A woman with blonde hair, wearing sunglasses, a yellow raincoat, and dark pants, is walking a black and white dog on a red leash. They are on a sandy beach with shallow water. In the background, there are mountains and a body of water under a blue sky with some clouds. The woman is looking down at the dog.

# Post-fracture Care Patient Education Chapter Book

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Reduce the Risk of Another Fracture



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At-Home Basics



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A Helpful Guide for Caregivers



# Post-fracture Care: Helping You Reduce the Risk of Another Fracture



Reduce the Risk of Another Fracture

At-Home Basics

A Helpful Guide for Caregivers

If you have had a fracture, it may be a sign of osteoporosis. It is very important that you take care of yourself in order to recover and reduce the risk of another fracture. This resource provides information to help you understand and monitor your bone health and to help you reduce your risk of another fracture.

Osteoporosis is a common bone disease. Osteoporosis occurs when the body does not make enough bone, loses too much bone, or both.<sup>1</sup>

If you have a fracture due to osteoporosis, your chances of having another fracture are

nearly  
**5x**  
as high

as someone who has not had a fracture<sup>2</sup>

## WHAT IS OSTEOPOROSIS?<sup>1,3</sup>

When you have osteoporosis, that means you have low bone mineral density (called BMD, for short). This makes your bones weaker and more likely to fracture. Studies suggest that **1 in 2 women** and **1 in 4 men** over the age of 50 will break a bone due to osteoporosis. Fractures can lead to pain, loss of mobility, and a change in lifestyle.

## WHO CAN GET OSTEOPOROSIS?<sup>4-6</sup>

Osteoporosis is a very common disease and it can affect almost anyone. But **some people have a greater risk** of developing osteoporosis. According to experts, your risk is higher if you

- Are age 65 or older
- Are postmenopausal
- Have a parent who had a hip fracture
- Have low body weight
- Have had a previous low-impact fracture

## WHAT FACTORS MAY INCREASE YOUR RISK OF OSTEOPOROSIS?<sup>1,4,5</sup>

**Avoid certain habits that can increase your risk of osteoporosis:**

- Cigarette smoking
- Excessive alcohol intake\*
- Calcium deficiency
- Vitamin D deficiency

**Drugs can affect your bone health.** Be aware of medications that can contribute to bone loss, including long-term corticosteroid use (such as prednisone).

\*More than 3 alcoholic drinks per day.<sup>5</sup>



# Monitoring Your BMD Is the First Step to Helping Reduce Your Risk of Fracture



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## HOW IS OSTEOPOROSIS DIAGNOSED AND MONITORED?<sup>3,5,7</sup>

Osteoporosis is diagnosed based upon the results of a BMD test that your physician may order. The BMD test is an X-ray of your bones that allows your doctor to tell how strong or weak they are. Another name for this test is a DXA, which stands for dual-energy X-ray absorptiometry. Your BMD is given as a T-score. A T-score of -2.5 or lower means you have osteoporosis. If your T-score is higher and your doctor determines that you have other risk factors, you could be diagnosed with osteoporosis. If you have already had a fracture, your doctor may diagnose osteoporosis without a BMD test. **It is important that your BMD be monitored periodically** to evaluate your bone health.

## WHO SHOULD HAVE A BMD TEST?<sup>7</sup>

According to the National Osteoporosis Foundation, you should have a bone density test if you are a

- Woman aged 65 or older
- Man aged 70 or older
- Woman of menopausal age who has risk factors
- Postmenopausal woman under age 65 with risk factors, such as not getting enough calcium
- Man aged 50 to 69 with risk factors

## HOW OFTEN SHOULD YOU HAVE A BMD TEST?<sup>5</sup>

If you have osteoporosis, your doctor will most likely recommend that you have a BMD test every 1 or 2 years until your bone density stops changing. After that, your doctor will decide how often you need to have your BMD measured.

