

Client Name _____ Date _____

RD/DTR _____

Email _____ Phone _____

Osteoporosis Nutrition Therapy

This nutrition therapy was prescribed to prevent and treat weak bones. When you have osteoporosis, the strength and size of your bones is reduced. Even a small injury may lead to broken bones. This meal plan provides the vitamins and minerals you need for bone health, and may help the drugs used to treat osteoporosis work better. It is rich in calcium and vitamin D, has adequate protein, limits sodium, and has 5 servings a day of fruits and vegetables.

If you can't drink much milk or have other vitamin D-fortified foods, you may need a vitamin D supplement. Ask your doctor and dietitian about this, especially if you spend limited time in the sunlight or if you live north of New York, Champaign (Illinois), Boulder (Colorado), or Redding (California).

If you need to gain weight, your dietitian will adapt this meal plan. You will also want to discuss with a physical therapist which exercises you should do for flexibility, balance, and bone health. Your exercise program will change depending on how your body is working and what you need to improve your health.

Notes:



Recommended Foods

High-calcium foods

Most people need at least 1,000 milligrams (mg) of calcium every day. To get this amount, include:

- 4 to 5 servings of foods with 200 milligrams or more of calcium per serving **or**
- 5 to 10 servings of foods with 50 to 100 milligrams per serving **or**
- A combination of foods from these groups

Foods that contain approximately **400 mg calcium** per serving:

- 8 oz yogurt without added fruit
- ½ cup evaporated skim milk
- ½ cup dry milk powder

Foods that contain approximately **300 mg calcium** per serving:

- 8 oz milk (any kind)
- 8 oz fruited yogurt
- 8 oz calcium-fortified orange juice
- ¼ cup parmesan cheese
- ½ cup part-skim ricotta cheese
- 1 oz Swiss or Gruyere cheese
- ½ cup calcium-treated tofu
- 3 oz canned sardines with bones
- 1 calcium-fortified cereal bar

Foods that contain approximately **200 mg calcium** per serving:

- 1 oz natural cheese
- 1 serving calcium-fortified cereal (may contain up to 1,000 mg calcium)

Foods that contain approximately **150 mg calcium** per serving:

- 1 packet calcium-fortified instant oatmeal
- ½ cup pudding, custard, or flan
- ½ cup cooked collards
- 3 oz pink canned salmon with bones
- 2 calcium-fortified graham crackers
- 1 serving calcium-fortified bread

Foods that contain approximately **100 mg calcium** per serving:

- 1 oz nonfat cream cheese
- ½ cup turnip greens or bok choy
- 1 oz almonds
- ½ cup ice cream, ice milk, or frozen yogurt
- ½ cup white beans

Foods that contain approximately **50 mg calcium** per serving:

- ½ cup broccoli
- ½ cup kale or mustard greens
- ½ cup most dried beans
- ½ cup cottage cheese
- 1 medium corn tortilla
- 1 medium orange
- 1 Tbsp dry milk powder

Read Nutrition Facts labels carefully when choosing calcium-fortified foods. The amount of added calcium can vary from food to food. The amount of calcium will be listed on the label as a percentage. Multiply the percentage by 1,000 to figure out the milligrams of calcium in one serving. For example, if the Nutrition Facts label says “Calcium 20%,” multiply 1,000 by 0.20. One serving has 200 mg calcium.

The upper limits of safety for calcium are 2,500 mg a day. The amount of calcium you get daily from the combination of food and supplemental calcium should not exceed 2,500 mg.

Foods with vitamin D

Vitamin D-fortified foods include:

- Milk: 8 oz has 2.5 micrograms (mcg) or 100 IU (international units) vitamin D
- Some brands of juice; the amount of vitamin D varies
- Margarine: 1 Tbsp has 1.5 mcg (60 IU) vitamin D
- Soy milk: the amount of vitamin D varies
- Yogurt: 1 cup has 1-2 mcg (40-80 IU) vitamin D

Foods naturally rich in vitamin D include:

- Cod liver oil: 1 Tbsp has 34 mcg (1,360 IU) vitamin D
- Egg yolks: 1 yolk has 0.625 mcg (25 IU) vitamin D
- Fatty fish, such as tuna, mackerel, and salmon: 3 to 4 oz has 9 mcg (360 IU) vitamin D

The upper limit of safety for vitamin D is 50 mcg (2,000 IU) per day.

Other recommended foods

Have 5 to 6 oz lean meat or beans each day. These foods provide the protein your bones need. Also have 5 or more servings of fruits and vegetables each day. Fruits and vegetables provide vitamin C, magnesium, vitamin K, and potassium to strengthen bones.

Foods Not Recommended

A lower-sodium diet helps the body keep calcium, instead of losing it in urine. To follow a lower-sodium diet, avoid the following foods:

- Salt added at the table
- Salted snack foods
- Pickles
- Anything packed in brine, such as sauerkraut
- Canned soups and canned meats
- Processed meats, such as ham, bacon, or luncheon meats
- Smoked or canned fish (except as listed in Recommended Foods)

The milligrams (mg) of sodium in a food product can be found on the Nutrition Facts label. In general, foods with more than 300 mg sodium per serving may not fit into a lower-sodium meal plan.

Notes:

Sample 1-Day Menu

Breakfast	8 oz orange juice with calcium and vitamin D 1 cup ready-to-eat cereal fortified with vitamin D 4 oz skim milk
Lunch	2.5 oz extra-lean ground beef on a bun with: 1 slice nonfat American cheese 1 lettuce leaf 2 slices red tomato 1 green salad with: 1 hard-boiled egg 2 Tbsp low-calorie dressing 8 baby carrots 8 oz skim milk
Snack	1 orange
Dinner	2.5 oz chicken breast ½ cup broccoli ¾ cup rice 2 slices French bread with 1 tsp margarine 1 cup strawberries with 2 Tbsp lite whipped topping

Approximate Nutrition Analysis:

Calories: 1,500; Protein: 94g; Carbohydrate: 205g; Fat: 33g; Sodium: 1,825mg; Potassium: 3,336mg; Calcium: 1,560mg; Vitamin D: 10mcg (400 IU)

Notes: