.

Dietary Guidelines/DRI’s

- Tables are created from National Institute of Health Dietary Reference Intakes (DRI). (6)
- Potassium and sodium Adequate Intakes (AI) were updated in 2019 and are listed separately below. (6)

Life Stage Group	Sodium (mg/d)	Potassium (mg/d)
Male (51-70y)	1,500	3,400
Male (> 70 y)	1,500	3,400
Female (51-70y)	1,500	2,600
Female (>70 y)	1,500	2,600

Life Stage Group	Vitamin A (ug/d)	Vitamin D (ug/d)	Vitamin E (mg/d)	Vitamin K (ug/d)
Male (51-70y)	900	15	15	120
Male (> 70 y)	900	20	15	120
Female (51-70y)	700	15	15	90
Female (>70 y)	700	20	15	90

Life Stage Group	Total Water (L/d)	Carbohydrate (g/d)	Total Fiber (g/d)	Fat (g/d)	Protein (g/d)
Male (51-70y)	3.7	130	30	ND	56
Male (> 70 y)	3.7	130	30	ND	56
Female (51-70y)	2.7	130	21	ND	46
Female (>70 y)	2.7	130	31	ND	46

Types of malnutrition are summarized in the table below. (5)

Type of Malnutrition	Acute Illness or Injury			Chronic Illness	Social or Environmental Circumstances	
	Degree of Malnutrition	Non-severe (moderate) malnutrition	Severe malnutrition		Non-severe (moderate) malnutrition	Severe malnutrition
Energy Intake	<75% of estimated needs for >7 days	Less than or equal to 50% of estimated needs for greater than or equal to 5 days	Less than or equal to 75% of estimated needs for greater than or equal to 1 month	Less than or equal to 75% of estimated needs for greater than or equal to 1 month	Less than 75% of estimated needs for greater than or equal to 3 months	Less than or equal to 50% of estimated needs for greater than or equal to 1 month
Weight Loss	1-2% in 1 week	>2% in 1 week	5% x 1 month	>5% x 1 month	5% x 1 month	>5% x 1 month
	5% in 1 month	>5% in 1 month	7.5% in 3 months	>7.5% in 3 months	7.5% In 3 months	>7.5% in 3 months
	7.5% in 3 months	>7.5% x 3 months	10% in 6 months	>10% in 6 months	10% in 6 months	>10% in 6 months
			20% in 1 year	>20% in 1 year	>20% in 1 year	>20% in 1 year
Body Fat Wasting	Mild	Moderate	Mild	Severe	Mild	Severe
Muscle Wasting	Mild	Moderate	Mild	Severe	Mild	Severe
Presence of Edema	Mild	Moderate to severe	Mild	Severe	Mild	Severe
Grip Strength	Not applicable	Measurably reduced	Not applicable	Measurably reduced	Not applicable	Measurable reduced

*Classifying a resident with a specific type of malnutrition requires minimum of 2 criteria.

**Albumin and pre-albumin are negative acute phase proteins and are not appropriate for diagnosis of nutrition status.

Calcium-Rich Foods

All information is evidence-based and approved by the Indiana Academy of Nutrition and Dietetics (IAND)

Why is Calcium Important?

Calcium is commonly known for strengthening bones, but this mineral also plays an important role in (1):

- Supporting metabolic functions in the circulatory system
- Muscle function
- Nerve transmission
- Intracellular signaling
- Hormonal secretion

How Much Calcium do I Need?

Age	Male	Female*
0-6 months*	200 mg	200 mg
7-12 months*	260 mg	260 mg
1-3 years	700 mg	700 mg
4-8 years	1,000 mg	1,000 mg
9-13 years	1,300 mg	1,300 mg
14-18 years	1,300 mg	1,300 mg
19-50 years	1,000 mg	1,000 mg
51-70 years	1,000 mg	1,200 mg
71+ years	1,200 mg	1,200 mg

Table Notes:

*Needs vary for pregnant and lactating women.

Mg = Milligrams

References:

1. National Institutes of Health, Office of Dietary Supplements. Calcium - Fact sheet for health professionals. [ods.od.nih.gov](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/). <https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/>. Published July 9, 2019. Accessed September 30, 2019.

Food Sources of Calcium

Food	Mg per Serving
Yogurt, plain, low fat, 8 ounces	415
Mozzarella, part skim, 1.5 ounces	333
Sardines, canned in oil, with bones, 3 ounces	325
Cheddar cheese, 1.5 ounces	307
Milk, nonfat, 8 ounces	299
Soymilk, calcium-fortified, 8 ounces	299
Milk, whole, 8 ounces	276
Orange juice, calcium-fortified, 6 ounces	261
Tofu, firm, made with calcium sulfate, ½ cup	253
Salmon, pink, canned, solids with bones, 3 ounces	181
Cottage cheese, 1% milk fat, 1 cup	138
Tofu, soft, made with calcium sulfate, ½ cup	138
Ready-to-eat cereal, calcium fortified, 1 cup	10-1,000
Turnip greens, fresh, boiled, ½ cup	99
Kale, fresh, cooked, 1 cup	94
Ice cream, vanilla, ½ cup	84
Chinese cabbage, raw, 1 cup	74

Practices of Healthy Eating

Finding Balance en Route to Your Healthiest Self

Eating “Normal”

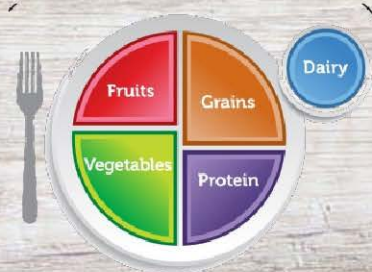
Eating “normally” varies from person-to-person, but everyone should strive to eat regular, varied, nutritious, and tasty meals that create an enjoyable experience. Ellyn Satter, MS, RDN, CICSW, BCD suggests that you “give some thought to your food selection so you get nutritious food, but not [be] so wary and restrictive that you miss out on enjoyable food.”

The Over arching Philosophy to Healthy Eating

The Total Diet Approach (TDA), which evaluates the quality of one’s diet based on overall patterns of foods consumed *over time*, portion sizes, and physical activity levels.

Building a Healthy Plate: Examples in Each Main Food Group

- $\frac{1}{4}$ **Protein**: Meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts and seeds
- $\frac{1}{4}$ **Grains**: Bread, pasta, oatmeal, breakfast cereal, tortillas, grits
 - Grains are either refined or whole. Aim for at least 50% whole grains
- $\frac{1}{2}$ **Fruits and Vegetables**: Fresh, canned, or frozen fruits or vegetables, 100% juice; May be whole, cut-up, or pureed
- **Dairy**: Milk, fortified soy milk, yogurt



Choose **MyPlate**.gov

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How do I Figure Out my Personal “Normal”?

Listen to your body. Rate your hunger on a scale of 1 to 10 - 1 being overly hungry and 10 being the so overly stuffed that you feel physically ill - and practice the habit of starting to eat around a 3 (hunger pangs) and stopping at a 6 (pleasantly satisfied but not stuffed). This will help you learn to eat according to internal rather than external cues and reach a body weight that is healthy for you.