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**You and your doctor will decide on the best care plan for you** based on your individual needs.  
Your care plan is the key to keeping your bones strong and helping you prevent another fracture

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## TAKING STEPS TO TAKE CARE OF YOUR BONES AFTER A FRACTURE

If you have had a fracture due to osteoporosis recently, you may have questions about what you can do to help protect your bones. This resource will explain key information on recovery basics to help reduce the risk of another fracture.

### ESSENTIAL NUTRIENTS FOR BONE HEALTH<sup>8</sup>

#### Getting Enough Calcium and Vitamin D Is Important to Maintain Strong Bones

Most people are not getting the calcium they need to grow and maintain healthy bones. And without enough vitamin D, the body cannot absorb calcium. Without enough calcium and vitamin D, **you could be at risk for bone loss, low bone density, and even broken bones.**



#### Calcium

WHAT DOES IT DO?	HOW DOES YOUR BODY GET IT?
<ul style="list-style-type: none"><li>• Calcium helps to build new bones and keep them healthy</li><li>• Calcium helps your blood to clot, your heart to beat, and your muscles to contract</li><li>• About 99% of the calcium in your body is in your bones and teeth</li></ul>	<ul style="list-style-type: none"><li>• Your primary source of calcium is through diet and supplements</li></ul>

#### Vitamin D

WHAT DOES IT DO?	HOW DOES YOUR BODY GET IT?
<ul style="list-style-type: none"><li>• Vitamin D plays an important role in protecting your bones</li><li>• Vitamin D helps your body to absorb calcium</li><li>• The vitamin can be stored in your body for later use</li></ul>	<ul style="list-style-type: none"><li>• Foods</li><li>• Supplements</li><li>• Sunlight*</li></ul>

\*Talk to your healthcare provider about whether it is safe for you to spend time in the sun.



# Your Food Choices Can Help Support Your Bone Health



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## ESSENTIAL NUTRIENTS FOR BONE HEALTH<sup>8,9</sup>

This chart shows you some of your healthy-bone food choices. Your doctor or other members of your care team may be able to give you additional suggestions.

### How Much Calcium Do You Need?

The amount of calcium you need depends on your age and sex.



#### Women

Age 50 and younger 1000 mg\* daily  
Age 51 and older 1200 mg\* daily



#### Men

Age 70 and younger 1000 mg\* daily  
Age 71 and older 1200 mg\* daily



#### WHERE CAN YOU GET IT?

##### Dairy products such as

Frozen yogurt (vanilla)  
Milk (skim, low-fat, or whole)  
American cheese  
Vanilla ice cream

##### Produce, including

Collard greens (frozen)  
Kale (frozen)  
Broccoli (fresh, cooked)  
Figs (dried)  
Orange

##### Fish/seafood, including

Sardines (canned with bones)  
Salmon (canned with bones)

##### Other choices

Almond, rice, soy milk (fortified)  
Orange and other fruit juices (fortified)  
Tofu (prepared with calcium)  
Waffle (frozen, fortified)  
Beans (baked, canned)

#### HOW MUCH CALCIUM WILL YOU GET?<sup>†</sup>

8 oz = 105 mg  
8 oz = 300 mg  
1 oz = 195 mg  
8 oz = 85 mg

8 oz = 360 mg  
8 oz = 180 mg  
8 oz = 60 mg  
2 figs = 65 mg  
1 whole = 55 mg

3 oz = 325 mg  
3 oz = 180 mg

8 oz = 300 mg  
8 oz = 300 mg  
4 oz = 205 mg  
2 pieces = 200 mg  
4 oz = 160 mg

### How Much Vitamin D Do You Need?

The amount of vitamin D you need depends on your age.



#### Women and Men

Under age 50 400–800 IU<sup>‡</sup> daily  
Age 50 and over 800–1000 IU<sup>‡</sup> daily



#### WHERE CAN YOU GET IT?

##### Foods such as

Fish, including mackerel, salmon, light tuna, flounder, halibut, sardines, sole  
Shiitake mushrooms (fresh)  
Milk (skim or low-fat, fortified)  
Almond, rice, coconut, or soy beverages with added vitamin D  
Orange juice with added vitamin D

#### HOW MUCH VITAMIN D PER SERVING?

1 serving = 3-4 oz  
1 serving = 8 oz  
1 serving = 8 oz  
1 serving = 8 oz  
1 serving = 8 oz

A balanced diet rich in calcium and vitamin D is an important way to decrease the risk of osteoporosis. Your doctor can determine if you need an osteoporosis medication in addition to diet and exercise

IU=international units; mg=milligrams; oz=ounces.

\*This includes the total amount of calcium you get from food and supplements.

<sup>†</sup>The calcium content listed for most foods is estimated and can vary due to multiple factors. Check the food label to determine how much calcium is in a particular product.

<sup>‡</sup>Some people need more vitamin D. According to the Institute of Medicine, the safe upper limit of vitamin D is 4000 IU per day for most adults.

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Trips and slips can happen throughout your home. You can make some small changes that can help limit your fall risk and reduce your risk of a fracture.

## WHAT MAKES YOU MORE LIKELY TO FALL?<sup>10,11</sup>

Slippery floors, stairs, cluttered areas, or loose rugs or carpets underfoot may increase your risk of falling

Things that affect your vision, such as



Reduced eyesight



Stairways or rooms that are too dark



Medications that can make you dizzy

## USE THIS CHECKLIST TO HELP YOU SEE IF YOUR LIVING SITUATION PUTS YOU AT RISK OF FALLING<sup>10-13</sup>

	YES	NO
Is there clutter around your home that may cause you to slip or trip?		
Are the stairways too dark?		
Is there enough light everywhere in your home so you can see everything clearly?		
Do you wear supportive shoes with nonslip soles?		
Has your doctor asked you if you have issues with your balance or strength?		
Do you take medications that may have side effects of dizziness or low blood pressure? For example, some blood pressure pills, heart medications, diuretics (water pills), muscle relaxants, antidepressants, tranquilizers, and even over-the-counter medicines can make you dizzy.		

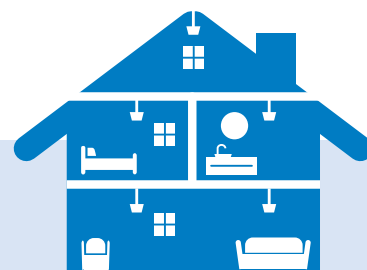
If you checked “Yes” for any of the items on the chart above, you may be at risk for a fall.

## STEPS YOU CAN TAKE TO REDUCE YOUR FALL RISK<sup>10,11</sup>

Make the time to **reduce clutter** and make sure there is **enough light** around your home. Make sure to **choose the right shoes**.

**Talk with your doctor** about the right exercises for you and **ask any questions** you have about the medications you are taking.

This blueprint can help you look at areas in your home where you can make small, easy changes that may make falls less likely.<sup>10,12,13</sup>



### Inside Your Home

Make sure the lighting is bright enough. Use night-lights throughout the house and always have flashlights on hand.



#### Kitchen

- Be careful of slippery floors



#### Floors and Rugs

- Remove throw rugs
- Secure larger rugs with rubber, slip-resistant backing
- Keep floors free of clutter
- Make sure carpets and rugs don't have loose edges sticking up



#### Stairways

- Make sure there is plenty of light
- Add light switches at the top and bottom of stairs
- Fix any loose or broken steps
- Place nonslip rubber treads on stairs
- Make sure handrails are tight and secure
- Install handrails on both sides of stairs



#### Bathroom

- Use a rubber mat in your shower/bath and a nonslip mat on the floor
- Install grab bars around shower, bath, and toilet
- Have a night-light or motion-activated light
- Consider a shower chair with a back and nonskid leg tips or a bath bench

### Some tips for when you are inside your house

- Wear shoes that are supportive and have nonslip soles
- Check for cords that could trip you

### Outside Your Home



- Remove leaves, snow, and ice from walkways



- Fix holes



- Make sure you have secure handrails for entrances/exits



- Make sure there is plenty of light



### Some tips for when you are outside your house

- You may want to use a walker or cane for added stability
- Wear nonslip shoes for added traction
- Pay attention to the surfaces in public buildings
- Stop at curbs and check the height before you step down
- Use a shoulder bag, hip pack, or backpack to leave hands free

# Exercise Can Make You Stronger and Help Reduce Your Risk of Falling



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Exercise can help you **gain strength and flexibility** and **improve your balance and posture**. You should talk to your doctor about what kinds of exercise are right for you before starting any exercise program.<sup>10,12,14</sup>

## Talk to Your Doctor About an Exercise Plan That Works for You<sup>12,14,15</sup>

There are **3 main types of exercises** that can help reduce your risk of falling:

### Weight bearing



Walking



Climbing stairs



Dancing



Low-impact  
aerobics

### Resistance



Using free weights  
or machines



Using elastic  
exercise bands

### Flexibility



Tai chi



Yoga



Stretching

Weight bearing and resistance training may help **build muscles** and **maintain bone density**

Flexibility training may help you keep your **balance**

The information included in this tool is for educational purposes only. It is not intended nor implied to be a substitute for professional medical advice. You should always consult your healthcare provider to determine the appropriateness of the information for your own situation or if you have any questions regarding a medical condition or treatment plan.

**Talk to your doctor** about how to help keep your bones healthy. **Diet, exercise, and ongoing testing** are all important parts of your osteoporosis management plan. Your doctor can determine if you need an osteoporosis medication in addition to diet and exercise

## YOU ARE A CORE PARTNER IN YOUR LOVED ONE'S POSTFRACTURE CARE<sup>16,17</sup>

As a caregiver, you are a vital link between the patient and members of their healthcare team. This support guide contains helpful tips and information for you as a member of someone's care team. It also gives you information about taking time to take care of yourself.

### Communication Is Key

Try to stay in touch with the doctors and nurses who provide care for the patient. As a key player on the care team, it is important that you keep the lines of communication open.

Be familiar with the patient's healthcare provider, as well as with their case manager and other members of the care team. Staying involved is a huge part of caregiving.

### Learn About the Disease and the Patient's Medical and Other Needs

As a caregiver, you may be called upon to handle a range of different things. These may include attending medical appointments, assisting with meal preparation, helping to modify the patient's home or living space, and assisting with changes to the patient's home routine to aid with recovery and reduce future fall risk.

### Find out facts about osteoporosis and other conditions the patient may have

### Understand the current and potential impacts of osteoporosis on the life of the person you are caring for, such as pain, loss of mobility, and a change in lifestyle

### Write important information down and keep it organized in one place so you can easily find it, such as

- Names and phone numbers of healthcare providers and the pharmacy
- Test results and medications
- Dates of follow-up appointments

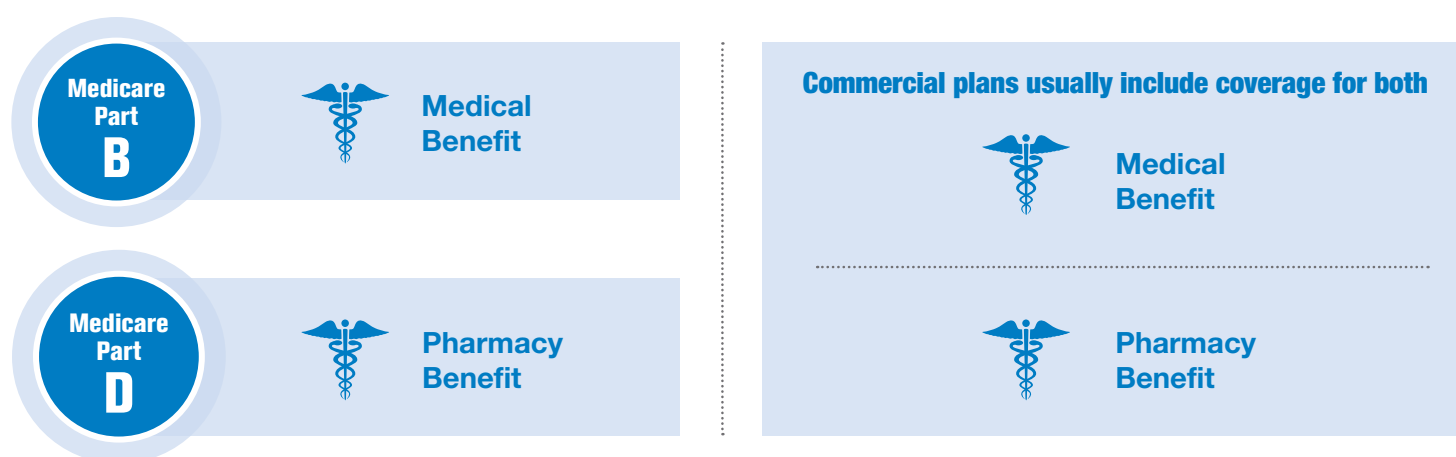
### Discuss any concerns about possible side effects of osteoporosis medications with the patient's healthcare provider



## UNDERSTAND HOW PRESCRIPTIONS CAN BE BILLED<sup>18-20</sup>

The patient may have one or more prescriptions from their doctor. It is helpful to understand how prescriptions can be billed by Medicare or a commercial (private) insurance company because this is an important topic that might come up.

Medicare plans and commercial insurance plans can include **both medical benefits and pharmacy benefits**. In Medicare plans, the **medical benefit is known as Medicare Part B** and the **pharmacy benefit is known as Medicare Part D**. The pharmacy benefit can also be known as a Prescription Drug Plan (PDP).



## MEDICATIONS CAN BE FULFILLED UNDER A MEDICAL OR PHARMACY BENEFIT<sup>19-22</sup>

Some prescriptions are **filled under the Medicare Part B or medical benefit in a commercial plan**. An example of this is a medication that is injected in a doctor's office. These drugs may be known as "specialty drugs." In some cases, these kinds of medications have to be ordered from a specific pharmacy that the insurance specifies. Sometimes, a doctor will order the medication to be delivered to their office. Or, they may refer patients to a different location, such as a hospital outpatient center, to receive their medication.

Prescription drugs **can also be filled through the Medicare Part D or commercial prescription drug benefit** (also known as the pharmacy benefit). An example of this is a drug that someone takes on their own.

Some patients may have Medicare Supplement insurance (also known as Medigap) that helps fill "gaps" in Original Medicare (Part A and Part B). A Medigap policy can help pay some additional costs such as co-payments and co-insurance.

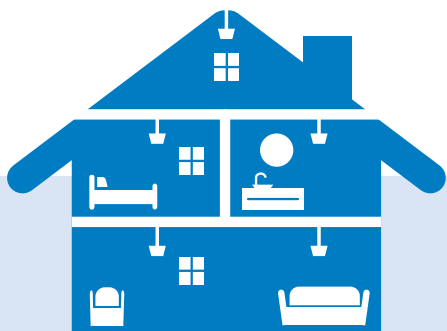
## WHY IS THIS IMPORTANT?<sup>19,23</sup>

Prescription drugs can be covered through either the medical or pharmacy benefit. For patients on these medications, whether they are filled under the medical benefit or the pharmacy benefit may have an impact on prescription cost because medical coverage is managed differently than prescription drug coverage. With a prescription that is administered under Medicare Part B or commercial medical benefit, there may be a co-insurance for the medication itself as well as a co-payment for the office visit to receive the medication, depending on the type of health insurance plan.

It is also important to keep track of all prescriptions, no matter how they are billed, and to make sure that all the patient's doctors know about all medications the patient is using.

## ENCOURAGE SAFE HABITS<sup>12,16,24</sup>

Conducting a home safety assessment for the person you are taking care of can help to ensure that there are no barriers to easy movement around the home. Some of the things you can check for include



### In the Living Areas

- ✓ Good lighting everywhere
- ✓ No clutter on the floor that could prevent easy walking
- ✓ No slippery floors, loose rugs, or cords that could cause slipping or tripping
- ✓ Handrails on both sides of the stairs
- ✓ Nightstand for glasses and a phone
- ✓ Grab bars, shower seat, and nonslip bath mats if needed



### Outside the House

- ✓ A well-lit path outside the house
- ✓ No cracks or buckles in the sidewalks or driveway
- ✓ No obstacles, such as leaves or trash, in the walkways
- ✓ A plan to remove snow and ice in the winter

## TAKE THE TIME TO TAKE CARE OF YOURSELF<sup>16,17</sup>

As a caregiver, you devote time to caring for the needs of your family member or friend. It can be a 24/7 job. You need to take care of yourself, too, so that you can be the most help to your loved one.

### Avoid Burnout by Asking for Help

Don't neglect your own healthcare. Make sure you talk to your doctor regularly, and ask for help if you

- Are sick often
- Feel overwhelmed, angry, or anxious
- Experience fatigue, poor sleep, or pain

## ESTABLISH A CARE TEAM TO GIVE YOURSELF A BREAK<sup>16,17</sup>

### Reach out to the people around you to help



Neighbors



Relatives



Friends



Professional caregivers

## TAKE CARE OF BOTH YOURSELF AND YOUR LOVED ONE<sup>16</sup>

- Eat a healthy diet and make time to exercise together
- Ask your doctor about medication and support to help with depression or other issues

## Helpful Links to Online Information for Caregivers of Patients With Osteoporosis

### Family Caregiver Alliance

National Center on Caregiving

**Website:** <https://www.caregiver.org/>

Includes information and tools to help manage the complex demands of caregiving. Free newsletter and access to online support groups are also available.

### National Caregivers Library

**Website:** [www.caregiverslibrary.org](http://www.caregiverslibrary.org)

Featuring an extensive library of resources for caregivers, this website features hundreds of articles and other materials arranged by topic.

### National Osteoporosis Foundation

**Website:** <https://www.nof.org/patients/>

Helpful information about living with osteoporosis as well as caregiver and patient support resources.

**Note:** These resources and links were created by independent third parties, and Amgen does not endorse any of these resources or the entities sponsoring these links.

**References:** 1. National Osteoporosis Foundation. What is osteoporosis and what causes it? <https://www.nof.org/patients/what-is-osteoporosis/>. Accessed December 7, 2020. 2. van Geel TACM, van Helden S, Geusens PP, Winkens B, Dinant G-J. Clinical subsequent fractures cluster in time after first fractures. *Ann Rheum Dis*. 2009;68:99-102. 3. Curry SJ, Krist AH, Owens DK, et al; US Preventive Services Task Force. Screening for osteoporosis to prevent fractures: US Preventive Services Task Force recommendation statement. *JAMA*. 2018;319:2521-2531. 4. Cosman F, de Beur SJ, LeBoff MS, et al. Clinician's guide to prevention and treatment of osteoporosis. *Osteoporos Int*. 2014;25:2359-2381. 5. Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists/American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis—2020 update. *Endocr Pract*. 2020;26(suppl1):1-46. 6. National Osteoporosis Foundation. Are you at risk? <https://www.nof.org/preventing-fractures/general-facts/bone-basics/are-you-at-risk/>. Accessed December 7, 2020. 7. National Osteoporosis Foundation. Bone density exam/testing. <https://www.nof.org/patients/diagnosis-information/bone-density-exam/testing>. Accessed December 7, 2020. 8. National Osteoporosis Foundation. Calcium and vitamin D. <https://www.nof.org/patients/treatment/calciumvitamin-d/>. Accessed December 4, 2020. 9. National Osteoporosis Foundation. Nutrients: bone healthy ingredients. <https://www.nof.org/preventing-fractures/nutrition-for-bonehealth/nutrients/>. Accessed December 4, 2020. 10. Centers for Disease Control and Prevention. What you can do to prevent falls. <https://www.cdc.gov/steadi/pdf/STEADI-Brochure-WhatYouCanDo-508.pdf>. Accessed December 4, 2020. 11. National Institutes of Health. Preventing falls and related fractures. [https://www.niams.nih.gov/Health\\_Info/Bone/Osteoporosis/Fracture/prevent\\_falls.pdf](https://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/Fracture/prevent_falls.pdf). Accessed December 4, 2020. 12. National Institutes of Health. Once is enough: a guide to preventing future fractures. <https://www.bones.nih.gov/health-info/bone/osteoporosis/fracture>. Accessed December 4, 2020. 13. Centers for Disease Control and Prevention. Check for safety. <https://www.cdc.gov/steadi/pdf/STEADI-Brochure-CheckForSafety-508.pdf>. Accessed December 4, 2020. 14. National Osteoporosis Foundation. Exercise to stay healthy. <https://www.nof.org/preventing-fractures/exercise-to-stay-healthy>. Accessed December 4, 2020. 15. National Osteoporosis Foundation. Osteoporosis exercise for strong bones. <https://www.nof.org/patients/treatment/exercisesafe-movement/osteoporosis-exercise-for-strong-bones/>. Accessed December 4, 2020. 16. Emblem Health and National Alliance for Caregiving. Care for the family caregiver: a place to start. [https://www.caregiving.org/wp-content/uploads/2020/05/Emblem\\_CfC10\\_Final2.pdf](https://www.caregiving.org/wp-content/uploads/2020/05/Emblem_CfC10_Final2.pdf). Accessed December 1, 2020. 17. Family Caregiver Alliance. Taking care of YOU: self-care for family caregivers. <https://www.caregiver.org/print/227>. Accessed December 1, 2020. 18. Centers for Medicare & Medicaid Services. Drug coverage (Part D). <https://www.medicare.gov/drug-coverage-part-d>. Accessed December 1, 2020. 19. Centers for Medicare & Medicaid Services. Is my test, item, or service covered? <https://www.medicare.gov/coverage/prescription-drugs-outpatient>. Accessed December 1, 2020. 20. Gorman Health Group. Wrapping your arms around the Medicare benefit drug spend. <https://www.gormanhealthgroup.com/blog/wrapping-your-arms-around-the-medical-benefit-drug-spend/>. Accessed December 1, 2020. 21. Centers for Medicare & Medicaid Services. What Medicare Part D drug plans cover. <https://www.medicare.gov/drug-coverage-part-d/what-medicare-part-d-drug-plans-cover>. Accessed December 1, 2020. 22. Centers for Medicare & Medicaid Services. What's Medicare Supplement Insurance (Medigap)? <https://www.medicare.gov/supplements-other-insurance/whats-medicare-supplement-insurance-medigap>. Accessed December 1, 2020. 23. Centers for Medicare & Medicaid Services. Your Medicare Benefits. <https://www.medicare.gov/Pubs/pdf/10116-your-medicare-benefits.pdf>. Accessed December 4, 2020. 24. National Osteoporosis Foundation. Preventing Falls. <https://www.nof.org/patients/treatment/exercisesafe-movement/preventing-falls/>. Accessed December 4, 2020.

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